

PRAYAAS TIMES

CA CAPSULE
JULY FOURTH WEEK
UPSC/MPSC 2025-26

UPSC/MPSC

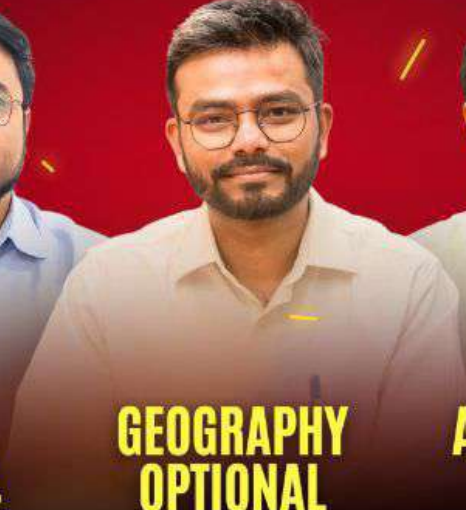
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Table of Contents

1.General Studies I..... 0

1.1 Polyandry in Scheduled Tribes in India 0

About Hatti Tribe:.....	0
Legal Status of Polygamy and Polyandry:.....	0
Judicial and Constitutional Scrutiny:.....	0
Legal and Ethical Challenges of Tribal Polyandry:.....	0
Way Forward: -	1
Conclusion:	1
Mains Question for Practice:	1

2.General Studies II 2

2.1 India-Nepal Relations..... 2

Introduction:.....	2
Historical Background:.....	2
Strategic Significance of projects:.....	2
Key Challenges in India-Nepal Bilateral Relations:	2
Conclusion:	3
Question for Practice:.....	3

2.2 India-UK Historic Free Trade Agreement (FTA)..... 3

Key features of the India-UK Free Trade Agreement:.....	3
Significance of the India-UK Free Trade Agreement.....	4
Concerns Associated with the India-UK FTA (for India)	4
Way Forward.....	5
Conclusion	5
Questions for Practice:	5

2.3 Silver Economy and India's Aging care 5

What is silver economy?.....	5
Necessity of Silver economy	6
Key Challenges of the Silver Economy.....	6
Government Measures for Geriatric Care in India.....	6
Conclusion	7
Mains questions for practice:	7

3.General Studies III..... 8

3.1 India-U.S. Trade Tensions..... 8

Strategic and Economic Triggers for Recent U.S. Tariff Moves	8
--	---

Potential Economic and Strategic Impact of U.S. Tariff Moves on India:	8
Potential Impact of U.S. Tariff Moves on Indian Exports.....	9
Way Forward – Mitigating the Impact of U.S. Tariffs on Indian Exports	9
Conclusion.....	9
Questions for Practice :	9

3.2 Bharat Forecast System..... 10

What is Bharat Forecast System?	10
key reasons behind launching this advanced system:.....	10
Global Weather Forecasting Techniques:.....	10
Major challenges to weather forecasting:.....	11
Conclusion:.....	11
Mains questions for practice:.....	11

PRAYAAS Shorts- UPSC & MPSC..... 12

1. Impeachment Process of Judges in India 12

2. 75 Years of National Sample Survey (NSS) 12

2.1 National Statistical Office (NSO)	12
2.2 About: P.C. Mahalanobis	12

3. Kamchatka Peninsula 12

4. 1,000 Years of Rajendra Chola I's Maritime Expedition 13

4.1 About: Chola Empire	13
-------------------------------	----

5. NASA-ISRO Synthetic Aperture Radar (NISAR) Satellite 13

5.1 Synthetic Aperture Radar (SAR)	13
5.2 Geosynchronous Satellite Launch Vehicle (GSLV)	14

6.Codex Alimentarius Commission (CAC) 14

7. Global Wetland Outlook (GWO) 2025 14

7.1 About Ramsar Convention	14
-----------------------------------	----

8. United Nations Educational, Scientific and Cultural Organization (UNESCO) 14

9. Hornbill Conservation Centre 15

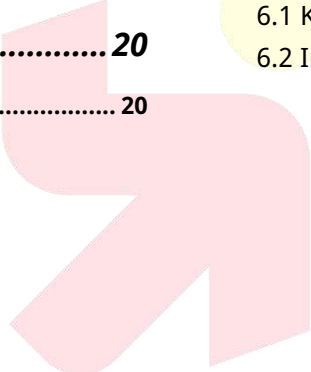
10. AdFalcivax..... 15

11. Financial Inclusion Index (FI-Index) 2025..... 15

12.AI for India 2.0 Programme..... 16

13. Pradhan Mantri Surya Ghar Muft Bijli Yojana 16

14. Kala Utsav 2025.....	16	1.1 The United States Withdraws from UNESCO	20
14.1 Sohrai Painting	16		
14.2 Pattachitra	17	2. National News	20
14.3 Patua Art	17	2.1 India hits 20% ethanol blending in petrol 5 years ahead of target.....	20
15. Exercise Bold Kurukshetra 2025.....	17	2.2 Gyan Bharatam Mission	20
16. UN's State of Food Security and Nutrition in the World (SOFI) Report 2025	17	3. Maharashtra	20
16.1 Key Terms	18	3.1 Krishi Samruddhi scheme.....	20
17. Great Indian Bustard.....	18	3.2 Maharashtra's first glass bridge opens over Napne waterfall in Sindhudurg.....	20
18. Police Network (POLNET)	18	4. Award	20
19. Organic Certification in India.....	18	4.1 Lokmanya Tilak National Award	20
20. Geelong Treaty.....	18	5. Defence	20
21. Global Specs 2030 Initiative.....	19	5.1 Apache helicopters.....	20
23. NASA's TRACER Mission	19	5.2 Exercise Bold Kurukshetra 2025	21
24. Schengen Visa	19	6. Important Day	21
<i>PRAYAAS Shorts- MPSC Specific.....</i>	20	6.1 Kargil Vijay Diwas – 26 July 2025	21
1. International News	20	6.2 International Tiger Day – 29 July 2025.....	21



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MAINS FOCUS

1. General Studies I

1.1 Polyandry in Scheduled Tribes in India

News context: -

- A tribal woman from the Hatti community in Himachal Pradesh married two brothers under a traditional system of Polyandry.
- Jodidaran is a fraternal polyandry practised by the Hatti tribe, where a woman marries multiple brothers to prevent land division, strengthen bonds, and ensure social security within joint families.

Syllabus of Mains – GS-1- Salient features of Indian Society, diversity of India.

About Hatti Tribe:

- **Location:** Indigenous to the Trans-Giri region (Himachal Pradesh) and Jaunsar Bawar region (Uttarakhand).
- **Rivers:** Settled around the Giri and Tons rivers, tributaries of the Yamuna.
- **Etymology:** "Hatti" derives from "haat" (traditional village markets).
- **Population:** Around 2.5 lakh in 2011; now estimated at 3 lakhs.
- **Traditional Governance:** Khumbli (tribal council) handles disputes and key decisions.
- **Social Structure:** Divided into upper castes (Bhat, Khash) and lower castes (Badhois).
- **Livelihood:** Depend mainly on agriculture; eco-tourism also provides seasonal income.
- **Backwardness:** Social and educational deprivation due to geographical isolation.

Scheduled Tribe Status:

- Jaunsar Bawar (Uttarakhand) recognized in 1967.
- Trans-Giri region (Himachal Pradesh) granted status in 2023–24.

Legal Status of Polygamy and Polyandry:

- **Prohibition:** Banned under Hindu Marriage Act (1955), Special Marriage Act, and Bharatiya Nyaya Sanhita.
- **Exemption for Scheduled Tribes:** These laws **do not automatically apply to Scheduled Tribes unless notified** by the Central Government.
- **Constitutional Provision:** Article 342 gives Scheduled Tribes distinct legal recognition.
- **Legal Exemption Clause:** Section 2(2) of the Hindu Marriage Act exempts Scheduled Tribes unless otherwise notified.
- **Definition of Custom:** Recognised if the practice is long-standing, reasonable, and not against public policy.
- **Judicial Requirement:** Courts need clear evidence to validate customary laws.
- **Uniform Civil Code (Uttarakhand, 2024):** Explicitly excludes Scheduled Tribes.
- **UCC Rules (2025):** Confirms UCC does not apply to groups protected under Part XXI of the Constitution.

Judicial and Constitutional Scrutiny:

- The judiciary affirms that **personal customs cannot override fundamental rights** (Articles 14, 15, and 21) or deprive others of constitutional rights.

Key Supreme Court Precedents: -

- **Triple Talaq Case:** SC struck down instant divorce as arbitrary and violative of equality rights.
- **Sabarimala Entry Case:** SC held the exclusion of women unconstitutional under Articles 14 and 15.
- **Ram Charan Case (2024):** SC upheld tribal women's inheritance rights in the absence of a valid op-posing custom.

Legal and Ethical Challenges of Tribal Polyandry:

- **Gender Autonomy:** Polyandrous arrangements often **deprive women of enforceable rights** (e.g., 2024 Sunita Chauhan case).
- **Oral Traditions:** The **absence of documented Hatti customs** limits judicial recognition and access to legal remedies.
- **Custom vs. Justice:** Certain customs may **perpetuate regressive norms** under the guise of cultural legitimacy.

- **Limited Representation:** Tribal women often have minimal participation in Khumbli council decisions.
- **Judicial Constraints:** Courts face **difficulties in validating customs without written evidence** or broad community agreement.
- **Resistance to Reform:** Imposed reforms from outside the community may face rejection unless supported by local engagement and awareness.
- **Human Rights Concerns:** Polyandry may **conflict with constitutional guarantees of equality, dignity, and personal liberty**.
- **Inheritance and Property Disputes:** Lack of clear legal frameworks **creates disputes over lineage**, custody, and property rights.
- **Social Stigma and Marginalisation:** Women challenging such customs **may face ostracism** within their community.

Way Forward: -

- **Opt-In UCC Models:** The example of Goa's Uniform Civil Code demonstrates that integration can be achieved while respecting recognised community traditions.
- **Tribal-Led Reform:** Experiences from Nagaland's village-level reforms highlight the effectiveness of change driven by internal community participation.
- **Women's Rights Awareness:** Platforms such as the Ministry of Tribal Affairs' Van Dhan Kendras can be leveraged to promote legal and rights literacy among tribal women.
- **Culturally Sensitive Reform:** The Xaxa Committee (2014) emphasised pursuing reforms that uphold both cultural identity and the principles of equity.

Conclusion:

- While tribal polyandry in regions like the Hatti community is rooted in historical socio-economic compulsions such as land preservation and resource sharing, in contemporary India it raises serious concerns over gender equality, individual rights, and access to justice.
- As **sociologist André Béteille cautions**, "Customs must evolve to preserve culture without perpetuating inequality."
- The challenge lies in balancing constitutional guarantees of dignity and autonomy (Articles 14, 15, and 21) with respect for cultural diversity under Article 29, ensuring that tradition and rights coexist without one undermining the other.

Mains Question for Practice:

- "In certain tribal communities, customs like polyandry are defended as cultural practices but raise serious questions on gender rights and constitutional morality". Discuss the legal, ethical, and socio-cultural challenges of regulating such practices. (10 Marks, 150 words)

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2.General Studies II

2.1 India-Nepal Relations

Context: -

- Recently, India signed an **agreement with Nepal to implement 5 high-impact community development projects** (HICDPs) in education and health sectors under an Indian grant of ₹390 million.

**Syllabus of Mains – GS-2-Bilateral, Regional & Global Groupings & Agreements
Involving India and/or Affecting India's Interests**

High-Impact Community Development Projects:

Sector	Projects
Education	Construction of 4 Secondary Schools in Dhanusha, Parsa, Achham & Bara districts
Health	Construction of a 5-bed hospital in Manang district

Introduction:

- India is Nepal's **largest trade partner and top source of FDI**, with bilateral trade exceeding \$7 billion.
- Guided by the **age-old 'Roti-Beti ka Rishta'**, the open border fosters deep people-to-people ties, shared festivals, and seamless pilgrimage and tourism.

Historical Background:

- The 1950 Treaty of Peace and Friendship forms the foundation of India–Nepal relations, enabling free movement of people, residence, trade, and mutual security cooperation.
- India and Nepal share deep-rooted civilizational ties based on religion, culture, language, and kinship, especially in border regions.

Strategic Significance of projects:

- Social Sector Strengthening:** Improves access to healthcare and education in Nepal's underserved regions, supporting decentralisation and inclusive development.
- Instrument of Soft Power:** Grassroots projects **enhance India's image as a benevolent partner**, fostering cultural affinity and people-to-people bonds.
- Trust and Stability Builder:** Reflects **India's proactive "Big Brother" approach**, generating goodwill and promoting regional stability.
- Countering External Influence:** Strengthens **India's developmental footprint in Nepal**, reducing space for competing strategic actors such as China.
- Disaster Resilience and Preparedness:** Joint projects can build **community capacity for disaster management** in a seismically and climatically vulnerable region.
- Economic Integration Catalyst:** Enhances cross-border connectivity and economic interdependence through infrastructure and livelihood support.
- Diplomatic Signalling:** Underscores **India's commitment to the Neighbourhood First Policy**, reinforcing bilateral trust at both political and societal levels.

Key Challenges in India–Nepal Bilateral Relations:

- Border Disputes:** Persistent differences **over Susta, Kalapani, and the Lipulekh tri-junction** continue to strain trust.
- Implementation Delays:** Long-standing agreements such as the **Kosi (1954) and Mahakali (1996) treaties** remain stalled, with projects like the Pancheshwar Multipurpose Project pending.
- Security Vulnerabilities:** The **porous and open border facilitates** illegal migration, smuggling, human trafficking, and potential infiltration.
- Treaty Frictions:** Nepal perceives the **1950 India–Nepal Friendship Treaty as outdated and unequal**, seeking revision.
- China's Strategic Footprint:** Beijing's infrastructure investments and **chequebook diplomacy** challenge India's influence in Nepal.
- Political Instability in Nepal:** Frequent **changes in government disrupt continuity** in bilateral engagement and project execution.

- **Perception Gap:** Media narratives and political rhetoric in both countries sometimes fuel mistrust, affecting public opinion.

Way Forward:

- **Fast-track Project Implementation:** Prioritise timely completion of flagship initiatives like the Pancheshwar Multipurpose Project and cross-border connectivity corridors to rebuild trust and demonstrate delivery.
- **Political and Diplomatic Outreach:** Employ quiet diplomacy to address sensitive internal issues such as Madhesi representation, fostering bilateral consensus without public confrontation.
- **Soft Power Expansion:** Strengthen cultural, religious, and educational exchanges; enhance digital connectivity through UPI-RuPay integration; and promote tourism cooperation (e.g., Buddhist and Ramayana circuits).
- **Strategic Balancing:** Offer transparent, sustainable, and locally beneficial alternatives to counterbalance China's growing strategic and economic presence.
- **Joint Security Mechanisms:** Enhance cooperation on border management, anti-trafficking, and disaster preparedness to build mutual confidence.
- **Institutionalised Dialogue:** Create regular high-level review mechanisms to ensure continuity despite political changes in Nepal.

Conclusion:

- India-Nepal relations are bound by geography, culture, and shared history, yet they remain vulnerable to political sensitivities, implementation delays, and competing strategic influences. **As former Indian Foreign Secretary Shyam Saran observes, "Nepal is not just a neighbour; it is a test case for India's neighbourhood policy."**
- Likewise, scholar S.D. Muni stresses that sustainable ties must rest on "mutual sensitivity, sovereign equality, and development partnership." From an external perspective, **geopolitical analysts like C. Raja Mohan note that managing China's growing role in Nepal requires India to move beyond reactive diplomacy towards proactive, trust-based engagement.**
- A blend of strategic patience, economic interdependence, and cultural diplomacy will be essential to transform proximity into lasting partnership **between "Roti-Beti ka Rista" countries.**

Question for Practice:

- India-Nepal relations are shaped by deep cultural ties and strategic realities but also face recurring frictions. Analyse the strategic significance of the partnership, key challenges, and the way forward. (15 Marks, 250 words)

2.2 India-UK Historic Free Trade Agreement (FTA)

News Context

- India and the United Kingdom have **signed the Comprehensive Economic and Trade Agreement (CETA), a bilateral free trade agreement marking a major milestone** in their longstanding partnership.
- It reflects the shared ambition of two major economies to deepen economic ties. Bilateral trade has already reached USD 56 billion, with a target to double this by 2030.

Syllabus of Mains – GS 2: Bilateral, Regional and Global Groupings and Agreements involving India and/or affecting India's interests.

Key features of the India-UK Free Trade Agreement:

- **Goods and Agriculture**
 - **Tariff-Free Market Access:** 99% of Indian manufactured goods enter the UK without import duties.
 - **Duty Reductions on UK Products:** Whisky tariffs cut to 40% and car duties to 10% over 10 years.
 - **Marine Products Boost:** 99.3% of Indian seafood exports (shrimp, tuna, etc.) are duty-free.
 - **Agricultural Gains:** 95% of farm products and 99.7% of processed foods get zero-duty access.



- **GI Recognition:** Feni, Nashik wine, and Kerala toddy receive UK Geographical Indication status.
- **Simplified Rules of Origin**
 - **Self-Certification:** Exporters can certify product origin themselves, reducing paperwork and time.
 - **Importer's Knowledge Option:** UK importers can rely on their own knowledge for origin certification.
 - **Small Consignment Relief:** No origin documentation needed for consignments under £1,000, boosting e-commerce and small business exports.
 - **Supply Chain Alignment:** Product-Specific Rules of Origin match India's existing supply chains in textiles, machinery, pharmaceuticals, and processed food.
- **Services and Mobility**
 - **Expanded Professional Access:** Liberalised entry for Indian IT, legal, finance, and architecture professionals.
 - **Special Visa Quota:** 1,800 annual UK visas for chefs, yoga instructors, musicians, and other cultural experts.
 - **Simplified Business Travel:** Easier short-term service entry and intra-company transfers.
 - **Pension Portability:** Double Contribution Convention prevents dual social security payments.
- **Investment and Public Procurement**
 - **UK Procurement Access:** UK firms eligible for Indian government contracts above ₹200 crore as Class II suppliers.
 - **Local Sourcing Requirement:** Minimum 20% UK-origin inputs for procurement eligibility.
 - **Investor Protection:** International arbitration allowed after one year of unsuccessful consultations.
- **Digital and Technology Cooperation**
 - **Paperless Customs:** Electronic documentation and digital authentication for trade clearance.
 - **Cross-Border Data Flows:** Permitted with safeguards; no forced data localisation.
 - **Source Code Safeguards:** No obligation to share proprietary algorithms or code.
 - **Critical Minerals Collaboration:** UK funds £1.8M IIT Dhanbad project to map global digital supply chains.
- **Double Contribution Convention (DCC)**
 - **Social Security Savings:** Exempts Indian workers and employers from paying UK social security contributions for up to three years on temporary assignments.
 - **Impact:** Expected to benefit 75,000 workers and 900+ companies.
 - **Economic Gain:** Estimated savings of over ₹4,000 crore.

India-UK Bilateral Annual Trade

Total bilateral annual trade
– **USD 56 billion**

Total merchandise trade
– **USD 23 billion**

Total services trade
– **USD 33 billion**

Significance of the India-UK Free Trade Agreement

- **Market Access Breakthrough:** Grants India **near-total tariff-free entry into the UK**, giving its exporters a stronger foothold in one of the world's largest consumer markets.
- **First-of-its-Kind Mobility Provisions:** Eases **professional movement for Indian talent across IT, finance, healthcare, and education**, alongside cultural sectors like cuisine and yoga.
- **Cost Efficiency for Businesses:** The **Double Contribution Convention eliminates duplicate social security payments**, saving companies and workers substantial costs.
- **Trade Process Modernisation:** Simplified rules of origin, **paperless customs, and digital authentication** reduce trade friction, especially for MSMEs and e-commerce.
- **Balanced Liberalisation:** **Protects sensitive Indian sectors** while still offering gradual market opening for UK exports, ensuring domestic capacity-building isn't compromised.
- **Strategic Collaboration:** Deepens cooperation in **critical minerals, technology, and innovation**, supporting India's energy transition and manufacturing upgrade.

Concerns Associated with the India-UK FTA (for India)

- **Public Health Risks:** Tariff-free entry for U.K. processed foods such as biscuits, chocolates, and soft drinks—often high in fat, sugar, and salt (HFSS)—could encourage unhealthy consumption, especially with aggressive marketing campaigns.
- **Agricultural Sensitivities:** Even with safeguards, **gradual tariff cuts could expose farmers in dairy, cereals, pulses, and certain fruits/vegetables** to competitive pressure from subsidised UK imports.
- **Manufacturing Competition:** Lower tariffs **on premium goods like cars and whisky may benefit affluent consumers but could hurt domestic producers**, especially in emerging automobile and beverage industries.

- **Standards and Compliance Barriers:** Differences in food safety, quality norms, and labelling standards may limit India's ability to fully utilise market access while leaving room for disputes.
- **Trade Balance Pressure:** India primarily exports low- to mid-value goods to the UK, whereas UK exports to India are often higher-value items potentially widening the trade value gap.
- **Professional Mobility Limitations:** Although the agreement promises eased movement, UK immigration policy changes or domestic politics could still restrict the actual flow of Indian professionals.
- **Cultural and Dietary Impact:** Increased market penetration of foreign processed foods and beverages may influence dietary habits, threatening India's traditional food diversity.

Way Forward

- **Create a "UK Gateway" Strategy:** Position India as the UK's hub for supply chains into ASEAN, Africa, and the Middle East, leveraging preferential access and geographic advantage.
- **FTA-Linked Skill Missions:** Launch **targeted upskilling programs in sectors with expanded UK access** like green tech, design services, legal consulting ensuring India captures high-skill jobs.
- **Joint IP & Innovation Fund:** Establish a co-financed **India-UK innovation fund** for startups in AI, climate tech, and life sciences, linked to patent-sharing agreements.
- **Sustainable Trade Branding:** Market Indian exports **under a "Green & Ethical India" label**, meeting UK sustainability standards to gain a competitive edge with conscious consumers.
- **Digital Customs Corridor:** **Implement a 24/7 blockchain-enabled trade clearance** system between Indian and UK ports to make shipments faster, cheaper, and more transparent.
- **Co-Develop Global Capability Centres (GCCs):** Expand GCCs beyond IT to sectors like animation, gaming, aerospace design, and fintech, creating high-value exportable services.
- **Cultural Economy Expansion:** Use mobility provisions to promote Indian cuisine, wellness tourism, and performing arts in the UK, turning soft power into economic gain.
- **Critical Minerals Alliance:** Deepen collaboration in battery minerals and renewable energy tech, positioning India as a key partner in the UK's green transition.

Conclusion

- The India-UK FTA is more than a trade pact it is a strategic roadmap for shared prosperity, reflecting the trust, mutual respect, and forward-looking vision of two vibrant democracies. **As Prime Minister Narendra Modi aptly stated, "This Agreement is not just an economic agreement but also the plan for a shared prosperity."** It stands as a testament to the enduring partnership between India and the United Kingdom, poised to create opportunities for businesses, workers, and communities in both nations.

Questions for Practice:

- Examine the significance of the India-UK Free Trade Agreement in the context of India's strategic and economic diplomacy. 15 M (250 Words)

2.3 Silver Economy and India's Aging care

News Context:

- India's **rapidly aging population, projected to equal the US population by 2050**, is straining its healthcare system, with nearly 80% of lifetime healthcare costs incurred in the last five years of life.

Syllabus of Mains – GS-II- Welfare Schemes for Vulnerable Sections of the population by the Centre and States and the Performance of these Schemes

What is silver economy?

- The Silver Economy refers to the **economic opportunities and services associated with the aging population**, typically people aged 60 and above. The term "silver" symbolizes the grey hair commonly associated with older adults.
- India is **underscored by demographic shifts** that are reshaping the nation's social landscape.
- According to the Report of the Technical Group on Population Projections (July 2020), **India's elderly population is expected to reach 193.4 million by 2031**. This dramatic increase from the 103.8 million senior citizens recorded in the 2011 Census, which **represented 8.6% of the total population** at that time, highlights the urgency of addressing issues related to healthcare, economic security, and social integration for older adults.

Necessity of Silver economy

- **Aging Population Is Rapidly Growing:** By 2050, **over 2 billion people globally will be over the age of 60**. In India, seniors will make up nearly 20% of the population by 2050 (approx. 319 million people). This shift creates huge demand for age-specific services, infrastructure, and support.
- **Elderly Are Becoming a Major Economic Force:** Older adults control a large portion of personal wealth and are active consumers. **Globally, the "silver market" was worth \$15 trillion in 2020**, projected to reach \$27 trillion by 2030. Seniors increasingly spend on healthcare, wellness, technology, travel, and housing.
- **Rising Demand for Geriatric Healthcare:** Seniors have **specific health needs** (chronic illnesses, mobility, mental health).
- **Encouraging Active and Dignified Aging:** The Silver Economy **promotes independence and quality of life through:** Age-friendly products, Senior living communities, Accessible infrastructure, financial planning tools.
- **Re-engaging Seniors in the Workforce:** Many seniors are healthy, experienced, and willing to contribute post-retirement. The economy benefits when older adults are employed, volunteering, or mentoring—instead of being seen only as dependents.

Key Challenges of the Silver Economy

- **Healthcare System Limitation: Shortage of geriatric specialists and trained caregivers.** Overburdened public healthcare infrastructure, especially in rural and low-income areas. Lack of preventive care models tailored to aging-related diseases (e.g. dementia, arthritis, cardiovascular diseases).
- **Inadequate Age-Friendly Infrastructure:** Urban spaces, public transport, and housing are often not designed for seniors (e.g. stairs, poor lighting, no handrails). Lack of dedicated senior housing assisted living, or community spaces for social engagement.
- **Digital Divide:** Many elderly individuals **struggle with using modern technology**, including smartphones, digital payments, or telemedicine. Tech solutions are often not senior-friendly (complex interfaces, small text, fast-paced UX). Risk of cyber fraud targeting vulnerable seniors.
- **Social Isolation and Mental Health:** Seniors, especially those living alone or in urban settings, **often suffer from loneliness and depression**. Lack of community engagement programs and social support networks. Mental health remains underdiagnosed and undertreated in aging populations.
- **Policy and Regulatory Gaps:** Absence of comprehensive, long-term policies focused on the Silver Economy. Fragmented governance—**multiple ministries handle elderly care with poor coordination**. Underfunded welfare schemes and low awareness among the elderly about benefits.
- **Lack of Market Awareness & Investment:** Businesses often **overlook the senior demographic in product design and marketing**. Limited venture capital and innovation targeting eldercare or silver tech. Misconception that seniors are not an economically "attractive" segment.

Government Measures for Geriatric Care in India

- **Policy Frameworks & Legal Measures**
 - **National Policy on Older Persons (1999)**
 1. Ensures economic and health security.
 2. Promotes shelter, welfare, and protection of elderly.
 3. Encourages private and voluntary sector participation in elder care.
 - **Maintenance and Welfare of Parents and Senior Citizens Act (2007)**
 1. Makes it legally mandatory for children/relatives to provide maintenance to elderly parents.
 2. Enables seniors to claim maintenance through tribunals.
 3. Provides for establishment of old age homes in every district.
- **Financial Support Schemes**
 - **Atal Vayo Abhyudaya Yojana (AVYAY): (Department of Social Justice and Empowerment)**
 1. Integrated Programme for Senior Citizens (IPSrC): Senior Citizens' Homes for 25 destitute Senior Citizens. Senior Citizens' Homes for 50 Elderly Women (including under SAGY). Continuous Care Homes for Senior Citizens with Alzheimer's/Dementia.
 - **State Action Plan for Senior Citizens (SAPSrC):** Collaboration with State/UT Governments to develop and implement State Action Plans for senior citizens' welfare.
 - **Rastriya Vayoshri Yojana (RVY):** Provision of physical aids and assisted living devices to senior citizens, especially those in the BPL category.
 - **Livelihood and Skilling Initiatives for Senior Citizens:** Senior Able Citizens for Re-Employment in Dignity (SACRED): Portal for re-employment opportunities for senior citizens.

Conclusion

- The Silver Economy is not just about addressing the needs of the elderly—it's about reimagining aging as a pillar of economic growth, social resilience, and innovation. With rising life expectancy and improved healthcare, senior citizens are living longer, healthier, and more active lives. This demographic transformation presents a golden opportunity to build inclusive systems that recognize seniors as valuable contributors to society.

Mains questions for practice:

- "India's demographic dividend is gradually giving way to a 'silver tsunami'. In this context, evaluate the preparedness of India's economy and policy framework to harness the potential of the Silver Economy." (10 Marks, 150 words)



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PULSE

ANSWER WRITING MODULE

UPSC MAINS 2026

English / Marathi

Key Features:

- ✦ 23 Tests + 1 UPSC Simulation Round
- ✦ Progressive Writing Strategy: Basic to Adv.
- ✦ Flash Answer Writing Practice (Wed & Fri)
- ✦ Prelims + Mains Integrated Approach
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3.General Studies III

3.1 India-U.S. Trade Tensions

News Context

- After **doubling tariffs on India to 50% over Russian oil imports**, U.S. President Donald Trump recently indicated that he may even pause trade talks between the two countries until the oil issue was 'resolved'.

Syllabus of Mains – GS 3: Economy – External Sector

Strategic and Economic Triggers for Recent U.S. Tariff Moves

- Tariffs as Geopolitical Leverage:** The US move is Tariffs **not only for economic protection but also as tools of political and security pressure** for example, responding to India's continued purchase of Russian oil or signalling displeasure over specific policy choices by other nations.
- National Security and Anti-Illicit Trade Justifications:** Tariffs are being framed as part of a broader national emergency approach, targeting countries linked to illicit activities such as fentanyl trafficking and other security threats.
- Reviving Domestic Manufacturing and Reducing Trade Deficit:** The measures **aim to address long-standing trade imbalances**, protect sensitive industries like steel, aluminium, autos, and semiconductors, and promote domestic production.
- Negotiation Tactic:** The sudden tariff threat may be aimed at extracting concessions in stalled trade talks.

Potential Economic and Strategic Impact of U.S. Tariff Moves on India:

Economic Impact: -

- Export Competitiveness Erosion:** Higher tariffs on Indian goods (e.g., textiles, engineering products, gems, and jewelry) **reduce price competitiveness in the U.S. market**, risking loss of market share to competitors like Vietnam, Bangladesh, and Mexico.
- Pressure on Key Sectors:** **Labour-intensive sectors such as textiles, leather, and gems** could face order cancellations, directly impacting employment and foreign exchange earnings.
- Trade Balance Strain:** India's trade surplus with the U.S. **could narrow sharply**, impacting overall export growth and current account stability.
- Supply Chain Disruptions:** Export-oriented MSMEs dependent on U.S. demand could face raw material and inventory buildup, leading to liquidity stress.
- Currency Volatility:** Potential **capital outflows and reduced export earnings** may increase pressure on the rupee, affecting import costs (especially crude oil).
- May hampers economic growth prospect:** As per Moody's Ratings, U.S. President Donald Trump's steep 50% tariffs on Indian imports **could severely undermine India's manufacturing ambitions** also it may slow economic growth

Strategic & Geopolitical Impact: -

- Strained Bilateral Trade Relations:** Tariffs may **derail ongoing trade negotiations** (e.g., India-U.S. FTA), delaying tariff rationalisation and market access gains.
- Impact on Strategic Convergence:** Economic tensions could **spill over into other cooperative areas such as defence technology sharing, critical minerals supply chains, and climate finance**.
- Push Towards Diversification:** India may **accelerate market diversification towards the EU, ASEAN, Africa, and Latin America** to reduce dependence on the U.S. market.
- Domestic Policy Pressure:** Could push India **towards greater self-reliance** (Atmanirbhar Bharat) in high-value manufacturing, but with short-term adjustment costs.
- Potential Leverage in Multipolar Diplomacy:** India might **leverage this tension to strengthen ties with other major economies, using platforms like BRICS, SCO, and the Global South** to build coalitions against protectionist measures.

Potential Impact of U.S. Tariff Moves on Indian Exports

- **Loss of Price Competitiveness:** Higher tariffs make Indian goods costlier in the U.S. market, reducing their attractiveness compared to low-cost competitors like Vietnam, Bangladesh, and Mexico.
- **Decline in Export Volume:** Labour-intensive sectors (e.g., textiles, apparel, gems & jewelry, leather) could see order cancellations and reduced shipments.
- **Revenue & Employment Losses:** MSME-dominated export clusters may face revenue contraction, leading to job losses, especially in states like Gujarat, Tamil Nadu, and Maharashtra.
- **Trade Surplus Reduction:** India's trade surplus with the U.S.—its largest export destination—could narrow, affecting overall export growth and foreign exchange reserves.
- **Shift in Supply Chains:** U.S. buyers may diversify sourcing away from India, leading to a long-term erosion of market share in certain product categories.
- **Pressure on High-Value Exports :** Sectors like pharmaceuticals, engineering goods, and processed foods could face competitive disadvantages despite their quality edge.
- **Currency & Cost Pressures:** Lower export earnings may add pressure on the rupee, increasing import costs for inputs and raw materials, further raising export production costs.

India-USA Trade

- In FY24, the bilateral trade between India and the US stood at a record US\$ 118.2 billion as against US\$ 128.78 billion in FY22
- In FY24, India had a trade surplus of US\$ 36.8 billion with the US.
- Of the total trade in FY24, Indian exports to the US stood at US\$ 77.5 billion, while American exports to India stood at US\$ 40.7 billion
- USA is the 3rd largest investor in India with cumulative FDI inflows of US\$ 67.76 billion from April 2000-September 2024

Way Forward – Mitigating the Impact of U.S. Tariffs on Indian Exports

- **Diversify Export Markets:** Reduce dependence on the U.S. by strengthening trade ties with the EU, ASEAN, Africa, Latin America, and West Asia through targeted FTAs and export promotion missions.
- **Upgrade Product Competitiveness:** Invest in quality certification, R&D, and technology adoption to shift towards high-value, innovation-driven exports less vulnerable to price-based competition.
- **Negotiate Trade Concessions:** Engage diplomatically with the U.S. to seek tariff exemptions for strategic sectors, leveraging mutual interests in defence, clean energy, and critical minerals.
- **Boost Domestic Manufacturing Ecosystem:** Strengthen Atmanirbhar Bharat initiatives to enhance domestic supply chains, reduce input dependency, and improve cost efficiency for exporters.
- **Leverage Multilateral Platforms:** Use WTO dispute mechanisms and coalition-building with other affected countries to challenge unilateral tariff hikes and advocate fair trade norms.

Conclusion

- As C. Rangarajan, former Chairman of the Economic Advisory Council to the Prime Minister, notes, the U.S. tariff step is **merely an opening gambit in a longer negotiation**. Lasting trade solutions cannot be built on threats or mistrust. India must therefore pursue constructive engagement with the U.S. to address concerns on both sides, while championing through the WTO a low-tariff, rules-based trading system. In this recognising that regional agreements, though a second-best option, remain necessary in the current global climate.

Questions for Practice :

- Assess the potential long-term economic impact of recent U.S. tariff measures on Indian exports. How should India recalibrate its trade strategy to mitigate these effects while sustaining export-led growth? (15 M, 250 Words)

3.2 Bharat Forecast System

News Context:

- The **India Meteorological Department (IMD)** adopted the **Bharat Forecast System (BFS)**, an **indigenously developed weather prediction model** boasting a 6-kilometre resolution grid.
- Union Minister of Earth Sciences Dr. Jitendra Singh inaugurated the world's first indigenously developed high-resolution weather forecast systems at a launch ceremony held at Vigyan Bhawan.

Syllabus of Mains – GS-3- Achievements of Indians in Science & Technology; Indigenization of Technology and Developing New Technology.

What is Bharat Forecast System?

- **High-resolution, indigenous model:** Developed by the Indian Institute of Tropical Meteorology (IITM), Pune, under the Ministry of Earth Sciences, BFS operates at a fine 6 km × 6 km grid — a significant upgrade from the previous 12 km grid used by IMD.
- **Global-first precision:** It is currently the highest-resolution operational global numerical weather prediction system in existence.

key reasons behind launching this advanced system:

- **Inadequacy of Existing Systems:**
 - This was insufficient for village-level forecasting, especially in a country with diverse topography, microclimates, and extreme weather variability.
 - It couldn't predict localized extreme events (like cloudbursts, flash floods, or intense heatwaves) with the needed precision.
- **Increasing Frequency of Extreme Weather Events:**
 - India is experiencing more frequent and intense such as Cyclones, Floods, Droughts, Heatwaves.
 - These events cause significant loss of life, damage to crops, infrastructure, and economic activity.
- **Critical Need for Agro-Meteorological Services:**
 - Over 60% of India's population is dependent on agriculture, which is highly weather-sensitive.
 - Farmers need hyperlocal, real-time data to: Decide sowing and harvesting times Schedule irrigation, Prepare for storms, drought, or excess rainfall.
- **Technological Sovereignty & Indigenous Capability:**
 - India was dependent on foreign weather models (e.g., UK, US).
 - BFS, developed indigenously, is part of India's "Atmanirbhar Bharat" and "Make in India" vision.
 - It ensures self-reliance in critical weather and climate tech, reducing dependency on external models.
- **Leverage of Advanced Computing Infrastructure:**
 - The launch of India's powerful new supercomputer "Arka" enables faster processing of large datasets and simulations.
 - BFS uses this to cut forecast generation time drastically (from 10-14 hours to just 4-6 hours).
 - This allows faster decision-making in time-critical situations.

India Meteorological Department (IMD)

- **Established:** January 15, 1875
- **Headquarters:** Mausam Bhavan, Lodhi Road, New Delhi
- **Parent Ministry:** Ministry of Earth Sciences (MoES), Government of India
- **Director General (as of 2025):** Dr. Mrutyunjay Mohapatra (also known as "Cyclone Man of India").

Mandate and Core Functions

- **The IMD is the national agency responsible for**
 - Weather forecasting and monitoring
 - Seismology (earthquake detection)
 - Meteorological observations
 - Climate research
 - Warnings for natural disasters (cyclones, floods, heatwaves, etc.)

Global Weather Forecasting Techniques:

- **Numerical Weather Prediction (NWP):**
 - Most widely used method globally.
 - Uses complex mathematical models to simulate the atmosphere using: Temperature, Pressure, Wind speed/direction, Humidity, etc., Requires supercomputers and vast data from satellites, radars.

- **Statistical Forecasting:**
 - Based on historical weather data and statistical patterns.
 - Often used for climate outlooks (monthly or seasonal forecasts).
 - **Examples:** Regression analysis, time series models, analog methods ground stations.
- **Satellite Meteorology:**
 - Weather satellites (like NOAA, METEOSAT, INSAT, Himawari) provide-Cloud cover, Sea surface temperatures, Cyclone tracking, Rainfall estimates, Essential for remote or oceanic areas.
- **Radar-Based Nowcasting:**
 - Short-term (0–6 hours) forecasting of thunderstorms, rain, hail, etc.
 - Uses Doppler Weather Radars (DWRs) to track: Rain cells, Storm movement, Lightning activity, Widely used in urban and airport meteorology.

Major challenges to weather forecasting:

- **Complexity of the Atmosphere:** The atmosphere is a chaotic, non-linear system, meaning small changes in one variable can lead to huge differences in outcomes (the butterfly effect). Forecasts become less reliable the farther out they go in time—especially beyond 7–10 days.
- **Incomplete and Uneven Observational Data:** Sparse or low-quality data in certain regions (e.g. oceans, remote mountains, conflict zones) leads to less accurate inputs. Developing countries often lack enough Doppler radars, weather stations, or high-resolution satellite access.
- **Limitations of Forecast Models:** Models rely on assumptions and simplifications of real-world physics. Resolution limits (grid sizes like 12 km or more) mean small-scale features like thunderstorms or tornadoes can be missed or poorly represented. Errors in initial conditions or boundary data can grow over time, reducing accuracy.
- **Time Constraints for Real-Time Forecasting:** Accurate forecasts need to be delivered quickly, often within a few hours. Processing massive data through supercomputers (like India's "Arka") takes time, and delays can render forecasts obsolete.
- **Difficulty in Predicting Extreme Events:** Events like cloudbursts, flash floods, hailstorms, urban heatwaves, and lightning are highly localized and fast-evolving. Forecasting such events with high spatial and temporal precision is still a global challenge.

Conclusion:

- In a country where over 60% of the population depends on weather-sensitive sectors like agriculture, and where extreme weather events are becoming more frequent, BFS is more than just a technological upgrade—it is a tool for climate resilience, rural empowerment, and disaster risk reduction.
- By embracing home-grown innovation, India reduces its dependency on foreign models and affirms its capability to lead on the global meteorological stage. The system empowers farmers, supports smart urban planning, strengthens early warning systems, and brings forecasting down to the level of villages and panchayats.
- ***"Forecasting the future is not about prediction—it's about preparation."* — Dr. Mrutyunjay Mohapatra, DG, IMD**

Mains questions for practice:

- "The Bharat Forecasting System represents a paradigm shift in India's weather prediction capabilities." Discuss its significance for disaster preparedness, agriculture, and climate resilience. (10 Marks, 150 words)

PRAYAAS Shorts- UPSC & MPSC

1. Impeachment Process of Judges in India

Context:

- The Union Parliamentary Affairs Minister stated that **more than 100 Members of Parliament (MPs) have endorsed a notice to initiate impeachment proceedings** against **Justice Yashwant Varma**.

About: Impeachment Process of Judges in India

- Constitutional Provision:** Mentioned under Article 124(4) & (5) for Supreme Court judges; applicable to High Court judges under Article 217 read with Article 124.
- Grounds:** Proven misbehaviour or incapacity.
- Initiation:** Motion can be introduced in either House of Parliament, supported by at least 100 MPs in Lok Sabha or 50 MPs in Rajya Sabha.
- Inquiry Committee:** After admission, the Speaker/Chairman forms a 3-member committee — a Supreme Court judge, a High Court Chief Justice, and a distinguished jurist — to investigate charges.
- Parliamentary Approval:** If the committee finds the judge guilty, each House must pass the motion by special majority —
 - Majority of total membership, and
 - Majority of not less than two-thirds of members present and voting.
- Presidential Action:** Once both Houses pass the motion, the President issues an order for removal.
- Notable Case:** Justice V. Ramaswami (1993) motion failed in Lok Sabha despite proven charges due to lack of required majority.

2. 75 Years of National Sample Survey (NSS)

Context:

- The National Sample Survey (NSS) is celebrating its 75th year with the theme **"NSS – A Glorious Past to a Promising Future for a Viksit Bharat."**

About National Sample Survey (NSS)

- Established in 1950 by statistician **P.C. Mahalanobis**.
- Collects nationwide economic and social data using random sampling methods.
- Functions under the Ministry of Statistics and Programme Implementation (MoSPI).
- Currently, NSS functions as a survey division within **NSO** since the 2019 reorganisation.
- Headed by a Director General responsible for large-scale sample surveys on an all-India basis.

2.1 National Statistical Office (NSO)

- Formed in 2019 by merging the National Sample Survey Office (NSSO) and the Central Statistics Office (CSO).
- Responsible for coordinating and maintaining statistical standards across government agencies.
- Conducts large-scale socio-economic surveys, including the Periodic Labour Force Survey (PLFS) and Annual Survey of Industries (ASI).
- Prepares and releases key economic indicators such as the Gross Domestic Product (GDP), Index of Industrial Production (IIP), and Consumer Price Index (CPI).
- Publishes the National Accounts Statistics and various statistical reports for policymaking and research.

2.2 About: P.C. Mahalanobis

- Renowned Indian statistician and founder of the Indian Statistical Institute (ISI).
- Architect of India's Second Five-Year Plan (emphasised heavy industries).
- Developed the Mahalanobis Distance — a statistical measure widely used in classification and cluster analysis.
- Pioneer in introducing large-scale sample surveys in India through the NSS.

3. Kamchatka Peninsula



Context:

- Recently, five earthquakes struck near the east coast of the Kamchatka Peninsula in Russia, a tectonically active region, with the strongest measuring 7.4 in magnitude.

About: Kamchatka Peninsula

- Located on the Pacific Ring of Fire, between the Sea of Okhotsk (west) and the Pacific Ocean & Bering Sea (east).

- Situated at the junction of the Pacific and North American tectonic plates, making it a highly active seismic zone.
- Features two main mountain ranges: Sredinny and Vostochny.
- Drained by the Kamchatka River, the primary waterway of the region.
- Known for significant volcanic and geothermal activity, hosting the Volcanoes of Kamchatka, a UNESCO World Heritage Site.

4. 1,000 Years of Rajendra Chola I's Maritime Expedition

Context:

- The Ministry of Culture is celebrating the Aadi Thiruvathirai Festival to mark the 1,000th anniversary of Rajendra Chola I's maritime expedition to Southeast Asia.

About: Aadi Thiruvathirai Festival & Nayanar Bhakti Tradition

- Aadi Thiruvathirai is a traditional Tamil festival celebrated in the month of Aadi (July–August) on the day when the Thiruvathirai (Ardra) star rises.
- The festival also honours the Tamil Shaiva Bhakti traditions, especially the 63 Nayanars, saint-poets supported by the Chola dynasty.
- Dedicated to Lord Shiva in his Nataraja (cosmic dancer) form, symbolising the rhythm of the universe.
- Special rituals and processions are conducted in temples such as the Chidambaram Nataraja Temple.
- These Shaivite saint-poets lived between the 6th and 8th centuries CE and spread devotion to Lord Shiva through hymns and songs.
- Their works are compiled in the **Tirumurai**, the sacred Tamil Shaivite canon.
- The Chola rulers, particularly Rajaraja Chola I and Rajendra Chola I, greatly patronised the Nayanar tradition, building temples and promoting Shaiva worship.

4.1 About: Chola Empire

- **Capital:** Thanjavur.
- **Major Rulers:** Rajaraja Chola I, Rajendra Chola I.
- **Naval Expeditions:** Rajendra Chola, I launched India's first major overseas naval expedition (~1025 CE) against the Srivijaya Empire in Southeast Asia.
- **Temples:** Built the **Brihadisvara Temple** (Thanjavur) – UNESCO World Heritage Site.
- **Administration:** Advanced revenue system, local self-governance through Sabhas, Ur, and Nadu.
- **Art & Culture:** Bronze sculpture, Tamil literature, and temple architecture thrived under their patronage.

5. NASA-ISRO Synthetic Aperture Radar (NISAR) Satellite

Context:

- NISAR, the first joint Earth-observation satellite by NASA and ISRO, launched on July 30 at 5:40 p.m. aboard GSLV-F16 from Satish Dhawan Space Centre, Sriharikota.

About: NASA-ISRO Synthetic Aperture Radar (NISAR) Satellite

- Joint Earth-observation mission by NASA and ISRO.
- Mission life of 3 years with advanced radar imaging capability.
- Orbits Earth at 747 km in Sun-Synchronous Low Earth Orbit with a 12-day repeat cycle.
- World's first radar imaging satellite using dual frequencies – S-band and L-band.
- **Launch mass:** ~2800 kg.
- Equipped with a 12-meter antenna and advanced **Synthetic Aperture Radar (SAR)**.
- Sweep SAR technology provides 242 km wide swath high-resolution 3D images.
- SAR uses microwave pulses to capture images even in darkness or cloudy conditions.
- **Key Applications:**
 - Detects minute ground shifts for tectonic and infrastructure studies.
 - Provides all-weather, day-night imaging.
 - Maps and assesses disasters like earthquakes, floods, landslides, volcanoes.
 - Monitors glaciers and ice sheets for sea-level rise projections.
 - Tracks biomass, deforestation, crop health, and soil moisture in agro-ecosystems.

5.1 Synthetic Aperture Radar (SAR)

- A remote sensing technology that uses microwave radar signals instead of visible light.
- Emits microwave pulses towards Earth and records the echoes reflected back from surfaces.
- Can produce high-resolution images regardless of day/night or weather conditions.
- Works effectively in cloud cover, rain, smoke, and darkness.
- "Synthetic Aperture" refers to combining multiple radar signals along the satellite's path to create a larger effective antenna and improve resolution.
- Used for mapping terrain, measuring surface deformation, and monitoring environmental changes.

5.2 Geosynchronous Satellite Launch Vehicle (GSLV)

- An indigenous launch vehicle developed by ISRO to place satellites into Geosynchronous Transfer Orbit (GTO) and Low Earth Orbit (LEO).
- Capable of launching communication satellites, weather satellites, and certain Earth observation satellites.
- Uses a three-stage configuration — solid rocket motor (first stage), liquid-fuel engines (second stage), and cryogenic upper stage (third stage).
- Cryogenic stage uses liquid hydrogen (LH₂) and liquid oxygen (LOX) for higher efficiency.
- Variants include GSLV Mk I, Mk II, and Mk III (now called LVM3).

6. Codex Alimentarius Commission (CAC)

Context:

- In the 88th session of the Executive Committee of the Codex Alimentarius Commission (CCEXEC 88), held at the FAO Headquarters in Rome, India's role in global food standard development was appreciated.

About

- International body for setting food standards.
- Established in May 1963 jointly by the Food and Agriculture Organization (FAO) and the World Health Organization (WHO).
- **Objective:** Protect consumers' health and ensure fair practices in the food trade.
- **Headquarters:** Rome, Italy.
- **Funding:** Programme funded through regular budgets of FAO and WHO, subject to approval by their governing bodies.
- **Membership:**
 - Open to all Member Nations and Associate Members of FAO and WHO interested in international food standards.
 - Currently 189 members — 188 countries + 1 Member Organization (European Union).
- **India's Membership:** Joined in 1964.

7. Global Wetland Outlook (GWO) 2025

Context:

- The Global Wetland Outlook (GWO) 2025, released by the Secretariat of the Ramsar Convention (1971), highlights that Africa's wetlands are among the most degraded in the world.

Key Takeaways from Global Wetland Outlook 2025

- Wetlands (seagrass, kelp forests, coral reefs, estuarine waters, salt marshes, mangroves, tidal flats, lakes, rivers, streams, inland marshes, swamps, peatlands) cover ~1,800 million hectares globally.
- Since 1970, 411 million hectares of wetlands have been lost (22% decline, average annual loss rate - 0.52%).
- Worst degradation in Africa, Latin America, and the Caribbean; ecological deterioration also rising in Europe, North America, and Oceania.
- Wetlands in Least Developed Countries (LDCs) are in worst condition; upper-middle-income and developed countries have more wetlands in good condition.
- In some African countries, over 60% of GDP comes from nature-based sectors.

7.1 About Ramsar Convention

- Intergovernmental treaty adopted in 1971 at Ramsar, Iran; came into force in 1975.
- **Aim:** Conservation and wise use of wetlands through local, regional, and national action.
- **Secretariat:** Hosted by the International Union for Conservation of Nature (IUCN) in Gland, Switzerland.
- India became a signatory in 1982.
- Designates Ramsar Sites (wetlands of international importance).
- As of 2025, India currently has 91 Ramsar sites, also known as Wetlands of International Importance, covering over 1.3 million hectares across 23 states and union territories

8. United Nations Educational, Scientific and Cultural Organization (UNESCO)

Context:

- The United States announced its decision to withdraw from the United Nations Educational, Scientific and Cultural Organization (UNESCO), just two years after rejoining in 2023, citing alleged bias against Israel.

About United Nations Educational, Scientific and Cultural Organization (UNESCO)

- Specialized agency of the United Nations established in 1945.
- Headquarters: Paris, France.
- Objective: Promote international cooperation in education, science, culture, and communication.
- **Key Functions:**
 - Designates World Heritage Sites of cultural and natural importance.
 - Promotes freedom of expression and media development.

- Supports global education initiatives (e.g., Education for All, SDG 4).
- Encourages cultural diversity and protection of cultural heritage.
- **Membership:** Open to all UN Member States; currently has 194 members.
- India is Founding member of UNESCO.

9. Hornbill Conservation Centre

Context:



- The Tamil Nadu government has announced the establishment of India’s first Centre of Excellence for Hornbill Conservation at the Anamalai Tiger Reserve (ATR).

About

- Focus on conserving four Western Ghats species: Great Hornbill, Malabar Grey Hornbill, Malabar Pied Hornbill, and Indian Grey Hornbill.
- Expansion to include Kalakkad Mundanthurai Tiger Reserve, Sathyamangalam Tiger Reserve, and parts of Kanyakumari.
- Part of Tamil Nadu’s broader conservation strategy after initiatives like Dugong Conservation Reserve, Nilgiri Tahr Project, Slender Loris Conservation Centre, and AI-powered elephant conservation.

About Hornbills

- Large, wide-ranging, fruit-eating birds inhabiting tropical forests with tall trees.
- Notable features: Large curved beaks, booming calls, distinctive wing beats.
- Breeding behaviour: Female seals herself inside a tree cavity; male feeds her through a narrow slit.
- **Ecological role:** Vital seed dispersers (nicknamed “farmers of the forest”), functioning as keystone species in forest ecosystems.
- **India has 9 hornbill species, with 4 in the Western Ghats.**

Hornbill Species	IUCN Status
Indian Grey Hornbill	Least Concern
Malabar Grey Hornbill	Vulnerable
Malabar Pied Hornbill	Near Threatened
Great Hornbill	Vulnerable
Narcondam Hornbill	Vulnerable
Rufous-necked Hornbill	Vulnerable
Wreathed Hornbill	Near Threatened
Oriental Pied Hornbill	Least Concern

10. AdFalcivax

Context:

- India is developing a Multi-Stage Malaria Vaccine Candidate named AdFalcivax, aimed at protecting against infection and reducing community transmission of Plasmodium falciparum.

About AdFalcivax

- First indigenous recombinant chimeric malaria vaccine targeting two critical stages of **Plasmodium falciparum** -the deadliest malaria parasite.
- **Developed jointly by the Indian Council of Medical Research (ICMR) and the Department of Biotechnology–National Institute of Immunology (DBT-NII).**
- Demonstrated excellent efficacy in preclinical trials.
- Designed to both prevent human infection and reduce vector-borne community transmission.
- Aligns with the Make in India initiative for self-reliance in vaccine development.
- ICMR plans to license technology to eligible organizations for further development, manufacturing, and commercialization under non-exclusive agreements.
- Currently in the early R&D phase, not yet available for clinical use or commercial sale.

11. Financial Inclusion Index (FI-Index) 2025

Context:

- The Reserve Bank of India (RBI) announced that the Financial Inclusion Index (FI-Index) for 2025 has improved to 67%, up from 64.2% in FY 2024.

Recent Highlights:

- **Usage-led Growth:** Rise in digital payments, credit uptake, and insurance penetration.
- **Quality Gains:** Better service delivery and stronger grievance redressal systems improved the quality score.

About Financial Inclusion Index (FI-Index)

- **Aim:** Measures the extent of financial inclusion across India.
- The FI-Index measures financial inclusion on a scale of 0 (exclusion) to 100 (full inclusion) and is released annually in July.
- Parameters: Access (35%), Usage (45%), and Quality (20%).
- No designated base year; reflects cumulative efforts over time.
- Developed by the RBI with inputs from multiple stakeholders.
- **Other important reports and indices released by RBI** include the Financial Stability Report (FSR), Report on Trend and Progress of Banking in India, Monetary Policy Report, and Handbook of Statistics on the Indian Economy.

12. AI for India 2.0 Programme

Context:

- The AI for India 2.0 Programme was launched on **15 July 2023 on World Youth Skills Day**.

About AI for India 2.0 Programme

- Provides free online training in Artificial Intelligence (AI) and Machine Learning (ML).
- **Focus on vernacular accessibility** : content available in nine Indian languages (e.g., Hindi, Telugu, Kannada).
- Target group: College students, fresh graduates, and early-career professionals, especially from rural and non-English-speaking backgrounds.
- Offers expert-curated Python courses to empower youth with tech skills.
- Delivered through a tech platform enabling nationwide accessibility.
- Courses carry nationally accredited recognition.

13. Pradhan Mantri Surya Ghar Muft Bijli Yojana

Context:

- The Union Ministry of New and Renewable Energy (MNRE) informed Parliament that the Pradhan Mantri Surya Ghar Muft Bijli Yojana has benefitted 15.45 lakh households.

About PM Surya Ghar Muft Bijli Yojana

- Launched on 15 February 2024 to provide free electricity to households through rooftop solar panels.
- **Subsidy Structure:**
 - 60% of solar unit cost for systems up to 2 kW.

- 40% of additional cost for systems between 2–3 kW.
- Subsidy capped at 3 kW.
- **At benchmark prices:** ₹30,000 for 1 kW, ₹60,000 for 2 kW, ₹78,000 for 3 kW or higher.
- **Special category states:** Additional 10% subsidy per kW.

• Benefits:

- Target to help 1 crore families get up to 300 units free electricity/month.
- Annual household saving: up to ₹18,000.
- Estimated annual saving for government: ₹75,000 crore.
- Promotes renewable energy use and reduces carbon emissions.

• Implementation Timeline & Outlay:

- Outlay: ₹75,021 crore.
- Implementation till FY 2026–27.

• Eligibility:

- Indian citizen owning a house with a suitable roof.
- Valid electricity connection.
- Not availed other solar panel subsidies.

• Implementation Agencies:

- National Programme Implementation Agency (NPIA) at central level.
- State Implementation Agencies (SIAs) — DISCOMs responsible for net meter provision, inspection, and commissioning.

14. Kala Utsav 2025

Context:

- Artists of Sohrai (Jharkhand), Pattachitra (Odisha), and Patua (West Bengal) participated in the 2nd edition of Kala Utsav 2025 – 'Artists in Residence Programme' at Rashtrapati Bhavan.

About

- First edition (May 2025) featured Madhubani artists from Bihar and Gond artists from Madhya Pradesh.
- Kala Utsav 2025 is an event organized by the Ministry of Education, Government of India, showcasing the artistic talents of secondary school students.
- It's a platform to foster creativity, cultural diversity, and the spirit of "Ek Bharat, Shreshtha Bharat".
- The event features various art forms like music, dance, and visual arts. Kala Utsav 2025 also includes an "Artists in Residence Programme" at Rashtrapati Bhavan, where artists from different regions present their work.

14.1 Sohrai Painting

- Tribal mural art painted mainly by women to mark cattle worship and harvest celebrations.
- Practised by indigenous communities in Jharkhand.

- Linked to prehistoric Karanpura Valley cave art (7000–400 BC).



- Associated with the Sohrai harvest festival, celebrated after Diwali.
- Technique: Walls coated with clay; motifs drawn with fingers/sticks using earth pigments.
- Common motifs: Peacocks, bulls, forests, fertility symbols linked to animistic beliefs.
- **GI Tag:** Sohrai-Khoovar painting received GI tag in 2020.

14.2 Pattachitra



- Traditional cloth-based scroll painting (Patta = cloth, Chitra = picture).
- Practised in Odisha and West Bengal.
- Originated in 5th–12th century CE, associated with Jagannath worship in Puri.
- Known for bold lines, intricate mythological details, and lacquered finish.
- **GI Tag:** Odisha Pattachitra (2008), Bengal Patachitra (2018).

14.3 Patua Art

- Traditional scroll painting performed with Patua Sangeet (songs) as scrolls are unrolled.
- Practised in West Bengal, Bihar, Jharkhand, Odisha, and parts of Bangladesh.
- Evolved from Mangal Kavya traditions post-13th century CE.



- Cultural syncretism: Many Patua artists are Muslims depicting Hindu epics neutrally.
- Modern themes include social and political issues using poster paints and stitched paper.
- **GI Tag:** Bengal Patachitra, including Patua tradition, awarded GI tag in 2018.

15. Exercise Bold Kurukshetra 2025

Context:

- The 14th edition of Exercise Bold Kurukshetra 2025 commenced between the Indian Army and Singapore Army, focusing on joint operational procedures in mechanised warfare.

About

- **Location:** Jodhpur Military Station, Rajasthan.
- **Format:** Tabletop exercise and computer-simulated wargame.
- **Aim:** Test interoperability and coordination in mechanised warfare scenarios.
- **Significance:**
 - Strengthens India–Singapore defence cooperation.
 - Enhances regional security collaboration in the Indo-Pacific.

16. UN's State of Food Security and Nutrition in the World (SOFI) Report 2025

Context:

- The UN's State of Food Security and Nutrition in the World (SOFI) 2025 report highlights that India continues to face high levels of child wasting, stunting, and anaemia, despite a decline in undernourishment rates.

About SOFI Report

- Flagship UN publication jointly released by FAO, IFAD, UNICEF, WFP, and WHO.
- Tracks progress towards SDG 2: Zero Hunger.

- Key Indicators: Wasting, stunting, anaemia, hunger, and food insecurity.
- Data based on national surveys and UN nutrition databases.

Key Findings – India

- **Wasting:** Highest global rate at 18.7%, affecting 21 million children.
- **Stunting:** 37.4 million stunted children under five.
- **Anaemia:** 53.7% of women aged 15–49 (203 million) are anaemic.
- **Undernourishment:** 172 million undernourished (down from 243 million).

16.1 Key Terms

- **Stunting:** Low height-for-age in children, indicating chronic undernutrition.
- **Wasting:** Low weight-for-height in children, reflecting acute undernutrition.
- **Anaemia:** Condition marked by low haemoglobin levels, reducing the blood's oxygen-carrying capacity.

17. Great Indian Bustard

Context:



- A Supreme Court-appointed expert committee has recommended designated power corridors for transmission lines in Great Indian Bustard (GIB) habitats in Gujarat and Rajasthan to reduce bird collision fatalities.

About Great Indian Bustard (GIB)

- **Scientific name:** Ardeotis nigriceps.
- One of the heaviest flying birds, found mainly in Rajasthan and Gujarat, with small populations in Maharashtra, Karnataka, and Andhra Pradesh.
- **Habitat:** Arid and semi-arid grasslands and scrublands.
- **IUCN Status:** Critically Endangered.
- **Wildlife Protection Act, 1972:** Schedule I species.

- **CITES:** Appendix I.
- Population: Fewer than 150 individuals left in the wild, mostly in Rajasthan's Desert National Park.
- **Threats:** Habitat loss, hunting, and collisions with power transmission lines.
- **Conservation Efforts:** Project Great Indian Bustard, captive breeding programmes, Supreme Court orders to underground power lines in core habitats.

18. Police Network (POLNET)

Context:

- India is upgrading the Police Network (POLNET), a secure satellite-based communication system for police and security forces, especially in remote and border areas.

About POLNET

- **Launch:** Introduced in 2002; nationwide commissioning in 2006.
- **Developed by:** Directorate of Coordination Police Wireless (DCPW), Ministry of Home Affairs.
- **Purpose:** Provides real-time, secure communication to police forces across India.

19. Organic Certification in India

Context:

- APEDA has refuted allegations regarding Organic Cotton Certifications in India.

About Organic Certification in India

- **National Programme for Organic Production (NPOP):**
 - Implemented by APEDA, Ministry of Commerce & Industry.
 - Covers accreditation of certification bodies, setting standards for organic production, promoting organic farming, and marketing.
 - NPOP standards for production and accreditation are recognised by the European Commission and Switzerland for unprocessed plant products as equivalent to their own standards.
- **Participatory Guarantee System (PGS-India) Certification:**
 - Community-based certification where producers inspect, verify, and certify each other's farms as organic.
 - Certification applies to the entire holding of the group, not just part of it.

20. Geelong Treaty

Context:

- Australia and the United Kingdom (UK) have signed the Geelong Treaty - a bilateral Nuclear-Powered

Submarine Partnership and Collaboration Treaty under AUKUS Pillar I.

About Geelong Treaty

- Establishes the legal framework for designing, building, operating, and maintaining nuclear-powered submarines under the AUKUS security pact.
- Part of AUKUS Pillar I, which focuses on providing Australia with conventionally armed, nuclear-powered submarines.
- Facilitates technology transfer, workforce training, and integration of UK and Australian defence industries.
- Enhances interoperability between Royal Australian Navy and Royal Navy.
- Supports Indo-Pacific security by boosting undersea warfare capabilities and deterring regional threats.

21. Global Specs 2030 Initiative

Context:

- The World Health Organization (WHO) has launched the Global Specs 2030 initiative.

About Global Specs 2030 Initiative

- Seeks to achieve universal access to affordable, quality, and safe eyeglasses by 2030.
- Addresses the global burden of uncorrected refractive errors, a major cause of vision impairment and preventable blindness.
- Promotes affordable manufacturing, distribution, and quality standards for spectacles.
- Integrates vision screening into primary healthcare systems.
- Strengthens local supply chains to reach underserved communities.
- Targets children, elderly, and populations in low- and middle-income countries with limited access to corrective eyewear.
- Implemented by WHO in collaboration with global partners, NGOs, and private sector stakeholders.

23. NASA's TRACER Mission

Context:

- NASA has launched its twin TRACERS satellites to study magnetic reconnection and how solar activity impacts the near-Earth atmosphere.

About TRACERS Mission

- Stands for Tandem Reconnection and Cusp Electrodynamics Reconnaissance Satellites.
- Aims to understand magnetic reconnection and its influence on Earth's atmosphere.
- Operates in low Earth orbit, passing through polar cusps — funnel-shaped openings in Earth's magnetic field.
- Studies how solar wind and charged particles from the Sun interact with Earth's magnetosphere.
- Expected to record data from over 3,000 reconnection events in its first year.
- Data will help improve space weather forecasting and protect satellites, astronauts, and GPS systems.

About: Magnetic Reconnection

- Occurs when solar wind collides with Earth's magnetic field, causing field lines to snap and release massive energy.
- Can accelerate particles to high speeds, creating auroras but also disrupting satellites, communication, and navigation systems.
- Polar cusp regions allow a direct pathway for solar wind into Earth's atmosphere, making them ideal for study.

24. Schengen Visa

Context:

- The European Commission has introduced a new "cascade" system for Schengen visas, enabling Indian travellers with a clean visa history to obtain fast-tracked, long-term multiple-entry visas.

About Schengen Visa

- A Schengen visa allows non-EU nationals to temporarily visit or transit through the Schengen Area, comprising 29 European countries with no internal border checks.
- Valid for up to 90 days within a 180-day period from the date of first entry.
- Issued for purposes such as tourism, business, family visits, medical treatment, and cultural/sporting events.
- Does not grant the right to work.
- **Schengen members include 25 EU states (excluding Cyprus and Ireland) and 4 EFTA states (Iceland, Liechtenstein, Norway, Switzerland).**

PRAYAAS Shorts- MPSC Specific

1. International News

1.1 The United States Withdraws from UNESCO

- On July 22, 2025, the U.S. State Department announced its intention to withdraw from the United Nations Educational, Scientific and Cultural Organization (UNESCO)—with the exit effective December 31, 2026.
- This **marks the third time the U.S. has exited UNESCO**: previously in 1984, and again in 2018, both under President Trump's leadership; it had rejoined in 2023 during President Joe Biden's term.
- Key Reasons for Withdrawal**: - Ideological Non-Alignment

About United Nations Educational, Scientific and Cultural Organization (UNESCO):

- Established - 1945
- Headquarters - Paris, France
- Director-General (DG) - Audrey Azoulay

2. National News

2.1 India hits 20% ethanol blending in petrol 5 years ahead of target

- India has successfully achieved 20% ethanol blending in **petrol in 2025, five years ahead of its original target set for 2030.**
- India has saved approximately ₹1.36 lakh crore in foreign exchange by reducing its dependency on imported crude oil.
- The increased use of ethanol-blended petrol has helped reduce carbon dioxide emissions.

2.2 Gyan Bharatam Mission

- Prime Minister Narendra Modi announced the Gyan Bharatam Mission during the 124th episode of his Mann Ki Baat on July 27, 2025.
- The **mission transforms the existing National Mission for Manuscripts into a broader initiative for nationwide digitization and preservation.**
- Aims to digitize over 1 crore manuscripts preserved in libraries, academic institutions, museums, and private collections across India.
- Create a **National Digital Repository (NDR) for global access** to digitized manuscripts.
- Scholars refer to these manuscripts as the "chapters of India's soul," reflecting their cultural and civilizational significance.

3. Maharashtra

3.1 Krishi Samruddhi scheme

- The Maharashtra Government, on 23 July 2025, announced a new scheme aimed at empowering farmers and promoting climate resilient, sustainable, and cost-effective farming practices.
- The 'Krishi Samruddhi' scheme will be **implemented by the agriculture department over the next five years with a cumulative outlay of Rs 25,000 crore.**
- It aims to empower farmers by providing financial assistance for technology adoption, soil health improvement, water-use efficiency, and post-harvest value addition, and providing training and extension services for best practices.

3.2 Maharashtra's first glass bridge opens over Napne waterfall in Sindhudurg

- Napne Glass Bridge was inaugurated on 22 July 2025 by Maharashtra Minister Nitesh Rane, under the Sindhuratna tourism scheme.
- Length: ~22 m, Width: ~2 m.**
- Built with high-strength transparent glass panels, featuring colourful arch-style railings and a butterfly sculpture at the entrance a major selfie spot.

4. Award

4.1 Lokmanya Tilak National Award

- Union Minister for Road Transport and Highways Nitin Gadkari will be conferred with this year's Lokmanya Tilak National Award, it was announced on Wednesday, 23 July 2025.
- Award Ceremony: August 1, 2025 – marks the 105th death anniversary of Lokmanya Bal Gangadhar Tilak
- Award Components: Memento, Citation, and ₹1 lakh cash prize

Previous Recipients:

- 2023 – PM Narendra Modi
- 2024 – Author and MP Sudha Murty
- First recipient: Socialist leader S. M. Joshi

5. Defence

5.1 Apache helicopters

- The Indian Army has announced that it has received the first batch of three AH-64E Apache attack helicopters from the United States, marking a significant enhancement to its combat capabilities.

About AH-64E Apache Helicopters:

- The AH-64E is the most advanced version of the Apache attack helicopter series, **developed by**

Boeing. The helicopters were **transported from the USA** aboard a Soviet origin AN-124 cargo aircraft.

- It is known for its lethality, survivability, and advanced battlefield capabilities. **It is also known as "flying tanks" or "tanks in the air".**

5.2 Exercise Bold Kurukshetra 2025

- The 14th edition of the India–Singapore Joint Military Exercise, Exercise Bold Kurukshetra 2025, is set to commence today at Jodhpur and will continue till 04 August 2025.

6. Important Day

6.1 Kargil Vijay Diwas – 26 July 2025

- Every year on July 26th, India commemorates Kargil Vijay Diwas, a day dedicated to honouring the courage and sacrifice of Indian soldiers who bravely fought and laid down their lives during the Kargil War in 1999.

- This significant military victory, known as Operation Vijay, marked the successful defence against Pakistani forces that had intruded into Indian territory across the Line of Control (LoC) in the Kargil district of Jammu and Kashmir.

6.2 International Tiger Day – 29 July 2025

- International Tiger Day is **celebrated on July 29 every year**. This day is dedicated to identifying and promoting global efforts taken to protect the tiger.
- The **history of Global Tiger Day dates back to 2010**. During a summit held in **St. Petersburg**, the governments from tiger range countries came together and decided to **double the wild tiger population by 2022**.

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