CURRENT AFFAIRS WEEKIN



MAINS ARTICLE

GS-I

 Denying child-care leaves to mother violates constitution:
 SC

GSII

- Britain's Rwanda migrant deportation
- **□** The widened Insurance Net
- **a** 2G Spectrum Case

GS III

- NABARD's Climate Strategy2030
- Forests a national asset and major contributor to financial wealth: SC
- Overhaul of Indian Railways
- **□** Fall in Household Savings
- Asia worst hit by disasters in 2023: WMO SOCIETY

PRELIMS ARTICLE

ART & CULTURE

- Srinagar vies for global craft city tag
- Thrissur Pooram 2024

HISTORY

- Vasuki Indicus
- Govind Guru Banjara (1858–1931)
- Abdul Rahim Khan-i-Khanan (1556 – 1627)

GEOGRAPHY

Mount Ruang volcano

POLITY & GOVERNANCE

- Pradhan Mantri Awas Yojana (PMAY)
- Mullaperiyar Dam
- Star Campaigner
- FSSAI to check quality of Spices
- HC upheld Karnataka's ban on hookah
- Shompen Tribe
- 2024 Padma Awards

SCIENCE & TECH

Nirbhay Cruise Missile

- Brahmos
- Project Nimbus
- The Body's Ingenious Defense
- 95Mat5 antibody for venom toxin

ENVIRONMENT

- Vietnamese Rice
 Farming Methane
 Reduction
- 54th Earth Day
- Infectious respiratory particles (IRPs)
- Asian Tiger
- Stellaria Mcclintockiae
- Greater Adjutant (Leptoptilos dubius)
- Leatherback turtle (Dermochelys coriacea)
- Obelisks

ECONOMIC

- REITs and InVITs
- Basmati rice (Oryza Sativa)

MISCELLANEOUS

 Gukesh D becomes youngest challenger for world chess title

TERMS OF THE WEEK



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DISCLAIMER

he current affairs articles are segregated from prelims and mains perspective, such separation is maintained in terms of structure of articles. Mains articles have more focus on analysis and prelims articles have more focus on facts.

However, this doesn't mean that Mains articles don't cover facts and PT articles can't have analysis. You are suggested to read all of them for all stages of examination.

Contents WEEK - 4 (APRIL, 2024)

| Section - A: MAINS ARTICLE | | | | | | |
|------------------------------|-------------------------|--|----------|--|--|--|
| Section of GS | | Topics in News | Page No. | | | |
| GS I | SOCIETY | Denying child-care leaves to mother violates constitution: SC | 02 | | | |
| GS II | INTERNATIONAL RELATIONS | Britain's Rwanda migrant deportation | 02 | | | |
| | POLITY & GOVERNANCE | The widened Insurance Net | 03 | | | |
| | | 2G Spectrum Case | 04 | | | |
| | ENVIRONMENT | NABARD's Climate Strategy 2030 | 04 | | | |
| | | National Clean Air Programme & Challenges | 05 | | | |
| GS III | | Forests a national asset and major contributor to financial wealth: SC | 05 | | | |
| | ECONOMY | Overhaul of Indian Railways | 07 | | | |
| | ECONOMY | Fall in Household Savings | 07 | | | |
| | DISASTER MGMT. | Asia worst hit by disasters in 2023: WMO | 08 | | | |
| Section - B: PRELIMS ARTICLE | | | | | | |
| Section of GS | | Topics in News | Page No. | | | |
| ART & CULTURE | | Srinagar vies for global craft city tag | 11 | | | |
| | | Thrissur Pooram 2024 | 11 | | | |
| HISTORY | | Vasuki Indicus | 11 | | | |
| | | Govind Guru Banjara (1858–1931) | 12 | | | |
| | | Abdul Rahim Khan-i-Khanan (1556 – 1627) | 12 | | | |
| GEOGRAPHY | | Mount Ruang volcano | 12 | | | |
| | | Pradhan Mantri Awas Yojana (PMAY) | 12 | | | |
| | | Mullaperiyar Dam | 13 | | | |
| | | Star Campaigner | 13 | | | |
| POLITY & | GOVERNANCE | FSSAI to check quality of Spices | 13 | | | |
| | | HC upheld Karnataka's ban on hookah | 14 | | | |
| | | Shompen Tribe | 14 | | | |
| | | 2024 Padma Awards | 15 | | | |
| | | Nirbhay Cruise Missile | 15 | | | |
| SCIENCE & TECH | | Brahmos | 15 | | | |
| | | Project Nimbus | 17 | | | |

| | The Body's Ingenious Defense | 16 | | | |
|--------------------------------|--|----|--|--|--|
| SCIENCE & TECH | 95Mat5 antibody for venom toxin | 16 | | | |
| | Avian Flu | 17 | | | |
| | Vietnamese Rice Farming Methane Reduction | 17 | | | |
| | 54th Earth Day | 17 | | | |
| | Infectious respiratory particles (IRPs) | 18 | | | |
| ENVIRONMENT | Asian Tiger | 18 | | | |
| ENVIRONMENT | Stellaria Mcclintockiae | 18 | | | |
| | Greater Adjutant (Leptoptilos dubius) | 18 | | | |
| | Leatherback turtle (Dermochelys coriacea) | 19 | | | |
| | Obelisks | 19 | | | |
| ECONOMY | REITs and InVITs | 19 | | | |
| ECONOMY | Basmati rice (Oryza Sativa) | 19 | | | |
| MISCELLANEOUS | Gukesh D becomes youngest challenger for world chess title | 19 | | | |
| Section - C: TERMS OF THE WEEK | | | | | |

section A

MAINS ARTICLES

- 1. Denying child-care leaves to mother violates constitution: SC
- 2. Britain's Rwanda migrant deportation
- 3. The widened Insurance Net
- 4. 2G Spectrum Case
- 5. NABARD's Climate Strategy 2030
- 6. National Clean Air Programme & Challenges
- 7. Forests a national asset and major contributor to financial wealth: SC
- 8. Overhaul of Indian Railways
- 9. Fall in Household Savings
- 10. Asia worst hit by disasters in 2023: WMO



1. DENYING CHILD-CARE LEAVES TO MOTHER VIOLATES CONSTITUTION: SC

Context: The Supreme Court said that denying child care leave to working mothers of disabled children violated the constitutional mandate for equal participation of women in the workforce.

1: Dimension-Significance of Child-Care Leaves (CCL)

- Constitutional entitlement: A bench of Supreme Court emphasised that the participation of women in the work force is not just a matter of privilege but constitutional entitlement by Article 15 of the Constitution.
- Violation of constitutional mandate: The court said the provision of Child-Care Leaves (CCL) to women subserves an important constitutional object, and denying the same to mothers of children with disabilities would violate the constitutional duty to ensure equal women participation in the workforce.

2: Dimension-Barriers addressed by this ruling

- Systematic barriers: At its core, this ruling addresses the systemic barriers faced by women in balancing their professional careers with caregiving duties, particularly when they have children with disabilities.
- Gender disparity and undermined children's rights: Denying child care leave to these mothers not only perpetuates gender disparities in the workforce but also undermines the rights of children with disabilities to receive adequate care and support from their parents.
- Societal attitudes towards caregiving: Moreover, the ruling underscores the broader societal attitudes towards caregiving, gender roles, and the inclusion of persons with disabilities.
- State's obligations: Additionally, the ruling emphasizes the obligation of the state and employers to adopt inclusive policies that promote gender equality and support the diverse needs of working parents, including those with children with disabilities.

In conclusion, the Supreme Court's verdict on child care leave for mothers of disabled children reflects a significant step towards upholding gender equality, safeguarding the rights of children with disabilities, and fostering an inclusive society. It underscores the imperative for legislative and policy reforms that prioritize the needs of marginalized groups and promote a more equitable and supportive environment for all members of society.

UPSC PYQ (RELATED)

Q. What are the continued challenges for women in India against time and space? (UPSC 2019).

2. BRITAIN'S RWANDA MIGRANT DEPORTATION

Context: Britain's parliament has passed Safety of Rwanda (Asylum and Immigration) Act to deport asylum seekers to Rwanda who arrived illegally.

1: Dimension-Issue of migration in Britain

- Tens of thousands of people have crossed the English Channel in small boats in recent years, many fleeing war and poverty.
- Britain's migration issue stems from various factors such as economic opportunities, political instability, and humanitarian crises, driving individuals to seek refuge or better prospects in the country.
 - ➤ Official figures put 2022 annual net migration to Britain at a record of 745,000.
- The influx of migrants, including asylum-seekers and undocumented immigrants, has sparked debates on national security, social cohesion, and resource allocation.
- Policy responses, such as the Rwanda Bill, aimed at curbing migration often face criticism for their ethical implications, effectiveness, and feasibility, highlighting the complex challenges and controversies surrounding migration management in Britain.

2: Dimension-Agreement to reduce immigration in other countries

- Germany has tightened the border controls to address immigration concerns.
- European lawmakers recently approved a revamped migration system to reduce unwanted immigration.
- Denmark has also signed a similar agreement with Rwanda, but any development has not yet taken place. Italy has announced plans to build reception centres in Albania.
- Israel scrapped a similar deal with Rwanda after five years.

3: Dimension-Questionable Human Rights

- Safety of Rwanda (Asylum and Immigration) Act 2024 might not be compatible with the European Convention on Human Rights, affirms that Rwanda is a safe country.
- The UK Supreme Court ruling has already shown that Rwanda's asylum practices are "not safe" and "unreliable".

Fact Box:

About Britain's Rwanda Plan

- The Act will allow the government to transfer illegal migrants seeking to enter the United Kingdom after Jan. 1, 2022 to Rwanda instead, some 4,000 miles away.
- Partly this is in order to reduce the costly process of assessing migration claims and accommodating those applicants are successful.

English Channel (Location)

- The English Channel is an arm of the Atlantic Ocean that separates Southern England from Northern France.
- It is located between the Isle of Great Britain's southern coast and France's northern coast and separated from the North Sea on the north by the Strait of Dover.
- The **Strait of Dover** is the Channel's narrowest point.
- **Important towns:** Calais, Dover, Isle of Wight, and the Island of Jersey.

3. THE WIDENED INSURANCE NET

Context: IRDAI has lifted the age ceiling of 65 years for buying a medical insurance policy, a move that widens the insurance net and provides huge relief to senior Indians.

Key-highlights of the changed policies

- Elimination of age factor: The elimination of age limit by IRDAI aims to broaden the market and offer comprehensive coverage.
- Coverage of all age groups: IRDAI, has asked insurance companies to offer their usual health policies to everyone, including senior citizens, students, and children.
- Enhanced access for high-risk health conditions: The insurers are now also prohibited from refusing to issue policies to individuals with severe medical conditions like cancer, heart or renal failure, and AIDS.
- Fixed compensation: The insurance companies are barred from introducing indemnity-based health policies, which compensate for hospital expenses. Instead, they are only permitted to provide benefitbased policies, offering fixed costs upon the occurrence of a covered disease.
- This change, effective from April 1, makes health insurance more inclusive and accessible to individuals of all ages.
- ♦ IRDAI has committed to enable 'Insurance for All' by 2047.

1: Dimension-Significance of the move

♦ Inclusive healthcare ecosystem: The move aims

- to foster a more inclusive and accessible healthcare ecosystem, ensuring adequate protection against unforeseen medical expenses.
- Diversified offering: While creating a more inclusive healthcare ecosystem, it will encourage insurance provider companies to diversify their product offerings.
- Humane approach: The decision to prohibit from refusing to issue policies to individuals with severe medical conditions will lead to develop more humane and caring healthcare in India.

2: Dimension-Challenges in the sector

- There persists number of challenges such as low awareness, limited understanding, complex process, low affordability, lack of trust, delay in claim settlements.
- Economic Survey, 2022–23, highlights that 'most life insurance products sold in India are savings-linked with a small protection component. Hence, Indian households remain exposed to a significant risk in the event of the premature death of the primary breadwinner.
- Mis-selling of products without analysing the customer's needs and poor claim settlement experience, which are the leading categories of grievances reported by policyholders, are also the main challenges of the insurance industry.

3: Dimension-Required Measures

- Innovative products: Insurers need to innovate product offerings and help the IRDAI achieve its vision 'Insurance for all' by 2047.
- Technology: There is need to embrace a digital-first approach to sell insurance through omni-channel, multilingual platforms to achieve sustainable business growth.
- Addressing fundamental issues: Insurers need to address the fundamental issues of the industry – awareness, affordability, accessibility and trust –and transform their business model to address the increasing customer needs.
- Simplicity and transparency: Industry practitioners should embed maintaining product simplicity and transparency in communication across all touchpoints, and superior claim settlement experience.
- Strategic collaboration between insurers, governments, intermediaries and regulators will be the way forward to realise the full potential of the insurance ecosystem and drive businesses towards achieving a sustainable growth of the industry.



Fact Box:

Indian Insurance market

- The Indian Insurance market is expected to reach USD 200 BN by 2027.
- India is 9th largest Life Insurance Market
- Insurance density in India has increased from USD 11.1 in 2001 to USD 91 in 2021 (Life insurance USD 69, Non-life insurance USD 22)
- **Insurance penetration in India** has been steadily increasing (from 2.7% in 2000 to 4.2% in 2021)
- Ayushman Bharat PM-JAY is the largest health assurance scheme in the world and is funded by the Government.

Important Government Interventions

- To realise the dream of 'Insurance for all' by 2047, insurance regulators are taking many progressive steps like BIMA SUGAM, BIMA VAHAK and BIMA VISTAAR amongst others.
- **Digital Personal Data Protection (DPDP) Act, 2023** aims to help insurance providers to enhance data protection in the insurance sector.
- Financial inclusion programmes like Pradhan Mantri Jan Dhan Yojana, Jeevan Suraksha Bandhan Yojana and Pradhan Mantri Suraksha Bima Yojana, Atal Pension Yojana have played a pivotal role in bringing underpenetrated segment under the umbrella of insurance.

Insurance Regulatory and Development Authority or IRDA

- Founded: 1999
- IRDA is an autonomous body that is responsible for managing the insurance industry of India, which covers both life insurance and general insurance companies.

4. 2G SPECTRUM CASE

Context: More than 12 years after it was delivered, the Centre moved the Supreme Court seeking modification of its verdict in the 2G spectrum case as the Centre wanted to grant 2G spectrum licences in some cases.

The settled Judgement of Supreme Court in 2G Spectrum Case

- The only mode: Auction is the only mode for granting licences for natural resources like spectrum, the radio frequencies allocated to the mobile phone industry for communication over the airwaves.
- Duty bound: When it comes to alienation of scarce natural resources like spectrum etc, it is the burden of the State to ensure that a non-discriminatory method is adopted for distribution and alienation, which would necessarily result in protection of national/public interest.

1: Dimension- Significance of 2G Spectrum Case

- The allocation of natural resources, such as spectrum, is a critical issue that affects the functioning of various industries, particularly the telecommunications sector. The 2G spectrum case in India serves as a significant landmark in highlighting the importance of fair and transparent resource allocation methods.
- Auctions ensure transparency, fairness, and maximum revenue generation for the government, thereby safeguarding public interest.

2: Dimension-Lessons Learned

- Transparency and Accountability: The 2G spectrum case emphasizes the need for transparent and accountable mechanisms in allocating natural resources. Auctions serve as a robust method to achieve these objectives, ensuring that resources are allocated efficiently and in the best interest of the public.
- Preventing Corruption and Favoritism: By mandating auctions as the sole mode of allocation, the Supreme Court's verdict aimed to curb corruption and favoritism in resource allocation processes. Auctions minimize the potential for undue influence and ensure equal opportunities for all stakeholders.

The 2G spectrum case serves as a reminder of the critical importance of fair and transparent allocation of natural resources. By emphasizing the role of auctions and the state's duty to protect public interest, the judgment sets a precedent for ensuring integrity and accountability in resource allocation processes.

About 2G Scam

- 2G, or second generation licenses for mobile networks, were given at throwaway prices instead of carrying free and fair auctions.
- According to the Comptroller and Auditor General of India, the scam has caused a notional loss of Rs 1.76 lakh crore to the Indian national exchequer.

5. NABARD'S CLIMATE STRATEGY 2030

Context: To address India's escalating need for green financing, National Bank for Agriculture and Rural Development (NABARD) unveiled its Climate Strategy 2030 document on the occasion of Earth Day.

1: Dimension-Need to focus on Green Financing

- Green finance, which aligns financial investments with sustainable and eco-friendly projects, has emerged as a pivotal force in fostering the advancement of renewable energy in India.
- India's commitment to renewable energy, aiming to achieve 500 GW of renewable energy capacity by 2030, requires green funding.

While facilitating the expansion of renewable energy infrastructure, green finance contributes to a reduction in the carbon footprint.

2: Dimension-Challenges in the sector

- Insufficient green finance: India requires approximately USD 170 billion annually to reach a cumulative total of over USD 2.5 trillion by 2030, current green finance inflows are critically insufficient.
 - ➤ As of 2019-20, India garnered about USD 49 billion in green financing.
- Minimal private sector engagement: With the majority of funds earmarked for mitigation, only USD 5 billion was allocated towards adaptation and resilience.
- Viability issues: Private sector is showing less interest in these areas due to challenges in bankability and commercial viability.
- Other hurdles: Issues such as project risks, policy uncertainties, and the need for standardized green finance metrics pose hurdles for the sector.

Fact Box: NABARD's Climate Strategy 2030

- NABARD's Climate Strategy 2030 is a comprehensive blueprint designed to tackle India's growing demand for green financing.
- It is structured around four key pillars.
 - Accelerating green lending across sectors
 - ➤ Playing a broader market-making role
 - ▶ Internal green transformation of NABARD
 - ➤ Strategic resource mobilisation

6. NATIONAL CLEAN AIR PROGRAMME & CHALLENGES

Context: The Indian government initiated the National Clean Air Programme (NCAP) in 2019 with the goal of reducing atmospheric Particulate Matter (PM) concentration by 20-30% by 2024, based on 2017 levels. However, this target was subsequently revised to a more ambitious goal of 40% reduction by 2026.

1: Dimension-Implementation Issues of NCAP

- Under the programme, cities continuously violating annual PM levels in India need to prepare and implement annual Clean Air Action Plans (CAAPs).
- Inconsistency: Tough most cities proactively submitted their CAAPs, their implementation has been inconsistent.
- Implementation issue: On average, only 60% of the allocated funds have been used thus far, with 27% of cities spending less than 30% of their designated budgets.

- Delayed approvals: Implementation delays hinder NCAP's success, particularly delays in approvals from the competent authorities.
- ♦ **Lack of SOP:** Furthermore, there is lack of standard operating procedures for the implementation process.

Other issues:

- ➤ Absence of well-defined timelines create further delays
- ► Bureaucratic red-tape and lingering doubts regarding the effectiveness of proposed mitigation measures

2: Dimension-Required Measures

- There is need of swift implementation on the ground and focus on reducing bureaucratic red tape by utilising shared, standardised technical evaluations.
- Prior budgeting and time management play crucial roles as NCAP funding is linked with the performance of cities (based on the annual average PM concentration reduction).
- Technical feasibility, budgeting, and time estimates need to be part of the initial plans.

Fact Box: About NCAP

- Launched in: 2019
- Objective: to improve air quality in 131 cities (nonattainment cities and Million Plus Cities) in 24 States/ UTs by engaging all stakeholders.
- **Target**: The programme envisages to achieve reductions up to 40% or achievement of National Ambient Air Quality Standards for Particulate Matter10 (PM 10) concentrations by 2025-26.

7. FORESTS A NATIONAL ASSET AND MAJOR CONTRIBUTOR TO FINANCIAL WEALTH: SC

Context: The Supreme Court has asserted in a judgment that forests in India are a national asset and a major contributor to the nation's financial wealth. Forests are not just a collection of trees; they are a vital asset for the nation's economy and environment.

1: Dimension- Importance of Forests

- Biodiversity Conservation: Forests harbor a rich diversity of plant and animal species, playing a crucial role in preserving biodiversity. They provide habitats for various flora and fauna, contributing to the ecological balance.
- Carbon Sequestration: Forests act as carbon sinks, absorbing carbon dioxide from the atmosphere and mitigating climate change. India's forests sequester approximately 24,000 million metric tonnes of carbon dioxide, helping to regulate the global climate.



Soil and Water Conservation: Trees and vegetation in forests prevent soil erosion, regulate water cycles, and maintain groundwater levels. Forests act as natural water filters, purifying water and ensuring its availability for human consumption and agriculture.

2: Dimension- Economic Value of Forests

- Carbon Trading: Forests contribute to a nation's financial wealth by earning revenue through carbon trading. Countries with excess forest cover can sell carbon credits, incentivizing forest conservation and sustainable management practices.
- Timber and Non-timber Forest Products: Forests provide valuable timber resources and non-timber forest products (NTFPs) such as medicinal plants, fruits, and resins. These products contribute to local economies and provide livelihoods to forest-dependent communities.
- Tourism and Recreation: Forests attract tourists and nature enthusiasts, generating revenue through ecotourism activities such as wildlife safaris, trekking, and camping. Sustainable tourism practices can promote conservation efforts and support local communities.

3: Dimension-Threats to Forests and Conservation Measures

- Forest Conservation Laws: Strong legal frameworks and enforcement mechanisms are essential to protect forests from illegal logging, encroachment, and unsustainable land use practices. The Forest (Conservation) Amendment Act (FCAA) 2023 should be reviewed to ensure it upholds the principles of forest conservation.
- Community Participation: Involving local communities and indigenous groups in forest management and conservation efforts can help in sustainable resource utilization and conflict resolution. Communitybased forest management initiatives empower local stakeholders and promote stewardship of forest resources.
- Monitoring and Enforcement: Regular monitoring, surveillance, and strict enforcement of forest laws are crucial for preventing deforestation, forest degradation, and wildlife poaching. Technology, such as satellite imagery and remote sensing, can aid in monitoring forest cover changes and illegal activities.



8. OVERHAUL OF INDIAN RAILWAYS

Context: The Indian Railways, as the country's largest national transport network, has long been a focal point for policymakers aiming to enhance its efficiency and modernize its infrastructure. Successive governments, including the two terms of the NDA government, have grappled with the challenges and opportunities presented by the vast railway system.

1: Dimension- Challenges in Enhancing Efficiency

- Human Resource Complexity: The Indian Railways is a significant employer, making it challenging for governments to implement changes swiftly due to the complexities associated with managing a large workforce. Dealing with human resource issues, such as training and deployment, poses a substantial challenge to railway modernization efforts.
- Safety Concerns: Despite advancements, safety remains a concern, especially regarding the implementation of systems like the Kavach anti-collision system and combating driver fatigue. Safety measures are crucial for preventing accidents and ensuring passenger and employee well-being.
- Infrastructure Complexities: The complexity of railway infrastructure poses hindrances to the seamless implementation of safety measures and technological upgrades. Upgrading existing infrastructure while ensuring minimal disruption to services is a daunting task

2: Dimension- Progress and Achievements

- Vande Bharat Trains: The Vande Bharat trains, symbolizing a generational shift in Indian railways, offer high-speed point-to-point services with amenities akin to airlines, showcasing India's manufacturing capabilities. This initiative reflects the government's commitment to enhancing passenger experience and reducing travel time.
- Expansion of High-Speed Train Corridors: Efforts are underway to construct more high-speed train corridors, including the Mumbai-Ahmedabad bullet train project, aimed at enhancing connectivity and reducing travel time. These initiatives are crucial for meeting the growing demands of passengers and freight transport.
- Capital Outlays and Infrastructure Development: The Modi government's emphasis on capital outlay, including the highest-ever investments in railways, has led to significant advancements in track laying, electrification, maintenance, and infrastructure development. These investments are vital for modernizing railway infrastructure and improving operational efficiency.

3: Dimension- Future Strategies and Challenges

Focus on Electrification: With a target of zero carbon emissions by 2030, railway electrification projects have

- been expedited, leading to a substantial increase in electrified route kilometers and a significant reduction in carbon footprint. However, challenges such as funding and technical hurdles need to be addressed to achieve the ambitious electrification goals.
- Modernization Initiatives: The station modernization program, including the Amrit Bharat station scheme, aims to revamp over 1,300 stations, enhancing passenger experience and infrastructure. While these initiatives are commendable, ensuring timely completion and quality execution remains a challenge.
- Freight and Passenger Service Balancing: While freight services remain a significant revenue source, efforts are needed to balance freight and passenger services efficiently, ensuring optimal utilization of railway infrastructure. This requires strategic planning and investment in infrastructure to accommodate both passenger and freight traffic effectively.

MAINS PRACTICE QUESTION

Q. "Indian Railways stands at the crossroads of modernization, balancing speed with safety." Discuss.

9. FALL IN HOUSEHOLD SAVINGS

Context: The fall in household savings has become a focal point of discussion in India, particularly with a sharp decline in net financial savings leading to a four-decade low in the household net financial savings to GDP ratio.

1: Dimension- Interpreting lower financial savings

- Definition: Household net financial savings are the difference between gross financial savings and borrowing. Gross financial savings include assets like bank deposits, currency, and financial investments.
- Factors leading to reduction:
 - ➤ Consumption Expenditure: While consumption remained largely unchanged, the reduction in net financial savings suggests increased borrowing or decreased financial savings, stimulating aggregate demand.
 - ➤ **Tangible Investment:** The role of increased borrowing for physical investment was limited, indicating a slight increase in physical savings but a significant rise in borrowing.
 - ➤ **Interest Payments:** Higher interest rates led to increased interest payments, which households financed by borrowing or depleting financial savings.

2: Dimension-Implication of higher debt burden

Financial Fragility: Increased debt raises concerns about households' ability to repay, impacting financial sector income and possibly leading to credit rationing, affecting the macroeconomy.



Consumption Demand: Higher debt can reduce consumption as households may seek to preserve wealth by saving more or may face credit rationing due to perceived default risk.

3: Dimension- Macroeconomic implication

- Vulnerability: Increasing trends in liabilities to disposable income and debt to net worth indicate household vulnerability.
- Policy Implications: Tight monetary policy, aiming to control inflation, can exacerbate household debt, potentially pushing them into a debt trap.
- Impact on Consumption: High debt burden can decrease consumption, affecting aggregate demand and economic stability.

MAINS PRACTICE QUESTION

Q. "The fall in household savings has significant implications for economic stability." Discuss.

10.ASIA WORST HIT BY DISASTERS IN 2023: WMO

Context: In the year 2023, Asia faced the most disasters in the world as 79 events associated with extreme weather, climate, and water-related hazards, affecting over nine million people in the region and claiming over 2,000 lives, as per a new report by the World Meteorological Organization (WMO).

Key-highlights of the Report (Climate Disaster Profile)

- ♦ Report Title: State of the Climate in Asia 2023
- Asia has warmed faster than the global average and the warming trend has nearly doubled since the 1961-1990 period.
- Key climate change indicators such as surface temperatures, glacier retreat and sea level rise will have major consequences for Asia, its economy and ecosystems.
- In India alone, severe heatwaves in April and June resulted in about 110 reported fatalities due to heatstroke.
- In August 2023, India experienced a record-high monthly mean temperature and exceptional rainfall deficit, which can be linked to El Niño
- Floods were the leading cause of death in reported events in 2023 by a substantial margin.

1: Dimension-Significance of the Report

The report sheds light on the alarming frequency and severity of climate-related disasters in Asia, emphasizing the urgent need for proactive disaster management strategies.

♦ **Urgent Call to Action**: The findings underscore the pressing need for concerted efforts to mitigate the impacts of climate change and enhance resilience to extreme weather events in Asia.

- Strengthening Disaster Management: Effective disaster management strategies, including early warning systems, infrastructure resilience, and community preparedness, are imperative to minimize the loss of life and property during disasters.
- Regional Collaboration: Given the transboundary nature of climate-related disasters, regional cooperation and information sharing are essential for fostering a collective response to the climate crisis.

2: Dimension- Disaster Management in India:

- Disaster Risk Management implies the systematic process of using administrative decisions, organisation, operational skills, and capacities to implement policies, strategies and coping capacities of the society and communities to lessen the impact of natural hazards and related environmental and technological disasters.
- Disaster risk reduction aims to reduce disaster risks through systematic efforts to analyse and reduce the causal factors of disasters.
 - ➤ **Pre-Disaster risk reduction includes-**Mitigation and Preparedness
 - ➤ Post-Disaster risk reduction includes-Rescue, Relief and Recovery

3: Dimension-Required Steps/Initiatives

- Increase the coverage of early warning systems
- Climate proofing infrastructure
- Invest in disaster risk reduction
- Building climate and disaster resilience at the subnational level
- Integrating possible climate change impacts into the 2005 Disaster Management Act and other existing national frameworks and SOPs.

Fact Box: Recent Initiatives

- Working group on DRR: The world's major economies—as part of the G20—now have a working group on disaster risk reduction (DRR) for the first time. It has five priority areas: early warning systems, climate resilient infrastructure, financing framework for disaster risk reduction, disaster response systems, and an ecosystem-based approach to risk reduction.
- Early Warnings for All initiative: It aims to ensure everyone on Earth is protected from hazardous weather, water, or climate events through life-saving early warning systems by the end of 2027.
- Coalition for Disaster Resilient Infrastructure: Launched in 2019, CDRI is now a global coalition of 39 countries and seven organisations.
- Aapda Mitra Scheme: Aapda Mitra is a centrally-sponsored scheme by the NDMA aiming to impart training to community volunteers in disaster response in the most affected districts identified across the country on the basis of past disasters.

section B

QUICK BYTES

- 1. Srinagar vies for global craft city tag
- 2. Thrissur Pooram 2024
- 3. Vasuki Indicus
- 4. Govind Guru Banjara (1858–1931)
- 5. Abdul Rahim Khan-i-Khanan (1556 1627)
- 6. Mount Ruang volcano
- 7. Pradhan Mantri Awas Yojana (PMAY)
- 8. Mullaperiyar Dam
- 9. Star Campaigner
- 10. FSSAI to check quality of Spices
- 11. HC upheld Karnataka's ban on hookah
- 12. Shompen Tribe
- 13. 2024 Padma Awards
- 14. Nirbhay Cruise Missile
- 15. Brahmos
- 16. Project Nimbus

- 17. The Body's Ingenious Defense
- 18. 95Mat5 antibody for venom toxin
- 19. Avian Flu
- 20. Vietnamese Rice Farming Methane Reduction
- 21. 54th Earth Day
- 22. Infectious respiratory particles (IRPs)
- 23. Asian Tiger
- 24. Stellaria Mcclintockiae
- 25. Greater Adjutant (Leptoptilos dubius)
- 26. Leatherback turtle (Dermochelys coriacea)
- 27. Obelisks
- 28. REITs and InVITs
- 29. Basmati rice (Oryza Sativa)
- 30. MISCELLANEOUS
- 31. Gukesh D becomes youngest challenger for world chess title



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1. SRINAGAR VIES FOR GLOBAL CRAFT CITY TAG

Context: The World Crafts Council International (WCCI) has turned its focus towards Srinagar as a potential candidate for the esteemed title of World Craft City (WCC).

About Srinagar's traditional craft

- Srinagar, spread over 416 square kilometres, has a registered artisan base of 20,822 craftsmen, who are involved in multiple disciples of papier mâché, walnut wood carving, hand-knotted carpet, Kani shawl, Khatamband, pashmina, Sozni craft etc.
- The total craft related workforce in Srinagar stands at 1.76% approximately.
- The contribution of the handicraft to the overall economy of J&K stood at 2.64% by 2016-17.
- In 2021, Srinagar was designated as part of UNESCO Creative Cities Net Work (UCCN), and with this it has entered the club of 295 Creative Cities Net Work across the world.
 - ➤ After Mumbai, Chennai, Hyderabad, Varanasi and Jaipur, Srinagar is the sixth Indian city to achieve this distinction for different categories.
- Srinagar became the second Indian city after Jaipur which was selected under the UCCN 'Crafts and Folk Art category'.
- The Indian National Trust for Art and Cultural Heritage-Kashmir (INTACH-K) is collaborating with the J&K Handicrafts department to map the craft sector ahead of the final nomination.

About WCCI

- Founded in: 1964
- Headquarters: Kuwait
- The World Crafts Council International (WCCI) is dedicated to the recognition and preservation of traditional crafts globally.

2. THRISSUR POORAM 2024

Context: Thrissur Pooram, one of the largest temples festivals celebrated across the world, is being celebrated in Kerala.

About

- Thrissur Pooram is an important temple festival in Kerala that dates back over 200 years.
- ♦ The festival was first celebrated in 1798 by Raja Rama Varma (the Maharaja of Cochin).

- It is an impressive exhibition of cultural customs and traditions, featuring adorned elephants, colourful umbrellas, and percussion music.
- Thrissur Pooram is celebrated in the Malayalam month of Medam (April-May).
- ♦ It is observed on the pooram day, when the moon rises with the Pooram star.

Historical Belief

- The festival's origin dates back to 1796, when a group of temples was prohibited from attending the Arattupuzha Pooram festival due to heavy rainfall.
- Upon hearing their grievances, Shakthan Thampuran decided to organise his own festival, which eventually became the Thrissur Pooram celebrated on the same day in May.

3. VASUKI INDICUS

Context: In a surprising discovery, fossils of an extinct snake or one of the largest snakes that ever existed and likely lived 47 million years ago during Middle Eocene period, were found in Kutch, Gujarat. The reptile is named Vasuki Indicus.

About

- The giant serpant is named Vasuki after a myth about a serpent of the same name which rapped itself around the neck of the Hindu deity Lord Shiva.
- This species was found in Gujarat's Panandhro Lignite Mine in Kutch.
- The fossilised remains measured 10-15 metres long. It could have weighed almost one metric ton (1000kg or 2,200 pounds).
 - ➤ The only other comparable snake in terms of length is the **extinct Titanoboa**, widely considered the **world's largest snake**, which measured 45 to 50 feet long (around 15 metres) and three feet (0.9 metres) wide.
- Vasuki is specifically from the Indian subcontinent and existed roughly 56 to 34 million years ago.

Fact Box: Madtsoiidae Family

- Vasuki was part of Madtsoiidae, an extinct group of primarily Gondwanan land snakes with a temporal range spanning about 100 million years from the Late Cretaceous epoch to the Late Pleistocene.
- The Madtsoiidae family existed for around 100 million years from the Late Cretaceous to the Late Pleistocene and lived in a broad geographical range including Africa, Europe, and India.



4. GOVIND GURU BANJARA (1858–1931)

Context: Govind Guru was the leader of "one of the most efficient movements against British rule in India".

About

- Govind Guru Banjara, (1858–1931) was a social and religious reformer in the early 1900s in the tribal border areas of present-day Rajasthan and Gujarat states in India.
- ♦ He is seen as having popularized the Bhagat movement, which was first started in the 18th century.
- His teachings, Vashishth's work asserts, was based on an appreciation of rationality, a tendency to shun superstition, and monotheism, among other principles.
- Govind Guru preached a religion that involved praying at Dhunis (firepits).
- Followers of this religion wore a rudraksh around their neck and carried iron tongs. Special worship took place on Sundays.

5. ABDUL RAHIM KHAN-I-KHANAN (1556 – 1627)

Context: The tomb of the famed poet, Abdul Rahim Khani-Khanan has been restored as part of the Union Tourism Ministry's 'Adopt a Heritage' scheme.

About

- Abdul Rahim Khan-i-Khanan (1556 1627), also known as Rahim, was a poet and composer who lived during the rule of Mughal emperor Akbar.
- He was one of the navratnas (nine jewels) of Akbar's court
- He was the son of Bairam Khan Akbar's trusted guardian and mentor, who was of Turkic extraction.
- Rahim is known for his Hindi dohe (couplets) and his books on astrology.
- He was heavily influenced by the Ramayana and the Mahabharata. His poetry has references to the Hindu deities Krishna, Rama, Vishnu, and Shiva, demonstrating his love to and respect for Hinduism.
- Apart from writing various dohas, Rahim translated Babar's memoirs, Baburnama from Chagatai language to Persian language.
- He had an excellent command over the Sanskrit language. In Sanskrit, he wrote two books on astrology, Khetakautukam and Dwatrimshadyogavali.

His tomb was built by him for his wife Mah Banu and is the first Mughal tomb ever constructed for a woman, even before the famous Taj Mahal in Agra.

6. MOUNT RUANG VOLCANO

Context: Indonesia's Mount Ruang volcano erupted five times in a row, prompting the closure of a nearby airport and a tsunami alert.

About

- Ruang is situated in the Sangihe Islands arc, North Sulawesi, Indonesia.
- It comprises an island that is 4 by 5 kilometers wide, with a summit containing a partial lava dome reaching an altitude of 725 meters (2,379 ft).
- From its summit, peaks such as Klabat, Siau, and Ternate can be observed in the south, north, and east, respectively.
- ♦ The top of the mountain is partially filled with a lava dome formed as a result of activity in 1904.

Types of Volcanoes:

- Stratovolcanoes vs. Shield Volcanoes
 - ➤ Stratovolcanoes: Steep, cone-shaped with more viscosity. Strato Volcanoes comprise the largest percentage (~60%) of the Earth's individual volcanoes, and most are characterized by eruptions of andesite and dacite, lavas that are cooler and more viscous than basalt.
 - ➤ **Shield Volcanoes:** Low-profile, resembling a shield lying on the ground.
- Variety of Volcanic Features
 - Cinder cones, lava domes, and other features form from erupted magma
 - ➤ Geological processes shape the diverse forms of volcanoes.

7. PRADHAN MANTRI AWAS YOJANA (PMAY)

Context: Under the Pradhan Mantri Awas Yojana (PMAY), launched in 2015 to facilitate access to affordable housing to those belonging to economically weaker sections of society, the government is close to achieving the target of 30 million houses.

About Pradhan Mantri Awas Yojana (PMAY)

PMAY is a centrally sponsored scheme, however, both the Union and the State governments are supposed to financially contribute to it.

Objectives:

► Rehabilitation of slum dwellers with private developers' participation

- Promotion of affordable housing for the weaker sections through Credit Linked Subsidy Schemes (CLSS)
- ➤ Affordable housing in partnership with public and private sectors
- Subsidy for Beneficiary-led Construction (BLC)
- Eligibility: Women and minorities, marginalised groups such as the transgender community, widows, and individuals from lower-income groups.
- ♦ Types of Pradhan Mantri Awas Yojana (PMAY) scheme
 - ➤ PMAY Gramin (PMAY-G): Affordable and accessible housing units to eligible beneficiaries residing in rural areas.
 - ➤ PMAY Urban (PMAY-U): Addressing the housing needs of urban areas in India, covering 4,331 towns and cities.
- Progress so far: Even though two more years have passed since the supposed completion of the scheme, Housing For All (HfA) remains a distant reality. In August 2022, the government approved the continuation of the PMAY-Urban (PMAY-U) up to December 31, 2024, for the completion of already sanctioned houses till March 31, 2022.

8. MULLAPERIYAR DAM

Context: The Supreme Court fixed July 10 for finalising the legal issues to be heard and decided by it in an original suit filed by Tamil Nadu due to its objections to the Survey of India report filed in relation to construction of a mega car park project by Kerala in the Mullaperiyar catchment area.

About Mullaperiyar dam case

- In 2014, the present suit was filed by Tamil Nadu aggrieved by the construction of a mega car park by Kerala in the Mullaperiyar catchment area.
- Through the suit, Tamil Nadu sought to permanently restrain Kerala from encroaching upon the area leased to the former.
- In November, 2023, the conflict between the states escalated as National Green Tribunal (Chennai) permitted Kerala to proceed with various projects in the Periyar Tiger Reserve, including the mega car park project.

Fact Box: Mullaperiyar Dam

- Mullaperiyar dam is situated on **Periyar river** in Kerala.
- Constructed between: 1887 and 1895
- **Objective:** to divert water of the **west-flowing Periyar river** to arid regions of the east.

- In 1886, the Periyar Lake Lease Agreement was signed between the Maharaja of Travancore (then princely state and reorganized after independence as Kerala) and Secretary of State for British India, for Periyar irrigation works.
- After the independence of India, this agreement was renewed by the states of Tamil Nadu and Kerala in 1970, giving Tamil Nadu rights over the land and water related to the dam, as well as authority to develop hydropower projects at the site, while Kerala received rent.

9. STAR CAMPAIGNER

Context: In the wake of Lok Sabha Elections, political parties have started releasing the names of 'star campaigners'.

About Star Campaigner

- A star campaigner is a celebrity vote seeker in an election for a party.
- Section 77 of the Representation of the People Act, 1951 (RP Act) provides for law relating to expenditure incurred by 'leaders of a political party'. These 'leaders of a political party' are popularly known as 'star campaigners'.
- These star campaigners are usually the top leaders of a political party but can include other celebrities as well.
- Requirement: The only requirement is that these persons have to be members of the political party that appoints them.
- Numbers: The RP Act provides that a recognised political party (national or State) can appoint a maximum of 40 star campaigners while a registered unrecognised political party can appoint up to 20.
- The list has to be sent to the Election Commission of India.
- Cost: ECI has fixed Rs 95 lakh expenses limit for candidates of bigger Lok Sabha constituencies and up to Rs 75 lakh for candidates of smaller constituencies.
 - ➤ Political parties cover all costs of star campaigners under the RP Act. But the star campaigner's expenses are **not deducted from the candidate's expenditure.**
 - ➤ Thus it allows the candidates extra spending opportunity beyond the poll panel's Rs 75 Rs 95 Lakh limit for Lok Sabha polls.

10.FSSAI TO CHECK QUALITY OF SPICES

Context: The Food Safety and Standards Authority of India (FSSAI) has ordered a pan-India sampling and testing drive of spices products of various brands to check on safety and quality parameters after Hong Kong's Centre for Food Safety asked consumers not to consume few Indian spice brands allegedly over presence of a pesticide called ethylene oxide.



About FSSAI

- FSSAI is an autonomous statutory body established under the Food Safety and Standards Act, 2006 (FSS Act).
- Ministry of Health & Family Welfare is the administrative Ministry of FSSAI.
- ♦ FSSAI is tasked with enforcement of standards and regulations only in the domestic market.
- Spice Board of India evaluates spice products prior to exports and is also expected to look into this issue.

Infant nutrition

- FSSAI is also expected to be testing samples of infant nutrition products being sold in the country.
- This comes after a report that has raised concerns regarding "added sugar" levels in infant cereal products sold by Nestle in India and other developing markets.
- According to FSSAI regulations-
 - ➤ Lactose and glucose polymers shall be the preferred carbohydrates for food for infant nutrition.
 - ➤ Sucrose and/or fructose shall not be added, unless needed as a carbohydrate source, and provided the sum of these does not exceed 20 per cent of total carbohydrate.

Fact Box:

- Ethylene oxide (EtO) is a **flammable**, **colorless gas** used to sterilize medical equipment and other plastics that are sensitive to heat or moisture.
- EtO is classified as a **carcinogen**, meaning it is a substance that can cause certain cancers.
- Chronic exposure to EtO through inhalation is associated with the development of cancers of the white blood cells, such as non-Hodgkin lymphoma, myeloma, and lymphocytic leukemia.
- Use of ethylene oxide is banned in India.

11.HC UPHELD KARNATAKA'S BAN ON HOOKAH

Context: Karnataka High Court has upheld the state government's notification imposing a blanket ban on sale of hookah and water-pipe smoking.

Legal and Constitutional Provisions

- The ban was imposed taking recourse to the Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act (COTPA), 2003 and the Karnataka Poisons (Possession and Sale) Rules, 2015.
 - Under Section 31 of the COTPA, the Centre can make further Rules to carry out the provisions of the Act.

- In 2008, the Prohibition of Smoking in Public Places Rules were brought into force.
- It is the duty of the state to raise the level of nutrition and the standard of living and to improve public health under Article 47 of the Constitution.
- Article 47, along with the rest of the provisions in Part IV of the Constitution, is a "directive principle of state policy".
- Article 47 was intrinsically linked with the right to life with dignity under Article 21.
- Reasonable restriction: Citizens have the fundamental right to "practise any profession, or to carry on any occupation, trade or business" guaranteed by Article 19(1)(g).
 - ▶ However, the court held that this freedom can be subject to certain reasonable restrictions including the prohibition of certain occupations, trades and businesses, if it is "in the general interest of the public".
 - ➤ The court also held that a directive principle such as **Article 47** can be used to justify a restriction on citizens' rights under **Article 19(1)(g**).

12.SHOMPEN TRIBE

Context: For the fIrst time, members of the Shompen, one of the Particularly Vulnerable Tribal Groups (PVTGs) took part in the election process by casting their votes in the Andaman and Nicobar Lok Sabha constituency.

About

- The Shompen are an indigenous group of people who live on Great Nicobar Island in the Andaman and Nicobar Islands.
- They are hunter-gatherers who hunt wild game, forage for fruits and forest foods, and farm yams, roots, vegetables, and tobacco.
- The Shompen are one of the most populated tribes in the Andaman and Nicobar Islands, with around 200–300 people living mainly on Great Nicobar Island.
- They were first contacted in the 1840s and are designated as a Particularly Vulnerable Tribal Group (PVTG).
- They have nuclear families comprising husband, wife, and their unmarried children.
- The family is controlled by the eldest male member, who controls all activities of the women and kids.
- Monogamy is the general rule, although polygamy is allowed too.

13.2024 PADMA AWARDS

Context: The Padma Awards 2024 have been announced, and the list includes 132 recipients, with 30 of them being women and 8 from the categories of foreign non-resident Indian (NRI), person of Indian origin (PIO), and overseas citizenship of India (OCI).

About Padma Awards:

- The Padma Awards are one of the highest civilian honours only after Bharat Ratna of India announced annually on the eve of Republic Day.
- The Awards are given in three categories:
 - Padma Vibhushan (for exceptional and distinguished service)
 - Padma Bhushan (distinguished service of higher order)
 - > Padma Shri (distinguished service)
- The Padma Awards are conferred on the recommendations made by the Padma Awards Committee, which is constituted by the Prime Minister every year.
- The awards are presented by the President of India usually in the month of March/April every year where the awardees are presented a Sanad (certificate) signed by the President and a medallion.
- ♦ The award does not amount to a title and cannot be used as a **suffix or prefix** to the awardees' name.
- The total number of awards to be given in a year (excluding posthumous awards and to NRI/foreigners/ OCIs) should not be more than 120.

Eligibility:

- ➤ All persons without distinction of race, occupation, position or sex are eligible for these awards.
- ➤ Government servants including those working with PSUs, except doctors and scientists, are not eligible for these Awards.
- ➤ The award is normally not conferred posthumously. However, in highly deserving cases, the Government could consider giving an award posthumously.

UPSC PYQ

- Q. Q: Consider the following statements in respect of the Bharat Ratna and Padma Awards. (2021)
 - (1) Bharat Ratna and Padma Awards are titled under Article 18(1) of the Constitution of India.
 - (2) Padma Awards, which were instituted in the year 1954, were suspended only once.
 - (3) The number of Bharat Ratna Awards is restricted to a maximum of five in a particular year.

Which of the above statements is not correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (C) 1 and 3 only
- (d) 1, 2 and 3

Solution: (d)

14. NIRBHAY CRUISE MISSILE

Context: DRDO successfully test fired indigenous long range Nirbhay subsonic cruise missile.

About

- Nirbhay is India's first indigenous cruise missile. It is a long range, all-weather, subsonic cruise missile.
- With its cylindrical fuselage, it is similar in appearance to the US Tomahawk and Russian Club SS-N-27 missiles.
- The missile can be launched from Multiple Platforms and is capable of carrying conventional and nuclear warheads.
- Nirbhay is powered by a solid rocket booster.
- ♦ The missile, also known as Indigenous Technology Cruise Missile (ITCM), is equipped with an indigenous propulsion system and the Manik turbofan engine.
- ♦ The missile is claimed to have sea-skimming and loitering capability.
- ♦ The Nirbhay measures 6 m in length, 0.5 m in diameter and weighs 1,500-1,600 kg at launch.
- It has a range of 800-1,000 km while carrying a 450 kg payload.
- The missile is indigenously developed by Bengalurubased DRDO laboratory Aeronautical Development Establishment (ADE).

15.BRAHMOS

Context: India delivers first batch of BrahMos supersonic missiles to Philippines.

About

- The BrahMos supersonic cruise missile has a two-stage solid propellant booster engine as its first stage which takes it to supersonic speed.
- ♦ The second stage is the liquid ramjet engine which takes it closer to Mach 3 (3 times the speed of sound) speed in the cruise phase.
- The BrahMos missile is universal for multiple platforms and can be launched from air, land, and sea platforms.
- The missile works on the 'Fire and Forget principle', meaning it doesn't require further guidance after launch, and it maintains a high supersonic throughout the flight.





Brahmos NG

- The BrahMos-NG (Next Generation) will be a scaleddown variant of the current BrahMos missile.
- Compared to the present BrahMos, it is anticipated to be 50% lighter, three meters smaller, and have the same 290-kilometer range and Mach 3.5 speed.
- It would have advanced next generation stealth.
- Greater effectiveness against ECCM.

16. PROJECT NIMBUS

Context: Google has fired some of its employees after they participated in protests against the company's cloud contract with the Israeli government called Project Nimbus.

What is project Nimbus?

- Project Nimbus is a contract awarded to Google and Amazon.com in 2021 to supply the Israeli government with cloud services.
- The aim of the project is to provide Israel with public cloud services in order to address challenges in various sectors of the country like healthcare, transportation, and education.
- The execution of this project will allow Israel to perform large-scale data analysis, AI training, database hosting, and other forms of powerful computing using Google's technology.

Fact Box: About Cloud Services

- Clouds are IT environments that abstract, pool, and share scalable resources across a network.
- The public cloud is defined as computing services offered by third-party providers over the public Internet, making them available to anyone who wants to use or purchase them.

17.THE BODY'S INGENIOUS DEFENSE

Context: In a significant development, scientists have identified a novel defence mechanism the human body uses to prevent some viruses from transmitting via nonconventional routes (bodily fluids like saliva and semen).

Key Insights:

Transmission Enigma: Despite presence in bodily fluids, viruses like Zika, dengue, and chikungunya seldom

- spread orally or sexually, posing a longstanding scientific puzzle.
- Receptor Dynamics: Vital to transmission, viruses exploit host cell receptors like phosphatidyl serine (PS) for cellular entry, a process known as apoptotic mimicry.
- Countermeasure Unveiled: Researchers discovered an unexpected defense mechanism in the form of extracellular vesicles abundant in saliva and semen. These vesicles carry PS proteins, competing with viruses for entry receptors and thwarting infection.
- Broad Immunity: The defense mechanism isn't limited to Zika; it inhibits a spectrum of viruses including dengue, chikungunya, ebola, and more, underscoring its broad applicability in viral immunity.

18.95MAT5 ANTIBODY FOR VENOM TOXIN

Context: A group of scientists, using a type of toxin found in many kinds of snakes, synthetically developed a broadly applicable human antibody against the venom toxin.

Key-highlights

- The scientists focused on three-finger toxins (3FTxs)
 one of the most abundant and lethal ingredients in elapid venoms.
 - ► **Elapids** are a major medically relevant family of snakes that include cobras, kraits, and mambas.
- The scientists narrowed their focus on α-neurotoxins, a specific class of 3FTxs that target receptors in human nerve and muscle cells.
- These toxins prevent the receptors from responding to acetylcholine, a neurotransmitter involved in carrying messages from the neurons to the muscles, leading to paralysis, an inability to breathe, and eventually death.
- They then screened billions of human antibodies and selected number of antibodies that an animal's immune system could cook up in response to a venom. After multiple rounds, they had a shortlist of antibodies that broadly reacted with most of the 3FTx variants they used.
- Then an antibody dubbed 95Mat5 was found that worked well against all the snake venoms.

Fact Box: Devastation caused by Snakebites

- Venom from snake bites leads to more than 100,000 deaths every year, with around 400,000 people left permanently disabled.
- The mortality burden is especially higher in low and middle-income countries in Africa and Asia, with India alone at a staggering average of 58,000 deaths in a year.
- In 2017, WHO classified snakebite envenoming as a highest priority neglected tropical disease.

19. AVIAN FLU

Context: Amid fears of avian flu spreading, mass bird deaths have been reported from Muttar and Ambalappuzha North in Alappuzha district.

What is bird flu?

- Avian influenza or Bird Flu refers to the disease caused by infection with avian (bird) influenza (flu) Type A viruses.
- These viruses occur naturally among wild aquatic birds worldwide and can infect domestic poultry and other bird and animal species.
- It is a zoonotic disease that affects wild and domestic bird populations.
- **Avian flu viruses** do not normally infect humans.

Spread:

- The disease makes its presence felt particularly during winter in most of India and other parts of the globe.
- ♦ This is because, as **wintering**, **migratory birds arrive** and bring pathogens with them.
- Temperature is also a factor: the virus thrives better in cooler climes, thus enabling its spread during winter.

Types of Influenza Virus:

- There are four types of influenza viruses: influenza A, B, C, and D
- Influenza A and B are the two types of influenza that cause epidemic seasonal infections nearly every year.
- Influenza C mainly occurs in humans but has been known to also occur in dogs and pigs.
- Influenza D is found mainly in cattle. It's not known to infect or cause illness in humans yet.

Avian influenza Type A viruses:

- Type A viruses are classified based on two proteins on their surfaces – Hemagglutinin (HA) and Neuraminidase (NA). There are about 18 HA subtypes and 11 NA subtypes.
- Several combinations of these two proteins are possible e.g., **H5N1**, **H7N2**, **H9N6**, **H17N10**, **H18N11**, **etc.**
- All known subtypes of influenza A viruses can infect birds, except subtypes H17N10 and H18N11, which have only been found in bats.

20. VIETNAMESE RICE FARMING METHANE REDUCTION

Context: Farmers in Vietnam are adopting innovative techniques to reduce methane emissions by changing how they grow rice.

About the innovative techniques

- Irrigation method: They are using a different method of irrigation known as alternate wetting and drying, or AWD. This requires less water than traditional farming since his paddy fields aren't continuously submerged. They also produce less methane.
- **Drone:** Using the drone to fertilise the crops saves on labor costs.
- Effective usage of stubble: Rice stubble is no longer burnt (cause of air pollution) but used as livestock feed and for growing straw mushroom.

Rice's contribution to climate change

- Rice crop is not just vulnerable to climate change but also contributes uniquely to it.
- High usage of labour and water: Rice must be grown separately from other crops and seedlings have to be individually planted in flooded fields; backbreaking, dirty work requiring a lot of labor and water that generates a lot of methane.
- Inundated fields stop oxygen from entering the soil, creating the conditions for methane-producing bacteria.
- Rice paddies contribute 8% of all human-made methane in the atmosphere.

Fact Box

- Vietnam is the world's third-largest rice exporter, and the staple is palpable in the Mekong Delta.
- The Mekong Delta, where 90% of Vietnam's exported rice is farmed, is one of the world's regions most vulnerable to climate change.
- Methane is a potent planet-warming gas that can trap more than 80-times more heat in the atmosphere in the short term than carbon dioxide.

21.54TH EARTH DAY

Context: The planet Earth commemorated the 54th Earth Day on April 22, 2024, at a time when pollution is at neverbefore-seen levels and temperatures on are breaking records every year.

About Earth Day

- Earth Day is celebrated on April 22 every year. The day is also known as International Mother Earth Day.
- It was first celebrated across US college campuses in 1970 — months after a massive oil spill in **Santa Barbara**. The movement has since mobilised more than a billion individuals in over 192 countries.
- Theme 2024: "Planet vs. Plastics"



Fact Box: Paris Accord

- In 2016 the United Nations selected April 22 as the date for the Paris Accord.
- Leaders from 196 nations came together on April 22 that year to adopt a legally binding treaty against global warming.
- Countries are expected to try and limit global warming to 1.5°C under the Accord while greenhouse gas emissions must peak before 2025 at the latest and decline 43% by 2030.

22.INFECTIOUS RESPIRATORY PARTICLES (IRPS)

Context: The World Health Organization (WHO) announced updated terminology for pathogens that transmit through the air, doing away with terms like "aerosols" and "droplets" in favour of "infectious respiratory particles (IRPs)."

About

- There was a lack of a common terminology to describe the transmission of these pathogens, which was particularly challenging during the global COVID-19 pandemic.
- Varying terminologies highlighted gaps in common understanding and contributed to challenges in public communication and efforts to curb the transmission of the pathogen.
- Individuals infected with a respiratory pathogen can generate and expel infectious particles containing the pathogen through their mouth or nose by breathing, talking, singing, spitting, coughing, or sneezing, and these particles should be described with the term IRPs.
- IRPs exist on a continuous spectrum of sizes, and no single cut-off points should be applied to distinguish smaller from larger particles.
- Under the umbrella of 'through the air transmission', two descriptors can be used:
 - ➤ **Airborne transmission or inhalation**, for cases when IRPs are expelled into the air and inhaled by another person.
 - ▶ **Direct deposition**, for cases when IRPs are expelled into the air from an infectious person, and are then directly deposited on the exposed mouth, nose or eyes of another person nearby, then entering the human respiratory system and potentially causing infection.

23. ASIAN TIGER

Context: In a significant development, 10 Asian countries, including India, have pledged USD 1 billion over the next decade towards protecting and expanding vital tiger habitats across the continent.

About Tiger (Panthera Tigris)

- Tiger, (Panthera tigris) is the largest member of the cat family (Felidae) and also the earliest Panthera member to exist.
- Primarily a forest animal, they range from the Siberian taiga to the Sunderban delta.
- In the wild, tigers are found in India, Nepal, China, Russia, Bhutan, Myanmar, Cambodia, Laos, Vietnam, Thailand, Sumatra (Indonesia) and Malaysia.
- It is the national animal of India, Bangladesh, Malaysia, and South Korea.
- Status: Endangered
- ♦ Since 2015, the global tiger population has increased from 3,200 in 2015 to approximately 4,500 in 2022.
- The five surviving sub species of tiger are
 - ► Indian Tiger or Royal Bengal Tiger(Panthera tigris tigris) found in India, Nepal, Bhutan and Bangladesh;
 - ➤ Indo-Chinese tiger(Panthera tigris corbetti) mainly found in Thailand and Peninsular Malaysia but are also found in Myanmar, Southern China, Cambodia, Laos and Vietnam:
 - ➤ **Siberian or Amur Tiger**(Panthera tigris altaica) found in far east Russia;
 - ➤ **Sumatran Tiger**(Panthera tigris sumatrae) found in the Indonesian island of Sumatra:
 - ➤ **South China Tiger** (Panthera tigris amoyensis) found in China. The population found in Peninsular Malaysia has been given a status of separate sub species Panthera tigris jacksoni.

24. STELLARIA MCCLINTOCKIAE

Context: Researchers have discovered a new species of plant from the Nelliyampathy hills in the Stellaria (Caryophyllaceae species) group.

About

- Name: Stellaria mcclintockiae (in honour of the renowned geneticist Barbara McClintock)
- This is the first plant in this species to be found in the southern regions of India. This plant species has several unique characteristics compared to others found in the wild.
- ♦ **Group:** It belongs to the Stellaria media group.

25. GREATER ADJUTANT (LEPTOPTILOS DUBIUS)

Context: Greater adjutant is facing threats due to garbage mountains of Guwahati and habitat destruction.

About

- It is a member of the stork family, Ciconiidae. Its genus includes the lesser adjutant of Asia and the marabou stork of Africa.
- ♦ There are only three known breeding grounds one in Cambodia and two in India (Assam and Bihar).
- ♦ IUCN Status: Endangered

26.LEATHERBACK TURTLE (DERMOCHELYS CORIACEA)

Context: The proposed development of transshipment terminal at Galathia bay has threatened the nesting ground of leatherback turtle.

About

- It is the largest of all living turtles and the heaviest noncrocodilian reptile, reaching lengths of up to 2.7 metres (8 ft 10 in) and weights of 500 kilograms.
- ♦ They are one of the most migratory turtles, crossing both the Atlantic and Pacific Oceans.
- ♦ They swim over 10,000 miles a year to reach their nesting grounds.
- They routinely dive to depths of several hundred meters, and are occasionally known to plunge as deep as 1250 meters
- ♦ They feed mainly on pelagic (open ocean) soft-bodied invertebrates such as jellyfish and tunicates.
- Their diet may also include squid, fish, crustaceans, algae, and floating seaweed.
- **♦ IUCN Status:** Vulnerable

27.0BELISKS

Context: Newfound 'obelisks' join viruses, viroids as third unusual life form

About

- They are circular bits of genetic material that contain one or two genes and self-organise into a rod-like shape.
- Like viroids, obelisks have a circular single-stranded RNA genome and no protein coat but, like viruses, their genomes contain genes that are predicted to code for proteins.
- All obelisks so far described encode a single major protein known as obulin, and many encode a second, smaller obulin.
- Obelisks probably rely on microbial host cells to replicate, including those that live inside humans to replicate.
- ♦ Bacteria or fungi are likely hosts, but it is not known which exact species harbour these elements.

28. REITS AND INVITS

Context: Real estate investment trusts (REITs) and infrastructure investment trusts (InvITs) have garnered Rs 1.3 lakh crore in the past four years till March-end, and are expected to facilitate more pooled funds, as per the Reserve Bank.

About

- Real Estate Investment Trusts (REITs) are the companies that finance, purchase, or manage commercial spaces that have the potential to generate an income. It is a legitimate way of investing in the real estate sector.
 - ► **Example:** Mall, shopping complexes, hotels, coworking spaces, and hospitals
- Infrastructure Investment Trusts (InvITs) are vehicles that allow the investors to pool their capitals in the infrastructure sector and hold income-generating assets. IndiGrid and IRB are some of the registered InvITs.
 - ► **Example:** Roads, highways, power, gas pipelines, energy projects, etc. are some of the major examples of InvITs.

29. BASMATI RICE (ORYZA SATIVA)

Context: India is gearing up to challenge Pakistan's attempts to broaden the geographical indication (GI) tag for its Basmati rice.

About

- Basmati rice is cultivated in the Himalayan foothills of the Indian subcontinent.
- The specific agro-climatic conditions, processing techniques such as harvesting and ageing are said to make this rice unique.
- Basmati rice is grown in 81 districts in India, spanning Jammu & Kashmir, Himachal Pradesh, Haryana, Delhi, Uttarakhand, Punjab, and western Uttar Pradesh.
- 34 varieties of Basmati are officially recognized under Seeds Act of 1966.

30. GUKESH D BECOMES YOUNGEST CHALLENGER FOR WORLD CHESS TITLE

Context: Teenage Indian chess prodigy Gukesh Dommaraju, better known as Gukesh D, became the youngest player to claim the men's Candidates Tournament in Toronto, Canada.



About

- Gukesh is ranked 16th in the world by the International Chess Federation (FIDE).
- Gukesh is set to become the youngest player ever to challenge for a world chess title.
- ♦ The previous youngest winner of a Candidates tournament was Russian prodigy Kasparov, then 20, in 1984.
- Joining Gukesh in the men's Candidates tournament was Rameshbabu Praggnanandhaa (R Praggnanandhaa), 18, who famously stunned the chess world by beating Carlsen in 2022.
 - ➤ "Pragg", as he is known to fans, became the youngest international chess master at the age of 10 and the second-youngest grandmaster in the world at 12.

- ➤ Last year, he and his sister, 22-year-old Rameshbabu Vaishali (R Vaishali), became the first-ever brother and sister duo to obtain grandmaster titles.
- Gukesh is the second Indian to play in a world championship after legendary Indian player Viswanathan "Vishy" Anand.

UPSC PYQ (RELATED)

- Q. Parimarjan Negi has excelled in which one of the following games? (2007)
 - (a) Billiards
 - (b) Swimming
 - (c) Chess
 - (d) Weightlifting

Solution: (c)





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ONLINE MODE 5:30 PM on the Day of Test

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SECTION C

TERMS OF THE WEEK

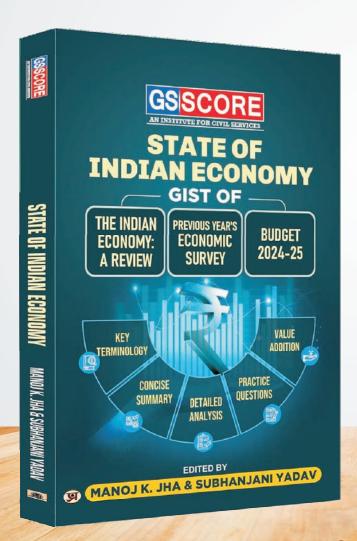
| S.NO. | TERM | ABOUT |
|-------|-------------------------------------|--|
| 1 | Asylum seeker | An asylum seeker is a person who has left their country and is seeking protection from persecution and serious human rights violations in another country, but who hasn't yet been legally recognized as a refugee and is waiting to receive a decision on their asylum claim. Seeking asylum is a human right. |
| 2 | Carbon footprint | A carbon footprint is the total amount of greenhouse gases (including carbon dioxide and methane) that are generated by our actions. |
| 3 | Inheritance tax | The tax is imposed on the recipients who inherit assets of a person who has died. An inheritance tax law existed in India until scrapped it in 1985. An Estate Duty was a form of tax that was calculated at the time of a person's death, it was introduced through the Estate Duty Act, 1953 |
| 4 | Gross Fixed Capital Formation | Gross fixed capital formation (GFCF) is the total value of a producer's fixed asset acquisitions minus disposals during an accounting period. |
| 5 | Genomic Accordion | The genomic accordion is a concept in genetics describing regions of DNA that can expand and contract, leading to variations in the number of repeated sequences. This phenomenon can cause genetic disorders and contributes to genetic diversity within populations. |
| 6 | Green financing | Green financing is to increase the level of financial flows (from banking, micro-credit, insurance, and investment) from the public, private and not-for-profit sectors to sustainable development priorities. Example: Green Sovereign Bonds, Green Deposits |
| 7 | Migrants | Migrants are people staying outside their country of origin, who are not asylum seekers or refugees. |
| 8 | Overseas Citizens of India (OCI) | The Overseas Citizens of India (OCI) is given to overseas Indians. It provides long term visa free travel and stay in India and gives the cardholders a host of privileges normally not given to a foreign national. |
| 9 | Person of Indian Origin (PIO) | PIO means a foreign citizen (except a national of Pakistan, Afghanistan Bangladesh, China, Iran, Bhutan, Sri Lanka and Nepal) who at any time held an Indian passport Or who or either of their parents/ grandparents/ great grandparents was born. |
| 10 | Refugee | A refugee is a person who has fled their own country because they are at risk of serious human rights violations and persecution there. |
| 11 | Recognised political parties | Parties that get some special facilities from the Election Commission are called 'recognised political parties'. A recognised party (national or state) has theright to certain privileges like allocation of the party symbols, provision of time for political broadcasts on the state-owned television and radio stations and access to electoral rolls. |
| 12 | Spectrum | Spectrum refers to the invisible radio frequencies that wireless signals travel over. |





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