



INSIGHTSIAS

SIMPLIFYING IAS EXAM PREPARATION

RHINOS

WORLD RHINO DAY 2024, THE STATUS OF THE WORLD'S FIVE RHINO SPECIES PRESENTS A MIXED OUTLOOK.



23 SEP - 28 SEP 2024

WEEKLY CURRENT AFFAIRS

WWW.INSIGHTSONINDIA.COM

INSIDE

GENERAL STUDIES – 1

Topics: Indian culture will cover the salient aspects of Art Forms, Literature and Architecture from ancient to modern times.

1. 100 Years of Rediscovery: Unveiling the Indus Valley Civilization 4

Topics: The Freedom Struggle – its various stages and important contributors /contributions from different parts of the country.

2. Bhagat Singh 7

GENERAL STUDIES – 2

Topics: Structure, organization and functioning of the Executive and the Judiciary; Ministries and Departments of the Government; pressure groups and formal/informal associations and their role in the Polity.

1. Custodial Death Judgement 8

Topics: India and its neighbourhood- relations.

2. LAC issue 8
3. South China Sea 9

Topics: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

4. India's Power Play at the Quad Summit 11

Topics: Important International institutions, agencies and fora, their structure, mandate.

5. UN Summit of the Future 2024 13

GENERAL STUDIES – 3

Topics: Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.

1. China Shock 2.0 14

Topics: Conservation related issues, environmental pollu-

tion and degradation, environmental impact assessment.

2. Project Cheetah 16
3. Air Pollution 16

Topics: Disaster and management.

4. 5 years of Coalition for Disaster Resilient Infrastructure (CDRI) 18
5. Urban Flooding 19

Topics: Challenges to internal security through communication networks, role of media and social networking sites in internal security challenges, basics of cyber security; money-laundering and its prevention.

6. Safeguarding the Future: The Imperative for a National Security Strategy (NSS) 20

GENERAL STUDIES – 4

7. Driven to Death: The Hidden Perils of Overwork 22

CONTENT FOR MAINS ENRICHMENT

1. "Kavach" centres: To prevent high rate of child drownings 23
2. Travel: A Key to Slowing Down Aging 23
3. Dr. Mary Poonen Lukose 24
4. Sanju Devi's Journey to Sanitation in Patna 24
5. MoRTH Promotes Use of Urban Waste in Highway Construction 24
6. Francesca Gino 25
7. Kolkata's RG Kar Medical College Hospital Probe 25
8. Unethical Hacking 25
9. 'Ratri Sathi' initiative 25
10. CJI speech at M.K. Nambyar Memorial Lecture 26
11. CDSCO Drug Alert 26
12. BrahMos Aerospace 27
13. Trial of Dominique Pelicot 27

FACTS FOR PRELIMS

GS-1

Art & Culture

1. SASTRA Ramanujan Prize 28

GS-2

Functioning of Parliament and State Legislatures

2. Lokayukta 28
3. Clause 6 of the Assam Accord 28
4. Eastern Rajasthan Canal Project (ERCP) 29
5. Fact-Check Unit 29

International Relations

6. Cancer Moonshot Initiative 29
7. SCO 30

Governance

8. The Food Import Rejection Alert portal 30
9. International Chess Federation (FIDE) Chess Olympiad 30
10. Periodic Labour Force Survey (PLFS) 30
11. Child Sexual Exploitative and Abuse Material 31
12. UNSC Reform 31

GS-3

Indian Economy

13. Minerals Security Finance Network 32
14. T+0 Settlement 32
15. Production Linked Incentive 32
16. Global Innovation Index 33
17. Paryatan Mitra & Paryatan Didi 33

Agriculture

18. 100 years of ICAR-NISA 34

Science & Technology

19. Nanozymes 34
20. Sustainable Aviation Fuels 34

21. Computer security incident response team – power (csirt-power) 34
22. PARAM Rudra 35
23. Semiconductor Fabrication Plant 35
24. First Mission to Venus 35

Environment & Ecology

25. International Big Cat Alliance (IBCA) 36
26. Wildlife Habitats Development Scheme 36
27. Rhinos 36
28. CAQM 37

Internal security

29. Unlawful Activities (Prevention) Act (UAPA) 37
30. GlobE Network 37

Defence

31. DF-41 38
32. DRDO Deep Technology Initiative 38
33. ABHED Jackets 38
34. Army Weapons Stock 38

MAPPING

INTERNATIONAL

1. Sri Lanka's New president Anura Kumara Dissanayake 39
2. Lebanon 40

INDIAN

3. Vizhinjam International Seaport 41

GENERAL STUDIES – 1

Topics: Indian culture will cover the salient aspects of Art Forms, Literature and Architecture from ancient to modern times.

1. 100 YEARS OF REDISCOVERY: UNVEILING THE INDUS VALLEY CIVILIZATION

Context:

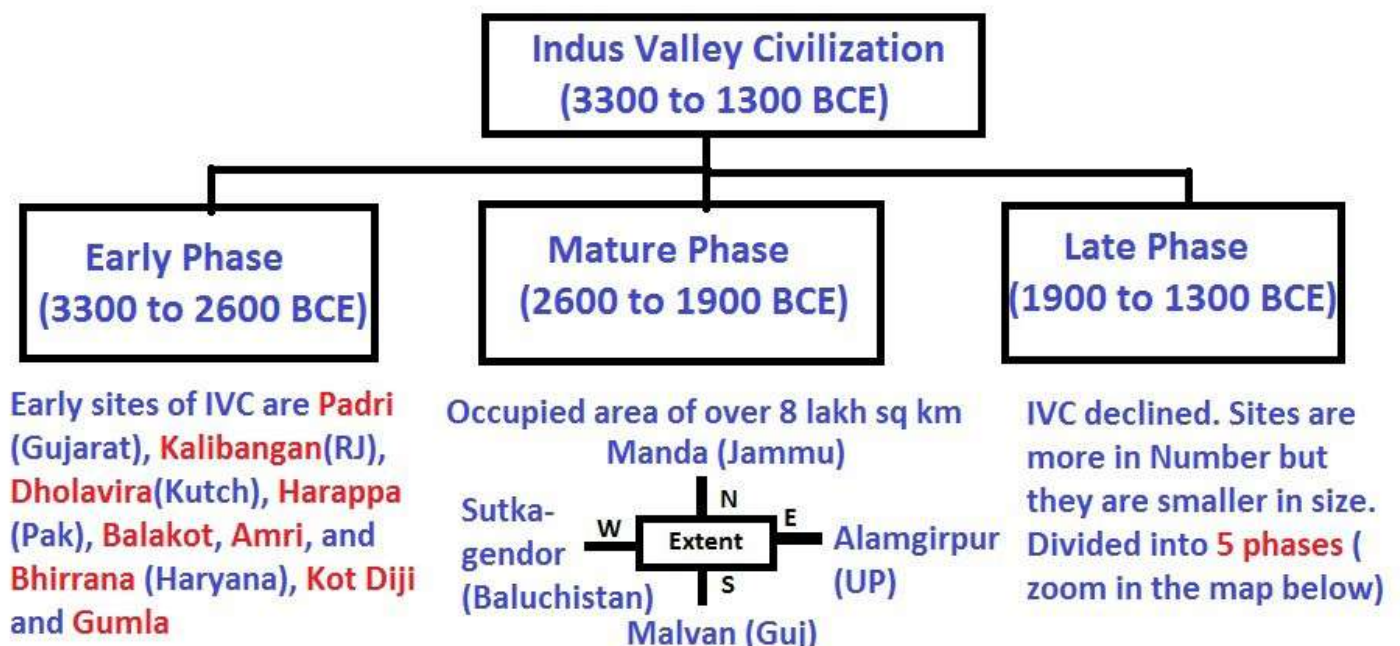
2024, marks the centenary of the discovery of the Indus Valley Civilization, spanning 2,000 sites across India, Pakistan, and Afghanistan.

A Lost Civilization Reborn – Harappan Civilisation

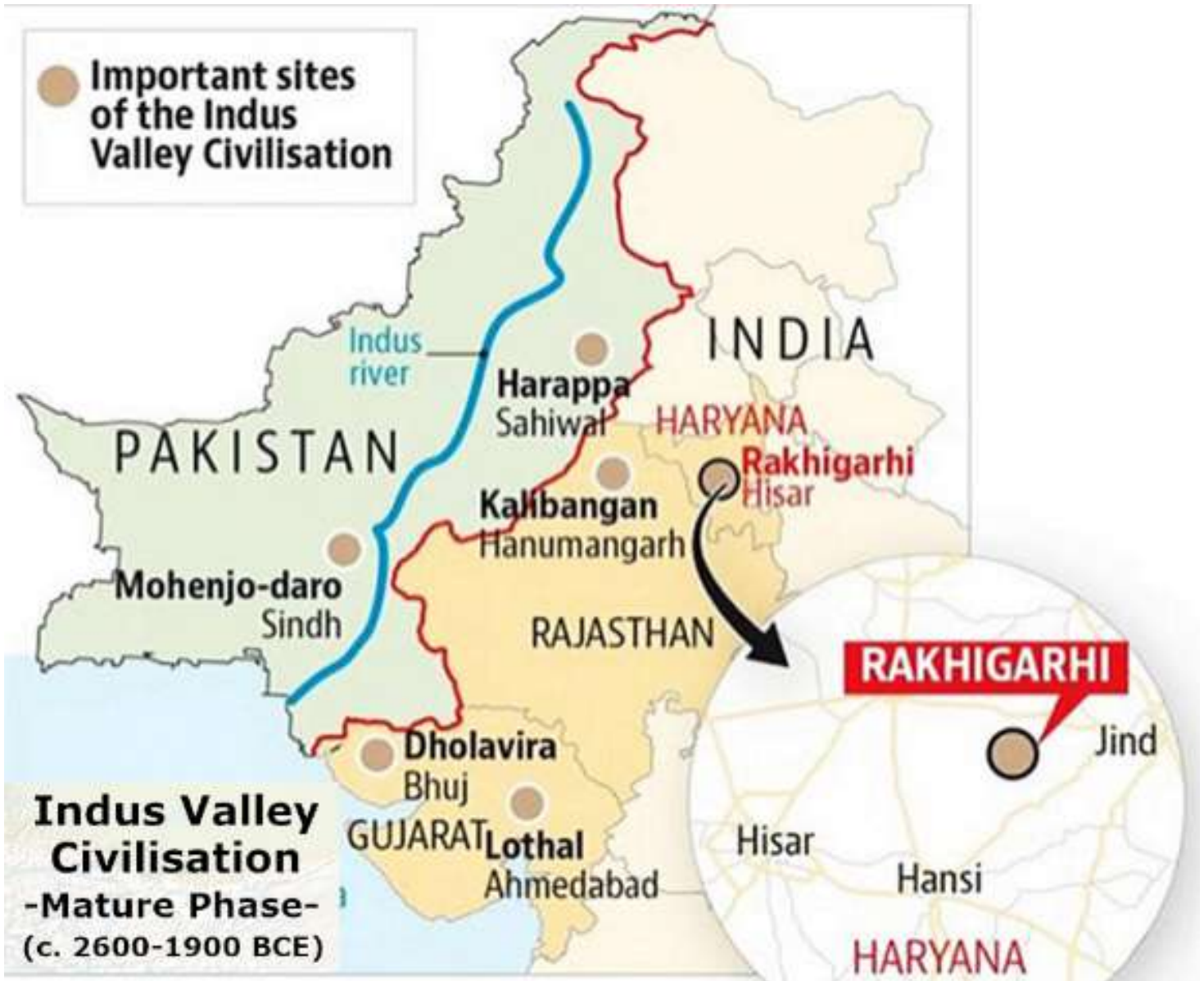
- First **announced by John Marshall in 1924**, this Bronze Age civilization, also known as the **Harappan civilization**, remains an enigma.
- Known for advanced town planning, metallurgy, and craftsmanship, its mysteries continue to captivate researchers.
- **Harappa and Mohenjo-daro were the first sites discovered by archaeologists Daya Ram Sahni and Rakhal Das Banerji.**
- The civilization thrived from **3200 BCE to 1500 BCE, with sites spread over 1.5 million sq. km.** Its contributions rival other ancient civilizations, filling gaps in South Asian history.
- However, much remains unknown, including the deciphering of its script and reasons for its decline.

Indus Valley Civilisation (IVC):

1. It was a Bronze Age civilisation in the northwestern regions of South Asia, lasting from 3300 BCE to 1300 BCE.
2. It is also known as the Harappan Civilisation, after Harappa (now in Pakistan) – the first of its sites to be excavated early in the 20th century.
3. It stretches over an area spanning northeast Afghanistan, much of Pakistan and western and north-western India.
4. It thrived in the Indus River basins and along a network of rivers that originally flowed near the ephemeral Ghaggar-Hakra river in northwest India and eastern Pakistan.
5. The civilisation is noted for its urban planning, baked brick houses, elaborate drainage and water supply systems, handicraft techniques (carnelian products, seal carving) and metallurgy (copper, bronze, lead and tin).



Important sites:



Decline: Climate change → weaker monsoons → reduced water supply → gradual drying of the soil → scattering of population eastward and southward.

Findings of the new study (by the University of Cambridge):

1. Droughts that began 4,200 years ago gripped the civilisation and went on for over two centuries.
2. The protracted droughts severely affected food systems and habitation patterns → forcing the people of the IVC to make systemic changes to adapt → a more self-reliant lifestyle.
3. They reorganised their large cities and moved towards the east of the region in smaller rural settlements.
4. They also had to make changes to their agricultural practices → relying more on drought-resilient crops such as millet.

Influence and lessons that can be derived from the urban planning and cultural aspects of IVC for present-day cities:

Aspect	Influence and Lessons for Present-Day Cities
City Planning	Present-day cities can focus on sustainable development, efficient land use, and robust infrastructure networks inspired by the systematic urban planning of the Indus Valley Civilization.
Sanitation Systems	Learning from the advanced sanitation systems of the Indus Valley, modern cities can prioritize well-designed sanitation systems, waste management, and access to clean water for public health.

Planned Neighbourhoods	Present-day cities can promote walkable neighbourhoods, mixed land-use planning, and public spaces to enhance community and social connectivity, taking inspiration from the planned neighbourhoods of the Indus Valley cities.
Cultural Diversity	Embracing cultural diversity , modern cities can create inclusive spaces, cultural events, and opportunities for dialogue among diverse communities, similar to the cultural diversity exhibited in the Indus Valley Civilization.
Environmental Awareness	Inspired by the environmental awareness of the Indus Valley, present-day cities can prioritize green spaces, sustainable transportation, and eco-friendly urban design to address environmental challenges and ensure a sustainable future.

Difference between the Indus Valley Civilization and other ancient civilizations:



Indus Valley Civilization



Indus Valley Civilisation differs from other ancient civilizations because inequality levels were far lower than in other civilizations. This was because the Indus, unlike the other rivers, changed its course often. This changed the structure of the society of the Indus Valley Civilization

Civilization	Indus Valley	Nile	Mesopotamia	Yellow River
Period	2600-1900 BCE	3100-1070 BCE	4000-2500 BCE	5000-3000 BCE
Location	South Asia (Pakistan and northwest India)	Northeast Africa (Egypt)	Middle East (Iraq and surrounding areas)	East Asia (China)
Key Cities	Harappa, Mohenjo-Daro	Memphis, Thebes	Ur, Uruk, Babylon	Anyang
Writing System	Undeciphered script	Hieroglyphics, hieratic script	Cuneiform	Oracle bone script
Religion	Polytheistic (mother goddess)	Polytheistic (emphasis on pharaoh as divine)	Polytheistic (emphasis on city-state patron deities)	Ancestor worship, with some evidence of shamanism and totemism
Architecture	Large, planned cities with brick buildings, public baths, and sewage systems	Pyramids , temples, and monumental tombs	Ziggurats , palaces, and monumental gates	Large walled cities with ceremonial architecture and burials of elite
Trade	Likely traded with Mesopotamia and Gulf region for luxury goods	Traded with Nubia, Levant, and Mesopotamia for luxury goods	Traded with Indus Valley and Persian Gulf region for luxury goods	Traded with Southeast Asia, Korea, and Japan for luxury goods
Decline	Unknown, potentially due to environmental factors or invasion	Conquered by foreign invaders and assimilated into larger empires	Declined due to political instability and invasion	Conquered and assimilated into larger empires

To know more Visit Insights IAS Daily Current Affairs

Insta Links:

IVC

Mains Links:

To what extent has the urban planning and culture of the Indus Valley Civilisation provided inputs to present-day urbanisation? Discuss. (UPSC 2014)

Prelims Links: UPSC 2013

Which of the following characterises/characterises the people of the Indus Valley Civilisation?

1. They possessed great palaces and temples
2. They worshipped both male and female deities.
3. They employed horse-drawn chariots in warfare.

Select the correct statement/statements using the codes given below.

1. 1 and 2 only
2. 2 only
3. 1, 2, and 3
4. None of the above

Ans: 2

[Topics: The Freedom Struggle – its various stages and important contributors /contributions from different parts of the country.](#)

2. BHAGAT SINGH

Context:

The article revisits the thoughts and writings of Bhagat Singh on his birth anniversary, focusing on his contributions as a revolutionary thinker. Bhagat Singh's works reflect a deep engagement with social, political, and philosophical issues, challenging the prevailing norms of his time.

Key Points:

1. **Multilingual Intellectual:**
2. Bhagat Singh wrote extensively in Urdu, Punjabi, Hindi, and English, displaying his linguistic versatility.
 - **Example:** In *The Problem of Punjab's Language and Script (1923)*, he emphasized the cultural and linguistic depth of the Punjabi language.
3. **Critique of Media and Communalism:**
4. Singh criticized the media for inciting communal tensions rather than promoting national unity.
 - **Example:** In *Communal Riots and their Solution (1928)*, he condemned journalists for exacerbating communal violence through sensationalist headlines.
5. **Students and Politics:**
6. He advocated for political awareness among students, arguing that education without political engagement was incomplete.
 - **Example:** In *Students and Politics (1928)*,

he encouraged students to be politically active and prepared to serve the nation.

7. Social Revolution and Untouchability:

8. Singh called for the empowerment of marginalized communities and social revolution to eliminate untouchability.

- **Example:** In *The Problem of Untouchability (1928)*, he urged the oppressed to unite and challenge the prevailing social order.

9. Revolutionary Ideology:

10. Bhagat Singh saw revolution as a continuous process of social change, not just a one-time overthrow of political power.

- **Example:** In *What is Revolution? (1929)*, he emphasized that revolution must bring about a complete societal transformation.

11. Atheism and Religion:

12. As an atheist, Singh believed organized religion hindered social progress and intellectual freedom.

- **Example:** In *Why I am an Atheist (1930)*, he challenged traditional faith and advocated for rationalism.

13. Human Spirit and Love:

14. Singh also wrote about the elevating nature of love and human spirit in personal development.

- **Example:** In his *letters to Sukhdev*, he spoke about how true love can inspire strength and resilience.

These writings reflect Bhagat Singh's intellectual depth and offer lessons for social justice, political engagement, and personal integrity.

Insta Links:

1. [Vision of Bhagat Singh](#)

PYQ:

1. Which of the following statements about Bhagat Singh is/are NOT true?

1. Bhagat Singh was influenced by socialist ideas.
2. He was a member of the Hindustan Socialist Republican Association.
3. Bhagat Singh threw a bomb in the Central Legislative Assembly in 1929 with the objective to kill as many people as possible.

Select the correct answer using the code given below: (UPSC-2019)

- a) 1 and 3
- b) 2 and 3
- c) 2 only
- d) 3 only

GENERAL STUDIES – 2

Topics: Structure, organization and functioning of the Executive and the Judiciary; Ministries and Departments of the Government; pressure groups and formal/informal associations and their role in the Polity.

1. CUSTODIAL DEATH JUDGEMENT

Context:

The Supreme Court has delivered a split verdict in an appeal by police officers convicted of culpable homicide not amounting to murder and other offences in a decades-old custodial death case for the alleged torture and death of a man in police custody in December 1995.

Judgement Summary:

1. The Supreme Court delivered a split verdict in a custodial death case, focusing on the conviction under **Section 304 (culpable homicide) of IPC.**
2. The key issue **revolved around identifying the body**, with differing views on whether the prosecution proved beyond a reasonable doubt that the deceased was the victim.
3. One opinion upheld convictions for custodial torture but acquitted the accused of culpable homicide due to **lack of conclusive identification.**
4. The ruling highlighted **concerns about police misconduct and the need for accountability** in cases involving custodial abuse.

About Custodial Death Overview & Data:

Negatives of Custodial Deaths:

1. **Human Rights Violations:** Custodial deaths represent gross violations of Article 21 of the Constitution (Right to Life), as seen in cases like the **Mathura custodial rape case (1972).**
2. **Erosion of Trust in Law Enforcement:** Incidents like **Jayaraj and Bennix's custodial deaths (2020)** undermine public confidence in the justice system.
3. **Excessive Force:** The use of third-degree methods during interrogation leads to physical and mental trauma, often going unpunished due to lack of accountability.
4. **Global Reputation:** India's extradition efforts are hampered as countries cite concerns over custodial torture (**e.g., Vijay Mallya's case**).

Measures to Combat Custodial Deaths:

1. **Strengthening Legal Systems:** Enact comprehensive laws criminalizing custodial torture, as per Supreme Court directives (**e.g., Prakash Singh case, 2006**).
2. **Police Reforms:** Separate law and order from in-

vestigation functions, and ensure human rights training for police officers.

3. **Technology Implementation:** Use body cameras and install mandatory CCTV cameras in all police stations for enhanced oversight.
4. **Oversight Mechanisms:** Expand the jurisdiction of the National Human Rights Commission (NHRC) to investigate custodial deaths, including those under armed forces' jurisdiction.
5. **Sensitization Programs:** Regular workshops on ethical treatment and custodial rights for law enforcement officers.

Conclusion:

Custodial deaths erode human dignity and legal trust. Reforms in policing, stronger oversight, and adherence to human rights principles are vital to upholding justice and ensuring the protection of individuals in custody.

Insta Links:

- [India's Criminal Justice System](#)

Mains Link:

Q. We are witnessing increasing instances of sexual violence against women in the country. Despite existing legal provisions against it, the number of such incidences is on the rise. Suggest some innovative measures to tackle this menace. (UPSC 2014)

Q. Mob violence is emerging as a serious law and order problem in India. By giving suitable examples, analyze the causes and consequences of such violence. (UPSC 2015)

Topics: India and its neighbourhood- relations.

2. LAC ISSUE

Context:

India and China are learnt to have made "significant progress" in narrowing their gap on pending issues along the Line of Actual Control (LAC) in eastern Ladakh.

Progress on LAC issue:

1. **Recent Diplomatic and Military Talks:** The 31st WMCC talks and upcoming Corps Commanders' meeting are key to finalizing troop redeployment and disengagement along the LAC. Both sides are discussing implementation details.
2. **Confidence-Building Measures and Troop Movements:** Local commanders are holding regular meetings to prevent clashes, with both sides on alert but avoiding confrontation. Redeployment of troops will be gradual, continuing winter stocking efforts.
3. **Infrastructure and Military Enhancements:** India is planning to raise the 72 Division by mid-

2024 for deployment in Ladakh, enhancing its military capabilities. Border infrastructure development continues to strengthen preparedness.

4. **Diplomatic Statements and Progress:** Statements from both sides indicate that 75% of disengagement issues have been resolved, with disengagement completed at four points. Further talks aim to achieve complete disengagement.
5. **Legacy Issues:** Long-standing disputes at Depsang Plains and Demchok persist, with Chinese troops blocking access to patrol points. Ongoing discussions are focused on resolving these legacy issues.

Background on LAC:

1. **LAC Definition:** The Line of Actual Control (LAC) separates Indian-controlled territory from Chinese-controlled territory.
2. **Sectors:** It is divided into three sectors—eastern (Arunachal Pradesh and Sikkim), middle (Uttarakhand and Himachal Pradesh), and western (Ladakh).
3. **Length Discrepancy:** India claims the LAC to be 3,488 km long, while China claims it is around 2,000 km long.

Timeline of LAC Developments:

Year	Event
1959	Chinese PM Zhou Enlai mentions LAC in letters to Indian PM Nehru.
1962	After the India-China war, China claims it withdrew 20 km behind the LAC.
1993	India formally accepts the LAC concept in a peace agreement with China.
2013	Depsang Plains standoff, where PLA incurs into Indian territory.
2017	Doklam crisis, China refers to the "1959 LAC" during the standoff.
2020	Major standoffs in Galwan Valley and other areas, disengagement efforts start.
2022	Both sides disengage at PP-15 in Gogra-Hot Springs.

Differences Between India and China on LAC:

1. **China's Stance:** China views the LAC in the eastern sector to align with the McMahon Line, claiming Arunachal Pradesh as South Tibet.
2. **India's Stance:** India rejects China's 1959 definition of the LAC and asserts that Aksai Chin and Arunachal Pradesh are part of its territory.
3. **Border Discrepancy:** China's claim lines in Ladakh are vague, allowing for creeping military incursions.

Way Forward to Resolve the Issue:

1. **Clarification of the LAC:** Both sides need to agree on an LAC map that is demarcated on the ground to prevent further conflicts.
2. **Ongoing Dialogue:** Diplomatic and military-level talks should continue to resolve legacy issues like Depsang Plains and Demchok.
3. **Confidence-Building Measures:** Local commanders from both sides should maintain regular meetings to avoid skirmishes.
4. **Buffer Zones:** The creation of additional buffer zones can temporarily ease tensions, though permanent solutions are required.

Conclusion:

While India and China have made significant progress on disengagement along the LAC, key areas of tension remain unresolved. Continuous dialogue, better border infrastructure, and transparency in troop movements are essential for stabilizing relations and achieving a long-term resolution to border disputes.

Insta Links:

- What is the Line of Actual Control (LAC)?

Mains Link:

- Quadrilateral Security Dialogue is transforming itself into a trade block from the military alliance, in present times. Discuss (UPSC 2020)

Prelims Link:

Q.'Hand-in-Hand 2007' a joint anti-terrorism military training was held by the officers of the Indian Army and officers of the Army of which one of the following countries? (UPSC 2008)

- (a) China
- (b) Japan
- (c) Russia
- (d) USA

Ans: (a)

3. SOUTH CHINA SEA

Context:

The South China Sea (SCS) has become a hotspot for rising tensions due to China's aggressive territorial claims. Countries in the Indo-Pacific region, particularly South-east Asian nations, are feeling the heat of this assertiveness.

- China's naval and coast guard activities, seen as provocations by regional nations, have led to increased military engagements and diplomatic efforts to counter its growing influence.

Events So Far in the South China Sea:

1. **China's Claims:** China claims almost the entire SCS, backed by infrastructure development like military bases and airstrips on artificial islands.
2. **Grey Zone Tactics:** Chinese vessels frequently engage in dangerous maneuvers, ramming smaller ships, harassing resupply missions, and using military-grade lasers.
3. **Legal Dismissal:** In 2016, a Permanent Court of Arbitration ruled against China's claims in the SCS, but China continues to reject the ruling.
4. **Philippines Conflict:** Tensions escalated as Chinese vessels disrupted Philippine resupply missions to the Second Thomas Shoal, where the Philippines has stationed its BRP Sierra Madre.
5. **Military Exercises:** China conducted naval drills with Russia, demonstrating its resolve to defend its claims in the SCS.



Island/Region	Location	Claimants	Conflict
Senkaku/Diaoyu Islands	East China Sea	Japan (controls), China (claims as Diaoyu), Taiwan	Tensions between Japan and China over sovereignty; frequent Chinese patrols contesting Japan's control.
Spratly Islands	South China Sea	China, Taiwan, Vietnam, Philippines, Malaysia, Brunei	China's militarization and island-building have intensified disputes with other South-east Asian nations.
Paracel Islands	South China Sea	China (controls), Vietnam, Taiwan	China controls these islands after a conflict with Vietnam in 1974; Vietnam continues to claim them.
Scarborough Shoal	South China Sea	China, Philippines, Taiwan	Disputed between China and the Philippines; China took control in 2012 despite a tribunal ruling in favor of the Philippines.
East China Sea	East China Sea	China, Japan, Taiwan	General tensions over territorial control, including issues surrounding the Senkaku/Diaoyu Islands.

Impacts:

1. **Regional Impacts:**
 - **Military Buildup:** Countries like Japan, the Philippines, and Vietnam are increasing defense spending and acquiring advanced weapons like India's BrahMos missiles.
 - **Strategic Alliances:** Japan, the Philippines, and South Korea are strengthening ties with the U.S., conducting joint exercises, and enhancing military cooperation.
2. **Impact on India:**
 - **Strategic Interests:** India sees the SCS as vital for freedom of navigation and trade. Disruptions here could affect India's security and economic interests.
 - **Quad Involvement:** India's participation in Quad and collaborations with ASEAN nations positions it as a key player in countering China's influence in the Indo-Pacific.
3. **Global Impact:**
 - **U.S. Involvement:** The U.S. has committed to defending its regional allies, ensuring freedom of navigation.

tion and opposing China's unilateral actions in the SCS.

- **Global Trade Disruption:** The SCS is a critical trade route; instability could disrupt global supply chains, affecting oil and gas flows and undersea cable networks.

Way Ahead:

1. **Strengthening Alliances:** Regional countries must bolster alliances with the U.S. and other democratic nations to counterbalance China's dominance.
2. **Diplomatic Engagements:** A multilateral dialogue involving ASEAN, China, and global powers should focus on peaceful dispute resolution.
3. **Legal Recourse:** Countries should leverage international legal frameworks to challenge China's actions and push for compliance with the 2016 arbitration ruling.

Conclusion:

The situation in the South China Sea requires a balance of **realism (military deterrence)** and **liberalism (co-operation through multilateral institutions)** to prevent conflict while safeguarding regional stability.

Insta Links:

1. South China Sea
2. India approach towards South China Sea
3. Quiet Diplomacy

PYQ:

1. With respect to the South China Sea, maritime territorial disputes and rising tension affirm the need for safeguarding maritime security to ensure freedom of navigation and overflight throughout the region. In this context, discuss the bilateral issues between India and China. (UPSC-2014)

Which of the following countries border the South China Sea?

1. Brunei
2. Cambodia
3. Indonesia
4. Malaysia
5. Philippines
6. Thailand
7. Vietnam

Select the correct answer using the code given below:

- a) 1, 2, 3, 4, 5, and 6
- b) 1, 2, 4, 5, and 7 only
- c) 1, 3, 4, 5, 6, and 7
- d) 2, 3, 4, 5, 6, and 7

Topics: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

4. INDIA'S POWER PLAY AT THE QUAD SUMMIT

Context:

Recently, the Prime Minister of India attended the **sixth Quad Leaders' Summit in Wilmington, Delaware, hosted by U.S. President Joe Biden**, with the participation of Australian Prime Minister Anthony Albanese and Japanese Prime Minister Fumio Kishida.

Key points emphasized by PM Modi:

He emphasized the **importance of the Quad in upholding international law, sovereignty, and peace, and reiterated the Quad's commitment to a free** and prosperous Indo-Pacific. Several key initiatives were announced, including:

1. The **"Quad Cancer Moonshot"** to combat cervical cancer in the Indo-Pacific.
2. The **"Maritime Initiative for Training in the Indo-Pacific"** (MAITRI).
3. The **"Quad-at-Sea Ship Observer Mission"** in 2025 for maritime safety.
4. The **"Quad Ports of the Future Partnership"** for resilient port infrastructure.
5. Quad cooperation on semiconductor **supply chains and digital public infrastructure.**

6. **India's space-based monitoring** portal for climate impact in Mauritius.
7. A new **Quad STEM Fellowship** for Indo-Pacific students.

India will host the **next Quad Summit in 2025**, and the leaders adopted the **Quad Wilmington Declaration**.

What is QUAD?

The Quad, or Quadrilateral Security Dialogue, is a strategic partnership between Australia, India, Japan, and the US. It is not a military alliance or mutual defence agreement. It was formed during the ASEAN Regional Forum, the Quad nations account for 24% of the global population, 35% of the world's GDP, and 18% of global trade.

TIMELINE: GENESIS AND EVOLUTION

2004	FORMATION OF THE QUAD	The Quad was formed by Australia, India, Japan, and the United States, to coordinate relief efforts after the Indian Ocean Tsunami.
2007	TRANSFORMATION INTO A STRATEGIC DIALOGUE	The first Quad officials' meeting takes place and focuses on shared interests in the Indo-Pacific region.
2008-2012	DISSOLUTION OF THE QUAD	Australia withdraws from the Quad over concerns of antagonizing China, however, Prime Minister Shinzo Abe of Japan later calls for a revival of the partnership.
2017-2024	REVIVAL OF THE QUAD	In 2017, the Quad was revived and expanded its focus to include new policy areas.
	EXPANSION OF COOPERATION	The Quad now includes joint military exercises, six working groups, and an investors network, among other initiatives.
2021-2024	LEADERS' SUMMITS CHART THE PATH FORWARD	Annual Quad Leaders' Summits have provided high-level guidance through joint statements on shared goals and principles.

Policy/Initiative under QUAD:

Policy/Initiative	Description
Health	Established <u>Quad Vaccine Partnership</u> , evolving into the broader <u>Quad Health Security Partnership</u> in 2023. Initiatives include e-health systems expansion and the Quad Pandemic Preparedness Exercise.
Climate	Launched the <u>Quad Climate Change Adaptation and Mitigation Package (Q-CHAMP)</u> in 2022. In 2023, released Principles on Clean Energy Supply Chains in the Indo-Pacific.
Critical and Emerging Technology	Initiated the Semiconductor <u>Supply Chain Initiative in 2021</u> to diversify technology supply chains.
Space	Launched the Indo-Pacific Partnership for <u>Maritime Domain Awareness (IPMDA)</u> in 2022.
Infrastructure	Launched the <u>Trilateral Partnership for Infrastructure Investment in the Indo-Pacific (TIP)</u> in 2018.
Cybersecurity	Established the <u>Quad Cybersecurity Partnership in 2022</u> .

How does QUAD contribute to enhancing India's strategic interests

1. **Counterbalance to China:** As a member of the QUAD, in the event of a rise in the Chinese hostilities on its borders, India can take the **support** of the other QUAD nations to counter it.
2. **Strategic Partnerships:** QUAD facilitates strategic partnerships among **like-minded democracies**. This strengthens India's diplomatic ties, fostering a **multilateral approach** to regional challenges.
3. **For a free and open Indo-Pacific:** This aspect becomes important for India, in the wake of China's **aggressiveness** and **coercive** nature in the strategic Indo-Pacific region.
4. **India as a Net Security provider:** For India to assert this role as a Region, its **dominance** in the Indian Ocean Region needs to be **maintained and sustained**. QUAD provides India with a **platform** to enhance **security through partnerships** in the region.
5. **Multipolar World:** India has supported a **rule-based multipolar world** and QUAD can help it achieve its ambition of becoming a **regional superpower**.
6. **Maritime Security Cooperation:** QUAD members collaborate on **maritime security**, including **joint na-**

val exercises and patrols. This enhances India's capabilities in addressing common challenges.

7. **Infrastructure Development:** QUAD aims to promote infrastructure development in the Indo-Pacific, fostering connectivity. This aligns with India's interests in the region.
8. **Humanitarian Assistance and Disaster Relief:** This enhances India's capacity to respond to natural disasters in the Indo-Pacific, showcasing its commitment to regional stability.
9. **Technology and Cybersecurity Cooperation:** This collaboration benefits India by leveraging technological advancements and enhancing cyber resilience.
10. **Promotion of Democratic Values:** QUAD promotes democratic values, the rule of law, and international norms. India, as the world's largest democracy, aligns with these principles.

Issues Related to Quad:

1. **Undefined Vision:** Quad lacks a clear strategic mission despite its potential for cooperation.
2. **Maritime Focus:** Emphasis on the Indo-Pacific makes Quad primarily maritime, limiting cooperation in the Asia-Pacific and Eurasian regions.
3. **India's Aversion to Alliances:** India's reluctance to join a formal treaty alliance hinders stronger Quad engagement.

Conclusion

QUAD serves as a key platform for India to advance its strategic interests in the Indo-Pacific by promoting security, stability, economic opportunities, and collaborative solutions to regional challenges. Navigating the complex geopolitical dynamics requires a nuanced and strategic approach from India to safeguard its interests and promote regional stability.

Insta Links:

- [QUAD](#)

Mains Link:

Quadrilateral Security Dialogue (Quad) is transforming itself into a trade bloc from a military alliance, in present times Discuss. (UPSC 2020)

[Topics: Important International institutions, agencies and fora, their structure, mandate.](#)

5. UN SUMMIT OF THE FUTURE 2024

Context:

UN **Secretary-General Antonio Guterres** called for urgent reforms to outdated UN institutions on peace, security, and finance at the UN Summit of the Future 2024. India's Prime Minister also attended the summit.

What is the UN Summit of the Future 2024?

The UN Summit of the Future 2024 aims to reform and strengthen international governance to address contemporary global challenges. It focuses on sustainable development, peace, security, and technology, culminating in the adoption of the **"Pact for the Future,"** which includes commitments to accelerate SDGs, **promote equitable digital access, and safeguard the interests of future generations.**

Key Highlights of the UN Summit of the Future:

1. **Purpose:** Reform international governance to address global challenges and ensure a sustainable future.
2. **Theme:** "Multilateral Solutions for a Better Tomorrow."
3. **Outcome:** Adoption of the "Pact for the Future" with two annexes: the Global Digital Compact and the Declaration on Future Generations.
4. **Pact for the Future:** Accelerates SDGs, supports climate action, promotes a just transition from fossil fuels, and commits to nuclear disarmament and AI governance.
5. **Global Digital Compact:** Promotes equitable access to technology and universal AI governance.
6. **Declaration on Future Generations:** Emphasizes long-term thinking, considering the interests of future generations.
7. **India's Stance:** Called for UN reforms, supported global digital governance and advocated for expanded Security Council membership.

What is the Pact for the Future?

The Pact for the Future is an action-oriented agreement from the 2024 UN Summit of the Future, addressing global challenges like sustainable development, peace, security, digital cooperation, and future generations. It aims to reform global governance and includes the **Global Digital Compact and a Declaration on Future Generations.**

The Pact address **21st-century challenges like climate change and conflict**. Adopted by consensus, except for a group led by Russia, key points include:

1. **Sustainable Development:** Empower developing countries in global finance and strengthen safety nets for the poor.
2. **Peace and Security:** Recommit to nuclear disarmament and prevent misuse of new technologies.
3. **Science and Technology:** Promote ethical research, protect indigenous knowledge, and em-

power women.

4. **Youth and Future Generations:** Include future generations in decision-making.
5. **Global Governance:** Reform UNSC to better represent Africa and prevent an arms race in space

Proposed Reforms by the UN Secretary-General:

1. **Security Council Reform:** Guterres emphasized that the UN Security Council must be restructured to reflect current geopolitical realities, addressing the under-representation of regions like Africa, Asia-Pacific, and Latin America.
2. **Strengthening Global Financial Architecture:** He called for reforms in international financial institutions (IMF, World Bank, WTO) to better support debt-stricken developing nations in achieving Sustainable Development Goals (SDGs) and to enhance their representativeness and capability in addressing global economic challenges.

India, representing the **G4 nations** (Participating in **Inter-governmental Negotiations** on UNSC reform), presented a **detailed model for UN Security Council reform**, proposing new permanent members elected democratically by the General Assembly and showing **flexibility on the veto issue**.

Key Highlights of the India’s Proposed Model:

Highlights	Details
Enlarged Membership	11 Permanent members, and 14/15 non-permanent members with a 2-year term to be elected based on current practice.
Equitable Regional Representation	Representation of 6 new permanent members shall come from Africa (2), Asia-Pacific (2), Latin America and Caribbean (2), Western Europe and Other Member States (1).
Working Methods of Council	An affirmative vote of 14/15 of 25/26 members will be required for a decision.
Veto	No veto rights to new permanent members until decided by a review, held fifteen years after reform came into force.
Relationship between UNSC and UNGA	The council should hold regular consultations with the President of UNGA , submit annual reports and special reports to UNGA, etc.

Conclusion:

Looking towards the future, the **21st century presents a myriad of complex challenges**, ranging from climate change to cybersecurity threats and economic inequality. Despite its imperfections, the **United Nations (UN) stands uniquely positioned to address these multifac-**

eted issues, given its convening power, diplomatic role, and extensive network of agencies.

However, **realizing its full potential requires implementing reforms** to enhance its effectiveness. **Streamlining bureaucracy, reducing inefficiencies, and ensuring more equitable representation** within the organization are crucial steps towards achieving this goal. Despite these challenges, the **UN remains indispensable in global governance, humanitarian assistance, and crisis management**. While the need for reform is evident, the UN’s continued role in fostering cooperation, dialogue, and collective action underscores its enduring importance in tackling the world’s most pressing problems.

Insta Links:

- [If not reformed, the UN will be overtaken by other organisations](#)

Mains Links:

What are the main functions of the United Nations Economic and Social Council (ECOSOC)? Explain different functional commissions attached to it. (10 M) (UPSC 2017)

Prelims Links:

With reference to the “United Nations Credentials Committee”, consider the following statements: (UPSC 2022)

1. It is a committee set up by the UN Security Council and works under its supervision.
2. It traditionally meets in March, June and September every year
3. It assesses the credentials of all UN members before submitting a report to the General Assembly for approval.

Which of the statements given above is/are correct?

- (a) 3 only
- (b) 1 and 3
- (c) 2 and 3
- (d) 1 and 2

Ans: (a)

GENERAL STUDIES – 3

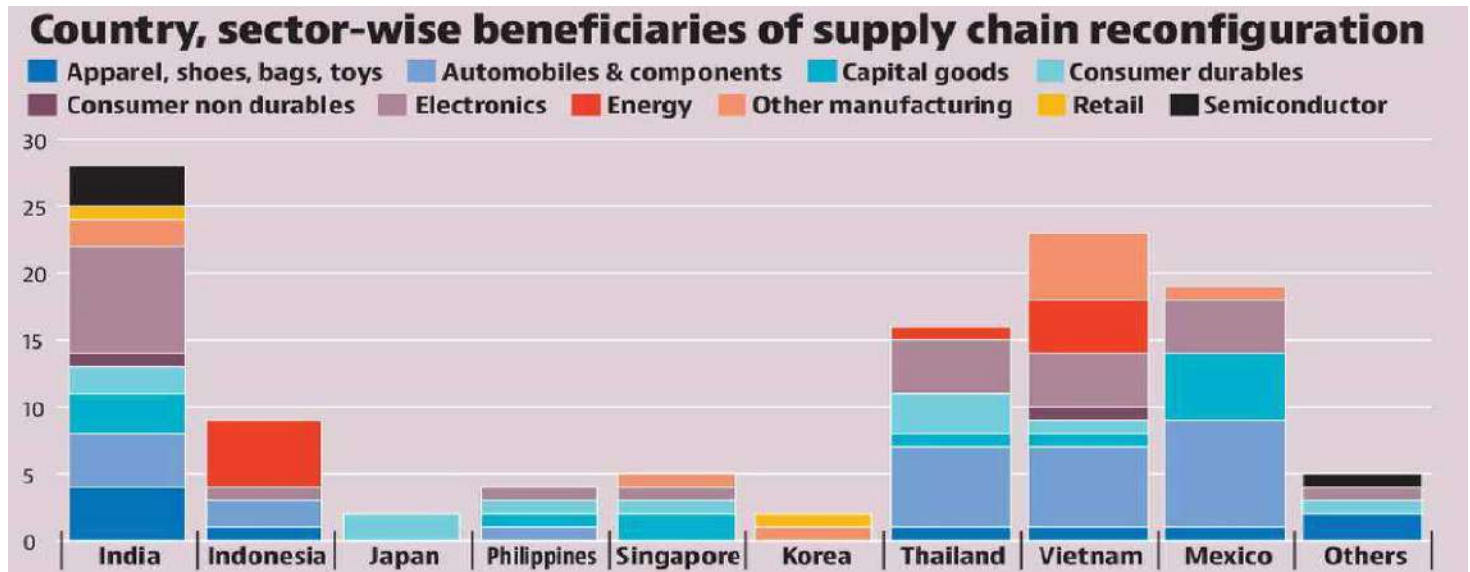
Topics: Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.

1. CHINA SHOCK 2.0

Context:

The United States has imposed steep tariffs on Chinese imports, including a 100% duty on electric vehicles, as part of an effort to counter the influx of Chinese goods, dubbed “China Shock 2.0.” India and other countries are

also taking steps to curb Chinese imports to protect domestic industries.



China Shock 2.0:

- **Definition:** Refers to China's rapid export growth in high-tech sectors such as solar equipment, electric vehicles, and semiconductors amid domestic demand slumps.
- **Trigger:** China's economic slowdown due to a property crisis and weak consumer demand.
- **Global Response:** Countries, including India, fear job losses in manufacturing and increased economic dependence on China.

Impact on India:

- **Growing Imports:** Despite restrictions, India's imports from China surged from \$70 billion in FY19 to \$101 billion in FY24, impacting sectors like steel, solar equipment, and electronics.
- **Solar Sector Dominance:** India remains heavily reliant on China for 80% of its solar cells and modules, impacting its renewable energy goals.
- **Steel Industry Pressure:** Rising imports of Chinese steel are eroding profits for Indian steelmakers, calling for government intervention.
- **Electronics:** Though mobile phone manufacturing has increased, India's dependency on China for electronics remains largely unchanged.

Measures to Counter China Shock 2.0:

- **Anti-Dumping Duties:** India has launched over 30 anti-dumping investigations against China in 2024 to protect domestic industries.
- **Renewable Energy Push:** India is investing \$4.5 billion in clean energy manufacturing to reduce dependency on Chinese solar imports.
- **Strengthening Local Supply Chains:** Focus on boosting domestic production in key sectors like steel, electronics, and renewable energy.

Conclusion:

To counter China Shock 2.0 and secure economic independence, India must advance its **Atmanirbhar Bharat (self-reliant India) initiative** by building resilient domestic industries and reducing dependency on Chinese imports across critical sectors.

Insta Links:

1. Anti Dumping

PYQ:

1. China is using its economic relations and positive trade surplus as tools to develop potential military power status in Asia', In the light of this statement, discuss its impact on India as her neighbour. [10 Marks] [2017]

Topics: Conservation related issues, environmental pollution and degradation, environmental impact assessment.

2. PROJECT CHEETAH

Context:

Project Cheetah, which saw the introduction of the African sub-species of the wild cat in India, completed two years on September 17.

Background of Project Cheetah:

1. **Cheetah Extinction in India:** Cheetahs were officially declared extinct in India in 1952 due to overhunting and habitat loss.
2. **Goal of Reintroduction:** The project aims to establish a viable cheetah population in central India, restoring ecosystems such as grasslands and savannahs.
3. **Translocation from Africa:** In 2022, the first batch of 8 cheetahs arrived from Namibia, followed by 12 from South Africa in early 2023.
4. **Cheetah Breeding and Expansion:** The project also seeks to promote breeding and establish a metapopulation across various wildlife reserves in India.
5. **Ecosystem Restoration:** Cheetahs are used as an umbrella species to restore open ecosystems, contributing to the conservation of other species dependent on these habitats.

Analysis of Two Years of Performance:

Positives:

1. **Successful Translocation:** 24 cheetahs, including cubs, have survived the initial translocation and acclimatization to India's environment.
2. **Breeding Success:** 17 cubs have been born within two years, showing potential for population expansion.
3. **Adaptive Movements:** Some cheetahs, like Veera, have demonstrated wide-ranging movements, indicating the possibility of cheetahs adapting to free-range life.
4. **Multi-location Translocation:** Plans to expand the project to Gandhi Sagar Wildlife Sanctuary are underway to spread out the population.

Challenges:

1. **High Mortality Rate:** 8 cheetahs (40% of translocated adults) and 5 cubs (29%) have died due to issues such as infection, mating injuries, and environmental stress.
2. **Limited Wild Release:** Most cheetahs are still in enclosures, raising concerns about their ability to thrive independently in the wild.
3. **Prey Deficit:** The declining prey population, especially chital, poses a major challenge in supporting both cheetahs and leopards in Kuno National Park.

4. **Interstate Coordination:** The cheetahs' movements across states highlight the need for landscape-level conservation strategies and cooperation across regions.

Way Ahead:

1. **Prey Base Augmentation:** Immediate efforts are required to increase prey density in Kuno and Gandhi Sagar to support the cheetah population.
2. **Habitat Restoration:** Conservation efforts should focus on restoring and protecting grasslands and savannahs, spanning multiple districts and states.
3. **Gradual Wild Release:** Post-monsoon release plans must be carefully managed to ensure cheetahs adapt successfully to free-range habitats.
 1. **Transparent Project Management:** Improved communication with experts and the public is essential for long-term success, especially regarding challenges and strategies.

Conclusion:

While Project Cheetah has shown promise through breeding success and acclimatization, the high mortality rate and delayed wild release raise concerns about its sustainability. A focus on habitat restoration, prey management, and effective coordination will be crucial to ensuring the project's long-term success.

Insta Links:

[Cheetah reintroduction project](#)

Prelims Links: (UPSC 2020)

Which one of the following protected areas is well-known for the conservation of a sub-species of the Indian swamp deer (Barasingha) that thrives well on hard ground and is exclusively gaminivorous?

1. Kanha National Park
2. Manas National Park
3. Mudumalai Wildlife Sanctuary
4. Tal Chhapar Wildlife Sanctuary

Ans: 1

3. AIR POLLUTION

Context:

Air quality in Delhi slipped into the 'poor' category (AQI 200-300) for the first time since mid-June, signalling the imminent arrival of North India's bad air season.

New WHO Global Air Quality Guidelines			
Pollutant	Time	2005 levels	New 2021 levels
PM _{2.5} Particulate matter < 2.5 microns	Annual	10	5
	24-hour	25	15
PM ₁₀ Particulate matter < 10 microns	Annual	20	15
	24-hour	50	45
O ₃ Ozone	Peak season	-	60
	8-hour	100	100
NO ₂ Nitrogen dioxide	Annual	40	10
	24-hour	-	25
SO ₂ Sulfur dioxide	24-hour	20	40
CO Carbon monoxide	24-hour	-	4

Air pollution data:

- Global ranking:** According to IQAir's 2023 report, India is ranked as the third most polluted country globally.
- PM2.5 concentration:** The average PM2.5 concentration in India stands at 54.4 µg/m³.
- Economic impact:** Air pollution results in an estimated economic loss of ₹2.7 lakh crore annually, accounting for 1.36% of the GDP.

Causes of air pollution:

Natural causes:

- Wildfires and dust storms:** Natural events like wildfires and dust storms contribute to the spread of particulate matter in the air.
- Volcanic activity:** Volcanic eruptions emit gases such as Sulfur dioxide, impacting air quality regionally and globally.

Anthropogenic causes:

- Vehicular emissions:** Cars and industrial transportation are key sources of nitrogen oxides (NO_x) and particulate matter (PM).
- Industrial emissions:** Factories release pollutants like Sulfur oxides (SO_x) and carbon dioxide (CO₂), contributing to local and global air pollution.
- Stubble burning:** Common in Punjab, Haryana, and UP, this practice exacerbates pollution, especially in Delhi-NCR during winter.
- Waste burning:** Open burning of solid waste releases harmful chemicals into the air, further deteriorating air quality.
- Coal-based power plants:** These plants contribute to over half of the SO₂ emissions and 30% of NO_x emissions in India.

Impact of air pollution:

- Health:** It causes respiratory issues, heart disease, and premature deaths, with PM2.5 being the most harmful pollutant.
- Environment:** Air pollution leads to acid rain, which damages crops and ecosystems, and contributes to climate change.

- Economic Loss:** According to the World Bank, air pollution causes a significant reduction in work-force productivity, GDP growth, and healthcare costs.

Measures to control air pollution:

1. Technological interventions:

- Air quality monitoring:** Enhancing infrastructure for real-time air quality monitoring can help with early warnings and targeted actions.
- Emission norms:** Strengthening and expanding Bharat Stage VI norms for vehicles, along with the promotion of electric vehicles (EVs), can help reduce emissions.
- Use of renewable energy:** Transitioning from coal-based power plants to solar, wind, and other renewable sources can reduce harmful emissions.

2. Policy interventions:

- National Clean Air Programme (NCAP):** Aimed at reducing PM2.5 levels by 20-40% by 2026, NCAP emphasizes coordinated efforts across states and sectors.
- Graded Response Action Plan (GRAP):** Especially for Delhi-NCR, GRAP implements emergency measures during severe pollution episodes.
- Stubble management programs:** Encouraging farmers to adopt alternative methods to burning, like using bio-decomposers, can mitigate seasonal pollution spikes.

3. Community and behavioral changes:

- Public awareness:** Awareness campaigns on the health impacts of air pollution and encouraging citizens to adopt cleaner practices like carpooling and waste segregation.
- Green urban spaces:** Expanding green belts in urban areas can help absorb pollutants and improve overall air quality.

Best global practices:

- Singapore's Green Plan:** Aimed at achieving net-zero emissions and reducing air pollution through sustainable urban planning, electric vehicle incentives, and strong public transportation systems.
- London's Ultra-Low Emission Zone (ULEZ):** A system that charges vehicles that do not meet emissions standards, helping to reduce city pollution significantly.

Conclusion:

India's air pollution crisis requires a sustained, multi-sectoral approach that prioritizes long-term solutions over short-term optics. Drawing inspiration from global best

practices, India must focus on integrating scientific methods, technological solutions, and public engagement to tackle air pollution effectively.

Insta Links:

2. Air Pollution Danger
3. Indoor Pollution

PYQ:

In the context of WHO Air Quality Guidelines, consider the following statements:

1. The 24-hour mean of PM2.5 should not exceed 15 µg/m³ and annual mean of PM2.5 should not exceed 5 µg/m³.
2. In a year, the highest levels of ozone pollution occur during the periods of inclement weather.
3. PM10 can penetrate the lung barrier and enter the bloodstream.
4. Excessive ozone in the air can trigger asthma.

Which of the statements given above are correct? (UPSC-2022)

- a) 1, 3 and 4
- b) 1 and 4 only
- c) 2, 3 and 4
- d) 1 and 2 only

Topics: Disaster and management.

4. 5 YEARS OF COALITION FOR DISASTER RESILIENT INFRASTRUCTURE (CDRI)

Context:

Coalition for Disaster Resilient Infrastructure (CDRI) marks its **fifth Anniversary**

Also, CDRI announced a **\$2.5 million fund** to support cities in 30 low and middle-income countries, including India. This **Urban Infrastructure Resilience Programme (UIRP)** aims to enhance **awareness, planning, and financial resources** for integrating climate resilience into infrastructure.

Previously, the Union Cabinet had given its **approval for ratification of the Headquarters Agreement (HQA) between the Government of India (GoI) and the** Coalition for Disaster Resilient Infrastructure (CDRI).

About CDRI:

CRDI	
About	CDRI is a global partnership of National Governments, UN agencies, multilateral development banks, the private sector, and academic institutions.

Objective	It aims to promote the resilience of infrastructure systems to climate and disaster risks, thereby ensuring sustainable development.
Launched by	It was launched by the PM of India during the UN Climate Action Summit (New York) in 2019 . It is seen as India's attempt to obtain a global leadership role in climate change and disaster resilience matters
Secretariat	New Delhi
Members	Since its launch, 31 Countries, 6 International Organisations and 2 private sector organisations have become members of CDRI.
Upgradation	In 2022 , the Cabinet approved the recognition of CDRI as an International Organisation and for the signing of HQA for granting CDRI exemptions, immunities and privileges as contemplated under the UN (Privileges and Immunities) Act, 1947
Significance of HQA agreement	Ratification will provide CDRI an independent and international legal persona so that it can carry out its functions internationally, more efficiently.

How can CDRI help in enhancing the reach and resilience of Infrastructure

The Coalition for Disaster Resilient Infrastructure (CDRI) is an international partnership of governments and other agencies working to promote resilience to disasters.

Improving Reach

- **CDRI advocates for prioritizing connectivity infrastructure** like rural roads and telecom to enhance access to remote and vulnerable communities.
- **It partners with development banks like ADB** to mobilize **financing** for reach-enhancing projects which governments may overlook due to modest returns.
- CDRI highlights how **reaching the last mile reduces disaster risks** and long-term costs by facilitating evacuation, monitoring and service delivery.
- **It is developing geospatial models** to identify underserved regions prone to disasters to guide investment priorities for reach.

Enhancing Resilience

- **CDRI has formulated 10 resilience standards and guidelines customizable** for countries based on hazard risks and local needs.
- **It trains infrastructure agencies on lifecycle resilience** solutions encompassing disaster-re-

sistant design, construction and proactive asset management.

- **CDRI promotes cost-effective engineering innovations** like bio-engineering for slope stabilization and decentralized renewable energy systems to build resilient eco-infrastructure.
- **It works with countries to develop disaster resilience plans** for critical infrastructure like power grids, communication networks and transport systems.
- **CDRI helps countries assess infrastructure risks and resilience gaps** through detailed diagnostic tools and simulations.

Conclusion

Thus CDRI focuses on furthering inclusion and resilience together by advocating connectivity infrastructure to remote areas and building the capacity of countries on end-to-end solutions for resilient design, delivery and operations, thus steering policy towards inclusive and resilient infrastructure globally.

Insta Links:

National Disaster Management Act, 2005

5. URBAN FLOODING

Context:

Guwahati, like many growing urban centres, is grappling with the increasing frequency of urban flooding. Despite several town planning initiatives, the city's infrastructure and drainage system remain insufficient, often exacerbated by rapid urbanization, deforestation, and poor planning.



Causes of Urban Flooding

Natural Causes:

1. **Heavy Rainfall:** Guwahati experiences torrential downpours during the monsoon, leading to surface runoff that overwhelms the drainage systems.
2. **Topography:** The city's hilly terrain and low-lying areas prevent proper water drainage, especially when natural outlets are blocked.
3. **River Overflow:** Proximity to the Brahmaputra River increases the risk of flooding, as the river swells during heavy rains or when glaciers melt upstream.

Man-Made Causes:

1. **Unplanned Urbanization:** The rapid, unchecked development of commercial and residential areas without adequate planning blocks natural drainage systems.
2. **Encroachment of Wetlands:** Wetlands that acted as natural water sinks have been encroached upon, reducing water absorption capacity.
3. **Inadequate Drainage Infrastructure:** Drainage systems designed in the 1970s are outdated, incomplete, and incapable of handling current water levels, leading to flooding.
4. **Loss of Permeable Surfaces:** Excessive concretization, with limited green spaces, reduces groundwater recharge and increases runoff, leading to waterlogging.

Impacts/Consequences of Urban Flooding

1. **Disruption to Daily Life:** Flooding disrupts transportation, power supply, and basic services, causing inconvenience to residents and economic loss.
2. **Health Hazards:** Stagnant water creates breeding grounds for diseases like dengue, malaria, and cholera.
3. **Economic Loss:** Flooding leads to damage of property, infrastructure, and loss of business, significantly impacting the local economy.
4. **Environmental Degradation:** Waterlogging erodes soil, impacts natural ecosystems, and contaminates water bodies.
5. **Displacement of People:** Prolonged flooding often results in displacement of residents, especially from low-lying areas.

Mitigation Measures

1. Comprehensive Urban Planning:

- Adopt sponge city concepts with green infrastructure, such as rain gardens and permeable pavements, to absorb excess water.
- Implement sustainable land-use practices to avoid further encroachment on wetlands and wa-

ter bodies.

2. Drainage System Upgrades:

- Follow NDMA (National Disaster Management Authority) guidelines to design modern drainage systems that can handle extreme rainfall events.
- Revive old drainage plans and focus on cleaning and expanding natural water channels, like the Boroglu River.

3. Watershed Management:

- Restore and protect wetlands, lakes, and ponds, ensuring natural water retention to reduce runoff.
- Promote rainwater harvesting at the community and household levels to recharge groundwater.

4. Resilient Infrastructure:

- Ensure all new construction, especially in flood-prone areas, follows building codes to prevent waterlogging.
- Prohibit basement construction in low-lying regions and enforce slope analysis to avoid risky development.

5. Early Warning Systems and Crisis Management:

- Establish early warning systems to alert citizens in flood-prone areas.
- Set up local disaster management committees involving NGOs, CBOs, and local stakeholders for efficient flood response.

Conclusion:

By integrating traditional water management techniques with new-age solutions like green infrastructure and strict regulatory measures, cities can mitigate both natural and man-made causes of flooding. Comprehensive urban governance and participatory approaches will ensure resilient, future-proof urban development.

Insta Links:

Urban flooding

PYQ:

The frequency of urban floods due to high intensity rainfall is increasing over the years. Discussing the reasons for urban floods, highlight the mechanisms for preparedness to reduce the risk during such events. (2016)

[Topics: Challenges to internal security through communication networks, role of media and social networking sites in internal security challenges, basics of cyber security; money-laundering and its prevention.](#)

6. SAFEGUARDING THE FUTURE: THE IMPERATIVE FOR A NATIONAL SECURITY STRATEGY (NSS)

Context:

India urgently **needs a** National Security Strategy (NSS)

that integrates defence, finance, and other critical sectors into a unified framework.

What is the National Security Strategy (NSS)?

It outlines a country's security goals and methods to achieve them, addressing both **traditional and non-traditional threats**. It should align with constitutional values and democratic principles. The strategy includes threat assessments, resource allocation, and policies on defence and intelligence.

Countries like the U.S., the U.K., Russia, China, and Pakistan have formal NSS documents. India has made several attempts, such as the **Kargil Review Committee Report (2000)** and **Gen. D.S. Hooda's document (2019)**, but a formal NSS has not yet been implemented. Key elements of an NSS include defining security objectives and evaluating geopolitical challenges and resources. **But now**, India has started the process of bringing in a National Security Strategy (NSS).

India needs a written National Security Strategy (NSS) to:

1. **Update Policy:** Replace the outdated 2009 directive for the Armed Forces.
2. **Address Evolving Threats:** Respond to new challenges like hybrid warfare and China's naval expansion.
3. **Enable Long-term Planning:** Prevent short-term, ad hoc decisions and ensure strategic consistency.
4. **Signal Strategic Intent:** Clarify India's role in global security and build stronger partnerships.
5. **Promote Accountability:** Provide a reference for peer review and improve national security coordination.

Significance/Benefits of a National Security Strategy (NSS) for India:

1. **Meet changing security dynamics and priorities:** It can encourage the government to **regularly review** threats, opportunities, and global security trends.
 - a. **Example:** Major powers like the **US, UK, and Russia have published and updated NSS**, ensuring evolving challenges like **hybrid warfare, the Chinese navy's growth** etc. are addressed timely.
2. **Framework for Effective Long-term Planning:** A coherent future strategy will help **avoid taking short-term**, ad hoc, hasty, and regime-centric decisions on important national security issues.
 - a. **Example: It prevents hasty decisions**, like the **discontinuation of India's previous five-year Defence Plans.**
3. **Strategic Signaling in World Order:** It will clarify India's **strategic intent to friends and foes**, highlight its role as a security provider in the In-

dian Ocean, and establish clear cooperation with partners.

- a. **Example:** It can **signal India's commitment to counter China's naval expansion in the Indo-Pacific region.**
4. **Operational clarity:**
 - a. **Example:** It can help guide decision-making in areas like delegation, **operationalisation of theatre commands etc.**
5. **Adopt a Whole national approach:** It can help **build synergy** for harnessing comprehensive national power and coordinate operations effectively.
 - a. **Example:** This approach can strengthen responses to **hybrid warfare, cyber threats, and counter-terrorism** efforts.

Challenges in Formulating an NSS in India:

- **Lack of Political Will and Consensus:** The absence of political consensus, **fear of accountability**, and limited expertise on defence matters have hindered NSS formulation.
 - **Example: Despite recommendations from committees like the Naresh Chandra Committee**, no consensus has been reached.
- **Loss of Strategic Flexibility:** Formalizing an NSS could limit strategic flexibility, binding leadership to specific policies rather than adapting to evolving threats.
 - **Example: Israel operates effectively without a formal NSS**, relying on ad hoc policy adjustments.
- **Resource Allocation and Institutional Support:** Implementing NSS requires significant financial and human resources, which are often inadequately allocated.
 - **Example:** India has limited defence think tanks and a relatively **lower budget compared to the US, Russia, and China.**
- **Changing Threat Landscape:**
 - Adapting the NSS to address evolving security threats, such as cyber threats, terrorism, and non-traditional security challenges, is a **continuous challenge.**

Previous Steps Taken Towards NSS Formulation:

1. **Kargil Review Committee Report (2000):** Provided security recommendations but did not lead to an immediate NSS.
2. **Naresh Chandra Committee (2011):** Initiated discussions on security reforms including defence and intelligence reforms, but NSS development was not achieved.
3. **Defence Planning Committee (2018):** Chaired by a **National Security Advisor:** It is a permanent

body tasked with preparing a draft national security strategy among others.

4. **Hooda Committee (2018): Suggested a comprehensive NSS to address evolving security challenges**, recommending a proactive global role, securing the neighbourhood, and strengthening internal and external security capabilities.

Conclusion:

As India enters Amrit Kaal, committing to an NSS will enhance national security planning, inspire innovation, and strengthen India's global standing.

Insta Links:

National Security Strategy

Mains Links:

Q. India and the USA are two large democracies. Examine the basic tenets on which the two political systems are based. (UPSC 2018)

Prelims Link:

Q. In the Constitution of India, the promotion of international peace and security is included in the (UPSC 2014)

- (a) Preamble to the Constitution
- (b) Directive Principles of State Policy
- (c) Fundamental Duties
- (d) Ninth Schedule

Ans: (b)

GENERAL STUDIES - 4

7. DRIVEN TO DEATH: THE HIDDEN PERILS OF OVERWORK

Context:

The **tragic death of 26-year-old EY employee Anna Sebastian Perayil** has sparked critical discussions about toxic work culture in corporate India.

Anna's mother claims work pressure **led to her daughter's passing**, highlighting issues of **overwhelming workloads, long hours, and unrealistic expectations**. Employees often hesitate to voice concerns due to fear of professional consequences, worsening the situation.

Despite **corporate wellness initiatives**, many companies fail to prioritize employee well-being. Experts emphasize the need for empathetic leadership, reduced workloads, and stress management programs. Anna's death serves as a reminder that creating a healthy workplace culture should be a priority for all organizations.

The ethical issues in the case of the 26-year-old EY employee's death include:

1. **Workplace Stress and Mental Health:** Failure to manage excessive workloads, long hours, and stress can harm employees' physical and mental health, raising concerns about employer responsibility for well-being.
2. **Toxic Work Culture:** A culture that normalizes overwork, burnout, and the fear of speaking up about stress or exhaustion can be seen as unethical, as it neglects the human aspects of work.
3. **Lack of Empathy and Support:** The absence of company representatives at the employee's funeral reflects a lack of empathy and emotional support from the organization, which is essential during such situations.
4. **Retaliation and Fear of Repercussions:** Employees hesitating to report work-related stress due to fear of retaliation or poor performance ratings highlight an unethical power dynamic within the workplace.
5. **Unclear Expectations and Unrealistic Workloads:** Imposing unrealistic expectations without regard for employee capacity or well-being is a violation of ethical labour practices.
6. **Mental Health Stigma:** The fear of being judged for mental health struggles or stress highlights a broader ethical issue of insufficient support for mental well-being in the workplace.
7. **Credit Misappropriation:** Instances where manag-

ers take credit for subordinates' work, resulting in poor performance ratings for employees, reflect a lack of integrity and fairness.

8. **Neglecting Employee Welfare Policies:** Despite wellness programs, the failure to genuinely implement policies that prioritize employee welfare shows a disconnect between corporate promises and actual practices.

'18 hours work' debate and hustle culture

Hustle culture is defined as one that encourages employees to work more than normal working hours.

- Work is on their minds even when they have free time or on holidays.
- The major requirement of this culture is to complete a job on target at a faster pace than usual.

A LinkedIn post by the CEO of a company advising youngsters to work 18 hours a day, at least for four to five years initially in their career, faced a backlash and was ridiculed.

What does WHO study on long working hours say?

- 745,000 people died from a stroke and heart disease associated with long working hours in 2016
- Working 55 hours or more per week is a serious health hazard
- Capping hours would be beneficial for employers since that has been shown to increase worker productivity.

Why is it important to have a work-life balance?

Siddhartha S, an author of 5 books — '60 Keys to Success with NLP', 'Thank God it's Monday', and many others suggest:

1. Work-life balance is critical
2. Put health before wealth
3. Devise an incentive system if you want employees to work extra hours
4. Success has different meanings for different people: Economic success is not the only yardstick to measure the success of human life.
5. Entrepreneur and employee mindsets are different: If an employee has to work 70+ hours for a basic salary, then it is not a great idea. The employee may as well take the entrepreneurship path where there is an opportunity to create a company and to keep the profits.

Mains Link:

Q. Do you think rejecting hustle culture youngsters or going for moonlighting is rejecting the idea of work is worship embedded in Indian Culture? Discuss. 10M

CONTENT FOR MAINS ENRICHMENT

Topic in News	Usage in Answers
<p>1. “KAVACH” CENTRES: TO PREVENT HIGH RATE OF CHILD DROWNINGS</p>	<p>Context: In the Sundarbans, a community initiative led by mothers is combating the high rate of child drownings. The delta’s numerous water bodies, combined with the poverty-driven need for both parents to work, create a dangerous environment for children. A 2019 survey revealed that three children drown daily.</p> <p>In response, “Kavach” centres were launched in 2023 to provide close supervision for toddlers.</p> <p>Additionally, community-driven swimming lessons and CPR training aim to prevent further tragedies. Despite these efforts, long-standing beliefs and limited public resources continue to pose challenges in preventing drowning incidents.</p> <p>Ethical Lessons:</p> <ol style="list-style-type: none"> Parental Responsibility: Constant supervision is crucial to prevent tragedies, especially in hazardous environments. Community Involvement: Collective initiatives like Kavach centres emphasize the power of the community in protecting vulnerable groups. Education & Awareness: Proper training (e.g., CPR, swimming) can save lives, highlighting the value of knowledge-sharing. Challenging Superstition: Dispelling harmful beliefs, such as religious fears around pond barriers, is essential for public safety. Equity in Public Health: Addressing drowning requires accessible healthcare and resources, emphasizing the need for government support.
<p>2. TRAVEL: A KEY TO SLOWING DOWN AGING</p>	<p>Context: A new study in the Journal of Travel Research suggests that travel can slow down the ageing process by reducing “entropy,” a measure of disorder in the body.</p> <p>Positive travel experiences, physical activities, and social interactions boost physical and mental health, supporting the body’s self-healing mechanisms. However, negative experiences, such as accidents or illness during travel, can accelerate ageing by increasing entropy.</p> <p>Lessons that can be learnt:</p> <ol style="list-style-type: none"> Encourage physical activities like hiking and cycling during travel. Seek positive experiences and exposure to new environments. Engage in social interactions while travelling. Promote safe travel practices to avoid accidents and illnesses. Consider travel therapy for its health benefits. Avoid negative experiences that may increase stress or health risks.

<h3>3. DR. MARY POONEN LUKOSE</h3>	<p>Context: <u>Dr. Mary Poonen Lukose, born in 1886, was Kerala's first woman doctor and the first woman to be a member of a legislative council</u> in an Indian princely state.</p> <p>After facing initial barriers in India, <u>she pursued a medical degree in London, specializing in gynaecology. Returning to Travancore</u>, she made history by <u>performing Kerala's first cesarean section and pioneering midwifery training</u>. In 1924, she became the first woman head of <u>Travancore's health department and its first surgeon general</u>. She also served in the <u>Travancore Legislative Council</u>, impacting public health policy until 1937.</p> <p>Ethical Lessons:</p> <ol style="list-style-type: none"> Perseverance: Overcoming gender barriers to pursue education and a career in medicine. Dedication to Service: Committed to improving healthcare, especially for women and children. Innovation: Introduced medical advancements like cesarean sections and midwifery training. Leadership: Led as the first woman surgeon general and head of the health department. Public Welfare: Worked towards better public health policies as a legislator. Compassion: Advocated for safer births and accessible healthcare in challenging conditions.
<h3>4. SANJU DEVI'S JOURNEY TO SANITATION IN PATNA</h3>	<p>Sanju Devi from Patna, Bihar, became a symbol of change by breaking gender norms and leading a sanitation initiative in her community.</p> <p>Initially facing resistance, <u>she trained with the Patna Municipal Corporation</u> to drive an e-rickshaw and collect door-to-door garbage. Her efforts not only improved waste management but also inspired other women to join the cause, challenging traditional gender roles. Her story aligns with the <u>Swachh Bharat Mission</u>, showcasing how individual actions can drive national progress toward cleanliness and equality.</p> <p>Ethical Values:</p> <ol style="list-style-type: none"> Perseverance: Overcoming personal and societal challenges to achieve goals. Leadership: Inspiring others through actions and leading by example. Empowerment: Enabling oneself and others to break stereotypes. Community Service: Contributing positively to the betterment of society. Courage: Defying societal norms and embracing unconventional roles. Responsibility: Taking initiative for community welfare. Equality: Promoting gender equality by challenging traditional roles.
<h3>5. MORTH PROMOTES USE OF URBAN WASTE IN HIGHWAY CONSTRUCTION</h3>	<p>Context: The <u>Ministry of Road Transport & Highways (MoRTH)</u> has issued guidelines to use urban solid waste in <u>building National Highways</u>.</p> <p>This move aims to <u>reduce the environmental impact of sourcing construction materials like soil, often taken from agricultural fields</u>. Successful pilot projects on the <u>Delhi-Mumbai Expressway and Ahmedabad-Dholera Expressway</u> have demonstrated the feasibility of using inert waste material for highway embankments. With around <u>1700 lakh tons of accumulated waste across 2304 dump sites</u>, utilizing this material can mitigate environmental hazards and support sustainable highway development.</p> <p>Significance: Using urban solid waste in highway construction reduces environmental impact, minimizes soil depletion from agriculture fields, addresses the issue of overflowing landfill sites, and promotes sustainable infrastructure development.</p>

<p>6. FRANCESCA GINO</p>	<p>A renowned behavioural scientist, faces allegations of data manipulation in multiple studies, leading to her unpaid leave from Harvard and a defamation lawsuit against Harvard and the whistleblowers. She maintains her innocence, attributing errors to research assistants or unknown parties.</p>
<p>7. KOLKATA'S RG KAR MEDICAL COLLEGE HOSPITAL PROBE</p>	<p>SNG Envirosolutions, a company without any waste treatment plants, managed to secure up to 70% of government hospital waste contracts, violating ethical standards and contract terms.</p>
<p>8. UNETHICAL HACKING</p>	<p>Context: The Madras High Court has issued an order restraining Telegram Messenger and Cloudflare from being used by unethical hackers to share or sell sensitive customer data allegedly stolen from the systems of Star Health and Allied Insurance Company, Chennai.</p> <p>Use in UPSC GS3:</p> <ul style="list-style-type: none"> • Topic: Cyber Security <ul style="list-style-type: none"> ○ The incident demonstrates the growing importance of data protection, highlighting the need for robust cybersecurity mechanisms to prevent data breaches and misuse of digital platforms by unethical hackers. <p>Use in UPSC GS4:</p> <ul style="list-style-type: none"> • Topic: Ethics in Technology and Governance <ul style="list-style-type: none"> ○ This case can be used to discuss ethical issues in digital governance, the misuse of technology platforms, and the responsibility of tech companies in ensuring data privacy and security.
<p>9. 'RATRI SATHI' INITIATIVE</p>	<p>Context: West Bengal Chief Minister Mamata Banerjee announced the removal of certain provisions in the 'Ratri Sathi' initiative following objections by the Supreme Court.</p> <ul style="list-style-type: none"> • The Supreme Court raised concerns about the deployment of contractual staff, particularly after an incident involving a contractual worker accused of a crime at R.G. Kar Medical College. • The appointment of 12,000 untrained police personnel has sparked controversy, with experts questioning their ability to ensure security for doctors. <p>Use in UPSC GS2:</p> <ul style="list-style-type: none"> • Topic: Government Policies and Interventions <ul style="list-style-type: none"> ○ This case can be used to discuss judicial interventions in state policies and the implications of government decisions on public safety and service delivery. <p>Use in UPSC GS4 (Ethics):</p> <ul style="list-style-type: none"> • Topic: Ethical Issues in Public Service <ul style="list-style-type: none"> ○ The ethical concerns raised by the deployment of untrained contractual workers and police personnel can illustrate the importance of competency and responsibility in ensuring public safety.

10. CJI SPEECH AT M.K. NAMBYAR MEMORIAL LECTURE

Context: Chief Justice of India (CJI) D.Y. Chandrachud delivered the M.K. Nambyar Memorial Lecture, emphasizing the evolving nature of constitutional doctrine in response to societal changes.

Judgement and Its Importance:

1. **A.K. Gopalan Case:** Nambyar advocated for the ‘due process of law’ in Article 21, which was a major leap in interpreting the right to life and personal liberty. This principle ultimately influenced the court’s understanding that fundamental rights are interlinked and must not be treated in isolation.
2. **Kesavananda Bharati Case:** The introduction of the ‘Basic Structure’ doctrine ensured that certain core principles of the Constitution could not be amended, safeguarding democratic values. This case remains a cornerstone of constitutional law, ensuring the Constitution’s fundamental framework remains intact against excessive amendments.

These rulings were transformative as they not only strengthened individual rights but also solidified the role of the judiciary in maintaining the essence of the Constitution.

Statements from CJI for UPSC exams:

1. **“Constitutional doctrine evolves with society, and no generation can monopolize solutions or foresee the future.”**
 - This highlights the dynamic and evolving nature of the Constitution in response to societal changes.
2. **“The Indian Constitution thrives as a ‘living document.’”**
 - This underscores the flexible and adaptive nature of the Indian Constitution, making it relevant in various contexts.
3. **“The solution lies between a complete abandonment of the Constitution framers’ vision and its uncritical acceptance.”**
 - This reflects the balanced approach to constitutional interpretation, ensuring neither rigidity nor complete deviation from the framers’ intent.

NOTE: These could be potential essay topics. Try to write an essay on one of the three statements.

11. CDSCO DRUG ALERT

Context: Over 50 drugs, including widely used medications like Paracetamol, Pan D, and anti-diabetes pills, were found to be “not of standard quality.”

- **Companies involved:** The drugs in question were allegedly manufactured by companies such as Alkem Laboratories, Hindustan Antibiotics Ltd, Hetero Labs Ltd, and others.
- **Impacted medications:** The alert mentions common drugs including calcium, vitamin D3 supplements, and other pharmaceutical products.

Use in UPSC GS3:

1. **Health and public safety:** This example highlights issues of drug quality and its impact on public health, showcasing the need for stringent regulatory oversight.
2. **Pharmaceutical industry regulation:** Can be used to discuss the regulatory mechanisms and challenges in ensuring drug safety and quality in India.
3. **Challenges in healthcare delivery:** Useful in discussions around ensuring access to safe and reliable medicines within the healthcare sector.

<h2 style="color: red;">12. BRAHMOS AEROSPACE</h2>	<p>Context: BrahMos Aerospace, an Indo-Russian joint venture producing supersonic cruise missiles, has announced a reservation of at least 15% of vacancies for former Agniveers in technical, administrative, and security roles.</p> <p>Key Points:</p> <ol style="list-style-type: none"> BrahMos aerospace initiative: 15% of vacancies in technical and administrative roles and 50% in administrative and security roles reserved for Agniveers. Encouraging industry partners: BrahMos is motivating over 200 industry partners to reserve 15% of their workforce for Agniveers. Agnipath scheme: Launched in June 2022 to recruit youths into the armed forces for four years, with 25% retained for 15 more years. <p>Relevance in UPSC Syllabus:</p> <ul style="list-style-type: none"> GS2: Governance - Skill development initiatives, Government Policies - Agnipath scheme, and Public Service - Employment opportunities for ex-servicemen. GS3: Defence and Security - Role of defence industries and integration of former soldiers into the workforce, Industrial Policy - Support for domestic defence manufacturing.
<h2 style="color: red;">13. TRIAL OF DOMINIQUE PELICOT</h2>	<p>Context: The trial of Dominique Pelicot, who drugged his wife, Gisele Pelicot, to allow strangers to rape her for nearly a decade, has sparked a significant debate on masculinity in France. Pelicot and 50 co-defendants, including men from ordinary professions like firefighters and journalists, are accused of rape and sexual assault. Gisele has become a feminist icon for refusing to be ashamed and demanding a public trial to raise awareness about drug-facilitated sexual abuse. The trial has ignited discussions about male violence, with many men publicly denouncing the patriarchal system and calling for an end to “rape culture” and masculine domination. A petition signed by 170 men emphasized the need to stop objectifying women and perpetuating harmful masculine behaviors.</p> <p>Use in Essay:</p> <p>This anecdote can be used in essays on topics like gender violence, toxic masculinity, and social justice. It highlights the systemic nature of male violence and the need for societal reform, emphasizing personal responsibility and collective action to dismantle harmful patriarchal norms. It also showcases how courage from victims like Gisele can inspire societal change.</p> <p>Use in GS-4 (Ethics):</p> <ol style="list-style-type: none"> Violation of human dignity: Drugging and raping Gisele violated her bodily autonomy and inherent dignity. Gender-based violence: The case reflects systemic gender-based violence rooted in patriarchy. Complicity in crime: Ordinary men’s involvement highlights societal complicity in sexual violence. Breach of marital trust: Dominique’s actions represent a severe betrayal of marital trust and protection. Patriarchal power dynamics: The case showcases patriarchal domination that perpetuates rape culture.

FACTS FOR PRELIMS

GS-1

Art & Culture

1. SASTRA RAMANUJAN PRIZE

Context:

The 2024 SASTRA Ramanujan Prize will be awarded to **Alexander Dunn** of the Georgia Institute of Technology, U.S.

SASTRA Ramanujan Prize:

- **Origin:** The award was instituted by the Shanmugha Arts, Science, Technology & Research Academy (SASTRA) in 2005.
- **Given By:** SASTRA University, Tamil Nadu, India.
- **Award Details:** A cash prize of USD 10,000 is presented annually.
- **Eligibility:** It is awarded to individuals aged 32 and below for outstanding contributions in the field of mathematics, particularly those influenced by the work of Srinivasa Ramanujan.

Srinivasa Ramanujan:

- **Born:** 22nd December 1887 in Erode, Tamil Nadu.
- **Key Contributions:** Ramanujan made significant contributions to the analytical theory of numbers, elliptic functions, and partition theory. He also worked on hypergeometric series and Euler's constant.
- **Mentorship:** British mathematician G.H. Hardy recognized his talent in 1913 and invited him to Cambridge, where Ramanujan's work flourished.

Insta Links:

2023 Sastra Ramanujan Prize

GS-2

Functioning of Parliament and State Legislatures

2. LOKAYUKTA

Context:

Karnataka CM Siddaramaiah is facing a Lokayukta investigation ordered by a special court over claims of misusing his position to acquire 14 plots for his wife in Mysuru.

Background of Lokayukta

- **Concept Origin:** Derived from the Scandinavian Ombudsman system, the Lokayukta was first recommended by the **Administrative Reforms**

Commission (1966-70).

- **First Implementation:** Maharashtra pioneered the institution of Lokayukta in **1971**.
- **Lokpal and Lokayuktas Act (2013):** Mandated all Indian states to establish a Lokayukta to investigate grievances and corruption allegations.
 - The **Lokayukta** typically consists of a **Lokayukta** and one or more **Upa-Lokayuktas**.
 - The number varies from state to state, and appointments are made by the **Governor**, usually in consultation with the state's Chief Justice and Leader of the Opposition.

Powers of Lokayukta

- **Investigation of Public Servants:** Probes allegations of corruption and misconduct against state officials, including ministers and public servants.
- **Suo Motu Powers:** Can act on its own without a formal complaint, based on media reports or personal information.
- **Recommendations:** Though its decisions are not binding, it can recommend corrective measures and prosecutions.
- **Autonomy:** Independent of government interference, yet often faces challenges due to state dependence on resources.

3. CLAUSE 6 OF THE ASSAM ACCORD

Context:

After a meeting with representatives of the All Assam Students' Union (AASU) on Wednesday, Chief Minister Himanta Biswa Sarma set the ball rolling for the implementation of 52 recommendations of the Justice Biplab Sarma Committee regarding Clause 6 of the Assam Accord.

Key Features of Clause 6:

1. **Protection for Assamese Identity:** It calls for measures to safeguard the unique identity and culture of the Assamese people.
2. **Legislative Safeguards:** Provisions for legislative steps to ensure the protection of Assamese cultural and social interests.
3. **Cultural and Linguistic Preservation:** It emphasizes promoting the Assamese language and cultural heritage, particularly against the backdrop of the state's demographic changes due to immigration.
4. **Political Representation:** Suggested measures include reservations for Assamese people in the state legislature, Parliament, and local bodies.

Justice Biplab Sarma Committee

1. **Established:** In 2019, a 14-member high-level committee was formed by the Union Home Ministry, chaired by retired Justice Biplab Sarma.
2. **Objective:** To recommend specific measures for

implementing Clause 6 of the Assam Accord.

Key Recommendations of the Committee:

- 1. Definition of “Assamese People”:** The committee recommended defining “Assamese people” as indigenous tribals, citizens residing in Assam on or before January 1, 1951, and their descendants.
- 2. Land and Language Safeguards:** Limiting land ownership to Assamese people in certain areas and making Assamese the compulsory official language.
- 3. Reservation:** Recommendations for 80-100% reservations in government jobs, educational institutions, and political seats for Assamese people.
- 4. Cultural Heritage:** Establishment of cultural complexes and authorities to promote Assam’s diverse cultural practices.

Implementation Status:

While the Assam government has accepted 52 recommendations, key political recommendations like **Inner Line Permit and reservations require Constitutional amendments** and have been left out for now.

4. EASTERN RAJASTHAN CANAL PROJECT (ERCP)

Context:

A new memorandum of agreement will be signed shortly between the Rajasthan and Madhya Pradesh governments for implementing a modified project for linking of Eastern Rajasthan Canal Project (ERCP).

- **Aim:** To address drinking water and irrigation needs in 13 districts of Rajasthan. The project will link rivers such as Chambal, Parvati, and Kali Sindh for better water resource utilization, benefiting both states.

Rivers Involved in the Project:

- 1. Chambal River:**
 - **Origin:** Singar Chouri peak, Vindhya mountains, Indore, Madhya Pradesh.
 - **Tributaries:** Banas, Kali Sindh, Sipra, Parvati.
- 2. Parvati River:**
 - **Origin:** Vindhya Range, Sehore District, Madhya Pradesh.
 - **Tributaries:** None significant.
- 3. Kali Sindh River:**
 - **Origin:** Bagli, Dewas District, Madhya Pradesh.
 - **Tributaries:** Parwan, Niwaj, Ahu.



Significance:

The ERCP will help harvest surplus water during the rainy season for the water-scarce regions of Rajasthan, ensuring a sustainable solution for drinking water and irrigation till 2051.

Insta links:

1. ERCP

Judiciary

5. FACT-CHECK UNIT

Context:

The Bombay High Court **has struck down the amended IT Rules, 2023**, which allowed the Centre to establish a fact-check unit to identify “**fake news**” about the government.

- The court ruled that the rules violated the **Constitution’s rights to equality and free speech**, describing the terms “**fake, false, and misleading**” as vague.
- The court ruled that the state is **not obligated to provide only verified information**.
- The measures also failed the **test of proportionality**, which evaluates the **legitimacy, suitability, necessity, and balancing of laws** against rights.
- This decision followed a split verdict in January 2024 and a petition from various groups, including **comedian Kunal Kamra**.

International Relations

6. CANCER MOONSHOT INITIATIVE

Context:

The Quad **countries—United States, Australia, India, and Japan**—have launched a “**Cancer Moonshot Initiative**” aimed at **reducing cancer in the Indo-Pacific, starting with cervical cancer**.

- The **initiative will improve the cancer care ecosystem** through **better health infrastructure, research collaboration, data systems, and enhanced prevention, detection, treatment, and care**.

- **Cervical cancer, the third leading cause of cancer deaths among women in the region**, can be prevented with **HPV vaccines and early screening, but access remains limited.**
- **The initiative will promote HPV vaccination, increase screenings, and improve treatment, with the goal of saving hundreds of thousands of lives over time.** The Quad countries plan to **collaborate on research, engage the private and non-governmental sectors, and work with organizations like Gavi and the International Atomic Energy Agency** to lower screening costs and improve cancer care access.

7. SCO

Context:

India's participation in the Shanghai Cooperation Organisation (SCO) is significant, with discussions on External Affairs Minister S. Jaishankar possibly attending the 2024 meeting in Pakistan, despite strained bilateral ties.

About SCO:

- **Origin:** Started as the "Shanghai Five" in 1996 to address security issues.
- **Establishment:** Formed in 2001, adding Uzbekistan and evolving into the SCO.
- **Members:** 10 members including India, China, Russia, Pakistan, and the recent addition of Belarus.
- **2024 Summit host:** Astana, Kazakhstan
- **2025 SCO Summit:**
 - People's Republic of China will assume the SCO chairmanship for the next term, and Qingdao, China will be appointed the SCO's tourism and cultural capital for 2024-2025.

2024 SCO Summit Summit:

- **New Membership:** Belarus joining as the 10th member.
- **Astana Declaration:** Adoption of 25 key agreements on issues like energy and security.
- **India-China Dialogue:** Focus on resolving border disputes and disengagement along the LAC.

Governance

8. THE FOOD IMPORT REJECTION ALERT PORTAL

Context:

The **Food Safety and Standards Authority of India (FSSAI)** has launched the **Food Import Rejection Alert (FIRA) portal**, which will **notify authorities about food consignments rejected at Indian borders due to safety concerns.**

- The portal, **unveiled at the Global Food Regulators Summit 2024**, will **facilitate quick information sharing to prevent health risks from rejected food.**
- In the past year, **over 1,500 imported food items were rejected by FSSAI** for failing to meet Indian standards.
- Other **government healthcare achievements include expanding the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (PMJAY)** to cover **all senior citizens aged 70 and above, benefiting 60 million people.**
- The **U-WIN portal has digitized vaccination services**, registering 64 million beneficiaries so far.
- Additionally, a **new TB treatment regimen and diagnostics** have been **introduced to shorten treatment time, with plans for nationwide rollout.**

9. INTERNATIONAL CHESS FEDERATION (FIDE) CHESS OLYMPIAD

Context:

The Indian chess team celebrated a historic victory at the 2024 FIDE Chess Olympiad by **winning double gold in both the men's and women's categories.**

About the International Chess Federation (FIDE) Chess Olympiad:

- The International Chess Federation (FIDE) Chess Olympiad is a **biennial chess tournament in which teams from countries worldwide compete against each other.**
- **Organized by FIDE, the governing body of chess, the Chess Olympiad** is one of the **most prestigious team events in the chess world.**
- It includes **both an open section and a women's section**, and **teams compete over several rounds in a Swiss-system format**, where each player faces an **opponent of comparable skill from another team.**
- The **event promotes international camaraderie and high-level competition**, and it has become a **major platform for showcasing top chess talent from across the globe.**

10. PERIODIC LABOUR FORCE SURVEY (PLFS)

Context:

The **Periodic Labour Force Survey (PLFS) Annual Report (July 2023 - June 2024)** presents **key labour market trends in India.**

1. Labour Force Participation Rate (LFPR):

- The overall LFPR for individuals aged 15 years and above increased from **57.9% in 2022-23** to **60.1% in 2023-24**.
- For females, LFPR rose from **37.0% to 41.7%**, while for males, it slightly increased from **78.5% to 78.8%**.

2. Worker Population Ratio (WPR):

- The WPR also saw a rise, increasing from **56.0% to 58.2%**.
- For females, it jumped from **35.9% to 40.3%**, and for males, from **76.0% to 76.3%**.

3. Unemployment Rate (UR):

- The overall UR was **3.2%** for both males and females.
- While the male UR decreased slightly from **3.3% to 3.2%**, the female UR increased from **2.9% to 3.2%**.

About the Periodic Labour Force Survey (PLFS):

The **Periodic Labour Force Survey (PLFS)** is a comprehensive survey conducted by the **National Statistical Office (NSO) of India** to assess the **employment and unemployment situation** in the country.

Objectives

- **Assess Employment Status:** PLFS aims to provide detailed information on various dimensions of labour force participation, employment, and unemployment.
- **Monitor Employment Trends:** It helps track changes in the labour market and understand the dynamics of employment and economic conditions.
- **Support Policy Formulation:** The data collected is crucial for policymakers to formulate labour-related policies and programs.

Key Features

- **Household Survey:** PLFS gathers information from households across rural and urban areas, making it representative of the entire country.
- **Annual and Quarterly Data:** It includes both annual and quarterly surveys to provide timely insights into labour force dynamics.
- **Employment Indicators:** The survey collects data on various indicators such as work participation rate, unemployment rate, and underemployment rate.

11. CHILD SEXUAL EXPLOITATIVE AND ABUSE MATERIAL

Context:

The **Supreme Court of India has ruled that viewing, downloading, storing, or distributing child sexual exploitative and abuse material (CSEAM)** is a criminal offence under the **Protection of Children from Sexual Offences (POCSO) Act and the Information Technology**

(IT) Act.

- A **three-judge bench led by Chief Justice D.Y. Chandrachud** emphasized that **the harm to the victim continues even after the abuse, through the circulation of exploitative material online.**
- The **court urged Parliament to amend the POCSO Act to replace the term “child pornography” with CSEAM, which more accurately describes the crime.**
- The judgment **criticized the use of “child pornography” as it trivializes the abuse**, explaining that **both viewing CSEAM and the act of child sexual abuse share a common intent—exploitation for sexual gratification.**
- Additionally, the **court introduced the concept of “constructive possession,”** holding **individuals accountable for having the ability to control or delete such material, even if they attempt to evade liability.** The **judgment calls for immediate legal reforms and encourages people** to report any unknown or suspicious links involving CSEAM.

12. UNSC REFORM

Context:

With the United Nations (UN) approaching its **80th anniversary next year**, the Group of Four (G4) countries seeking permanent membership and reform of the UN Security Council (UNSC) called for urgent reform of the world body. Other plurilateral groupings, such as the **L69 and C-10** also echoed these calls.

Background of the Issue:

- The Group of Four (G4) countries—**India, Brazil, Germany, and Japan**—are seeking urgent reform of the UN Security Council (UNSC) to include both permanent and non-permanent members from developing countries.
- G4 and other groups such as L69 and C-10 emphasized the need for reform to make the UNSC more representative, democratic, and transparent, especially for Global South representation.
- The UNSC reform is critical to enhancing its credibility and legitimacy, with these groups pressing for immediate text-based negotiations.

L69 Grouping:

- **Members:** 32 developing nations including India, from Asia, Africa, Latin America, the Caribbean, and Pacific Small Island Developing States.
- **Aim:** Expansion of UNSC permanent and non-permanent categories to reflect contemporary global realities and promote a more accountable and transparent Security Council.

C10 Grouping:

- **Members:** Committee of Ten Heads of State and Government of the African Union (C10), compris-

ing 10 African nations.

- **Aim:** Focuses on UNSC reform, advocating for better representation of Africa and pushing the Common African Position based on the **Ezulwini Consensus and Sirte Declaration**.

United Nations Security Council (UNSC):

- **Origin:** Established in 1945 after World War II as one of the five principal organs of the United Nations.
- **Head:** Led by 15 Members—5 permanent (P5: UK, USA, Russia, China, France) and 10 non-permanent members elected for two-year terms.
- **HQ:** United Nations Headquarters, New York City.
- **Aim:** Responsible for maintaining international peace and security, resolving disputes, and making binding decisions for all member states.
- **Powers:** Includes establishing peacekeeping operations, international sanctions, and authorizing military action. The P5 members have veto power over UNSC decisions.

Insta links:

1. Ill equipped G4

GS-3

Indian Economy

13. MINERALS SECURITY FINANCE NETWORK

Context:

India is now formally a part of the Minerals Security Finance Network, a US-led initiative aiming to strengthen cooperation among members to secure supply chains for critical minerals.

About Mineral Security Finance Network:

- **MSFN:** A US-led initiative, part of the Minerals Security Partnership (MSP), to secure global supply chains for critical minerals.
- **Global Focus:** Aims to reduce dependency on China for minerals like lithium, cobalt, nickel, and rare earths, crucial for clean energy and electronics.
- **Key Objectives:**
 - Uniting Development Finance Institutions (DFIs) and Export Credit Agencies (ECAs) to fund critical mineral projects.
 - Promoting public-private cooperation to meet global mineral demand.

- **India's Role:** India's inclusion aligns with its EV, electronics, and semiconductor push, ensuring a steady mineral supply.
- **China's Dominance:** China controls 70% of rare earth production, with a robust processing infrastructure for minerals like cobalt from Africa.

14. T+0 SETTLEMENT

Context:

Stock exchanges have decided to delay the implementation of T+0 (same-day) settlement cycle for institutional clients, which was set to start on September 30, 2024, on a voluntary basis. T+0 was introduced for retail clients in 25 securities as a beta version in March 2024.

T+0 and T+1 Settlement Cycles:

- **T+0 Settlement:** Refers to same-day settlement of trades where both funds and securities are exchanged on the same day.
- **T+1 Settlement:** In this system, trades are settled one business day after the transaction date. It was introduced in 2021 and has already been implemented in phases.
- **Key Issue:** Foreign portfolio investors (FPIs) are resisting T+0 due to the pre-funding requirements, and systems aren't fully ready for seamless adoption.

Significance on the Economy:

- **Faster Settlements:** Reduces the risks associated with delayed settlements and facilitates quicker access to funds and securities for investors.
- **Efficiency for Retail Investors:** T+0 can optimize fund utilization, particularly benefiting retail investors with limited capital.
- **Improved Accuracy:** T+1 has already led to reduced error rates in settlements, especially for FPIs, improving overall market efficiency.

Insta links:

T0 Instant Settlement Cycle

15. PRODUCTION LINKED INCENTIVE

Context:

India's Production Linked Incentive (PLI) scheme is set to boost the textile sector, with disbursements starting this fiscal year. The initiative aims to address stagnation in India's textile exports, enhance competitiveness, and promote job creation in the sector.

Summary:

- **PLI for textiles:** About a dozen companies will receive incentives under the scheme for man-made

fibers (MMF) and technical textiles this year.

- **Export stagnation:** India's textile exports remain stagnant at \$35 billion, while competitors like Vietnam and Bangladesh gain market share through trade agreements.
- **Job creation target:** The government aims to create 4.5 to 6 crore jobs in the textile sector by 2030, while increasing the sector's market size to \$350 billion.

About the PLI scheme:

- **Origin:** Launched in 2021 to boost domestic manufacturing, reduce imports, and enhance exports.
- **How it works:** Provides performance-linked incentives based on incremental sales of domestically manufactured products.
- **Sectors covered:** Includes 13 sectors such as electronics, textiles, automotive, pharmaceuticals, telecom, and renewable energy. Budget: Rs 1.97 lakh crore (\$28 billion).

Insta Links:

Production linked incentive

16. GLOBAL INNOVATION INDEX

Context:

India has ascended 42 positions in the Global Innovation Index (GII) since 2015 and now ranks 39th out of 133 economies evaluated.

> India GI Ranking (2020-2024)

The table shows the rankings of India over the past four years. Data availability and changes to the GI model framework influence year-on-year comparisons of the GI rankings. The statistical confidence interval for the ranking of India in the GI 2024 is between ranks 35 and 40.

Year	GI Position	Innovation Inputs	Innovation Outputs
2020	48th	57th	45th
2021	46th	57th	45th
2022	40th	42nd	39th
2023	40th	46th	35th
2024	39th	44th	33rd

2024 Report Highlights:

- **Published by:** World Intellectual Property Organisation.
- **India's rank:** 39th out of 133 economies in the GI 2024, improving from 40th in 2023.
- **Key indicators:**
 - **ICT services exports:** India ranks 1st globally.
 - **Venture capital received:** India's start-up ecosystem secures a strong position.

- **Unicorn companies:** India ranks 8th globally.

Positives:

1. **Start-up growth:** India's dynamic start-up ecosystem continues to fuel innovation.
2. **ICT services leadership:** India leads the world in technology-driven services.
3. **Venture capital:** Strong investments are fostering innovation and growth.

Challenges:

1. **Low R&D spending:** India needs to increase research and development (R&D) investments.
2. **Manufacturing innovation:** The manufacturing sector still faces innovation challenges.
3. **Infrastructure:** Gaps in innovation infrastructure remain a hurdle to growth.

Insta Links:

1. GI, 2023

17. PARYATAN MITRA & PARYATAN DIDI

Context:

Launched on **World Tourism Day, September 27th, 2024**, the Ministry of Tourism's 'Paryatan Mitra & Paryatan Didi' initiative aims to enhance the tourist experience by training locals to become tourism ambassadors, promoting social inclusion and job creation.

Paryatan Mitra & Paryatan Didi:

- **Year of Implementation:** 2024
- **Ministry:** Ministry of Tourism, Government of India
- **Aim:** To empower locals in key tourist destinations as ambassadors, enhancing tourist experiences while promoting employment and community engagement.
- **Features:**
 - Piloted in **6 destinations**, including Orchha, Gandikota, Bodh Gaya, and Jodhpur.
 - Locals trained in hospitality, safety, sustainability, and local storytelling.
 - Focus on women and youth for developing tourism experiences like heritage walks and food tours.
 - Training in **digital literacy** for promoting tourism products globally.
 - Recognized ambassadors receive badges for identification, ensuring quality experiences for tourists.

Insta Links:

1. Dark Tourism

Agriculture

18. 100 YEARS OF ICAR-NISA

About ICAR-National Institute of Secondary Agriculture (NISA):

It was established in 1924 as the Indian Institute of Natural Resins and Gums in Ranchi, Jharkhand, and was re-named in 2022. It operates under the Ministry of Agriculture and Farmers' Welfare.

About Secondary Agriculture:

It involves **adding value to primary agricultural products and related activities** like beekeeping, poultry farming, and agritourism. It includes processes converting agricultural produce, residues, and by-products into high-value items for food, industrial, and medicinal uses. Examples include making jaggery from sugarcane or extracting oil from rice bran.

Significance:

1. Increases farmer income through value-added products.
2. Promotes sustainable use of crop residues.
3. Boosts rural cottage industries.
4. Meets growing demand for ready-to-eat and functional foods.

Science & Technology

19. NANOZYMES

Context:

A recent study by the **CSIR-Central Leather Research Institute (CSIR-CLRI)** has shown that **nanozymes**, which are **nanomaterials functioning like enzymes, can improve collagen's integrity and resistance to enzymatic degradation.**

- **Traditional collagen crosslinking methods** often involve **harsh chemicals that risk damaging the protein**, but **nanozymes achieve this under mild conditions, preserving collagen's structure.**
- This breakthrough **has significant implications for creating durable collagen-based biomaterials used in wound healing and tissue engineering.**
- The study highlights a **manganese-based nanozyme** that enhances **collagen's stability through a tannic acid-tyrosine linkage**, making it resistant to collagenase, an enzyme that typically degrades collagen.
- Another related study **explores how biomolecules interact with enzyme-like catalytic sites in metal-organic frameworks**, offering new av-

enues for more precise artificial enzymes in medical applications.

20. SUSTAINABLE AVIATION FUELS

Context:

India and Brazil have **reaffirmed their commitment to collaborate in the energy sector**, particularly **focusing on sustainable fuels like biofuels.**

- As founding members of the **Global Biofuels Alliance**, they emphasized **biofuels' role in the global energy transition and socioeconomic growth.**
- **India and Brazil are well-positioned to work together on sustainable aviation fuels (SAF)** using their existing biofuel infrastructure and agricultural resources.
- They also **plan to co-host the India-Brazil Clean Cooking Ministerial Meeting** during India Energy Week 2025, aiming to explore ways to improve global clean cooking access.

Additionally, both nations discussed **collaboration in deep and ultra-deep offshore energy explorations.** Sustainable Aviation Fuels (SAFs) are a **type of renewable fuel designed to reduce the carbon footprint of aviation.**

Made from **sustainable resources like waste oils, agricultural residues, and even algae**, SAFs can **replace or blend with conventional jet fuels**, offering a more eco-friendly alternative for powering aircraft.

21. COMPUTER SECURITY INCIDENT RESPONSE TEAM – POWER (CSIRT-POWER)

Context:

The Union Minister inaugurated the **COMPUTER SECURITY INCIDENT RESPONSE TEAM – POWER (CSIRT-Power) facility**, aimed at **protecting India's power infrastructure from increasing cyber threats.**

- The **facility is a proactive response** to the **growing risk of cyberattacks on the power sector**, which **is a critical part of national infrastructure.**
- CSIRT-Power, **equipped with advanced cybersecurity tools and expert teams**, will coordinate **incident responses, enhance preparedness, and strengthen the cybersecurity framework of the power sector.**
- It addresses the **sector's vulnerabilities, especially given the digital transformation and growing attack surface.**
- The initiative follows the **National Cyber Security Policy of 2013** and **seeks to build resilience**

through information sharing, best practices, training, and collaboration with stakeholders.

- It aims to provide **specialized support, prevent cyber incidents, and improve the overall security posture of the power sector.**

22. PARAM RUDRA

Context:

The Prime Minister inaugurated **three new PARAM Rudra** supercomputers worth ₹130 crore under the National Supercomputing Mission (NSM).

- These supercomputers have been deployed in **Pune, Delhi, and Kolkata** to aid advanced research in areas like physics, cosmology, earth sciences, and weather prediction.

Significance:

- These supercomputers will propel India's scientific research capabilities, making state-of-the-art technology accessible to young scientists.
- They will assist in areas like disaster management, industrial growth, agriculture (weather and soil analysis), and boost national capability in science and technology.
- Part of India's strategy towards self-reliance and leadership in Industry 4.0.

Supercomputers in India:

- **Origin:** India began focusing on supercomputing in 1987 after being denied the purchase of a Cray X-MP by the USA. This led to India's development of indigenous supercomputers.
- **Major Indian Supercomputers:**
 1. **PARAM Series (developed by C-DAC):** Includes PARAM Siddhi AI, PARAM Pravega, PARAM Utkarsh, and PARAM Shivay.
 2. **Pratyush and Mihir** (for weather forecasting) and AI Supercomputer **AIRAWAT** (ranked 75th globally as of 2023).
- **Applications:** Supercomputers in India are utilized for weather forecasting, genomic sequencing, space exploration, aviation engineering, defense applications, and oil & gas exploration.
- **Significance:** Supercomputers drive innovation, research, and are instrumental in critical areas like artificial intelligence, quantum computing, and national security, positioning India as a global leader in technology.

Insta links:

1. Super computer

23. SEMICONDUCTOR FABRICATION PLANT

Context:

India and the U.S. have announced a collaboration to es-

tablish India's first semiconductor fabrication plant focused on defense and national security.

- This initiative aims to reduce dependency on imports and boost India's advanced technology capabilities.

Firms Involved:

- **Bharat Semi and 3rdiTech:** Indian start-ups focusing on designing military-specific chips. Founded by **Vrinda Kapoor, Vinayak Dalmia, and Mukul Sarkar**, these firms have worked with the Indian Armed Forces and U.S. military **since 2019**.

India's Semiconductor Initiatives:

1. **India Semiconductor Mission (ISM):** Provides a 50% capex subsidy for semiconductor projects.
2. **Fab Plant for National Security:** Aims to manufacture defense-related chips domestically, reducing reliance on imports for critical technologies like missile seekers and night vision devices.
3. **Self-Reliance Initiatives:** Aligned with Make in India and Atmanirbhar Bharat, this initiative strengthens India's role in the global semiconductor supply chain.

Insta links:

1. Semiconductor Fab

24. FIRST MISSION TO VENUS

Context:

The Union Cabinet last week approved India's first mission to Venus that ISRO aims to launch in March 2028. This is the country's second interplanetary mission after the Mars Orbiter Mission launched in 2013.

Features and Roadmap:

1. India's first mission to **Venus**, planned by **ISRO**, will launch in **March 2028**.
2. The mission will study Venus' **surface, sub-surface, atmosphere, ionosphere**, and its interaction with the Sun.
3. **Scientific payloads** include an **L and S band Synthetic Aperture Radar**, a thermal camera, and experiments to study interplanetary dust and high-energy particles.
4. India will use **aero-braking** to gradually lower the satellite's orbit around Venus, utilizing the planet's atmosphere to slow down and achieve the desired altitude.

Significance:

1. Provides **insights into Venus**, offering clues about **Earth's evolution**, especially regarding atmospheric and climate changes.
2. Enhances India's position in **global space exploration**, marking its second major interplanetary

mission after the Mars Orbiter Mission.

Insta Links:

1. Venus mission

Environment & Ecology

25. INTERNATIONAL BIG CAT ALLIANCE (IBCA)

Context:

India **officially joined the International Big Cat Alliance (IBCA)**, a global initiative launched by Prime Minister Modi on April 9, 2023, during the **50th anniversary of Project Tiger**.

The IBCA aims to **conserve big cats like tigers, lions, and cheetahs**. India is among four founding members, alongside **Nicaragua, Eswatini, and Somalia**. With headquarters in India, the alliance will **collaborate with 24 countries and nine organizations to protect big cats and their habitats**, promoting sustainable resource use and addressing climate challenges.

About Global Alliance for Big Cats:

Context: India has proposed to launch a mega global alliance to protect big cats and assured support over five years with guaranteed funding of \$100 million (over Rs 800 crore).

About International Big Cat Alliance (IBCA)

International Big Cat Alliance (IBCA)

Context: India has proposed to launch a mega global alliance to protect big cats and assured support over five years with guaranteed funding of \$100 million (over Rs 800 crore)

About International Big Cat Alliance (IBCA)

	Description
Purpose	Protection and conservation of the 7 major big cats- tiger, lion, leopard, snow leopard, puma, jaguar and cheetah
Member countries	97 range countries and other interested nations and organs.
Activities	Advocacy, partnerships, knowledge portal, capacity building, eco-tourism, expert groups and finance tapping
Governance structure	General Assembly, Council, and Secretariat
Funding	\$100 million grant assistance by India for the first 5 years; later through membership fees, contributions from bilateral and multilateral institutions, and the private sector
Previous initiatives	India had in 2019 called for an Alliance of Global Leaders to curb poaching and illegal wildlife trade in Asia.
Importance of saving the tiger	India is the only country in the world to have 5 big cats in wild (all except pumas and Jaguars). Big cats are umbrella and flagship species whose loss can set off a "trophic cascade," (prey populations may explode, resulting in overgrazing and degrading the health of the landscape). India is home to 75% of global tigers.

Visit Insights IAS Daily Current Affairs

26. WILDLIFE HABITATS DEVELOPMENT SCHEME

Context:

The Union Cabinet has approved the **Integrated Development of Wildlife Habitats scheme** for the **15th Finance Commission cycle**.

1. The **scheme supports key initiatives like Project Tiger, Project Elephant, and Development of Wildlife Habitat**.
2. It is an on-going scheme through which **financial assistance is provided to State/UT Govt.** for protection & conservation of wildlife & its habitats in **Protected Areas (PAs), outside PAs, & for the recovery programmes of the critically endangered species**.
3. The **initiative focuses on boosting technological interventions**, including the **use of AI, camera traps, and conservation genetics for wildlife monitoring**.
4. Additionally, **it supports projects like Project Dolphin and Project Lion**, leveraging advanced tools for species conservation.
5. The scheme benefits **55 tiger reserves, 33 elephant reserves, and 718 protected areas**, contributing to both wildlife conservation and climate resilience.

27. RHINOS

Context:

On World Rhino Day 2024, the status of the world's five rhino species presents a mixed outlook.

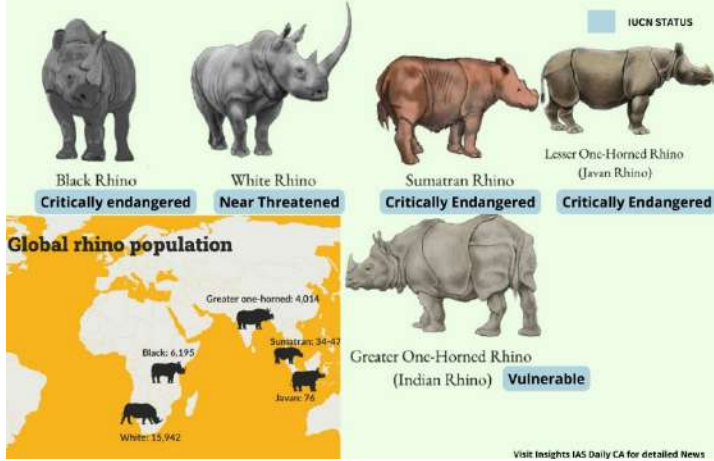
- In Africa, the **rhino population, comprising both black and white rhinos**, increased to approximately 23,885 by the end of 2023, despite continued poaching.
- However, the **critically endangered black rhino population slightly declined by 1%**, primarily due to **poaching in Namibia and South Africa**.
- In Asia, the situation is more dire. The **Javan rhino population plummeted by 33%, leaving only 76 individuals after poachers targeted breeding males**.
- The **Sumatran rhino population remains precariously low**, with only **34-47 individuals left**.

RHINOCEROS



Rhinos are one of the most critically endangered species on earth. Rhino horn is poached to sell on the black market mostly in China and Vietnam. The misconception that the keratin in rhino horn has medicinal properties that can cure a variety of ailments from hangovers to erectile dysfunction has made rhino poaching lucrative.

TYPES OF RHINOS FOUND IN THE WORLD



28. CAQM

Context:

The Supreme Court criticized the ineffectiveness of the Commission for Air Quality Management (CAQM) in curbing pollution, citing poor enforcement of its directives. The CAQM defended its efforts, claiming a marked improvement in pollution levels since its inception.

Origin: Established under the CAQM Act 2021 for NCR and adjoining areas, replacing the Environment Pollution (Prevention and Control) Authority (EPCA).

Aim: Coordinate and oversee efforts to improve air quality, prevent and control air pollution in Delhi-NCR and surrounding states (Punjab, Haryana, Rajasthan, Uttar Pradesh).

Jurisdiction: Delhi-NCR, Punjab, Haryana, Rajasthan, and Uttar Pradesh.

Powers:

- Restrict activities impacting air quality.
- Conduct research on pollution.
- Issue binding directions to authorities and individuals.
- Enforce compliance and take preventive actions.

Composition:

- Chairperson: Secretary/Chief Secretary rank official.
- Five ex officio members from Delhi, Punjab, Haryana, Rajasthan, and UP.
- Three full-time technical members.
- Members from NGOs and technical bodies like CPCB, ISRO, and NITI Aayog.

Insta links:

CAQM

Internal security

29. UNLAWFUL ACTIVITIES (PREVENTION) ACT (UAPA)

Context:

The **Supreme Court ruled that the 14-day timeline** for granting sanctions under the Unlawful Activities (Prevention) Act (UAPA) **is mandatory, not discretionary, requiring strict adherence by both central and state governments.**

- **Non-compliance with this timeline could lead to the quashing of criminal proceedings**, emphasizing the importance of **swift and diligent decision-making in national security matters.**
- The **court clarified that this ruling applies prospectively** and is **aimed at ensuring that the procedural rights of the accused are upheld.**

30. GLOBE NETWORK

Context:

India has been elected to the fifteen-member steering committee of the Global Operational Network of Anti-Corruption Law Enforcement Authorities (GlobE Network), an international initiative aimed at addressing corruption and financial crime.

About the GlobE Network:

- **Origin:** Launched in June 2021 under the G20 framework during a UN General Assembly Special Session against Corruption (UNGASS).
- **Members:** It currently includes 121 member countries and 219 authorities worldwide.
- **Aim:** To facilitate international cooperation in combating cross-border corruption and financial crime, and to support asset recovery efforts.
- **Powers:** The network enables global agencies to exchange criminal intelligence, best practices, and devise joint strategies to fight corruption.
- **Significance of India's Election:** India's election to the steering committee allows it to actively contribute to global anti-corruption efforts, leveraging its expertise in tackling corruption, and enhancing its leadership role on the international stage, particularly after its G20 Presidency in 2023.

Defence

31. DF-41

Context:

China says it successfully fired an intercontinental ballistic missile into the Pacific Ocean on Wednesday, a rare public test that analysts said was meant to send a message to the United States and its allies amid heightened regional tensions.

About DF-41:

- **Origin:** In 1980, China test-fired its first ICBM, the DF-5.
- **Estimated range:** 12,000 to 15,000 kilometers
- **Stock:** China held more than 500 operational nuclear warheads as of May 2023 and is likely to have more than 1,000 by 2030.

About Intercontinental Ballistic Missile:

- **Range:** ICBMs have a range greater than 5,500 km and are primarily designed to deliver nuclear warheads.
- **Countries:** 8 nations have operational ICBMs—US, Russia, China, France, UK, India, Israel, and North Korea.
- **India's ICBM:** Agni series
- Despite being nuclear-armed, **Pakistan does not possess** ICBMs

32. DRDO DEEP TECHNOLOGY INITIATIVE

Context:

Backed by the ₹1-lakh crore corpus for promoting transformative potential research, announced in the interim Budget, DRDO is set to launch a first-of-its-kind initiative that will remodel its research programme towards emerging technologies for military usage.

- **Significance:** DRDO is funding five high-value deep tech projects, with up to ₹50 crore allocated per project, focusing on indigenisation and reducing dependency on imports. These projects are intended to drive research in emerging technologies like **quantum, blockchain, and artificial intelligence** with a long-term impact on national security.
- **Global Inspiration:** The programme is modeled on similar global initiatives like the U.S. **DARPA**, with the aim of revolutionising defence capabilities through futuristic and disruptive technologies.
- **Project Funding and Collaboration:** The Tech-

nology Development Fund (TDF) engages **MSMEs and start-ups** for R&D in military hardware and software. Funding will be rolled out in five tranches, with the first installment capped at 20%, based on project appraisals by an integrated expert team.

Insta Links:

Vijay Raghavan Committee and DRDO

33. ABHED JACKETS

Context:

The Defence Research & Development Organisation (DRDO) in collaboration with the Indian Institute of Technology (IIT) Delhi has developed **Light Weight Bullet Proof Jackets** called **ABHED** (Advanced Ballistics for High Energy Defeat). These jackets are designed to offer enhanced protection while maintaining lightweight features, meeting the evolving needs of the Indian Armed Forces

Features:

1. Made from **polymers and indigenous boron carbide ceramic material**, ensuring both strength and reduced weight.
2. Developed at the **DRDO Industry Academia Centre of Excellence (DIA-CoE)** at IIT Delhi using advanced simulation and material characterization techniques.
3. Provides **360-degree protection** with modular-design and front/rear armour plates.
4. Weight ranges from **8.2 kg to 9.5 kg** depending on the required **BIS level standards**.
5. Lighter than the maximum weight specified by the **General Staff Qualitative Requirement** of the Indian Army and meets the highest threat level standards.

Significance:

- Enhances **soldier mobility** by reducing the burden of heavy protective gear.
- Developed with **indigenous materials** contributing to **self-reliance** in defense production.
- Aligns with the **Make in India** initiative, reducing dependence on foreign imports for critical defense equipment.
- Contributes to **national security** by providing state-of-the-art protective gear tailored for the specific needs of the Indian Army.

Insta Links:

1. Defence Technology

34. ARMY WEAPONS STOCK

Context: Taking lessons from Ukraine war, it is looking at

extending the range of Pinaka rockets; Army wants to diversify its vendor base, especially for 155 mm artillery shells, to build resilient supply chains.


Weapon System	Features	Current Status
Pinaka Rocket System	Indigenous multi-barrel rocket launcher with range extension in progress.	Aiming to double and then quadruple its range; guided ER rockets under trial for 75 km+ range.
Pralay Tactical Ballistic Missiles	Tactical missile with a range of 400 km.	Development trials almost complete.
Nirbhay Sub-Sonic Cruise Missiles	Sub-sonic cruise missile with a 1,000 km range.	Trials ongoing, expected Army trials next year.
High Explosive Pre-Fragmented Rockets	Rockets designed to increase Pinaka's range by 15%-20%.	Trials complete; contract expected soon.
Area Denial Munition (ADM) System	Anti-tank and anti-personnel munition system under development.	Trials ongoing; DRDO has identified production partners.

Insta links:

1. Pralay Missiles
2. Javelin Anti Tank Missiles
3. Rampage Missiles

MAPPING

INTERNATIONAL

Place	Why in News?
<p>1. SRI LANKA'S NEW PRESIDENT ANURA KUMARA DISSANAYAKE</p>	<p>Context: Anura Kumara Dissanayake, a former student leader and Marxist-Leninist politician, has risen from grassroots activism to become Sri Lanka's new president.</p> <p>About Sri Lanka: It was formerly known as Ceylon, an island nation in South Asia, located in the Indian Ocean, near India and the Maldives. With a population of 22 million, it is home to diverse cultures and ethnicities, primarily the Sinhalese and Tamil communities. The country was colonized by the Portuguese, Dutch, and British before gaining independence in 1948. Sri Lanka became a republic in 1972 and endured a 26-year civil war, which ended in 2009.</p> 

2. LEBANON

Context: Israel says it targeted Hezbollah weapons and rocket launchers in attacks that have killed more than 600 people, at least a quarter of them women and children, according to Lebanese health officials.



Key Geological Features:

- **Mountains:** Lebanon is dominated by two main mountain ranges:
 - **Mount Lebanon Range:** Runs parallel to the Mediterranean coast.
 - **Anti-Lebanon Range:** Forms the eastern boundary, shared with Syria.
- **River:** The Litani River is Lebanon's longest, flowing entirely within the country.

Important Cities:

- **Beirut:** Capital and largest city, located on the Mediterranean coast.
- **Tripoli:** Major northern city, significant for trade and industry.
- **Sidon:** A historical city in the south, known for its port.
- **Tyre:** An ancient city, also on the southern coast, a UNESCO World Heritage site.
- **Zahle:** An important city in the Beqaa Valley, a key agricultural region.

Neighbouring Nations:

- **Syria:** Lies to the north and east of Lebanon.
- **Israel:** Borders Lebanon to the south.
- **Mediterranean Sea:** Forms the western boundary.

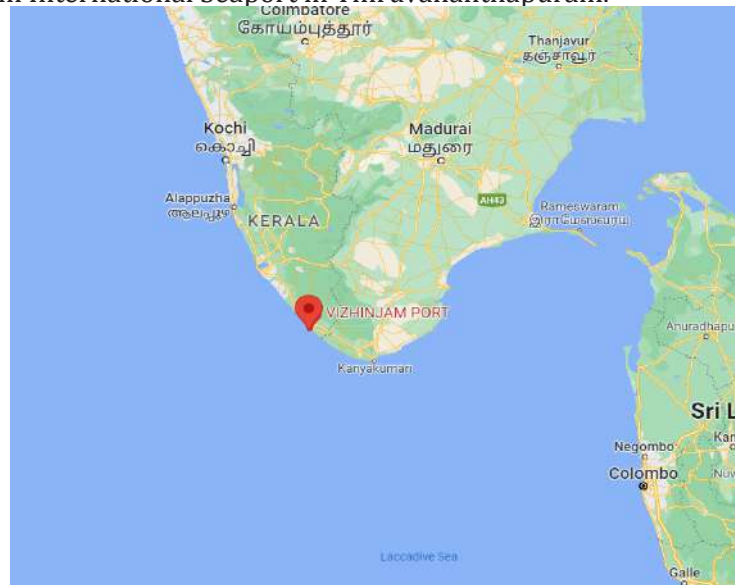
INDIAN

Place	Why in News?
-------	--------------

3. VIZHIN- JAM INTER- NATIONAL SEAPORT

Context:

Mediterranean Shipping Company's Anna, one of the largest container ships in the world, berthed at the Vizhinjam International Seaport in Thiruvananthapuram.



About Vizhinjam International Seaport:

- It is India's first deep water container transshipment port, currently under trial run from July 2024.
- **Located in:** Thiruvananthapuram, Kerala
- **Features:**
 - The port is designed to be a multi-purpose, all-weather, and green port.
 - It is poised to become India's first automated port and holds a unique position as the only Indian port directly adjacent to an international shipping lane.

Insta links:

[Vadhavan Port](#)