



INSIGHTSIAS

SIMPLIFYING IAS EXAM PREPARATION

WORLD CROCODILE DAY

There are three species of crocodilians—saltwater, Mugger and Gharial. Latest Salties census 2023 have estimated higher count of estuarine crocodiles in Bhitarkanika

17 JUNE - 22 JUNE 2024

WEEKLY CURRENT AFFAIRS

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INDIAN

GENERAL STUDIES - 1

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

1. PM MODI INAUGURATES NEW NALANDA UNIVERSITY CAMPUS IN RAJGIR, BIHAR

Context:

The Prime Minister inaugurated **the new Nalanda University campus in Rajgir, Bihar**, a joint initiative between **India and East Asia Summit (EAS) nations**.

- **Green Campus:** The new campus **features a 'Net Zero' Green Campus** with solar power, water treatment plants, water recycling, and extensive water bodies.

About Ancient Nalanda University:

1. **Establishment:** Founded by **Kumargupta I in the 5th century CE**, it thrived as a centre of learning until the 12th century CE.
2. **Architecture:** A monastic university (Mahavihara) with residential and educational buildings, stupas, shrines, and notable artworks in stucco, stone, and metal.
3. **Educational Excellence:** Attracted students from China, Tibet, Central Asia, Sri Lanka, Thailand, Burma, and Southeast Asia. Major disciplines included Veda, fine arts, medicine, mathematics, astronomy, politics, and warfare. Admission was strictly by merit with exams by trained gatekeepers.
4. **Foreign Visitors:** In the **7th century CE**, **Chinese scholars I-Qing and Xuan Zang** visited Nalanda. **Xuan Zang** studied yogashastra under Chancellor **Shilabhadra**.
5. **Recognition:** Declared a UNESCO World Heritage site in 2016.

Analysis of the Ancient Education System of India:

- **Gurukul system:** Students lived with their gurus (teachers) in an immersive learning environment, fostering deep bonds and personalized education.
 - For instance, **Chanakya**, a renowned ancient Indian scholar, mentored **Chandragupta Maurya**, the founder of the Maurya Empire.
- **Places of learning:** Indigenous education was imparted at home, in **temples, pathshalas, tools, chatuspadis and gurukuls**.
 - Students went to viharas and universities for higher knowledge.
- **Value-Centric education:** Values like **dharma** (duty), **ahimsa** (non-violence), and **Satya** (truth)

were integral to education.

- For example, the **Arthashastra** by Kautilya (Chanakya) emphasized moral and ethical principles alongside statecraft and economics.
- **Centres of excellence:** Ancient India had centres of excellence like **Nalanda and Takshashila**, where practical wisdom was imparted.
 - These institutions nurtured scholars who excelled in various fields, from medicine to mathematics.

What can the present-day education system learn from it?

- **Holistic development:** The ancient system's emphasis on holistic development aligns with the current understanding of multiple intelligences. Ancient Indian education included physical exercises (**Vyayam**), mental exercises (**Manthan**), and moral education (**Acharan**).
- **Mentorship: Low-teacher pupil Ratio** was a salient feature of the Gurukuls. The deep teacher-student relationships of ancient gurukuls can be emulated through mentorship programs in modern educational institutions.
- **Value education:** Incorporating moral and **ethical education** in the curriculum can foster responsible citizens with a strong sense of ethics and social responsibility. This is particularly relevant in the context of today's global challenges.
- **Personalized learning:** Modern education can benefit from **customized** approaches that recognize and cater to individual differences in learning styles, abilities, and interests.
- **Practical application:** Modern education can promote **hands-on** learning, internships, and real-world problem-solving to equip students with practical skills and experiences.
- **Cost of education:** Education in ancient India was very low cost, without fees and only paid in voluntary "**Gurudakshina**". **Gross privatisation**-led high costs can be countered by the ancient systems of education.

Shortcomings of the ancient education system:

- **Limited access:** Education in ancient India was primarily available to the **privileged classes**, leaving out a significant portion of the population, especially the **lower castes and women**.
- **Rote learning:** The traditional system often relied on **rote-oral memorization**, emphasizing the repetition of texts and formulas. This is an error that continues in present.
- **Lack of formal documentation:** The knowledge passed down through the guru-shishya (teacher-student) tradition was **largely oral and not systematically documented**. This led to the loss of significant knowledge with the decline of gurukuls and the burning of libraries like Nalanda.

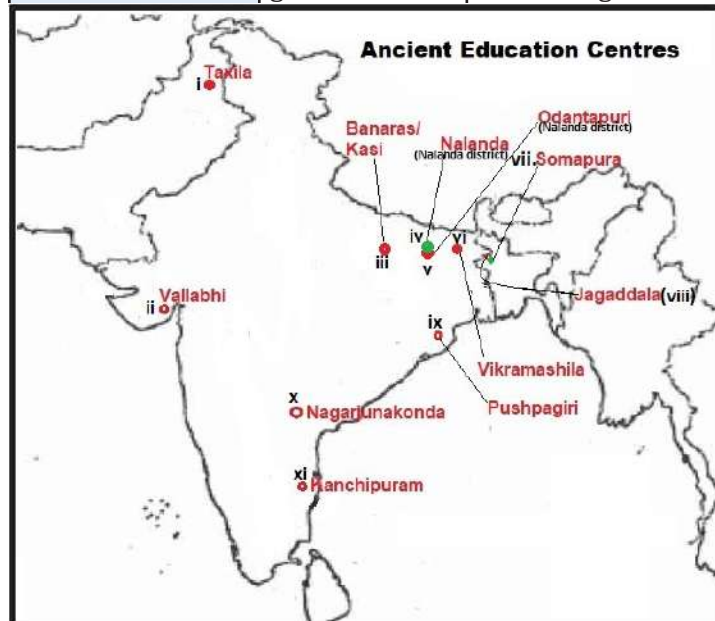
Conclusion:

The New Education Policy 2020 recognizes this rich

heritage of ancient and eternal Indian knowledge and thought as a guiding principle and focuses on the **pursuit of knowledge (Jnan), wisdom (Pragyaa), and truth (Satya)** as the philosophy of highest human goal

Other Institutions of Ancient Learning:

Institution	Location	Significance
Vikramshila	Bihar	Propagated Va-jrayana Bud-dhism; est. By Dharm-pala (8th Century CE)
Nagarjunakonda	A n d h r a Pradesh	Named after Nagarjuna, a mas-ter of Mahaya-na Buddhism, who propounded Sunyavada
T a k s h a s h i l a (Taxila)	Northwestern Pakistan	Famous pupils include Panini (wrote Ashtad-hyayi), Jivaka (physician), and Chanakya (Kauti-ly)
Valabhi	Gujarat	Renowned centre of learning
Odantapuri	Bihar	Renowned centre of learning
Jagaddala	Now in Ban-gladesh	Renowned centre of learning



About East Asia Summit (EAS)

- Establishment:** Founded in 2005 as an ASEAN-led initiative.
- Significance:** The only leader-led forum in the In-do-Pacific, discussing political, security, and economic

issues.

- Principles:** Operates on openness, inclusiveness, respect for international law, ASEAN centrality, and ASEAN's driving role.

Topics: Population and associated issues, poverty and de-velopmental issues.

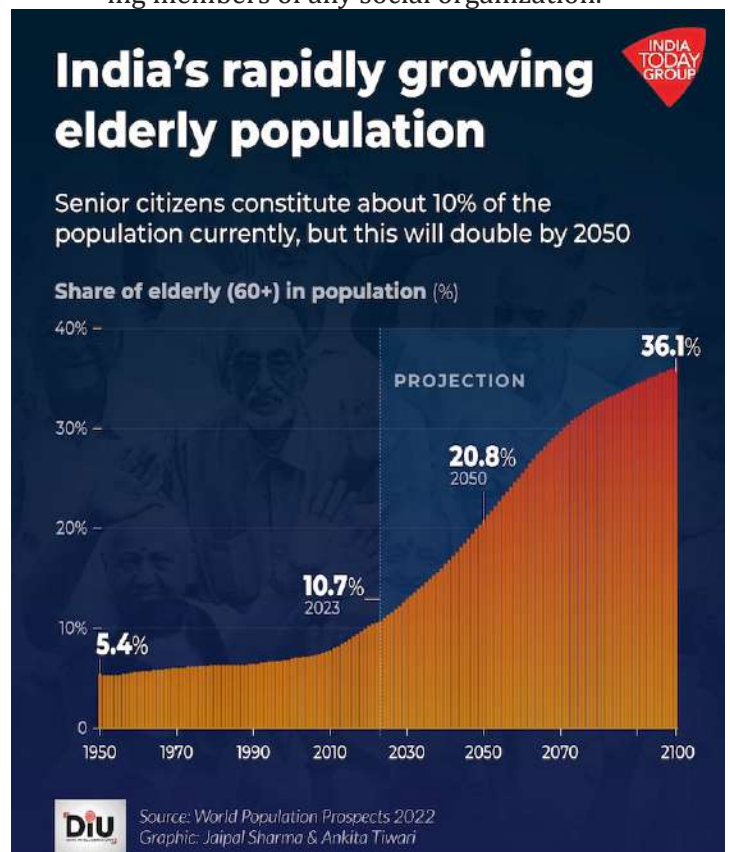
2. A STUDY ON AGEING IN INDIA

Context:

The study titled '**Ageing in India – Exploring Prepared-ness & Response to Care Challenges – A HelpAge India Report**' was released on the eve of **World Elder Abuse Awareness Day (15th June)**.

Key Findings of the Study (India):

- Working Status:** Only 15% of elderly persons work, with 24% of males and just 7% of females, highlighting gender disparity.
- Lack of Social Security:** Only 29% of elderly peo-ple have access to social security schemes.
- High Prevalence of Multiple Morbidities:** 54% of elderly persons suffer from two or more non-communicable diseases.
- Digital Access:** 59% have no access to a digital device.
- Social Participation:** Minimal, with only 7% be-ing members of any social organization.



India's elderly population is rapidly growing due to improved healthcare and increased life expectancy. Currently at **153 million**, it is projected to reach 347 million by 2050 (**20.8%** of the total population). As of Census 2011, older people (60+) make up **8.6% of the total population**, with females outnumbering males among the elderly.

Policy recommendations from the “2023 India Ageing Report”:

Recommendations	Description
Address Gender-Specific Challenges	Policies should specifically address the challenges faced by older women, including widowed and dependent elderly women.
Promote In-Situ Ageing	Encourage and facilitate ageing at home (in-situ ageing) where possible, ensuring that elderly individuals can stay within their communities.
Increase Awareness of Schemes	Raise awareness about government schemes and programs designed for older persons, ensuring they can access necessary support.
Regulate Old Age Homes	Implement regulatory measures to oversee Old Age Homes, ensuring the well-being and rights of residents.
Inclusion in Data Collection Exercises	Include relevant questions related to older persons in national data collection exercises to gather credible data on elderly issues.
Focus on Multigenerational Households	Encourage elderly individuals to live in multigenerational households, promoting better care and support within families.

Other aspects of Ageing:

Challenges faced by women in old age due to rising life expectancy and widowhood:

Challenges	Description
Financial Dependence	Limited access to employment opportunities, lower wages, and inadequate savings can lead to financial dependence in old age.
Deteriorating Health	Ageing can bring deteriorating health, including chronic diseases, mobility issues, and mental health challenges.
Social Isolation	Older women, especially widows, may experience social isolation and loneliness due to the loss of a spouse and limited social networks.
Rural Situation	Older women in rural areas face unique challenges like limited access to healthcare, inadequate infrastructure, and caregiving or agricultural burdens.
Intersectionality	Women from marginalized communities may face compounded challenges in old age due to their socio-economic background, and tribal or minority status.
Ageism and Misogyny	Older women may encounter ageism and misogyny, leading to stereotypes, discrimination, and limited opportunities for engagement in various aspects of life.

Suggested measures:

Measures	Description
Social Security Systems	E.g., Kalaingar Magalir Urimai Thittam is a women’s rights grant scheme just rolled out in Tamil Nadu aimed at providing financial support to eligible women recognized as heads of families
	Karnataka Gruha Lakshmi Scheme supports women heads of families by providing eligible women will receive financial assistance of ₹2000 per month.
	Intergenerational programs: Programs that promote intergenerational bonding, such as mentorship programs and community service projects
Access to Healthcare	Improve access to healthcare services, including geriatric care, preventive screenings, and mental health support, to address the specific health needs of older women.
Social Inclusion	Promote social inclusion and active participation of older women through community-based programs, intergenerational activities, and support networks.

Civil Society Engagement	Community-based initiatives and CSO engagement through Senior citizen clubs and programs, can provide social support and help prevent social isolation among the elderly E.g. Asha Deep Foundation provides Day Care Centre for the elderly members of our community who are either neglected, have no children or are abandoned by their families.
Demographic Stability	Focus on policies and programs that address population ageing and the needs of older women, such as promoting family planning, women's empowerment, and intergenerational solidarity.
Community-based care system for elders	ASHA program could be used for building a community-based workforce to support the diverse health and social care needs of elders
Age-friendly cities	Cities can be designed to be age-friendly, with infrastructure and public spaces that are accessible to all, including elderly citizens.

Government Scheme for Old Age:

Scheme	About
National Social Assistance Programme (NSAP)	Offers non-contributory pensions for the elderly, widowed women, and disabled individuals. Administered by the Ministry of Rural Development.
Pradhan Mantri Vaya Vandana Yojana (PMVVY)	Exclusive pension scheme for senior citizens aged 60 and above. Extended up to 2023 for three more years beyond 2020.
Integrated Program for Older Persons (IPOP)	Aims to enhance the quality of life for senior citizens by providing basic amenities such as food, shelter, medical care, and entertainment opportunities.
Rashtriya Vayoshree Yojana	Central sector scheme funded by the Senior Citizens' Welfare Fund. Provides aids and assistive living devices to elderly BPL individuals with age-related disabilities.
SAMPANN Project	Launched in 2018, an online pension processing system for Department of Telecommunications pensioners. Direct credit of pension into bank accounts of pensioners.
SACRED Portal for Elderly	Developed by the Ministry of Social Justice and Empowerment. Citizens above 60 can register to find jobs and work opportunities, and access information and guidance on various issues.
Elder Line: Toll-Free Number for Elderly	Provides information, guidance, emotional support, and immediate assistance for elderly citizens, particularly on pension, medical, and legal matters.
SAGE (Seniorcare Ageing Growth Engine) Initiative	A platform offering access to elderly care products and services by credible start-ups, supporting entrepreneurship in the field of elderly care.

Conclusion:

By recognizing the specific needs of older persons and providing targeted support, we can create a society that values and empowers them, ensuring their well-being and active participation in all spheres of life.

Insta Links:

- [Issues related to Elderly People](#)
- [old age care](#)
- [World Population Prospects](#)

Mains Links:

Q. Despite Consistent experience of high growth, India still goes with the lowest indicators of human development. Examine the issues that make balanced and inclusive development elusive. (UPSC 2021)

GENERAL STUDIES - 2

Topics: Indian Constitution- historical underpinnings, evolution, features, amendments, significant provisions and basic structure; Comparison of the Indian constitutional scheme with that of other countries.

1. ANALYSIS OF CONSTITUTIONAL MORALITY

Context:

The article criticizes the recent government's actions for disregarding the Indian Constitution.

Examples of Recent Government Actions Against the Constitution:

- **Preemptive Decision-Making:** The government approved a ₹20,000 crore scheme (Pradhan Mantri Kisan Samman Nidhi) before ministerial portfolios were allocated.
- **Cabinet Actions Without Portfolios:** The first cabinet meeting decided on assisting three crore additional households under the [Pradhan Mantri Awas Yojana](#) without assigned portfolios, raising procedural legitimacy questions.
- **Extension of Tenures:** The Government extended the tenures of the National Security Adviser and the Principal Secretary prematurely, using the old Appointments Committee setup without reconstituting the Cabinet Committee.

What is Constitutional morality?

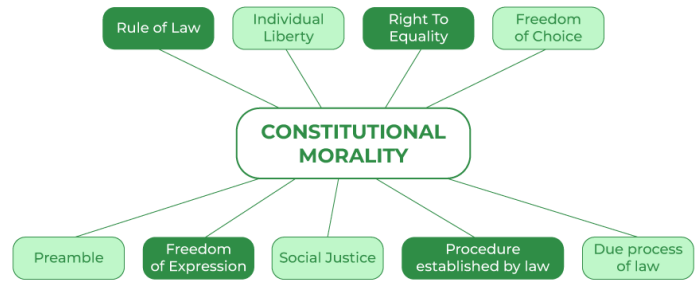
It refers to adherence to the **core principles and values enshrined in a constitution**, guiding the conduct of both the government and its citizens. It encompasses values such as **justice, liberty, equality, fraternity, and the rule of law**, ensuring the Constitution's spirit is upheld beyond mere legal compliance. In India, the term **was first used by Dr. B.R. Ambedkar**.

Pillars of Constitutional Morality:

1. **Constitutional Values:** Justice, liberty, equality, fraternity, secularism, dignity.
2. **Rule of Law:** Supremacy and accountability under the law for all, including officials.
3. **Democratic Principles:** Functioning representative democracy with citizen participation.
4. **Fundamental Rights:** Respecting and protecting rights like equality and freedom of speech.
5. **Separation of Powers:** Balancing legislative, executive, and judicial branches.
6. **Checks and Balances:** Preventing power abuse and protecting individual rights.
7. **Constitutional Interpretation:** Promoting prin-

ciples and adapting to societal changes.

8. **Ethical Governance:** Ensuring transparency, accountability, and integrity in public service.



Significance:

1. **Safeguarding Democracy:** Constitutional morality ensures the preservation of democratic values and prevents authoritarianism.
2. **Protection of Rights:** It upholds individual rights and freedoms, ensuring that laws and governance are aligned with constitutional mandates.
3. **Judicial Benchmarks:** Serves as a guiding principle for the judiciary in interpreting and applying the Constitution.
4. **Social Justice:** Promotes social justice by ensuring that marginalised communities are protected and their rights respected.
5. **Bring positive change in society:** It can be used to interpret laws or statutes no longer consistent with recent times, thus bringing positive societal change.

B.R. Ambedkar's View on Constitutional Morality:

1. **Cultivation Needed:** Constitutional morality is not innate; it must be cultivated.
2. **Respect for Forms:** It involves a paramount reverence for the forms of the Constitution.
3. **Sacredness:** The forms of the Constitution must be sacred to both those in power and their opponents.
4. **Essential for Democracy:** Constitutional morality ensures accountability and adherence to democratic principles.

Key Case Laws Upholding Constitutional Morality in India:

1. **Navtej Singh Johar v. Union of India (2018):** Decriminalisation of Section 377 IPC, which criminalised consensual homosexual acts. The Supreme Court **emphasised constitutional morality over social morality**, decriminalising consensual homosexual acts among adults.
2. **Sabarimala Temple Case:** Ban on entry of women of menstruating age into Sabarimala temple. The Supreme Court held the ban unconstitutional,

which affirmed the constitutional morality of gender equality and non-discrimination over religious customs.

3. **Joseph Shine v. Union of India (2018):** The Supreme Court **decriminalised adultery**, stating that the law was archaic and violated constitutional guarantees of equality. This highlighted the importance of **individual autonomy, equality and human dignity to all**.
4. **NCT of Delhi vs. Union of India (2018):** The Supreme Court equated constitutional morality with the spirit of the Constitution itself. It held that Constitutional morality, in its strictest sense, implies a **strict and complete adherence to the constitutional principles** as enshrined in the Constitution.
 - a. **Eg. 7th Schedule- Division of powers between centre and states.**

Challenges to Constitutional Morality:

1. **Social and Cultural Norms:** Deep-rooted societal and cultural norms often conflict with constitutional values, leading to resistance to implementing judicial decisions.
 - a. **Example: Resistance to the Sabarimala judgment due to traditional beliefs.**
2. **Political Influence:** Politicians may undermine constitutional morality for electoral gains, promoting majoritarian views over constitutional principles.
 - a. **Example: Political backlash against electoral bonds ruling of the Supreme Court.**
3. **Lack of Awareness:** Insufficient awareness and understanding of constitutional values among the general public can hinder the acceptance and enforcement of constitutional morality.
 - a. **Example: Many Indians still believe that Hindi is the national language.**
4. **Subjectivity:** Some argue that the concept of constitutional morality is highly subjective and that it can be used to justify different actions and decisions depending on the perspective of the person or institution interpreting it.
5. **Judicial Limitations and Overreach:** Balancing judicial activism to uphold constitutional morality without overstepping the separation of powers can be challenging.
6. **Economic and Social Inequality:** Economic and social inequalities can limit the ability of marginalised groups to seek justice and uphold constitutional morality.

Conclusion:

Constitutional morality is a cornerstone for ensuring that the spirit and values of the Constitution are upheld in governance and society. While key judicial rulings in India have reinforced this principle, various challenges such as societal norms, political interference, and lack of public awareness persist. **Addressing these challenges requires concerted efforts from all branches of government, civil society, and citizens to truly embed constitutional morality in the fabric of the nation.**

Mains Link:

Q: What is meant by the term 'constitutional morality'? How does one uphold constitutional morality? (UPSC 2019)

Topics: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

2. ISSUES WITH THE NATIONAL EDUCATION POLICY (NEP)

Context:

The implementation of the National Education Policy (NEP) in India has faced significant challenges and criticism, highlighting several areas of failure.

What is National Education Policy (NEP) 2020?

National Education Policy was introduced in India (based on the recommendations of **Kasturirangan and T.S.R. Subramanian** committees), aiming to **reform the education system from pre-primary to higher education levels**. It focuses on **universalizing education, adopting a flexible curriculum, promoting multilingualism**, and integrating vocational education.

Major Features of NEP 2020:

1. **Universalization of education by 2030** through a 100% Gross Enrollment Ratio (GER) from pre-primary to secondary.
2. **Open schooling system for out-of-school children**, without admission requirements like NIOS.
3. **Adoption of a 5+3+3+4 curriculum system**, replacing the existing 10+2 system.
4. **Teaching in mother tongue** up to class 5 without imposition of any language.
5. **Broad-based, multi-disciplinary, holistic undergraduate education** with a flexible curriculum, integration of vocational education, and multiple entries and exit points with respective degrees, including undergraduate programs in regional languages.
6. **Establishment of an Academic Bank of Credits** to enable credit transfers between institutions.

7. **Introduction of HECI (Higher Education Commission of India)** as an umbrella regulator, except for legal and medical education.
8. **Promotion of multilingualism** in schools and colleges.
9. Setting up of a new **National Assessment Centre, PARAKH (Performance Assessment, Review, and Analysis of Knowledge for Holistic Development)**
10. **A separate Gender Inclusion fund** and **Special Education Zones** for disadvantaged regions and groups

Significance of NEP 2020:

1. **Inclusive Education for All:** NEP 2020 prioritizes inclusive education, accommodating diverse learner needs through early identification and intervention, with proposed Special Education Zones (SEZs) for students with disabilities.
2. **Reducing Disparities:** Emphasis on equitable access to quality education, with initiatives like Samagra Shiksha Abhiyan targeting underprivileged areas for infrastructure expansion.
3. **Multilingualism and Cultural Inclusion:** Promotion of multilingualism and indigenous language preservation to foster cultural diversity and inclusivity.
4. **Gender Equity:** Measures to promote girls' enrollment and retention, including gender-sensitive curriculum development and establishment of women's hostels.
5. **Vocational Education and Skill Development:** Integration of vocational courses to provide practical skills for employment, benefiting students with diverse academic interests or limited access to traditional pathways.

Issues with the NEP:

1. **Reduction in Syllabus Content:** Truncation of syllabi limits comprehensive understanding, as seen in the case of Walt Whitman's poem "Passage to India," now taught with only 68 lines instead of 255.
2. **Dilution of Core Subjects:** Some institutions, like St Xavier's University, Kolkata, focus on one major core subject per semester in programs like Economics Honours, potentially leading to insufficient knowledge in core fields.
3. **Administrative Overload:** NEP mandates numerous exams and continuous assessments per semester, increasing bureaucratic burdens for students and educators.
4. **Pedagogical Change:** Implementation challenges in introducing multi-language learning, foundational skills development, and value-based education, requiring thorough reexamination and adap-

tation of teaching methods.

5. **Assessment Rethinking:** Need for reevaluation of school leaving exams, development of appropriate learning rubrics, and reforming school textbooks to align with the new educational paradigm.
6. **Educator Training:** Essential to training teachers and educational staff to deliver child-centred, engaging learning experiences and foster joyful learning environments.
7. **Removing Barriers for Teachers:** Addressing personal and professional barriers faced by teachers, especially in remote and inaccessible areas, to ensure the successful implementation of NEP.
8. **Funding and Pay Scale:** Challenges in meeting the demand for qualified teachers and improving their pay scale to facilitate conceptual and experimental teaching methods.
9. **Funding Constraints:** Challenges in fully implementing NEP proposals due to limited resources, necessitating increased scholarships and private sector involvement without clear strategies outlined in the policy.
10. **Digital Connectivity:** Addressing the digital divide by ensuring internet access in remote areas, implementing digital classrooms, and providing training in AR/VR technologies to enhance learning experiences.

Major Initiatives under NEP 2020:

Initiative	Description
PM Schools for Rising India (SHRI)	A scheme aiming to provide high-quality, equitable, and joyful education in schools. Launched in September 2022 for the development of over 14,500 schools nationwide.
NIPUN Bharat	A mission focused on ensuring universal foundational literacy and numeracy by the end of Grade 3 by 2026-27.
PM e-VIDYA	Initiative promoting online education and digital learning through platforms like DIKSHA and offering e-books and content to students.
NCF FS and Jadui Pitara	Introduction of National Curriculum Framework for Foundational Stage (NCF FS) and Jadui Pitara for play-based learning for children aged 3 to 8 years.

NISHTHA	Capacity-building program for teachers and school principals in India.
NDEAR	National Digital Education Architecture blueprint for digital technology-based education applications.
Academic Frameworks	Introduction of the National Credit Framework (NCrF) and National Higher Education Qualification Framework (NHEQF) to facilitate credit transfer and academic flexibility.
Increased Investment	Advocacy for the Central and State Governments to allocate a combined 6% of GDP to education.
International Campuses	Support for Indian universities to establish campuses abroad and invite foreign institutions to operate in India.
Educational Innovation	Initiative allowing specialized courses by foreign universities and institutions in Gujarat's GIFT City, focusing on financial services and technology.
World-Class Institutions	Scheme aiming to create affordable, top-notch academic and research facilities, designating "Institutions of Eminence" (IoEs).
GIAN and SPARC	GIAN taps into expertise to enhance academic resources, while SPARC fosters research collaborations between Indian and foreign institutions.

Conclusion:

"Education is the passport to the future, for tomorrow belongs to those who prepare for it today." To improve NEP, we should reassess its credit-based system, emphasizing core subjects for deeper knowledge. Cutting non-core courses can elevate academic standards. Stakeholder input is crucial for meaningful reforms in higher education.

Insta Links:

- [Schemes under Ministry of Education](#)

Mains Links:

Q. How have digital initiatives in India contributed to the functioning of the education system in the country? Elaborate on your answer. (UPSC 2020)

Q. Discuss the main objectives of Population Educa-

tion and point out the measures to achieve them in India in detail. (USPC 2021)

Prelims Links:

Q. Which of the following provisions of the Constitution does India have a bearing on Education? (UPSC 2012)

1. Directive Principles of State Policy
2. Rural and Urban Local Bodies
3. Fifth Schedule
4. Sixth Schedule
5. Seventh Schedule

Select the correct answer using the codes given below:

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

Ans- (d)

3. POST OFFICE ACT 2023 COMES INTO EFFECT

Context:

The **Post Office Act 2023**, effective today, replaces the **Indian Post Office Act, 1898**. It simplifies the legislative framework for citizen-centric services, banking, and government scheme benefits.

Major provisions of the Act:

Provision	Details
Flexibility	Grants the postal department flexibility in determining service prices to respond quickly to market demands.
Legal Framework	Establishes a strong legal framework for citizen-centric services in the post office, facilitating various initiatives.
Digital Code	Introduces the option to replace physical addresses with digital codes using geospatial coordinates to identify specific premises.
Privilege	Eliminates the provision of "exclusive privilege" previously granted by the central government.

Authority of DG	It broadens the authority of the Director General of Postal Services beyond mail services. It empowers them to regulate activities for additional services prescribed by the central government and set charges without requiring parliamentary approval.
Authority of Centre	Empowers the central government, through notification, to authorize any officer to intercept, open, or detain items during transmission by the Post Office for reasons related to state security, foreign relations, public order, emergency, or public safety.
Exemptions from liability	Post office will not incur any liability with regard to its services , except such liability as may be prescribed with regard to a service provided by the Post Office.
Removal of Offences and Penalties	The Act does not contain the punishment for theft, misappropriation or destruction of postal articles by an officer of the Post Office which was part of the original Act of 1898.

- Data Privacy and Security:** The expanded interception powers necessitate the establishment of robust data privacy and security measures to safeguard the personal information of postal service users.
- Differing Legislation for Couriers:** The absence of similar legislation for courier firms raises concerns about regulatory disparities.

Conclusion:

The introduction of the **new Post Office Act (2023)** marks a significant step in clarifying **vague definitions**, particularly regarding what constitutes a **'letter.'** The bill's emphasis on **digital addressing not only streamlines** sorting processes but also opens avenues for efficient mail and parcel delivery, including the possibility of drone deliveries. Overall, the changes reflect an **adaptation to evolving needs, prioritizing legality**, and enhancing security in the postal service landscape.

About Indian Post:

India Post (formed 1854; HQ: New Delhi) operates under the **Department of Post within the Ministry of Communications**. Initially, the post was established in **1766 under the East India Company as "Company Mail,"** it was later transformed into a **Crown service in 1854 by Lord Dalhousie**. Under Dalhousie's reforms, **uniform postage rates** and the India Post Office Act of 1854 were introduced, marking significant advancements in the postal system, including the creation of **the Director General of Post** for the entire country. With **1, 55,531 Post Offices**, the DoP has the most widely distributed postal network in the world.



Some of the Schemes by the Postal Department:

Post Office Schemes	Description
National Saving Recurring Deposit Account	Government-supervised savings system, requiring a minimum deposit of Rs. 10.
National Savings Time Deposit Account	Offers accounts with varying maturity dates (1, 2, 3, and 5 years) for individuals or groups of up to three persons.
Senior Citizen Savings Scheme Account	Fixed-income investment for individuals over 60, ensuring a steady flow of income after retirement, with a 5-year lock-in term.
Public Provident Fund Account	Long-term investment plan with a 15-year lock-in period, offering a mix of security, earnings, and tax savings.

Issues with the New Act

- High Government Control:** The provision allowing the interception and opening of parcels by the government may enhance control but also raise potential issues of privacy and misuse.
- Loss of Exclusive Privileges:** The elimination of exclusive privileges for the central government in conveying letters and issuing postage stamps may impact traditional postal services.
- Liability Concerns:** Shifting liability from the central government to the Post Office for its services may raise questions about accountability and responsibility.

National Savings Certificates (NSC)	Government savings bonds for smaller savings and tax-saving investments, with a 5-year maturity period.
Kisan Vikas Patra Account	Modest savings instrument encouraging long-term savings, doubling the principal in 9 years and 4 months.
Sukanya Samriddhi Account	Government-sponsored savings program aimed at securing a prosperous future for girls in India, particularly for education and marriage.

Insta Links:

- [New Post Office Bill, 2023](#)

Prelims Link:

Q. 'Right to Privacy' is protected under which Article of the Constitution of India? (UPSC 2021/2024)

- (a) Article 15
(b) Article 19
(c) Article 21
(d) Article 29

Ans: (c)

Topics: Important aspects of governance, transparency and accountability, e-governance applications, models, successes, limitations, and potential; citizens charters, transparency & accountability and institutional and other measures.

4. NEED FOR DEMOCRATIZATION OF TECHNOLOGY

Context:

At the recent G7 meeting, the Indian PM emphasized the **need to turn technology monopolies into mass usage to build an inclusive society and eliminate social inequalities**. He also highlighted **India's commitment to making AI transparent, fair, secure, accessible, and responsible**.

What is the Democratization of Technology?

Democratization of technology refers to **making advanced technological tools and innovations accessible to a broader population**, rather than being confined to a privileged few.

Need for Democratization of Technology

1. **Inclusion and Equality:** Ensures technology benefits all sections of society, reducing social inequalities.
2. **Access to Knowledge: Provides** widespread ac-

cess to information and educational resources. e.g., **Massive Open Online Courses offered by NPTEL**.

3. **Empowerment:** Empower individuals to innovate and participate in technological advancements.
4. **Economic Opportunities:** Creates new economic opportunities and supports small businesses.
5. **Innovation and Creativity:** Encourages diverse perspectives, leading to more creative and innovative solutions.
6. **Transparency and Accountability:** Enhance transparency in governance and corporate practices.
7. **Global Connectivity:** Facilitates global communication and collaboration.
8. **Public Participation:** Increases public participation in decision-making processes.
9. **Sustainability:** Promotes the use of technology for sustainable development and environmental protection.
10. **Security and Fairness:** Ensures technology is secure, fair, and accessible to all users.

Impact of Democratization of Technology

1. **Cultural Impact:** Broader access to technology has challenged traditional expertise and supported the DIY trend. The economic shift demanded technological innovation, fostering optimism in progress. Technology's design includes diverse interests, promoting inclusiveness.
2. **Industry Impact:** Democratization has broadened markets and reduced professional demand due to consumer empowerment. This shift has led to **increased business device usage and associated security concerns**.
3. **Political Impact:** Technology promotes citizen advocacy and government transparency, supporting democratic engagement. Increased global connectivity and access to information have fostered democratic trends worldwide.
4. **Major Innovations:** The Internet democratized knowledge and access to high-tech products. **Cloud computing and social media furthered accessibility and user engagement. Open-source models, Arduino, littleBits, and 3D printers** made technology more accessible to everyone.

How India Has Democratized Technology:

1. **Digital Public Infrastructure:** 'India Stack' was created for digital identification, payments, and data management.
2. **Common Service Centres:** Access point for delivery of Government-to-Citizen (G2C) e-services by creating physical ICT infrastructure.
3. **Ayushman Bharat:** World's largest health insurance scheme providing a safety net for 200 mil-

- lion families using a tech platform.
- CoWIN Platform:** Managed the world's largest COVID-19 vaccine drive.
 - Svmitva Scheme:** Used drones to map rural land and provide property cards, reducing land disputes and improving access to financial services.
 - Jan Dhan - Aadhaar - Mobile Trinity:** Enabled direct transfer of benefits to authenticated beneficiaries, reaching billions of rupees to the poor.
 - Government e-Marketplace (GeM):** An e-commerce platform for small traders and businesses to fulfil government needs, reducing corruption and boosting transparency.
 - Online Tendering:** Accelerated projects and improved transparency with a procurement value of ₹1 trillion in 2021.
 - Open Courses:** One of the largest repositories of free online courses with over 10 million certifications.
 - Low Data Tariffs:** India has some of the lowest data tariffs in the world, making internet access more affordable.
 - NAMO Drone Didi Initiative:** Helps Women SHGs purchase drones for farming purposes.
 - India AI Mission:** Aims to democratize the benefits of AI across all strata of society.

Digital Public Infrastructure (DPI)



Digital Public Infrastructure (DPI)	
What is DPI?	Digital Public Infrastructure (DPI) refers to the technological foundation that enables the delivery of essential digital services to people. DPI facilitates the flow of people, money, and information through digital ID systems, real-time payment systems, and secure data sharing.
Goal	The goal of DPI is to empower citizens, promote inclusion, and improve lives by leveraging digital technology to provide accessible and efficient public services.
Three Pillars of DPI	DPIs enable three fundamental things: <ul style="list-style-type: none"> Flow of people through a digital ID System E.g., Aadhaar Flow of money through a real-time fast payment system E.g., UPI Flow of personal information through a consent-based data sharing system e.g., Account Aggregator
Other examples of DPI in India	India, through India Stack , became the first country to develop various types of DPI for services to people. E.g., Aadhaar; DigiYatra (biometric-enabled technology for faster travel clearance and based on facial recognition system); DigiLocker (digital document storage platform) and UPI (Unified Payment Interface)
What is India Stack?	India Stack is a set of APIs (Application Programming Interfaces) that provide a unique digital infrastructure to solve India's challenges in presence-less, paperless, and cashless service delivery. India Stack provides a secure and reliable platform for digital identification (Aadhaar), digital document storage (DigiLocker), and digital payments (UPI)
Data Protection Initiatives for DPI	<ul style="list-style-type: none"> Aadhaar Act, 2016: Provides a legal framework for the Aadhaar Personal Data Protection Bill: Aims to protect the privacy of personal data National Cyber Security Policy, 2013: Provides a framework for the protection of critical information infrastructure and prevention of cyber-attacks. Cyber Swachhata Kendra: It secures digital devices and networks through free tools and security solutions.
Challenges Related to DPI in India	Securing political will, public support, and necessary resources for developing and implementing DPI; Ensuring strong privacy and security measures; Addressing the digital divide and ensuring accessibility for all citizens



Challenges in Democratization of Technology

- Digital Divide:** Lack of reliable and affordable internet, especially in remote areas.
- Gender and Social Inequities:** Persistent disparities in access to education, employment, and resources.
- Cybersecurity and Privacy:** Concerns about data privacy and online fraud deter full tech adoption.

Conclusion:

To advance technology's democratization, India and the world must prioritize expanding **internet access, promoting gender equality, strengthening cybersecurity**, fostering digital literacy, and encouraging collaborative efforts between stakeholders. These steps can ensure that technology becomes a force for equality, empowerment, and societal progress.

Insta Links:

- [Use of Technology for election](#)
- [Social Construction of Technology Theory](#)

[Topics: India and its neighbourhood- relations.](#)

5. CHINA'S 'GREY-ZONE' WARFARE TACTICS AND ITS IMPACT

Context:

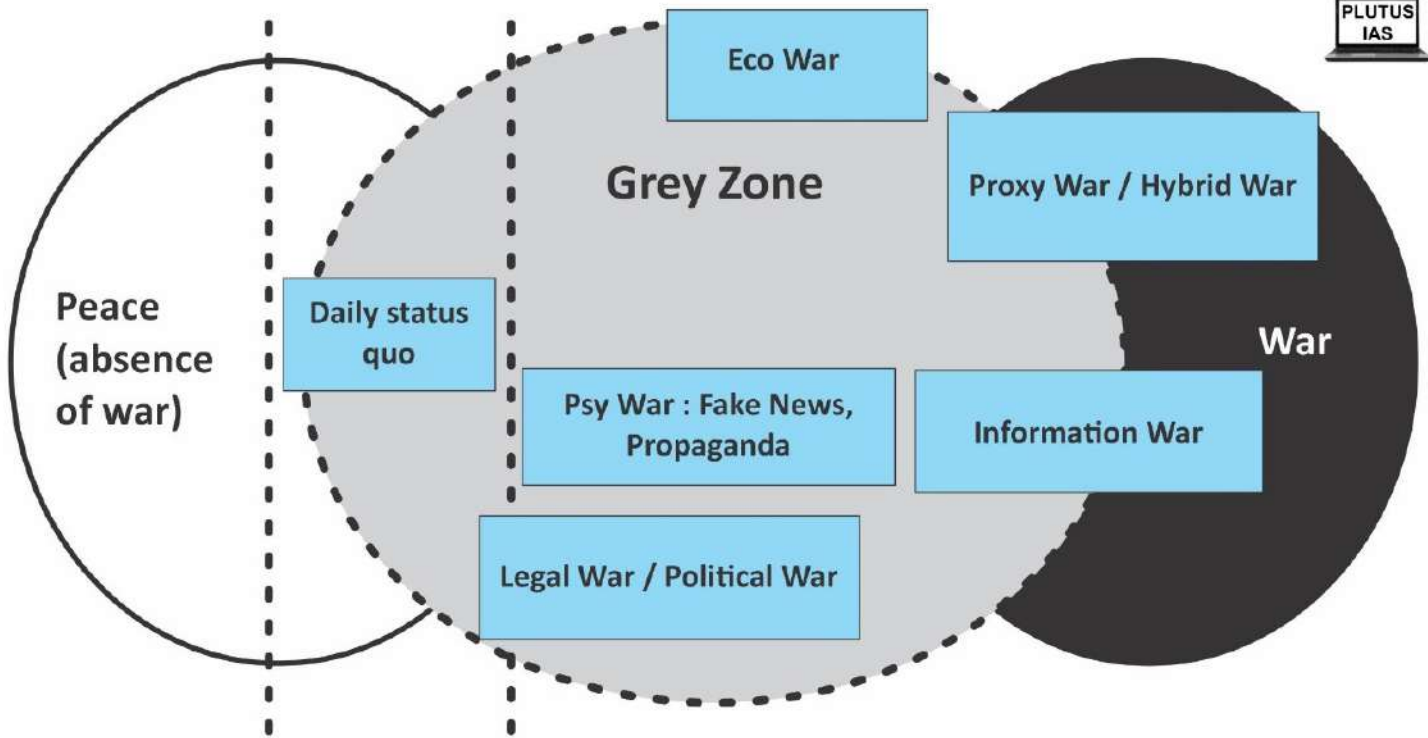
China is **using 'grey-zone' tactics** against Taiwan involving sophisticated methods to frustrate the island's leadership. This includes **simulated audiovisuals depicting invasion scenarios and sustained pressure through military sorties** and cognitive warfare tactics.

What is Grey-zone warfare?

Grey-zone warfare refers to a **strategic approach where aggressors employ a combination of conventional and non-conventional methods to harm adversaries** without triggering a full-scale military response. It operates in the ambiguous space between peace and overt conflict, utilizing tactics like cyberattacks, economic coercion, disinformation campaigns, and proxy forces to achieve strategic objectives.

Characteristics of Grey-zone Warfare:

- Below threshold operations:** Aggressors employ non-military tools that don't warrant a military response.
- Gradual bold steps:** Actions unfold over time, often spanning years or decades, minimizing chances for decisive countermeasures.
- Lack of attributability:** Aggressors evade accountability, making it challenging to attribute actions and formulate responses.
- Target specificity:** Typically targets vulnerable nations with limited capacity for retaliation due to domestic or strategic constraints.



Background of China-Taiwan Conflict:

The China-Taiwan conflict stems from the **Chinese Civil War**, with the Nationalist Party retreating to Taiwan in 1949. China claims **Taiwan as a province**, but Taiwan sees itself as a separate, democratic entity. This dispute over Taiwan’s status fuels tensions. Taiwan’s strategic location and semiconductor industry make it crucial.

What Techniques are being used by China as a part of its ‘Grey zone warfare’ against Taiwan:

Technique	Description
Cognitive Warfare	China’s Weibo account released a 3D animation video depicting an invasion scenario of Taiwan’s areas in Taipei and Kaohsiung with land warship-based ballistic missile launchers.
Sustained Military Pressure	China has maintained sustained pressure on Taiwan’s defence and Intelligence forces since 2020, with daily sorties conducted by PLA fighter jets, UAVs, strategic fighters, and early warning aircraft inducing wear-out within Taiwanese forces.
Intelligence Gathering	UAVs are deployed to conduct intelligence work in the areas surrounding the island.
Ideological and Psychological	Pushing narratives within Taiwanese territory to thrust ideological choices upon its citizens by initiating public discussions on social media and garnering attention for the Chinese cause.
Economic Warfare	China has taken coercive economic measures, leveraging the cross-strait trade and business interdependence to seek concessions. Example: Unilateral suspension of preferential tax rates for chemical imports from Taiwan under the ECFA.

Other tactics being used by different states as part of Grey-Zone Warfare:

- Maritime militia:** State-sponsored actors use non-state actors like “**maritime militia**” to harass coastal communities, disrupt trade routes, and test boundaries without triggering direct conflict.
 - Eg:** China’s use of Coast Guard vessels and fishing fleets in the South China Sea against other claimants.
- Combat Drones:** Armed drones pose new threats, targeting warships, and critical infrastructure, and conducting surveillance and intelligence gathering.
 - Eg:** Houthi rebels in Yemen attacking ships in the Red Sea with drones.
- Persistent Piracy:** While declining, Somali pirates still operate in the Indian Ocean, threatening shipping and hindering trade.
 - Eg:** 2023 hijacking of Bulk carrier vessel MV Ruen in the Arabian Sea.
- Environmental Crimes:** **IUU** or Illegal, unreported, and unregulated fishing depletes fish stocks, harms eco-

systems, and disadvantages legitimate fishermen.

- **Eg:** Large-scale IUU fishing by Chinese vessels in the South China Sea and Indian Ocean.

China's Grey Zone Tactics against India:

1. **South China Sea Activities:** China utilizes naval and civilian vessels to assert control over the South China Sea, causing tensions with neighbouring countries, including India.
2. **Infrastructure Construction in Border Areas:** China builds infrastructure and establishes villages near India's borders, reinforcing territorial assertions and gaining strategic advantages.
3. **Investments in Digital Technologies:** China directs investments into Indian apps, media, and digital platforms, potentially influencing public perceptions and narratives.

How is India impacted due to these challenges?

1. **National Security Concerns:** Proxy conflicts with non-state actors can destabilize coastal regions, threaten communication cables, and potentially escalate into regional tensions.
 - **Eg:** 2018 Maldives political crisis.
2. **Disruptions to trade:** Piracy and grey-zone warfare attacks on shipping routes can cost India billions annually, impacting **vital imports** like oil and raw materials.
 - **Eg:** the current cost of shipping rose due to the Red Sea and Hormuz instability.
3. **Terrorism:** Maritime terrorism poses a direct threat to coastal cities, critical infrastructure, and tourism-reliant communities.
 - **Eg:** 2008 Mumbai attacks.
4. **Pollution:** Oil spills from accidents or deliberate dumping can devastate marine ecosystems, impacting fishing, tourism, and public health.
 - **Eg:** 2021 Sri Lanka oil spill.
5. **Climate change:** Rising sea levels and increasing storm frequency threaten coastal infrastructure, displace communities, and exacerbate pollution concerns.
 - **Eg:** India is the **7th-most vulnerable** country with respect to climate extremes (Germanwatch 2020).

India's Preparedness against Grey-zone Warfare:

1. **Chief of Defence Staff:** Coordinates the three Services (Army, Air Force, Navy).
2. **Self-reliance in Defence Manufacturing:** Promoted through initiatives like Defence Procurement Procedure (DAP) 2020.
3. **Cooperation with like-minded countries:** Signed agreements like the [General Security of Military Information Agreement \(GSOMIA\)](#) with the US.
4. **Other measures:** Establishment of the Indian Computer Emergency Response Team (CERT-In), among others.

Needful measures:

1. **Modernize Naval Capabilities:** Invest in advanced submarines, drones, and electronic warfare systems to counter emerging threats like grey-zone activities and drone attacks.
 - **Eg:** Kalvari-class submarines under [Project 75I](#).
2. **International Cooperation:** Partner with regional and global powers to share intelligence, combat piracy, and address environmental crimes.
 - **E.g.:** multilateral initiatives like the [Indian Ocean Rim Association \(IORA\)](#) and [Quadrilateral Security Dialogue \(QUAD\)](#).
3. **Coastal Surveillance and Infrastructure:** Enhance coast guard patrols, utilize satellite technology, and strengthen critical port infrastructure to deter attacks and monitor threats.
 - **Eg:** Coastal Radar Chain Project.
4. **Sustainable Fisheries Management:** Implement stricter regulations, promote responsible fishing practices, and collaborate with neighbouring countries to combat illegal fishing.
 - **Eg:** [National Policy on Marine Fisheries 2017](#).
5. **Climate Change Adaptation:** Invest in coastal infrastructure resilience, develop early warning systems for natural disasters, and promote public awareness and preparedness.
 - **Eg:** [National Action Plan on Climate Change \(NAPCC\)](#).

Conclusion:

In conclusion, the diverse challenges posed by the complex maritime domain demand innovative and collaborative solutions. India's "Security and Growth for All in the Region" (**SAGAR**) initiative exemplifies a proactive approach, prioritizing both regional security and shared prosperity in the Indian Ocean.

Insta links:

- [Today's weapon of choice, its expanding dimensions](#)

Mains Links:

Q South China Sea has assumed great geopolitical significance in the present context. Comment. (UPSC 2016)

6. NET-NEET CRISIS: THE REASONS BEHIND INDIA'S FAILING EXAM SYSTEM

Context:

The **NET (National Eligibility Test)** and **NEET (National Eligibility cum Entrance Test)** controversy highlights **systemic failures and poor policy implementation** over the years. Recurrent paper leaks, exam cancellations, incorrect results, and unexplained grace marks have **eroded trust in the National Testing Agency (NTA)**.

What is NET?

NET (National Eligibility Test) is an exam conducted in India to determine the **eligibility of candidates for Junior Research Fellowship (JRF) and Assistant Professor positions** in Indian universities and colleges. It is administered by the **National Testing Agency (NTA) under the guidance of the University Grants Commission (UGC)**.

What is the NET Controversy?

The NET controversy involves allegations of paper leaks, exam cancellation, and other irregularities that have compromised the integrity of the examination. These issues have led to widespread distrust among students and calls for reforms and stricter oversight to ensure fair and transparent conduct of the exam.

What is NEET?

NEET (National Eligibility cum Entrance Test) is an **entrance examination** in India for students who wish to **study undergraduate medical courses (MBBS) and dental courses (BDS)** in government or private medical and dental colleges.

Why was the NEET introduced?

1. **Standardising Competence:** NEET aims to standardize the educational competence of medical aspirants, ensuring a minimum standard in basic sciences like Chemistry, Physics, and Biology.
2. **Reducing Entrance Exams:** NEET consolidates around **46 different entrance exams** into a single, standardized test, simplifying the admission process and reducing stress and confusion for students.
3. **Eliminating Capitation Fees:** NEET seeks to eliminate capitation fees in private medical colleges by **basin admissions solely on merit, ensuring fair and transparent selection**, and making medical education accessible to deserving students regardless of financial background.

What is the NEET Controversy?

The NEET controversy involves **systemic issues such as frequent paper leaks, rank inflation, incorrect results, and unexplained grace marks**, leading to a loss of public trust in the National Testing Agency (NTA). These problems have highlighted **the need for policy reforms and better implementation** to ensure the integrity and fairness of the exam.

Other Issues with NEET

1. **Bias in the Education System:** NEET's syllabus aligns more with the CBSE curriculum, disadvantaging students from state boards. This creates an educational imbalance.
2. **Coaching Industry Growth:** To compete effectively, many state board students resort to extra coaching, fueling a Rs 58,000 crore coaching industry growing at 15% annually.
3. **Legal Hurdles:** NEET was **suspended by the Supreme Court in 2013** due to petitions from private colleges claiming it infringed on their autonomy. It was **restored in 2016 by a five-judge bench**.
4. **Impact on Tamil Nadu:** The introduction of NEET has significantly affected rural and Tamil-medium students in Tamil Nadu.

Tamil Nadu's Response to NEET

- Opposition to NEET:** Tamil Nadu prefers linking medical college admissions to high school performance rather than NEET scores.
- Expert Committee Findings:** In 2021, the Justice A K Rajan Committee found that Tamil-medium student admissions dropped from **15% to 1.6-3.2%** (2017-2021). Admissions of rural students to government medical colleges fell from 62% to 50%.
- Impact on Public Health System:** Tamil Nadu's public health system relies on rural students willing to work in primary health centres, unlike urban students who often pursue careers in corporate hospitals or abroad.
- Legislative Action:** The state government passed a law to scrap NEET, but it was blocked by the Governor.

Way forward:

Reform	Description
Improving School Education	Shift from rote learning to inquiry-based and critical thinking-oriented education. Regular updates to curricula to include the latest scientific and educational advancements.
Decentralising Examinations	Allow states and universities to conduct their own entrance exams tailored to local standards and curricula. Address disparities and dissatisfaction, especially among non-CBSE students. Encourage flexible and innovative examination formats .
Constituting Regional Boards	Create regional examination boards to standardize exams within specific geographic areas . Operate under a central body's guidance while adapting to local educational standards. Balance national standardization with local relevance.
Anti-paper leak law	The provisions of Public Examinations (Prevention of Unfair Means) Bill, 2024 must be strictly implemented.

Conclusion:

The current NET-NEET crisis **highlights a systemic failure in ensuring high-quality school** education in India. The above steps are essential to restore confidence and credibility in the examination system, ensuring fairness and integrity for all students.

Additional Information:

About NTA:

The National Testing Agency (NTA) is an autonomous organization registered under the **Indian Societies Registration Act of 1860**. It conducts entrance examinations for admission into higher educational institutions in India. NTA is chaired by an eminent educationist appointed by the **Ministry of Human Resource Development**, with the Chief Executive Officer (CEO) serving as the **Director-General appointed by the Government**. Its functions include identifying partner institutions for online examinations, creating a question bank, fostering research and development, collaborating internationally, and conducting examinations as assigned by Government Ministries/Departments.

Insta Links:

- [NEET & Tamil Nadu's Protest](#)
- [What is the Bill to scrap NEET in Tamil Nadu?](#)

7. PUBLIC EXAMINATIONS (PREVENTION OF UNFAIR MEANS) ACT 2024 NOTIFIED

Context:

The Union government has implemented the [Public Examinations \(Prevention of Unfair Means\) Bill, 2024](#), effective from June 21, to curb malpractices and organised cheating in government recruitment exams.

Need for the Bill:

The act is introduced against the **backdrop of widespread exam cancellations** (including the recent NEET and NET exams controversy) due to paper leaks in various competitive tests across states like Rajasthan, Haryana, Gujarat, and Bihar. **Over 1.5 crore students have been affected by paper leaks from 2016 to 2023**, with more than 70 cases re-

ported during this period. Despite these incidents, **there is currently no specific law to address unfair practices** in public examinations conducted by the central government and its agencies.

Key Highlights of the Public Examinations Act:

Highlights	Description
Objective	Enhance transparency, fairness, and credibility in public exams.
	Reassure youth of fair rewards for sincere efforts.
	It will supplement the other initiatives government in this direction such as introducing self-attestation; shortening the examination cycle (from 18-22 months to 6-10 months), etc.
Applicability	Covers central recruitment and entrance exams conducted by UPSC, SSC, RRBs, IBPS, and NTA.
	All central ministries, departments, and recruitment offices are included.
Definition of Public examination	Section 2(k) of the Act defines a public examination as any exam conducted by a public examination authority listed in the Act's Schedule or designated by the Central Government through notification.
Exclusion of Students	Candidates are not targeted by the bill.
	Students are covered under existing administrative provisions of exam authorities.
Punishments	Prison terms of 3-5 years for paper leak involvement.
	Up to 10 years if linked to organised crime.
	A fine of Rs 1 crore; exam organising firms may be barred from conducting exams.
Unfair Means Defined	Section 3 lists 20 offences, including impersonation, tampering, Leakage of question papers or answer keys, Unauthorized access to question papers or Optical Mark Recognition (OMR) response sheets, Creating fake websites, etc.
Nature of Offences	Cognizable, non-bailable, and non-compoundable.
	Cognizable: Offences for which police can make an arrest without a warrant
	Non-bailable: Offenses for which bail is not guaranteed and must be determined by a magistrate
	Non-compoundable: Offenses that cannot be settled out of court, requiring a trial to proceed regardless of any agreement between parties involved
Investigation	Led by officers of rank, not below Deputy Superintendent of Police or Assistant Commissioner of Police.
	States have the option to send a probe to a Central agency.
National Technical Committee	NTC was formed to enhance security in computerized exams.
	It will develop protocols for IT security and surveillance.
Model Draft for States	The act is binding for central authorities and; a model for states.

Concerns with the Bill:

- State Government Discretion:** The bill's reliance on state governments to draft their own acts may lead to partisan interests, as seen in past model bills.
- Exploitable Loopholes:** Excluding students from criminal sanctions may allow paper leak gangs to pose as students to evade punishment.
- Lack of Committee Composition:** The absence of clarity on the composition and qualifications of the National Technical Committee on Public Exams raises concerns about potential partisanship.
- Subordinate Legislation Scope:** The bill's allowance for subordinate legislation grants executive authorities extensive discretionary power in implementation.

Reasons for cheating in exams include a positive attitude towards cheating, societal pressures prioritizing marks over integrity in learning, frustration with delayed justice in the judicial system, and students' overambition and pursuit of self-interest to gain unfair advantages.

Ethical issues related to cheating in exams include:

1. **Violation of academic integrity:** Cheating undermines the principles of honesty, fairness, and trustworthiness in academic settings, compromising the integrity of educational institutions.
2. **Unfair advantage:** Cheating gives dishonest individuals an unfair advantage over their peers who choose to abide by the rules, distorting competition and merit-based evaluations.
3. **Deception and dishonesty:** Cheating involves deception and dishonesty, as individuals misrepresent their knowledge, skills, or abilities to achieve undeserved academic outcomes.
4. **Lack of personal accountability:** Cheating reflects a lack of personal accountability and responsibility for one's actions, as individuals prioritize short-term gains over long-term integrity and character development.
5. **Diminished learning and skill development:** Cheating inhibits genuine learning and skill development by promoting shortcuts and rote memorization instead of critical thinking, problem-solving, and mastery of academic content.
6. **Damage to reputation:** Cheating tarnishes the reputation of individuals and institutions involved, eroding trust and credibility within academic communities and beyond.
7. **Ethical erosion:** Engaging in cheating can lead to a **slippery slope of ethical erosion**, where individuals become desensitized to dishonest behaviour and compromise their ethical standards in other areas of life.

Conclusion:

The bipartisan support of the bill underscores the **seriousness of the issue and the government's commitment** to ensuring transparency and fairness in examinations. The bill's focus on **strict punishments for offenders and technological solutions** signifies a step towards protecting the integrity of examination systems.

Mains Links:

In India, why do you think there are so many instances of paper leaks for competitive exams and government posts? Elaborate on the moral hazards of the same.

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

8. PRIME MINISTERS REVIEW INDIA-ITALY STRATEGIC PARTNERSHIP

Context:

The Prime Minister met Italian **Prime Minister Giorgia Meloni at the G7 Summit** to review their [strategic partnership](#). They focused on the **Indo-Pacific and the India-Middle East-Europe Economic Corridor (IMEC)**.

What is Strategic Partnership in International Relations?

A strategic partnership is a formal alliance between countries that collaborate on key issues such as security, trade, and political matters. It involves mutual commitments to support each other's interests and aims to enhance stability and prosperity through cooperation. These partnerships often include agreements on **defence cooperation, economic collaboration, and diplomatic support** in international forums.

Highlights of the recent meeting between the two PMs:

1. Commitment to a **free and open Indo-Pacific**.
2. Discussed expanding commercial ties in clean energy, manufacturing, space, AI, and critical minerals.
3. Welcomed recent MoU **on Industrial Property Rights**.
4. Announced forthcoming **visit of Italian naval ships to India**.
5. Emphasized strong people-to-people ties and the **establishment of an ICCR chair at the University of Milan**.
6. Discussed the implementation of the **Migration and Mobility Agreement**.
7. Indian PM thanked Italy for recognizing **Indian contributions during WWII** and informed about upgrading the **Yashwant Ghadge Memorial in Italy**.

Various dimensions of the India-Italy relationship are as follows:

Dimension	Examples
Diplomatic ties	India and Italy established diplomatic relations in 1947 . India and Italy have elevated their bilateral relationship to the level of strategic partnership 2020-2025 Action Plan for bilateral relations
Trade	In 2022, bilateral trade has reached \$15bn between both countries. Italy is India's 4th largest trading partner in the EU, after Germany, Belgium, and Netherlands. The balance of trade has been in India's favour since the early eighties. India invited Italy to partner in 'Make in India' and 'Aatmanirbhar Bharat Abhiyan' with a focus on the areas of renewable energy, green hydrogen, IT, telecom, and space among others.
Investment	Establishment of a 'Startup Bridge' between India and Italy (2023)
	India-Italy Strategic Partnership on Energy Transition announced in 2021
	Indo-Italian Joint Economic Commission Cooperation has been in existence since 1976.
	Migration and Mobility Partnership Agreement signed in 2023 to ensure safe and legal migration.
	Italian car manufacturer Fiat has been operating in India since 1997 . Indian IT company Tata Consultancy Services (TCS) has a large presence in Italy, with over 2,500 employees in the country.
Cultural ties	Settimana della Lingua Italiana nel Mondo (Week of the Italian Language in the World) celebrated the Italian language and culture in India. Year-long Festival of India in Italy 'Srijan' . Indian community in Italy is the third largest community of Indians in Europe after the UK and the Netherlands.
Science	Italian Space Agency (ASI)-ISRO working group in heliophysics
	New Executive Programme of Cooperation for 2025-27 to promote joint research and development in Science & Technology
Education	Italy is a popular destination for Indian students studying abroad . India and Italy have also signed agreements for academic and research cooperation.
Defence	Indian Army played a significant role in the liberation of Italy in the 2nd world war . Joint military exercises and training courses on a regular basis: PASSEX Exercise, MILAN (Naval Exercises)
Collaborations	In 2023, Italy joined the Indo-Pacific Ocean Initiative's Science and Technology Pillar. Italy joined the India-led International Solar Alliance, Coalition for Disaster Resilient Infrastructure, Global Biofuels Alliance, and IMEC

Who was Yashwant Ghadge?

Naik Yeshwant Ghadge was an Indian war hero in WWII's Italian campaign (1943-45). He captured an enemy post in Montone, Italy, at age 23. Posthumously awarded the **Victoria Cross, Britain's highest military honour**.

What was the Italian campaign of World War II?

- Allied Forces fought against the **Axis Powers (Nazi Germany, Italy, Japan)**.
- Aimed to liberate Italy**, beginning with the 1943 invasion of Sicily.
- Naik Ghadge died battling** German resistance between the Trasimene/Albert Line and the Gothic Line.

The heroism of Indian soldiers in the war:

- Over 2.5 million Indian soldiers** fought for the Allies in WWII.
- Around 50,000 participated in the Italian campaign, with 5,782 casualties.
- Indian forces, including several divisions and brigades, **were the third-largest Allied group in Italy**.
- They played key roles in battles like **Monte Cassino and the Gothic Line breach, earning high recognition**.

Insta Links:

- [Shaping a trilateral as Rome looks to the Indo-Pacific](#)

Mains Link:

Elucidate upon the potential of a trilateral relationship between India, Japan & Italy.

Prelims Link:

The region often mentioned in the news: (UPSC 2022)

- | | |
|-----------------|----------|
| 1. Anatolia | Turkey |
| 2. Amhara | Ethiopia |
| 3. Cabo Delgado | Spain |
| 4. Catalonia | Italy |

How many pairs given above are correctly matched?

- (a) Only one pair
- (b) Only two pairs
- (c) Only three pairs
- (d) All four pairs

9. TWO DECADES OF QUAD: DIPLOMACY AND COOPERATION IN THE INDO-PACIFIC

Context:

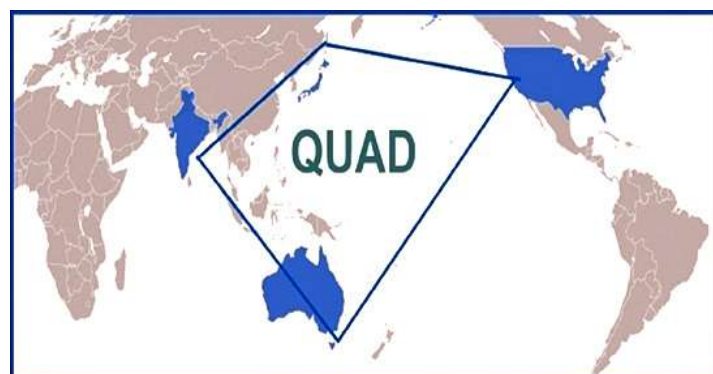
A report has been released on the [TWO DECADES OF THE QUAD: Diplomacy & Cooperation in the Indo-Pacific](#)

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

How does QUAD contribute to enhancing India's strategic interests

- 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.
- Strategic Partnerships:** QUAD facilitates strategic partnerships among **like-minded democracies**. This strengthens India's diplomatic ties, fostering a **multilateral approach** to regional challenges.
- 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.
- 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.
- Multipolar World:** India has supported a **rule-based multipolar world** and QUAD can help it achieve its ambition of becoming a **regional superpower**.
- Maritime Security Cooperation:** QUAD members collaborate on **maritime security**, including **joint naval exercises and patrols**. This enhances India's capabilities in addressing common chal-

lenges.

- Infrastructure Development:** QUAD aims to promote infrastructure development in the Indo-Pacific, fostering **connectivity**. This aligns with India's interests in the region.
- 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**.
- Technology and Cybersecurity Cooperation:** This collaboration benefits India by leveraging technological advancements and enhancing cyber resilience.
- 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:

- Undefined Vision:** Quad lacks a clear strategic mission despite its potential for cooperation.
- Maritime Focus:** Emphasis on the Indo-Pacific makes Quad primarily maritime, limiting cooperation in the Asia-Pacific and Eurasian regions.
- 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:

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

[Topics: Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora.](#)

10. INDIAN MIGRANTS TO GULF COUNTRIES

Context:

The article discusses the **tragic death of 49 migrant workers in a fire in Kuwait**, primarily caused by poor living conditions and employer negligence. It criticizes **Kuwait's inadequate enforcement of worker protec-**

tions and the Kafala system, which leaves migrants vulnerable by limiting their rights.

What is the Kafala System?

The Kafala system is a **sponsorship system used in some Middle Eastern countries**, including Kuwait, to regulate the employment of migrant workers. Under this system, a **migrant worker’s legal residence and work permits are tied** to an individual employer or sponsor (Kafeel). This sponsor has **significant control over the worker’s employment** and residency status, often leading to situations of exploitation and abuse, as workers may find it challenging to change jobs or leave abusive employers without risking deportation.

Status of Indian Workers in Gulf Countries:

1. There are around **8.88 million Indian Workers residing in six Gulf nations**, including the UAE, Saudi Arabia, Kuwait, Qatar, Oman, and Bahrain. Indians form the largest expatriate community in the region, **constituting approximately 30% of the total expatriate workforce**.
2. **Kerala has been a major contributor to the migrating workforce**, but recently, Uttar Pradesh and Bihar have seen an increase in migration to the Gulf.
3. **The migrating workforce** primarily consists of individuals aged between 20 and 40, with an increasing participation of women, particularly in the hospitality sector.
4. **Education levels vary, with many workers** having minimal formal schooling or vocational training.
5. **Around 70% of Indian migrants in the GCC are blue-collar workers**, contributing to various sectors in the region.

Diaspora can be a tool for advancing national interests:

1. **Soft power ambassadors:** The Indian diaspora serves as unofficial global ambassadors, showcasing India’s rich culture, diverse languages, and artistic heritage.
 - o **Bollywood’s** international reach, the popularity of festivals like **Diwali**, and the success of Indian **cuisine** worldwide are testaments to their soft power influence.
2. **Knowledge and expertise transfer:** India boasts a highly skilled diaspora in fields like technology, medicine, and finance.
3. **Economic catalysts:** India saw the highest amount of **remittance** inflows in the world in **2023 at USD 125 billion**, which are a crucial lifeline for the Indian economy.
4. **Political lobbying and advocacy:** The Indian diaspora actively lobbies for India’s interests in foreign policy issues like trade agreements and international aid distribution.
5. **Cultural exchange:** The diaspora acts as a bridge

between India and the world, fostering cultural exchange and networking opportunities.

- o Events like **Pravasi Bharatiya Divas** strengthen this connection.

Migrant workers in GCC States are vulnerable due to:

1. **Dependence on Employers:** The Kafala system ties visas to employers, leaving workers reliant on them for housing, food, and transportation.
2. **Low Wages:** Workers often earn insufficient wages, leading to financial insecurity.
3. **Poor Living Conditions:** Workers reside in crowded and unsafe accommodations, as seen in the Mangaf fire incident.
4. **Limited Rights:** GCC states prohibit labour organizing, depriving workers of the ability to demand better conditions.
5. **Family Separation:** High minimum salary requirements prevent low-income workers from sponsoring family members, leading to family separation.
6. **Labour Exploitation:** Low-skilled workers face exploitation through withheld pay and inadequate conditions.
7. **Recruitment Abuses:** Agents charge high fees and alter contracts, risking passport confiscation.
8. **Legal Vulnerabilities:** Visa restrictions and the kafala system limit migrants’ rights and expose them to deportation threats.
9. **Poor Living Conditions:** Overcrowded and unsafe accommodations impact migrants’ health.
10. **Data Gaps:** Lack of data hinders addressing migrant issues effectively.
11. **Legal Hurdles:** Complex legal procedures and lack of aid worsen migrants’ plight.
12. **Cultural Barriers:** Language and cultural differences hinder integration and support access.
13. **Mental Health Struggles:** Migration stress leads to mental health issues.

Government Initiatives:

Initiative	Description
Emigration Act	The Emigration Act of 1983 regulates emigration and mandates the registration of recruitment agencies to ensure adherence to emigration procedures.
E-Migrate System	An online platform enabling skilled and semi-skilled workers to obtain emigration clearances and monitor immigration status, preventing exploitation by unregistered agents.

Labor Mobility Partnerships	India has signed agreements with GCC nations to enhance worker protection , covering employment contracts, labour policies, and rights.
Pre-Departure Orientation Programs	PDOS aims to enhance the soft skills of migrants , especially in the Gulf and Malaysia, educating them on destination country culture, laws, and customs.
Indian Community Welfare Fund	ICWF provides financial aid to distressed Indian workers abroad for repatriation, legal assistance, shelter, and medical needs.
Indian Workers Resource Centre	Set up in Dubai and approved for four additional locations, IWRCS offer guidance and counselling on various issues concerning overseas Indian workers.
Awareness Campaign	The 'Surakshit Jaaye Prasikshit Jaaye' campaign promotes safe and legal migration among prospective migrants.

Conclusion:

India's global diaspora presents a unique opportunity for the nation to expand its influence and soft power. While limitations exist, careful navigation and collaboration can transform them into valuable partners in advancing India's interests, as seen in the institutionalisation of "**diaspora diplomacy**" under PM Modi.

Insta Links:

- [Indian Diaspora: The roots of global success](#)

Mains Link: UPSC 2017

Q. Indian Diaspora has an important role to play in Southeast Asian countries' economies and societies. Appraise the role of the Indian Diaspora in South-East Asia in this context. (10M)

GENERAL STUDIES - 3

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

1. REFORMS NEEDED FOR INDIA TO BECOME A DEVELOPED COUNTRY**Context:**

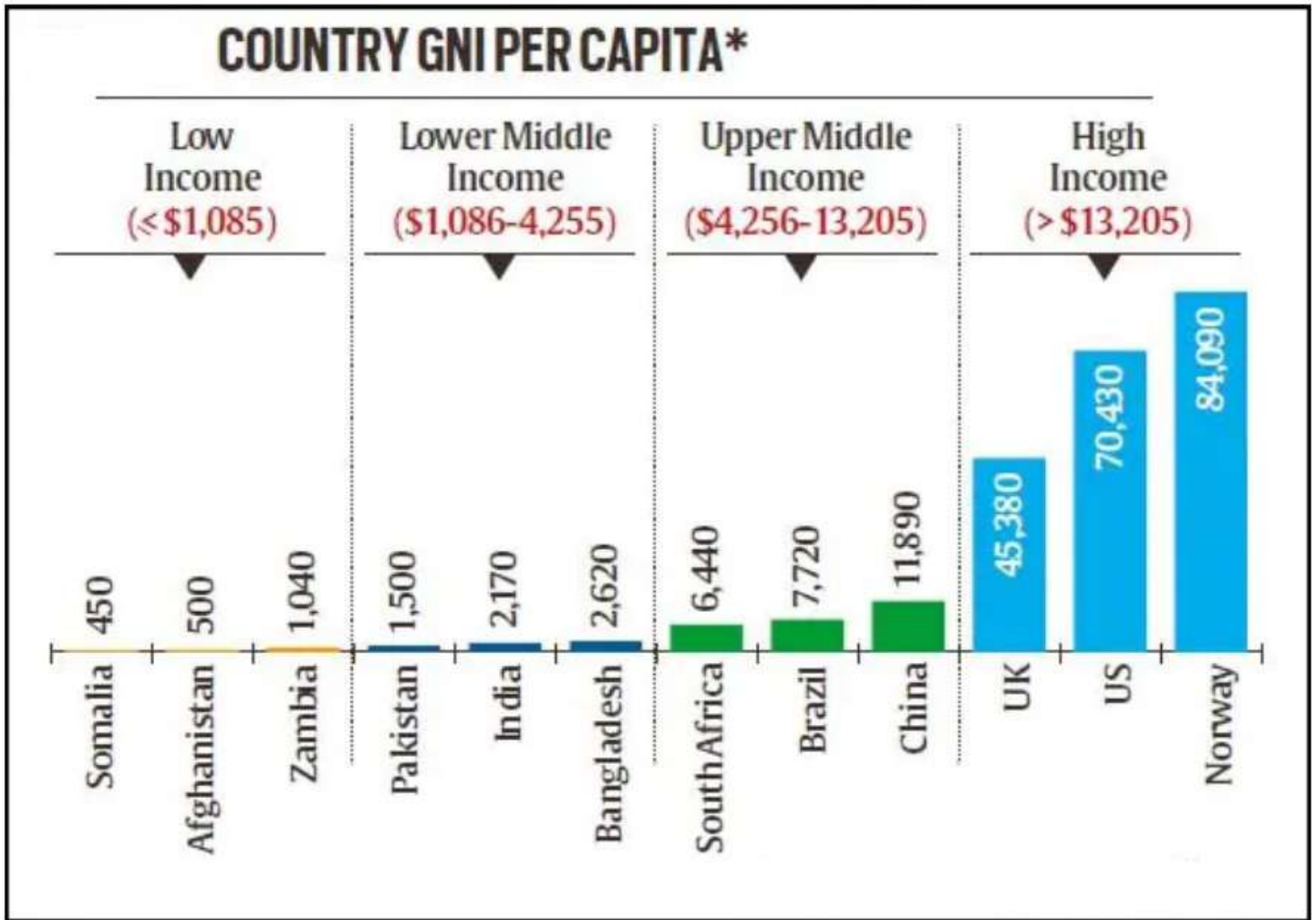
India aims to become **a developed country by 2047**. This will require a **7.5% annual growth in per capita income and a 9% GDP growth**. The [article](#) highlights the reforms needed.

What is a developed country?

A developed country is characterized by a mature and advanced economy with high levels of **industrialization, technological infrastructure, and overall societal well-being**. These countries are **distinguished from developing nations**, which are still progressing economically and socially. India, despite being the **world's fifth-largest economy** with a **GDP of 3.42 lakh crores USD**, is currently classified as a developing nation.

Key characteristics of a developed country:

Economic Factors	Social and Human Development Factors	Technological and Innovation
High per capita income (USD 12,000 - 25,000+)	Countries with an HDI score above 0.8 are considered developed	Advanced technological infrastructure
Diversified industrial and service sectors	High levels of education and literacy and Access to quality healthcare and social services	Strong emphasis on R&D
Robust infrastructure (transport, communication, utilities)	Low infant mortality and high life expectancy	High levels of innovation and productivity
Stable and efficient financial markets	Robust legal and political institutions with democratic governance	



Where does India Stand?

India lags behind both developed and some developing countries. While it is the fifth largest economy by GDP, its **per capita income is** significantly lower than China's and the UK's.

India's achievement since Independence:

Area	Achievements
GDP	India's GDP rose from Rs 2.79 lakh crore in 1950-51 to an estimated Rs about 280 lakh crore currently.
Forex	India's foreign exchange reserves increased from Rs 911 crore in 1950-51 to over \$650 billion USD currently. India has the sixth-largest forex reserves in the world.
Food Production	Foodgrain production has grown from 50.8 million tonnes in 1950-51 to over 329 million tonnes currently.
Literacy Rate	The literacy rate improved from 18.3% in 1951 to 78%. Female literacy rate increased from 8.9% to over 70%.

Major Challenges with India's Goal of a Developed Economy

Category	Issues	Details
E c o n o m i c Growth	Jobless Growth	Despite 7.8% economic growth in FY 2023-24, job creation remains insufficient.
	Agricultural Employment	44% of the workforce is in low-productivity agriculture, contributing only 15% to GDP.
	Job Creation Needs	115 million jobs are needed by 2030 to meet the rising workforce.

Education and Skills	Poverty-Education-Skill Trap	Poor primary and secondary education limits cognitive development and higher education benefits.
	Skills Shortage	150 million skilled workers are needed; nearly half of graduates are unemployable (India Skills Report 2021).
	Education System	Not adapting quickly enough to industry demands despite the National Education Policy.
Public Debt	High Public Debt	Public debt at 81.9% of GDP raises fiscal sustainability concerns, crowding out private investment.
Income Inequality	Income Disparity	22.6% of national income went to the top 1% in 2022-23, hindering inclusive growth.
	HDI Ranking	India's HDI score in 2022 was 0.644 , placing it at 134th out of 192 countries.
Rural-Urban Divide	Unbalanced Development	Urban centres grow economically, while rural areas suffer from poverty and lack of infrastructure.
	Potential Social Unrest	Neglecting rural development could lead to social unrest.
Climate Change	Vulnerabilities	Environmental degradation impacts health and undermines growth sustainability.
	Economic Risk	Up to 4.5% of India's GDP could be at risk by 2030 due to climate change (RBI).
Infrastructure	Deficit and Financing Challenges	The infrastructure gap in transportation, power, and urban sectors is estimated at USD 1.5 trillion (World Bank).
	Project Delays	Issues with land acquisition, environmental clearances, and regulatory hurdles cause delays and cost overruns.

Major Advantages of India (Towards Becoming a Developed Economy)

- Services Sector:** India's services sector accounts for over 50% of GDP, offering high-value jobs and attracting foreign investment.
- Demographic Dividend:** India's young population (median age of **28.2 years** in 2023) presents a vast human capital pool for economic growth if properly skilled and employed.
- Government Initiatives:** E.g., The Pradhan Mantri Gati Shakti National Master Plan drive infrastructure development, enhancing efficiency and economic activity.
- Digital Transformation and Startup Ecosystem:** Digital India Initiative and Unified Payment Interface democratization drive digital revolution, with 8% year-on-year internet penetration growth in 2023.
- Economic Growth:** Despite global uncertainties, India's domestic demand shows resilience, with an expected over 7% real GDP growth in 2024-25.

What should be done?

- Sound Economy: Focus on sustained fiscal deficit reduction**, targeting **4.5%** of GDP by 2025-26.
- Skill Development for Demographic Dividend:** Invest in vocational education and industry-aligned skills.
 - Tier II cities should be focused** as these new cities have the potential to **generate 70% of the country's new jobs** and GDP over the next 20 years.
- Rural Development and Infrastructure:** Prioritize rural infrastructure and promote agro-processing.
- Affordable Healthcare and Prevention:** Increase healthcare spending and promote preventive measures.
- Innovative Infrastructure Financing:** Explore new financing models (e.g. Crowdfunding) and public-private partnerships.
- Technology and Innovation Promotion:** Boost R&D investment and establish innovation ecosystems.
- Blue Economy Harnessing:** Develop sustainable maritime activities and coastal infrastructure.
- Formalizing Informal Sector:** Implement portable social security and support startup hubs.
- Green Collar Jobs Creation:** Train workforce for green sectors and incentivize green employment.
- Enhance revenue productivity** of the tax system

Insta Links:

- [Reaping India's demographic dividend](#)

Mains Link:

Q. "Industrial growth rate has lagged behind in the overall growth of Gross-Domestic-Product(GDP) in the post-reform period" Give reasons. How far the recent changes in Industrial Policy capable of increasing the industrial growth rate? (UPSC 2017)

Q.2 Normally countries shift from agriculture to industry and then later to services, but India shifted directly from agriculture to services. What are the reasons for the huge growth of services vis-a-vis the industry in the country? Can India become a developed country without a strong industrial base? (UPSC 2014)

Prelims Links:

Q. In a given year in India, official poverty lines are higher in some States than in others because: (2019)

- (a) Poverty rates vary from State to State
- (b) Price levels vary from State to State
- (c) Gross State Product varies from State to State
- (d) Quality of public distribution varies from State to State

Ans: (b)

Q. Increase in absolute and per capita real GNP does not connote a higher level of economic development if (UPSC 2018)

- (a) industrial output fails to keep pace with agricultural output.
- (b) agricultural output fails to keep pace with industrial output.
- (c) poverty and unemployment increase.
- (d) imports grow faster than exports.

Ans: (c)

2. 7 YEARS OF GST: BALANCING TECH & TRANSFORMATION

Context:

After seven years, the [Goods and Services Tax \(GST\)](#) has proven to be a game-changer for India's digital economy. This tech-driven tax system has facilitated automation for both the government and businesses, moving towards the vision of "one nation, one tax."

About Goods and Services Tax (GST):

Types Of GST in India		Valid On	Collected By	VOTING STRENGTH Centre 1/3 VOTE IN COUNCIL States 2/3 WEIGHT IN COUNCIL DECISIONS NEED 75% VOTE SUPPORT	GST COUNCIL Chairperson Union finance minister Other Member From Centre Minister of state for finance Vice-chairperson One of the state finance ministers Members State finance ministers
1	CGST (<i>Central Goods and Services Tax</i>)	<i>Intrastate</i>	Central Government		
2	SGST (<i>State Goods and Services Tax</i>)	<i>Intrastate</i>	State Government		
3	ITGST (<i>Integrated Goods and Services Tax</i>)	<i>Interstate</i>	Central Government		
4	UTGST (<i>Union Territory Goods and Services Tax</i>)	<i>Union Territory (UT)</i>	Union Territory (UT Government)		

- It is an **indirect tax** (not directly paid by customers to the government) that came into effect on July 1, 2017, as a result of the **101st Amendment to the Indian Constitution**.
- It is imposed on both manufacturers and sellers of goods, as well as suppliers of services.
- For tax collection, it is divided into five tax slabs – **0%, 5%, 12%, 18%, and 28%**.

About GST Council:

- It is **an apex committee** to modifies, reconciles or makes recommendations to the Union and the States on GST, like the goods and services that may be subjected to or exempted from GST, model GST laws, etc.
- **Article 279A of the Indian Constitution** empowers the President of India to constitute a joint forum of the Centre and States called the GST Council.

Need for GST:

- **The inclusion of several indirect taxes** at various levels of the supply chain **hampered the Indian tax system**.
- **This resulted in a complicated and fragmented tax framework** that included excise duty, service tax, VAT, central sales tax (CST), and other taxes.
- These led to tax **cascading (tax on tax)**, raising the entire tax burden on goods and services.
- Hence, the primary goal of GST is –
 - **To simplify the tax system by substituting a single indirect tax for several indirect levies**
 - Eliminating tax cascading by establishing a uniform tax structure

Achievements of GST:

- **Revenue collection:**
 - **The Gross Goods and Services Tax (GST)** collections hit a record high in **April 2024 at Rs 2.10 lakh crore**.
- **A seamless market and digitised compliance:**
 - **Digital Infrastructure:** The GST Network (GSTN) streamlined registration, tax payments, and return filing for taxpayers.
 - **Enhanced Compliance:** GSTN's data analytics and automation (e.g., e-waybills, e-invoicing) improved compliance and tax evasion prevention.
- **Benefits for MSMEs:**
 - A simplified system with measures like **quarterly returns and relaxed GSTR-9C** requirements increased MSME registrations.
 - Improved access to credit accelerated MSME growth.
- **Unified Market and Competitiveness:**
 - Established a common market and eliminated tax cascading, boosting domestic and global competitiveness.
 - Removed entry taxes and checkpoints, ensuring smooth movement of goods, faster transit times, and reduced logistics costs.

Challenges still persisting:

- **Complexities** in return forms and the **ambiguity** surrounding tax rates and **classifications** of certain goods and services lead to **disputes and uncertainty**.
- **Combating tax fraud remained a priority**, with measures in place to ensure compliance and weed out fraudulent businesses.

Some areas that deserve attention are:

- **Commence taxation** of petroleum crude, high-speed diesel, petrol, natural gas and aviation turbine fuel and similarly, alcohol meant for human consumption;
- **Inclusion of other levies** such as electricity duty, stamp duty, etc;
- **Clarifying taxation of online gaming activities**, transactions involving cryptocurrency, etc.
- **The officials should also look into** rationalisation of the **tax rates (slabs); upgrading the law to deal with a digital world** and keep up with the various technological developments.

Conclusion:

- The implementation of GST has definitely been a success **but is still a new reform with the potential to witness phenomenal growth and harmonisation** in the coming years.
- **GST has shown immense promise**, reshaping the economy and driving digitization while also confronting challenges and fraud.

Insta Links:

Five years stronger

Mains Links:

Explain the rationale behind the Goods and Services Tax (Compensation to States) Act of 2017. How has COVID-19 impacted the GST compensation fund and created new federal tensions? (UPSC 2020)

Prelims Links: (UPSC 2017)

What is/are the most likely advantages of implementing 'Goods and Services Tax (GST)'?

1. It will replace multiple taxes collected by multiple authorities and will thus create a single market in India.
2. It will drastically reduce the 'Current Account Deficit' of India and will enable it to increase its foreign exchange reserves.
3. It will enormously increase the growth and size of the economy of India and will enable it to overtake China in the near future.

Select the correct answer using the code given below:

1. 1 only
2. 2 and 3 only
3. 1 and 3 only
4. 1, 2 and 3

Ans: 1

[Topics: Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth.](#)

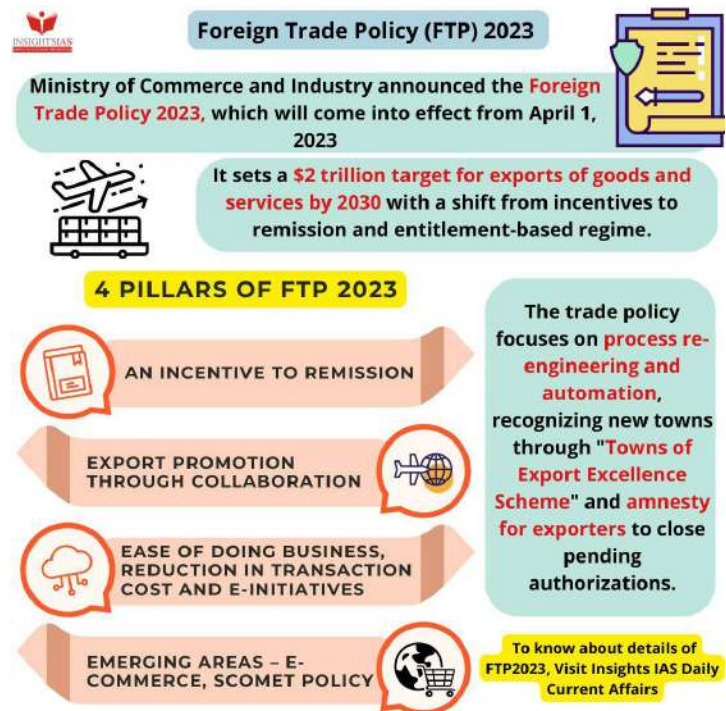
3. A BLUEPRINT FOR BOOSTING INDIA'S EXPORTS

Context:

India's foreign trade, **valued at \$1.63 trillion in FY 2023-24, constituted 41%** of its GDP, highlighting its importance in the economy and job creation. Facing significant internal and external challenges, **the article gives suggestions** for the new government to boost trade and spur economic growth.

Reasons behind India's modest share in global merchandise trade:

1. **Historical Legacy:** India's historical focus on self-reliance and import substitution during the post-independence era led to a closed economy with limited exposure to international trade.
 - a. **Protectionist policies and trade barriers** hindered the development of a robust export-oriented manufacturing sector.
2. **Slow Liberalization Process:** India initiated economic liberalization reforms in 1991, opening up its economy to global trade and investment. However, the process was gradual, and certain sectors **remained shielded from international competition**.
 - a. Delayed liberalization **affected the competitiveness** of Indian industries
3. **Ease of doing business:** Cumbersome bureaucratic procedures, complex regulations, and red tape have been persistent challenges for businesses in India. Such complexities increase the **cost of doing business and hinder export competitiveness**.
4. **Low manufacturing exports:** India's exports remain dominated by primary products and resource-intensive sectors **like gems & jewellery**.
 - a. The **manufacturing sector lacks scale, tech advancement, and infrastructure competitiveness** to effectively integrate with global value chains and ramp up the exports of value-added products.
5. **Infrastructure bottlenecks:** Poor transport connectivity, and inadequate port and shipping infrastructure drive supply chain costs and hurdles Indian exports price competitiveness.
 - a. **Suboptimal logistics account for ~14% of product value** for India, almost double that of developed economies.
6. **Small producer firm size:** The overwhelming share of micro, small and medium firms in the Indian economy, **at over 90%**, prevents them from tapping the resources to boost technology usage and productively integrate into **cross-border supply chains**.



Foreign Trade Policy, 2023: The Union Ministry of Commerce and Industry launched the **Foreign Trade Policy 2023**, emphasizing its dynamic nature and responsiveness to emerging needs. In the following way, the policy intends to address the above issue:

- Incentive to Remission:** The policy continues to **support time-tested schemes** while emphasizing process re-engineering and automation for ease of doing business.
 - Duty exemption schemes for export production will transition to a rule-based IT system, eliminating manual interfaces and reducing fee structures.
- Export Promotion through Collaboration:** Recognition of new towns through the "**Towns of Export Excellence Scheme**" and exporters through the "**Status Holder Scheme**" encourages regional development and recognizes export performance.
 - The policy promotes partnerships with states and districts, designating specific areas as Export Hubs and facilitating grassroots trade development.
- Ease of Doing Business and E-Initiatives:** Process re-engineering and automation leverage automated IT systems for approvals, moving towards a technology-based facilitation regime.
 - A **one-time Amnesty Scheme** allows exporters to close old pending authorizations, providing a fresh start for compliance.
- Emerging Areas: E-Commerce and SCOMET Policy:** Special focus on facilitating e-commerce exports with raised caps and integration of courier and postal exports with ICEGATE.
 - Streamlining the SCOMET policy ensures a robust export control system, aligning with international treaties.
- Promotion of Capital Goods:** Rationalization and additions to the **Export Promotion Capital**

Goods (EPCG) Scheme, including incentives for the dairy sector, green technology products, and the **Prime Minister Mega Integrated Textile Region and Apparel Parks (PM MITRA) scheme**.

- Advance Authorization Scheme:** Introduction of a Special Advance Authorization Scheme for the **Apparel and Clothing sector** to facilitate prompt execution of export orders.
 - Extension of benefits under the **Self-Ratification Scheme** for fixation of Input-Output Norms to 2-star and above status holders.
- Merchanting Trade:** Introduction of provisions for Merchanting trade, allowing the shipment of goods between foreign countries without touching Indian ports, fostering the development of Merchanting hubs.

Way forward:

- Policy Steps for Domestic Manufacturing:** Recent policy measures like corporate tax rate reduction, Production-Linked Incentive (PLI) schemes, rationalization of labour laws, and redefinition of MSMEs aim to boost domestic manufacturing.
 - These steps encourage size and scale for the domestic industry.
- Global Economic Scenario:** Global demand is rising with substantial stimulus packages, offering opportunities for India's exports.
 - Stimulus measures in the US and favourable growth forecasts globally create a conducive environment for export growth.
- A coordinated focus on exports** is crucial for India's economic recovery, especially considering constrained fiscal space and limited private consumption and investment.
- Integration into global value chains (GVCs)** presents an opportunity that should not be missed, necessitating strong policy actions across all levels of government.
- Exports must be the driving force for growth**, leveraging the global economic recovery and positioning India as a key player in international trade.

Conclusion

The Foreign Trade Policy 2023 reflects a forward-looking approach, blending continuity with dynamism to meet the evolving needs of the global trade landscape. With a focus on collaboration, ease of doing business, and emerging sectors like e-commerce, the policy aims to propel India's exports to new heights.

Insta Links:

- [Foreign Trade Policy \(FTP\) 2023 announced](#)

Topics: Disaster and management.

4. LEARNING FROM THE AHMEDABAD HEAT ACTION PLAN

Context:

The [article](#) highlights recent severe heatwaves in India, with temperatures nearing 50°C in some cities, and lessons that the **Ahmedabad Heat Action Plan can give to other cities.**

What is a Heat Action Plan?

A Heat Action Plan is a strategy to reduce health risks during extreme heat, protecting vulnerable populations and coordinating responses.

Why are Heat Action Plans (HAPs) necessary?

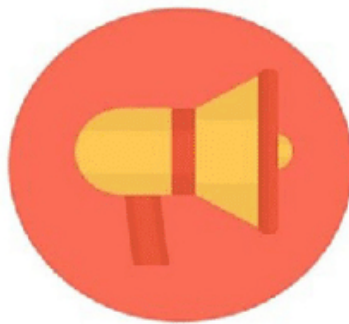
Heatwaves significantly impact health, especially for vulnerable groups. Heat Action Plans minimize these risks by offering safety guidance, cooling centres, and early warnings. The **National Disaster Management Authority and IMD are working with 23 states to develop HAPs**, detailing roles for disaster management, labour, and police departments.

HAP COMPONENTS



EARLY WARNING SYSTEM & INTER AGENCY EMERGENCY RESPONSE PLAN

Alert residents of predicted high and extreme temperatures & formally communication channels to alert governmental agencies



PUBLIC AWARENESS & COMMUNITY OUTREACH

Communicate the risks of heat waves and implement practices to prevent heat-related deaths and illnesses



CAPACITY BUILDING OF MEDICAL PROFESSIONALS

Training focus on primary medical officers and other paramedical staff, and community health staff



REDUCING HEAT EXPOSURE AND PROMOTING ADAPTIVE MEASURES

Access to potable drinking water and cooling spaces during extreme heat days & promote adaptive measures.

Example: Ahmedabad, India – Pioneering a Comprehensive Heat Action Plan

Ahmedabad, experienced a **severe heatwave in 2010**, which led to hundreds of deaths. This prompted the development of **South Asia's first comprehensive Heat Action Plan (HAP) in 2013**, a pioneering step that has since been considered a global model for heatwave preparedness.

Innovative Steps Taken:

1. **Early Warning System and Public Awareness:** The plan included an early warning system for upcoming heatwaves, **disseminating alerts via media, text messages, and public announcements.** **Heat-Resistant Infrastructure:** Efforts were made to **modify urban infrastructure**, such as **painting roofs white** to reflect sunlight and reduce indoor temperatures.
2. **Cooling Spaces:** **Public spaces** like temples, public buildings, and malls were designated as cooling centres, providing relief during peak heat hours.
3. **Healthcare System Preparedness:** The city's **healthcare facilities were equipped and trained** to deal with heat-related illnesses, including setting up special wards and training medical staff.
4. **Capacity Building and Training:** Training programs for health professionals, emergency responders, and community leaders were implemented to build capacity in dealing with heat waves.
5. **Water Management:** Ensuring **water availability, particularly in slum areas**, was prioritized to prevent dehydration and heat strokes.
6. **Impact and Global Recognition:** The HAP led to a significant **reduction in heat-related deaths.** The success of the Ahmedabad model prompted its **adaptation in over 30 other cities** across India.

Recognized globally, the Ahmedabad HAP has been highlighted by international organizations like the United Nations Framework Convention on Climate Change (UNFCCC) as an **effective strategy for combating heat waves.**

Analysis of Effectiveness of Heat Action Plans in India

1. **Early Warning Systems and Public Awareness:** HAPs have implemented early warning systems, **providing timely alerts** about impending heatwaves.
 - a. Example: **In 2023, cities like Ahmedabad** issued early warnings, which helped in **reducing heat-wave-related health emergencies.**
 - b. **Challenge:** **Reaching remote and rural populations** remains a challenge.
2. **Community Outreach and Education:** Educational campaigns on heatwave risks and **precautions** have increased public awareness.
 - a. Example: **Awareness drives in Telangana in 2022** effectively educated communities on **heat stress prevention.**
 - b. **Challenge:** The consistency and **reach** of these campaigns across all states are **uneven.**
3. **Access to Water and Cooling Facilities** Providing **accessible drinking water and cooling centres** has been a critical component of HAPs.
 - a. Example: **In Odisha, public cooling places** were set up during the **2022 summer**, significantly aiding the local population.
 - b. **Challenge:** Ensuring these **facilities in all heat-prone areas**, especially in **slums and rural areas**, is still a work in progress.
4. **Health System Preparedness:** Upgrading healthcare facilities to **manage heatstroke and dehydration** cases has been a focus.
 - a. Example: **Rajasthan's enhanced healthcare response** during the 2022 heat wave mitigated many heat-related health issues.
 - b. **Challenge:** **Healthcare infrastructure** in several regions remains **under-equipped** to handle the surge during heatwaves.
5. **Protecting Outdoor Workers:** Guidelines for **rescheduling work to cooler hours** have been beneficial for outdoor workers.
 - a. Example: In **Punjab, labour departments advised adjusted work hours** during the peak of summer 2022.
 - b. **Challenge:** Implementation and monitoring of these guidelines are inconsistent.
6. **Vulnerable Groups Focus:** Special attention to the **elderly, children, and those with chronic diseases** has been prioritized.
 - a. Example: **Mobile healthcare units in Kerala** during the **2022 heatwave** provided relief to vulnerable groups.
 - b. **Challenge:** Identifying and **reaching all vulnerable individuals**, especially in densely populated urban areas, remains a hurdle.
7. **Urban Planning and Green Cover:** Efforts to **increase urban green cover and reflective surfaces** have **reduced urban heat islands.**
 - a. Example: **Delhi's initiative to expand green spaces** has moderately alleviated heat stress in some areas.

- b. Challenge:** Rapid urbanization and lack of space limit the extent of these interventions.
- 8. Collaboration with NGOs and Civil Society:** Partnerships with NGOs for ground-level implementation and aid distribution have been effective.
 - a.** Example: **NGOs in Maharashtra** played a crucial role in **distributing water and oral rehydration solutions in 2022.**
 - b. Challenge:** Coordination and resource allocation among various stakeholders can be challenging.

Issues with the HAPs (as per Centre for Policy Research (CPR) Study of HAPs):

- 1. Not Fit for Local Contexts:** Most HAPs focus on extreme dry heat, neglecting humid heat and warm nights. They adopt national thresholds unsuitable for local risks. **Only 10 of 37 HAPs** have locally specified temperature thresholds.
- 2. Underfunded:** Only 3 of 37 HAPs identified funding sources. Eight HAPs require departments to self-allocate resources, indicating funding issues.
- 3. Weak Legal Foundations:** HAPs lack legal authority, reducing compliance incentives.
- 4. Insufficient Transparency:** No national repository of HAPs; few are listed online. Unclear if HAPs are regularly updated based on evaluation data.

Recommendations:

- 1. Reduce global emissions in the next two decades** to prevent temperatures from reaching 1.5°C.
- 2. HAPs should identify financing sources** and integrate them with existing policies.
- 3. Implement rigorous independent evaluations** for constant improvement.
- 4. Effective HAPs are crucial to protect India's poorest** from extreme heat impacts on health and income.

Conclusion

While **Heat Action Plans in India** have made significant strides in protecting vulnerable populations from heat waves, there are areas that require further improvement. By addressing the current gaps and focusing on a more **integrated and adaptive approach**, HAPs can significantly **bolster India's resilience to heat waves**, ultimately protecting and saving lives, particularly of the most vulnerable populations.

Insta Links:

- [Heat stroke](#)

Mains Links:

Q: Bring out the causes for the formation of heat islands in the urban habitat of the world. (10M)

[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](#)

5. INDIA'S FIRST JOINT DOCTRINE FOR CYBERSPACE OPERATION

Context:

India's Chief of Defence Staff, General Anil Chauhan, has **released the country's first joint doctrine for cyberspace operations.**

What is Cyberspace?

In military terms, cyberspace refers to the domain where operations involving computers, networks, and electronic systems occur. It encompasses activities such as cyber warfare, cyber defence, and information operations conducted by military forces in both offensive and defensive capacities.

7 Types of Cyberwarfare Attacks



What is Doctrine for Cyberspace Operation?

A doctrine for cyberspace **operations is a set of principles, guidelines, and strategies developed by military organizations** to govern their activities in the cyberspace domain. It outlines how military forces should plan, execute, and manage operations involving computers, networks, and electronic systems.

Significance:

It **promotes jointness and integration among the three services** (Army, Navy, and Air Force) and aligns with **national security strategies**. This integration facilitates the development of goals, methods, and resources to influence events across all operational domains and forms of power.

Comparison with China:

China has developed significant capabilities in cyberwarfare, including cyberweapons designed to disrupt or incapacitate an adversary's military assets and strategic networks. In contrast, **India has been slow to develop similar capabilities**, approving only the creation of **a limited tri-service Defence Cyber Agency in 2019**, instead of the fully-fledged Cyber Command requested by the armed forces.

What are the current threats to cyber security?

1. **Outdated protocols:** Current protocols to warn against cyber threats are outdated in India. This means that quantum cyberattacks can potentially breach any hardened target.
2. **Threat to digital infrastructure:** China's quantum advances expand the spectre of quantum cyberattacks against India's digital infrastructure, which already faces a barrage of attacks from **Chinese state-sponsored hackers**.
3. **India's dependence on foreign**, particularly Chinese hardware, is an additional vulnerability.

Countermeasures taken by India against cyber threats.

- **For Critical information infrastructure (CII)-** Creation of the **National Critical Information Infrastructure Protection Centre**, the national nodal agency in respect of CII protection. It was envisaged to act as a 24×7 centre to battle cyber security threats in strategic areas such as air control, nuclear and space.

- **Establishment of Defence Information Assurance and Research Agency** for cyber security issues of the tri-services and Defence Ministry.
- The Army has collaborated with industry and academia to build secure communications **and cryptography applications**.
- In February 2022, a joint team of the DRDO and IIT-Delhi **successfully demonstrated a QKD (Quantum Key Distribution) link** between two cities in UP — Prayagraj and Vindhyachal.
- For the Financial sector – **CERT-Fin will work closely** with all financial-sector regulators and stakeholders on issues of cyber security.
- Establishment of **cyber security infrastructure**
- **CERT-in – The main function of CERT-In** is to provide early security warning and effective incident response. It is also a national agency to collect, analyzes and disseminates information on cyber incidents and takes emergency measures for handling cyber-attacks.
- **IT Act 2000** – This act provides a legal framework against cybercrimes related to “electronic commerce”.
- **National Cyber Security Policy 2013** has been framed to create a secure cyber ecosystem, ensure compliance with global security systems and strengthen the regulatory framework.

Others

- **I4C (Indian Cyber Crime Coordination Center)** was set up in 2016 to look into every kind of cybercrime.
- The **Indian Common Criteria Certification Scheme (IC3S)** is to evaluate and certify IT Security Products and Protection Profiles.
- **Cyber Swachhta Kendra** was introduced for internet users to clean their computers and devices by wiping out viruses and malware.
- **Cyber Surakshit Bharat Initiative** was launched to spread awareness about cybercrime and build capacity for safety measures for **Chief Information Security Officers (CISOs) and frontline IT staff** across all government departments.

Global Effort: Bletchley Declaration:

The Bletchley Declaration, named after the historic code-breaking site, signifies a **global commitment to addressing AI's ethical and security challenges**, particularly generative AI. Signed at the AI Safety Summit (in 2023), it highlights the increasing global recognition of AI risks and involves major world powers like China, the EU, India, and the US.

Way forward:

Cyber Wargames for Risk Assessments:

1. Test response to cyber warfare scenarios.
2. Expose defence gaps.
3. Improve cooperation.

Layered Defense Approach:

4. Secure cyber ecosystem.
5. Raise cybersecurity awareness.
6. Promote open standards.
7. Implement a national cybersecurity framework.
8. Collaborate with the private sector.

Securing Private Sector:

9. Establish network obstacles.
10. Utilize web application firewalls (WAF).
11. Respond quickly to breaches.
12. Foster public-private cooperation.
13. Engage local hackers for defence.

Insta Links:

- [Cybersecurity Challenges in India](#)

Mains Link:

Keeping in view India’s internal security, analyse the impact of cross-border cyber-attacks. Also, discuss defensive measures against these sophisticated attacks. (UPSC 2021)

Prelims Link:

With the present state of development, Artificial Intelligence can effectively do which of the following? (UPSC 2020)

1. Bring down electricity consumption in industrial units
2. Create meaningful short stories and songs
3. Disease diagnosis
4. Text-to-Speech Conversion
5. Wireless transmission of electrical energy

Select the correct answer using the code given below:

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

Ans: B

Topics: Security challenges and their management in border areas; linkages of organized crime with terrorism.

Topics: Various Security forces and agencies and their mandate.

GENERAL STUDIES – 4

1. EMOTIONAL INTELLIGENCE AND ITS APPLICATIONS

Context:

Emotional Intelligence (EI) is crucial in today’s interactions, especially for public servants who must navigate complex situations.

What is Emotional Intelligence (EI)?

Emotional Intelligence (EI) refers to the **ability to recognize, understand, and manage one’s own emotions, as well as to perceive and influence the emotions of others** effectively. It involves being self-aware of one’s emotional state, managing emotions in a constructive manner, empathizing with others, and using emotional information to guide thinking and behaviour.

Emotional Intelligence Domains and Competencies

Self-awareness	Self-management	Social awareness	Relationship management
Emotional self-awareness	Emotional self-control	Empathy	Influence
	Adaptability		Coach and mentor
	Achievement orientation	Organizational awareness	Conflict management
	Positive outlook		Teamwork
			Inspirational leadership

Source: More Than Sound, LLC, 2017



EI was popularized by **Daniel Goleman in his 1995 book titled “Emotional Intelligence: Why It Can Matter More Than IQ.”**



EQ	IQ
<ul style="list-style-type: none"> Identifying, perceiving, and regulating emotions through five domains: self-awareness, self-regulation, empathy, and social skills (Goleman, 2020). 	<ul style="list-style-type: none"> Logical reasoning, cognitive functions, memory, word comprehension, maths skills, abstract and spatial thinking, mental agility.
<ul style="list-style-type: none"> Subject to environmental and social influences so can be actively trained and developed over time. 	<ul style="list-style-type: none"> Considered a stable trait influenced by genetics.
<ul style="list-style-type: none"> No universally standardized test. Testing may involve ability tests and self-reported analyses of a person's own typical behavior (Cotruș, Stanciu and Bulborea, 2012). 	<ul style="list-style-type: none"> Assessed through standardized intelligence tests, which compare individuals' scores to the average performance of other participants in their age group.
<ul style="list-style-type: none"> Having the ability to interpret other people's emotions correctly or attending to emotional cues does not mean they have high IQ (Goleman, 2020). 	<ul style="list-style-type: none"> Having good analytical skills does not necessarily translate in the ability to understanding other people's emotions (Goleman, 2020).
<ul style="list-style-type: none"> A pivotal role in general well-being, promoting a person's mental health and quality of relationships (David, 2016). Can lead to interpersonal success even if IQ is average. 	<ul style="list-style-type: none"> Can contribute to greater academic achievement and job performance.

simplypsychology.org

Essence of emotional intelligence:

Aspect	Details
Emotion + Intelligence	Emotional Intelligence (EI) combines emotions and intelligence to enhance personal and professional effectiveness.
Key Building Constructs	EI comprises self-awareness, self-management, motivation, empathy, and social skills.
Self-Awareness	Involves understanding one's physical, mental, emotional, and spiritual self, and being aware of habits that impact well-being.
Self-Management	Focuses on disciplining oneself to maintain consistency in actions, and manage time, habits, and emotions effectively.
Johari Window	A model by Joseph Luft and Harry Ingham that enhances self-awareness through four windows : Open Self (known to self and others), Hidden Self (known to self, not to others), Blind Self (known to others, not to self), and Unknown Self (unknown to self and others).

	The Johari Window helps in emotional intelligence by providing a framework to enhance self-awareness and interpersonal communication. Through feedback and self-disclosure, individuals can expand their Open Self quadrant, reduce their Blind and Unknown Self areas , and increase mutual understanding in relationships.
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Applications of Emotional Intelligence:

Application	Example
Personal Relationships	Understanding and managing emotions in conflicts with family members to foster healthier relationships.
Workplace Leadership	Empathizing with team members’ concerns to motivate them effectively, enhancing team productivity.
Stress Management	Using self-awareness and self-management techniques to cope with work pressure and reduce stress levels.
Decision Making	Considering emotions alongside logic when making decisions to ensure well-rounded and informed choices.
Customer Service	Recognizing and responding to customers’ emotions to provide better service and resolve issues more effectively.
Conflict Resolution	Using empathy and social skills to navigate and resolve conflicts peacefully and constructively.
Healthcare	Empathizing with patients’ emotions to provide compassionate care and improve patient outcomes.
Education	Helping students develop emotional awareness and social skills to enhance learning and classroom interactions.

Mains Link:

THE CASE

You have recently taken the responsibility of the officer in charge of a welfare scheme. One morning you were not in a good mood and even yelled at your subordinate who was not providing you with correct information related to the welfare scheme. The moment you came out of your chamber you saw a long queue of applicants. You asked your subordinate to consider those persons who have proper documents. All of a sudden you found a lady shouting at other staff as they were stopping her to meet you in person. You ignored it and returned to your chamber.

After a while, your subordinate came and reported about that old lady’s willingness to meet you, but you were in no mood to talk to her. You said, “I did not talk to my mother yesterday as it was Mother’s Day. I have so many things to do. Please handle yourself.”

However, the old woman suddenly comes inside your office and seeks to become a beneficiary. The woman is illiterate and does not have any documents to prove her eligibility for the scheme. You did not understand what to do. She said, “After seeing me, why do you turn your face? Would you have made the same gesture for your mother? You are bada sahab, but without emotion.”

Finally, you find that she is really poor and destitute with no one to care for her. Though she didn’t have any documents but dilemma is that giving her the benefits without the documents would be tantamount to bypassing the law.

Q1. What are the core issues in this case?

Q.2 Identify those areas where you are lacking officer-like qualities.

Q.3 Whether as an officer you have a low EQ or is it completely absent?

CONTENT FOR MAINS ENRICHMENT

Topic in News	Usage in Answers
<p>1. SCHOOL IN A BOX INITIATIVE</p>	<p>Context: In Assam, amid devastating floods and landslides claiming lives, children in relief camps will receive educational support through a “school in a box” initiative.</p> <p>Designed by UNICEF, these kits cater to children aged 6-18, providing learning materials to ensure education continuity despite displacement and trauma. disasters.</p> <p><u>The initiative to provide “school in a box” kits during Assam’s floods reflects several ethical values. It prioritizes:</u></p> <ol style="list-style-type: none"> 1. Compassion and Care: By addressing the educational needs of children amidst trauma, the initiative demonstrates compassion and care for vulnerable populations. 2. Equity and Inclusion: The kits are designed to cater to children aged 6-18, ensuring inclusivity and equitable access to educational resources regardless of age or background. 3. Responsibility and Accountability: Training sessions for officials and grassroots workers underscore a commitment to responsibly managing relief efforts, ensuring accountability in education and relief camp operations. 4. Empathy and Support: By considering the psychological impact of displacement, the initiative shows empathy and provides essential support to help children overcome trauma and continue their education. 5. Sustainability: Initiatives such as installing sanitary napkin vending machines in relief camps reflect a sustainable approach to addressing broader health and hygiene needs, promoting dignity and well-being.

FACTS FOR PRELIMS

GS-1

Art & Culture

1. 10TH INTERNATIONAL YOGA DAY (IYD)

Context:

The Prime Minister highlighted the global Muslim adoption of yoga during the **10th International Day of Yoga in Srinagar**, aiming to dissociate yoga from any specific religious connection.

He cited instances like:

1. **Yoga therapy in Turkmenistan's** medical universities
2. Inclusion of Yoga in **Saudi Arabia's education** system
3. **Yoga-specific schools in Mongolia** to emphasize its universal appeal.

Each year on 21 June, the world comes together to observe the International Day of Yoga, a day designated by the United Nations to celebrate the power of yoga in promoting holistic health practices worldwide.

Yoga derives its name from the Sanskrit root 'yuj' which means to join or to unite. It symbolizes the unity of one's mind, body, and spirit with the world outside, through a set of exercises that include breathing techniques, physical postures, and relaxation methods.

Yoga Philosophy:

Yoga process is described in eight stages (ashtanga-yoga, "eight-membered Yoga")

External Aids: The first two stages are ethical preparations.

1. **Yama("restraint")**, which denotes abstinence from injury falsehood, stealing, lust, and avarice;
2. **Niyama("discipline")**, denotes cleanliness of body, contentment, austerity, study, and devotion to God.

The next two stages are physical preparations.

3. **Asana("seat")**, is a series of exercises to make the body supple, flexible, and healthy.
4. **Pranayama("breath control")** is a series of exercises intended to stabilize the rhythm of breathing in order to encourage complete respiratory relaxation.

The fifth stage.

5. **pratyahara("withdrawal of the senses")**, involves control of the senses, or the ability to withdraw the attention of the senses from outward objects.

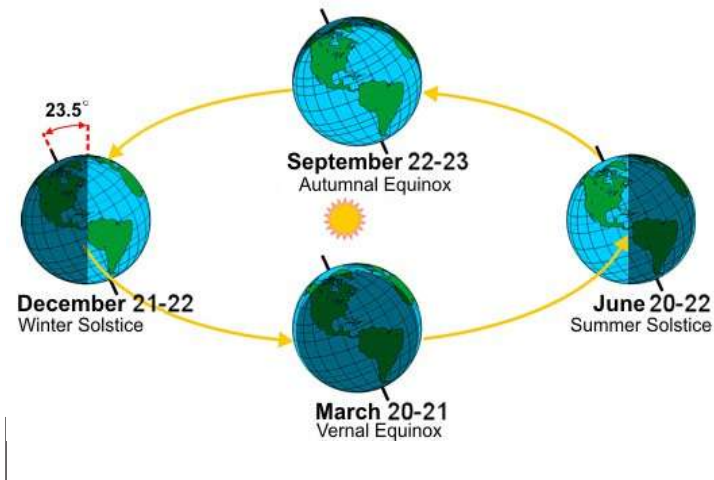
Mental or internal aids:

6. **Dharana("holding on")** is the ability to hold and confine awareness of externals to one object for a long period of time.
7. **Dhyana("concentrated meditation")** is the uninterrupted contemplation of the object of meditation, beyond any memory of ego.
8. **Samadhi("total self-collectedness")** is the final stage and is a precondition of attaining release from samsara, or the cycle of rebirth. In this stage, the meditator perceives or experiences the object of his meditation and himself as one.



About On June 21, the Summer Solstice

It occurs in the **Northern Hemisphere when the Earth's axis** is tilted towards the sun. This results in direct sunlight falling on the Tropic of Cancer. Areas beyond the Arctic Circle experience continuous daylight for about six months. It marks the longest day and shortest night of the year in the northern hemisphere. Conversely, the Southern Hemisphere experiences the opposite conditions during this time.



Geography

2. OFFSHORE AREAS (EXISTENCE OF MINERAL RESOURCES) RULES, 2024

Context:

The Centre has introduced **rules for offshore minerals in anticipation of upcoming auctions.**

What is Offshore mining?

It involves extracting mineral deposits from deep seabeds beyond 200 meters. India's offshore reserves include vital minerals like gold, diamond, copper, nickel, cobalt, manganese, and rare earth elements crucial for development, found in its vast **Exclusive Economic Zone (EEZ)** spanning over two million square kilometres. Offshore mining promises to enhance mineral availability and decrease import reliance. However, challenges such as limited private involvement, demand for skilled labour, and high capital requirements persist.

About the Rules:

Introduced by the central government under the authority of the Offshore Areas Mineral (Development and Regulation) Act, 2002, this legislation governs the development and regulation of mineral resources in India's maritime zones. The rules apply **to all minerals except mineral oils and hydrocarbons,** as well as those specified in **Part B of the First Schedule to the Mines and Minerals (Development and Regulation) Act, 1957.** The rules outline stages of exploration, feasibility studies, economic assessments, and classification of mineral resources and reserves.

3. FRESHWATER DIATOM

Context:

Researchers from the **Agharkar Research Institute (ARI), Pune,** have discovered a **new genus of freshwater diatom** in the rivers of the Eastern and Western Ghats.

What are Diatoms?

Diatoms are a type of microscopic algae belonging to the phylum Bacillariophyta. They are characterized by their intricate silica cell walls, which form intricate patterns like geometric shapes or lines. Diatoms are primary producers in aquatic ecosystems, responsible for producing a significant portion of the world's oxygen through photosynthesis. They play a crucial role in aquatic food chains, serving as food for many organisms. Diatoms are highly sensitive to changes in water chemistry, making them valuable indicators of water quality and ecosystem health.



GS-2

Functioning of Parliament and State Legislatures

1. SPEAKER PRO TEM OF LOK SABHA

Context:

Senior Congress **leader K Suresh, as the seniormost member of the Lok Sabha, is expected to be appointed as the pro-tem Speaker** for the first session of the 18th Lok Sabha.

What is Speaker Pro-tem?

The **Speaker pro-tem is a temporary presiding officer in the Lok Sabha,** appointed by the President before the first session of a new Lok Sabha. This role is typically given to the senior member. The **Speaker pro-tem's main duty** is to administer oaths to the new MPs until a permanent Speaker is elected.

Role of Pro-tem Speaker:

1. Administers oaths to new MPs.
2. Presides over the House’s initial proceedings.
3. Ensures the smooth transition of parliamentary duties.

Selection Process:

1. Chosen by the **President from the seniormost members of the Lok Sabha.**
2. Assisted by three other senior members for oath administration.
3. The President administers the **oath to the pro-tem Speaker**, who then swears in other MPs.



Governance

2. SOLID WASTE MANAGEMENT CESS

Context:

Bengaluru’s BBMP proposes a **monthly Solid Waste Management (SWM) Cess** of ₹100 per household, as allowed by the **Solid Waste Management Rules, 2016.**

Solid waste includes discarded items from households and businesses. In India, **approximately 95% of waste is efficiently** collected daily, but only about half undergoes treatment, leaving nearly a third unaddressed.

What is SWM Cess?

Solid Waste Management (SWM) Cess is a **fee levied by local authorities, such as municipal corporations, on households or businesses** for the collection, transportation, and disposal of solid waste. This cess is intended to fund and support solid waste management initiatives, including waste collection, segregation, treatment, and disposal.



3. NATIONAL FORENSIC INFRASTRUCTURE ENHANCEMENT SCHEME (NFIES)

Context:

The Union Cabinet has approved the **National Forensic Infrastructure Enhancement Scheme (NFIES) – a central sector scheme.**

- This scheme aims to **enhance forensic investigation capabilities** across India by **establishing new campuses of the National Forensic Sciences University (NFSU)** and setting up **additional Central Forensic Science Laboratories.**
- The initiative **responds to the new criminal laws effective from July 1**, which mandate forensic investigations for serious offences.

Cabinet approves Central Sector Scheme "National Forensic Infrastructure Enhancement Scheme"

- Establishment of Campuses of the National Forensic Sciences University (NFSU) and Central Forensic Science Laboratories (FSL)
- Enhancement of existing infrastructure of the Delhi Campus of the NFSU
- Financial outlay of ₹2254.43 crores for campuses, labs and enhancement of infrastructure during the period from 2024-25 to 2028-29
- Will lead to an efficient criminal justice system, based on scientific and timely forensic examination of evidence

Cabinet Decision: 17th June, 2024

GS-3

Indian Economy

4. ANGEL TAX

Context:

The **Confederation of Indian Industry (CII)** has recommended removing the '**Angel Tax**' to boost capital formation, citing its negative **impact on start-up funding**.

What is Angel Tax?

Angel Tax, introduced in **2012 under the Income-tax Act, 1961**, is levied on the capital raised by unlisted companies through the issue of shares if the share price exceeds the fair market value. This tax aims to **curb money laundering and ensure compliance with tax norms**.


What is Angel Tax?

It is income tax payable on 'income from other sources' and was introduced in Section 56(2)(viib) of IT Act. This tax is payable on capital raised by unlisted companies if value of shares issued to investors exceeds their fair market value (FMV).

"Income from other sources": If the share value is less than FMV, the difference is considered "income from other sources" for angel investors.

Angel Tax Timeline

March 16, 2012	March 1, 2013	March 2018	March 2023
Inception of angel tax	Implementation of angel Tax	Angle Tax Exemption for Startups	Proposed amendment in Angel Tax
Pranab Mukherjee inserts section 56(2)(viib) in the IT act, 1956.	IT amendment act of 2012 brings Angel Tax into effect.	The dipi Announces angel tax exemption for inter-ministerial Board (IMB) approved startups.	Indian startups Offering share to foreign investors, may have to pay angel tax.



5. EXCESSIVE DEFICIT PROCEDURE (EDP)

Context:

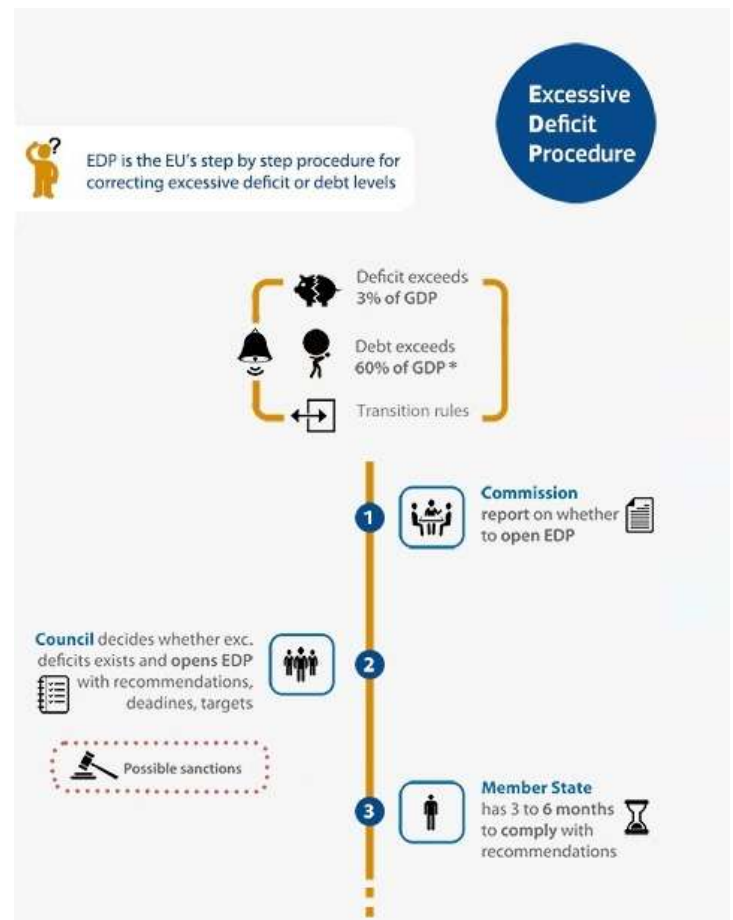
The **European Commission** has proposed **disciplinary measures** for **France and six other EU countries (Bel-**

gium, Italy, Hungary, Malta, Poland, and Slovakia) due to their **excessive budget deficits**.

- These deficits stem from the **financial impacts of the COVID-19 pandemic and the energy crisis following Russia's invasion of Ukraine**.

About Excessive deficit procedure (EDP):

- The aim of the excessive deficit procedure (EDP) is that EU **countries correct excessive deficit and/or debt levels**.
- The **European Commission** can launch an EDP against an EU country **not respecting the Stability and Growth Pact (SGP)**, a body of rules governing the **coordination of EU countries' fiscal policies**.



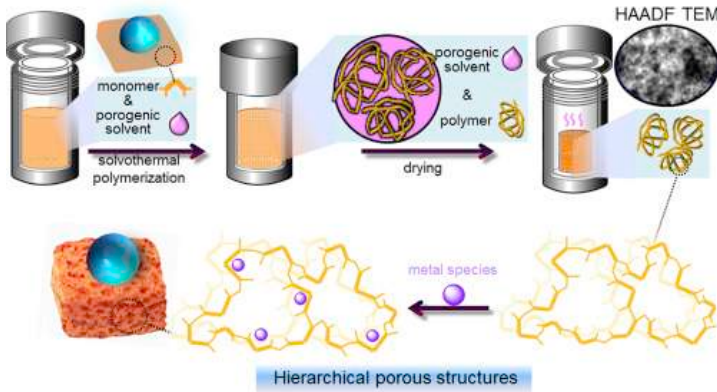
6. SUPERHYDROPHOBIC CATALYST

Context:

A global team of scientists, has developed a **superhydrophobic catalyst** that significantly **reduces the cost of producing biodiesel**.

- This catalyst, which is **water-repellent and derived from biomass (cellulose)**, can **lower biodiesel production costs** from the **current \$1.2 per litre to 37 cents per litre**.
- The catalyst's robustness allows it to **withstand the water by-products of biodiesel production**, making the **process more efficient and cost-effective**.

The research, published in *Advanced Functional Materials*, suggests this **innovation could promote wider adoption of biodiesel as a sustainable energy source**, offering an **environmentally friendly and economically viable alternative to traditional fossil fuels**.



7. CAPSAICIN

Context:

Denmark has recalled **several spicy Korean instant ramen noodles** produced by Samyang due to **concerns over high levels of capsaicin**, which could **cause “acute poisoning.”**

- **Capsaicin**, the compound that **gives chilli peppers their heat**, can cause **inflammation and irritation in the digestive tract, potentially leading to symptoms like abdominal pain, diarrhoea, and vomiting.**
- Despite these risks, moderate consumption of spicy foods can offer benefits like **pain relief, antibacterial properties, boosted metabolism, improved cardiovascular health, and anti-cancer effects.**

THE CHEMISTRY OF A CHILLI

8. PIGMENT PURPUGALLIN

Context:

A **team of scientists** from the UK and Canada traced the

evolution of purple glacier algae, revealing their **significant impact on glaciers and challenging traditional evolutionary theories.**

- These algae, which thrive in **extreme glacier environments**, have evolved to produce a purple **pigment, purpurogallin**, that protects **them from UV and visible light, aiding in their survival.**
- The study shows that these **adaptations likely emerged 520-455 million years ago**, rather than during the **Snowball Earth period as previously thought.**
- This suggests a **more recent glacial period drove their evolution.**
- The algae’s ability to simplify rather than increase in complexity contradicts the **traditional “march of progress” hypothesis in evolution.**

These adaptations have enabled glacier algae to persist and significantly affect glacier melt, highlighting their role in fragile ecosystems and the importance of understanding their evolution in the context of climate change.

Agriculture

9. DIRECT SEEDING OF RICE (DSR)

Context:

The **Punjab government** is promoting the **direct seeding of rice (DSR) technique** due to its benefits, such as **reducing water usage by 15-20%**, requiring less labour, and **maturing faster than traditional methods.**

- DSR involves sowing seeds **directly into the field without nursery preparation or transplantation, which reduces water and labour requirements.**
- Successful **DSR implementation depends heavily on soil texture and iron content.**

Significance:

- **Faster planting and maturing of the crop.**
- Reduces the **water consumption and labour** as compared **to the traditional transplantation method.**
- **Controlling stubble burning** also **helps in reducing Methane emissions.**

Different Planting Methods of Rice



Science & Technology

10. NATIONAL INSTITUTE OF INDIAN MEDICAL HERITAGE (NIIMH)

Context:

The World Health Organization (WHO) has designated the National Institute of Indian Medical Heritage (NIIMH) in Hyderabad as a Collaborating Centre for “Fundamental and Literary Research in Traditional Medicine” (CC IND-177) for four years.

- This marks the first time a WHO Collaborating Centre has been established for this specific field.

About NIIMH:

- NIIMH, under the Central Council for Research in Ayurvedic Sciences (CCRAS), Ministry of Ayush, is recognized for its extensive medico-historical research in Ayurveda and related traditional medicine systems in India.
- Established in 1956, NIIMH has contributed significantly through digital initiatives such as the AMAR Portal, which catalogues and digitizes Ayush manuscripts, and the SAHI Portal, which showcases medico-historical artefacts.
- It also maintains a Medical Heritage Museum and Library with rare manuscripts and publishes the Journal of Indian Medical Heritage.

Significance:

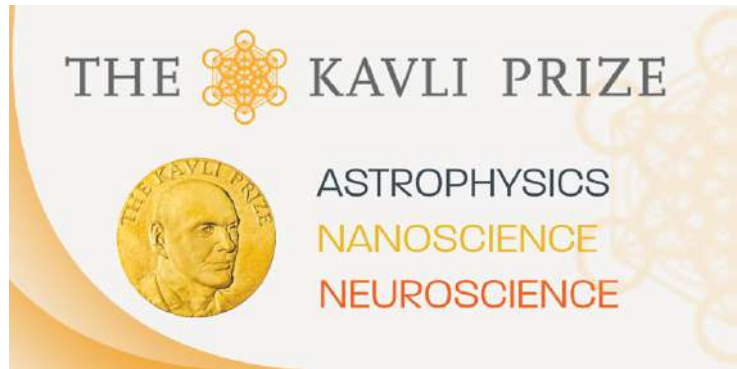
As a WHO Collaborating Centre, NIIMH will help standardize terminologies for Ayurveda, Unani, Siddha, and Sowa-Rigpa, update the Traditional Medicine Module for the International Classification of Diseases (ICD-11), and assist in developing research methodologies for Traditional Medicine.

11. KAVLI PRIZE

Context:

The Kavli Prize, named after Norwegian-American philanthropist Fred Kavli, donors’ significant achievements in astrophysics, neuroscience, and nanoscience.

- Established by the Kavli Foundation in 2000, the prize is awarded biennially and includes a \$1 million cash award per field, along with a medal and a scroll.
- It mirrors the Nobel Prize but is considered broader in scope, as it recognizes contributions without the restriction of being made in the preceding year.
- The inaugural Kavli Prize was awarded in 2008.



12. DIVYA DRISHTI

Context:

“Divya Drishti” is an advanced AI tool developed by the woman-led start-up Ingenious Research Solutions.

- The tool integrates facial recognition with gait and skeleton analysis to enhance identification accuracy and reduce false positives and identity fraud.
- This dual-approach biometric authentication system has versatile applications across various sectors, including defence, law enforcement, corporate, and public infrastructure.

Developed with technical guidance from DRDO’s Centre for Artificial Intelligence & Robotics (CAIR) in Bangalore, “Divya Drishti” signifies a significant advancement in biometric technology.

13. STREPTOCOCCAL TOXIC SHOCK SYNDROME (STSS)

Content:

The recent spread of “flesh-eating bacteria” in Japan, known as Streptococcal Toxic Shock Syndrome (STSS), has health officials alarmed, with close to 1,000 cases reported nationwide.

STSS is a severe illness caused by group A Streptococcus bacteria. It triggers a rare, rapid and severe inflammatory response affecting multiple organs. Symptoms include fever, muscle pain, nausea, and organ failure. Diagnosis involves blood tests to detect the bacteria and organ function. Treatment includes strong antibiotics, fluids, and sometimes surgery. Early medical intervention is crucial for recovery and preventing complications or death from STSS.

What is Toxic Shock Syndrome?

- Toxic Shock Syndrome is a rare, often life threatening illness that results from an infection and can impact several organ systems, such as the liver, kidneys, and lungs.

- The disease develops quickly, making immediate medical attention necessary.

- Conditions for the development of TSS include:

- Bacterial colonization

- Exotoxin production

- Entry portal for the bacteria

- There are two types:

1. TSS, caused by *Staphylococcus aureus*

2. STSS or Streptococcal Toxic Shock Syndrome, caused by *Streptococcus pyogenes*.







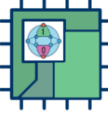



14. '5G INTELLIGENT VILLAGE' AND 'QUANTUM ENCRYPTION ALGORITHM'

Context:

The **Department of Telecommunications (DoT)** has announced two significant calls for proposals to stimulate **innovation and technological advancement in the telecommunications sector**.

- These initiatives aim to promote **indigenous R&D, IP creation, and inclusive digital growth across India under the Telecom Technology Development Fund (TTDF) scheme**.

Initiative	5G Intelligent Village Initiative	Quantum Encryption Algorithm (QEA)
Objective	To harness 5G technology to transform rural life, driving digital inclusion and economic growth.	To develop an India-specific quantum encryption algorithm for securing digital communication channels.
Scope	Focuses on agriculture, education, healthcare, governance, and sustainability in selected villages across India.	Not Applicable
Goals	Enable effective utilization of 5G's URLLC and mMTC, establish 5G connectivity in uncovered areas, and unite various stakeholders for R&D in 5G technology.	Not Applicable
Features	Not Applicable	Unparalleled security, advanced encryption capabilities, and ultrafast, efficient encryption.

Quantum Computing	Vs.	Classical Computing
 <p>Calculates with qubits, which can represent 0 and 1 at the same time</p>		 <p>Calculates with transistors, which can represent either 0 or 1</p>
 <p>Power increases exponentially in proportion to the number of qubits</p>		 <p>Power increases in a 1:1 relationship with the number of transistors</p>
 <p>Quantum computers have high error rates and need to be kept ultracold</p>		 <p>Classical computers have low error rates and can operate at room temp</p>
 <p>Well suited for tasks like optimization problems, data analysis, and simulations</p>		 <p>Most everyday processing is best handled by classical computers</p>

CBINSIGHTS

15. MATSYA 6000

Context:

India is set to become **the sixth country to have its own Deep Sea Mission.**

- The **first stage of the harbour trial** aims at reaching a **depth of 40-50 meters.**
- The **National Institute of Ocean Technology (NIOT)** developed **Matsya 6000**, a submersible capable of **reaching depths of 6000 meters**, and collaborated with ISRO on creating a titanium hull to withstand extreme pressures.

About Matsya 6000:

- The Matsya 6000 is a **human-occupied submersible** designed and developed by **India's National Institute of Ocean Technology (NIOT).**
- It is part of India's **ambitious Samudrayaan Mission**, aimed at **deep-sea exploration and research.**

Design and Capabilities:

- Depth Capability:** The Matsya 6000 is designed to operate at **depths of up to 6000 meters (approximately 19,685 feet).**
- Occupancy:** It can accommodate **three crew members.**
- Duration:** The submersible can stay **submerged for up to 12 hours of operational time**, with an **additional 96 hours of emergency endurance.**
- Material:** The pressure hull is made from **tita-**

nium to withstand the extreme pressures of deep-sea environments.

- Instruments:** It is equipped with advanced scientific instruments for underwater research, including high-definition cameras, sonar systems, and robotic arms for sampling and interaction with the seabed.



16. BIO-BITUMEN

Context:

India is planning to **produce bio-bitumen from biomass and agricultural waste to reduce its reliance on imports and address stubble-burning issues** in road construction.

- Currently, **India imports about half of its annual bitumen requirement.**
- A pilot study by the **Central Road Research Institute (CRR)** and the **Indian Institute of Petroleum, Dehradun**, will test bio-bitumen on a 1-km road stretch.
- This initiative aims to **save foreign exchange, achieve self-sufficiency in bitumen production, and provide a solution for stubble burning.**

Bio-bitumen is an **eco-friendly alternative to traditional petroleum-based bitumen**, used primarily in **road construction and roofing.**

It is **derived from renewable biomass sources such as agricultural residues, forestry waste, and other organic materials.**

The development and utilization of bio-bitumen aim to **reduce reliance on fossil fuels and minimize the environmental impact of bitumen production and use.**

Facts & Figures

What is Bitumen?

Bitumen is a black substance produced through distillation of crude oil and is widely used to bind surfaces of paved road



3.21 MT

India's import of Bitumen in 2022-2023

5.24 MT

India's indigenous bitumen production in the last FY

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17. FUNCTIONAL ULTRASOUND IMAGING (FUSI)

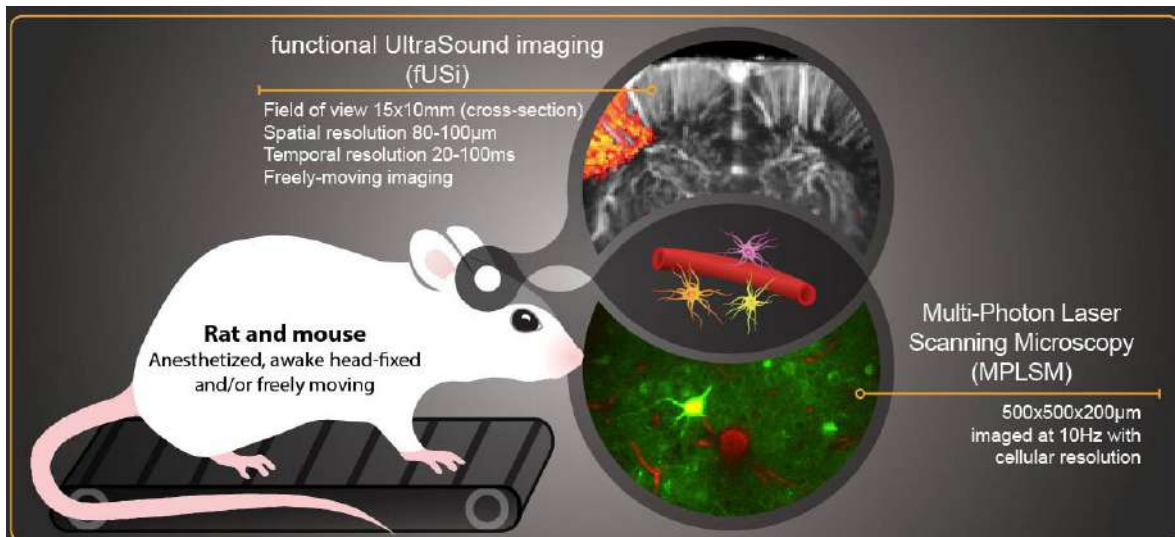
Context:

Scientists have pioneered a groundbreaking ultrasound technology to map brain activity with unprecedented clarity, using **Functional Ultrasound Imaging (fUSI)**

What is Functional Ultrasound Imaging (fUSI)?

fUSI stands for **Functional Ultrasound Imaging**. It is a cutting-edge technology that combines **ultrasound imaging with functional imaging techniques to observe** and map brain activity in real time.

Unlike traditional ultrasound, which is primarily used for visualizing structures like organs and tissues, **functional ultrasound imaging specifically targets changes in blood flow within the brain**. This allows researchers to indirectly monitor **neuronal activity by measuring the metabolic demands** of active brain regions, providing high-resolution insights into how the brain functions during various tasks and activities.



About Ultrasound technology:

It utilizes high-frequency sound waves (above 20 kHz) to visualize the body's internal organs without using radiation, ensuring it is a safe and effective diagnostic tool. This technology operates on the principle of the piezoelectric effect, where certain materials generate an electric charge when subjected to mechanical stress.

Beyond medical diagnostics, ultrasound finds applications in underwater acoustics (sonar), non-destructive testing of materials, and processes like welding and cleaning. Its versatility underscores its role in various scientific and industrial fields, making it indispensable for both research and practical applications.

Environment & Ecology

18. DEAD ZONE

Context:

NOAA forecasts an above-average summer **"dead zone"** in the Gulf of Mexico.

- A **"dead zone"** is an area in a body of water where the **oxygen levels are so low** that **most marine life cannot survive**. These zones are also known as **hypoxic areas**.

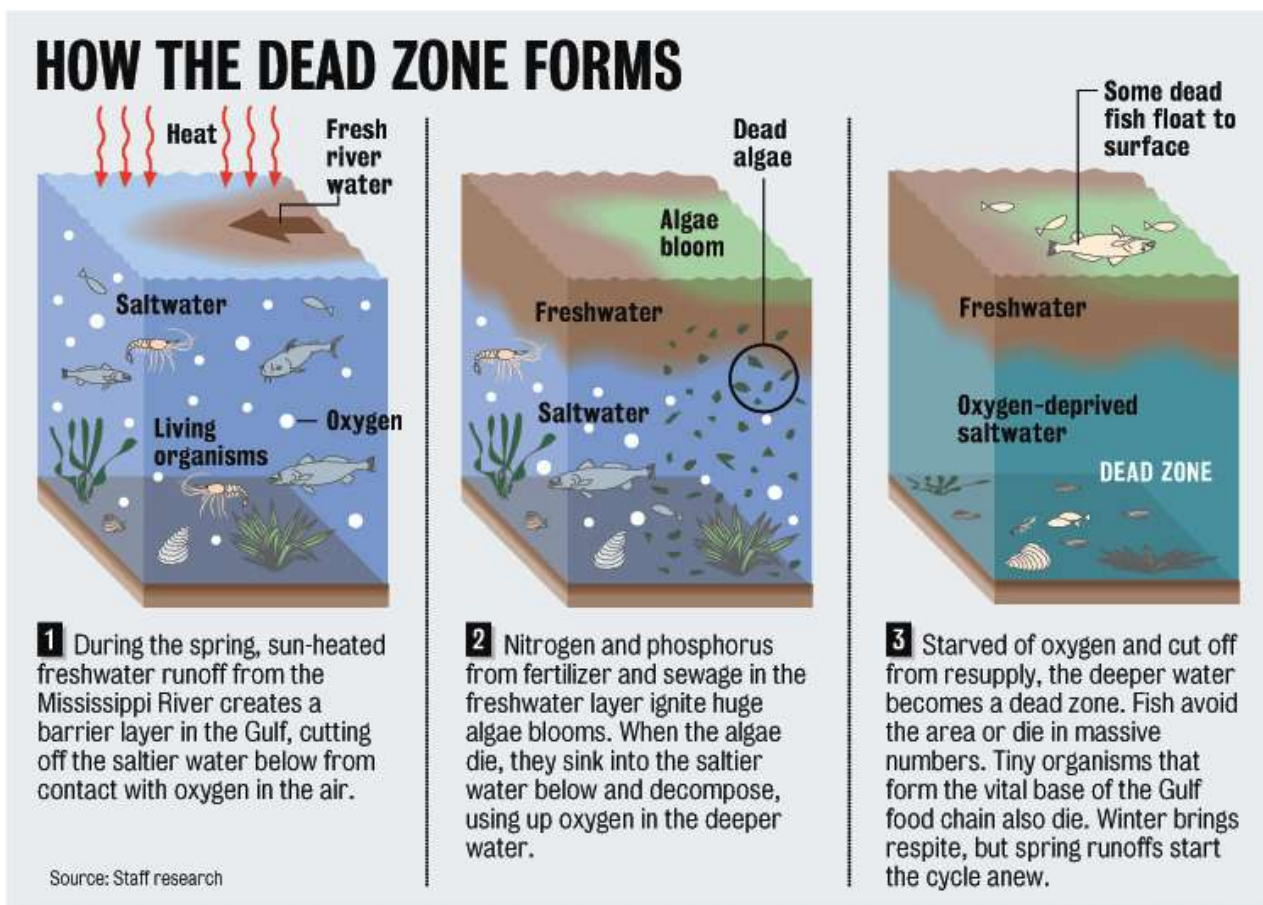
Causes:

Dead zones typically form as a result of **nutrient pollution from human activities**, such as:

- Agricultural Runoff
- Urban Runoff
- Atmospheric Deposition

Impact:

- Marine Life:** Fish, shrimp, and other marine organisms either die or leave the area due to lack of oxygen.
- Ecosystems:** The depletion of marine life can disrupt food chains and ecosystems.
- Economy:** Fisheries and tourism can suffer due to the decline in marine populations and overall water quality.



19. BIOLUMINESCENCE

Context:

Animals have used **bioluminescence for millions of years**, but much about it remains a mystery. Scientists are exploring its origins and functions, particularly in **deep-sea habitats like coral reefs**.

Recent research suggests **bioluminescence may have evolved as a means of communication and survival during the Cambrian Explosion, over 540 million years ago**. Studying bioluminescent organisms, such as corals and shrimp, sheds light on how light production has shaped evolution and behaviour over geological time scales.

What is Bioluminescence?

It is the ability of living organisms to emit light, generated through enzyme-catalyzed oxidation reactions involving unique chemicals like luciferin and luciferase or photoprotein. This phenomenon spans across various species **including sponges, jellyfish, fireflies, and bacteria**. Its functions range from camouflage and prey attraction to intraspecies communication.



20. E-FLOW ECOLOGICAL MONITORING SYSTEM

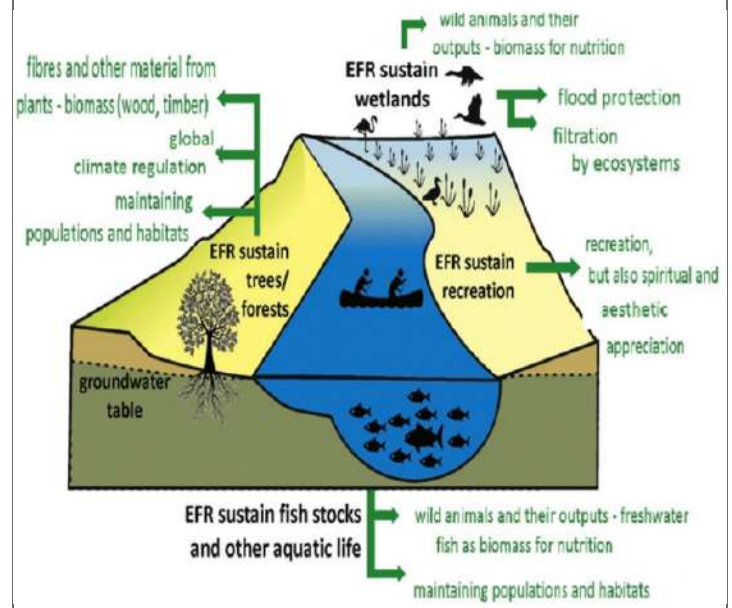
Context:

The Union Jal Shakti Ministry launched **an e-flow ecological monitoring system for real-time tracking of river quality, aiding project planning and monitoring**.

Developed by the **National Mission for Clean Ganga (Namami Gange, under the Ministry of Jal Shakti)**, it monitors the water quality of the Ganga, Yamuna, and tributaries, along with Namami Gange program activities. The system utilizes data from **Central Water Commission reports** to track key parameters like in-flow, out-flow, and mandated E-flow across 11 projects along the Ganga Main Stream.

More about E-flow:

E-flow stands for **environmental flow, which refers to the amount of water necessary to sustain the ecological health and functions of rivers, streams, and other water bodies**. It ensures that enough water is available to support aquatic ecosystems, maintain water quality, and sustain biodiversity. In 2018, the **Indian government mandated minimum E-flow requirements for different parts of the Ganga River** to be maintained throughout the year. In response, the **National Mission for Clean Ganga (NMCG) specified flow parameters** necessary to preserve the river's ecological balance, protect aquatic life, and ensure sustainability amid various water usage demands.



21. WORLD CROCODILE DAY

Context:

In 1975, India initiated its **Crocodile Conservation Project** in **Odisha's Bhitarkanika National Park** with support from the **United Nations Development Programme (UNDP)** and the **UN's Food and Agriculture Organization (FAO)**.

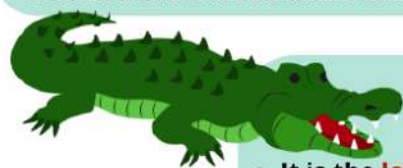
About Crocodiles:

- Crocodiles are large, aquatic reptiles found in **tropical and subtropical regions around the world**. They belong to the **family Crocodylidae and are known for their powerful jaws, armoured bodies, and remarkable adaptations for a semi-aquatic lifestyle**.
- There are **three main species of crocodiles in India**

Species of crocodilians



There are **three species of crocodilians**—saltwater, Mugger and Gharial. Latest Saltie census 2023 have estimated higher count of estuarine crocodiles in Bhitarkanika



Saltwater Crocodile (estuarine crocodile)

- It is the **largest** of all living reptiles. It is found throughout the east coast of India -**Bhitarkanika mangroves and Sunderbans National Parks**.
- Males are much larger than females, weighing even upto 1000Kg.
- **Habitat:** They inhabit coastal brackish mangrove swamps and river deltas.
- **IUCN:** Least concern

Mugger:

The mugger crocodile (Indian crocodile) is found throughout the Indian subcontinent.

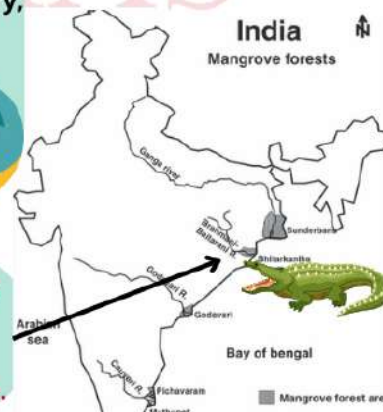
- The mugger is mainly a **freshwater species**, and found in lakes, rivers and marshes.
- They have **broadest snout of all**, they are keystone species of their habitat.
- **IUCN:** Vulnerable



Gharial:

The Gharial or fish-eating crocodile is native to the Indian subcontinent.

- Small released populations are present and increasing in the rivers of the **National Chambal Sanctuary**, Katarniaghat Wildlife Sanctuary, Son River Sanctuary and the rainforest biome of Mahanadi in Satkosia Gorge Sanctuary, Orissa.
- They are easily distinguishable due to their **long snouts (nose)**
- **IUCN:** Critically Endangered



Bhitarkanika National Park (Kendrapara district in Odisha):

The park is **second-largest mangrove forest (after Sundarbans)** and is lying in the estuarial region of **Brahmani, Baitarni, Dharma and Patasala River**. It is also a Ramsar Site.

Visit Insights IAS Daily CA for detailed News

22. GANDHISAGAR SANCTUARY

Context:

Madhya Pradesh is developing the Gandhi Sagar Wildlife Sanctuary as India’s second home for cheetahs, following Kuno National Park.

Why develop a second home?

The move comes after **experts suggested that Kuno National Park**, the current home for cheetahs, does not have enough space for all of them. Recently, **two cheetahs (translocated under The Cheetah Project) died**.

About Gandhisagar Sanctuary:

About	Description
Gandhi Sagar Sanctuary	is a wildlife sanctuary situated on the northern boundary of the Mandsaur and Nimach districts in Madhya Pradesh (adjoining Rajasthan)
Year of creation	1974
Landscape	Vast open landscapes, rocky terrain

Vegetation	Northern tropical dry deciduous forest, mixed deciduous forest, and scrub
Flora	Khair, Salai, Kardhai, Dhawda, Tendu, Palash
Fauna	Chinkara, Nilgai, Spotted Deer, Indian Leopard, Striped Hyena, Jackal, crocodiles, fish, otters, and turtles
Places of Interest	Chaurasigarh, Chaturbhujnath temple, Bhadkaji rock paintings, Narsinghjar Hinglajgarh fort, Taxakeshwar temple



Previous News about Cheetah:

Cheetah is Back



The fastest land animal in the world, Cheetah, declared extinct in India in 1952, will find a new home in the **Kuno-Palpur National Park (KNP)**. African cheetahs are being brought under an intercontinental translocation project between India and Africa (mainly from South Africa and Namibia). It comes under the **'Action Plan for Introduction of Cheetah in India'** under which 50 of these big cats will be introduced in the next five years.



Cheetah relocation Sites



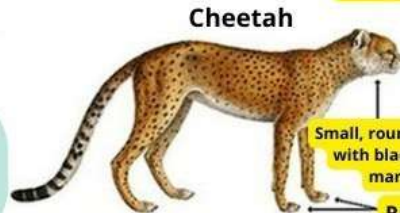
Asiatic Cheetah with 'red eyes'



Cheetah Tear Marks Act Like Sunglasses: Cheetah primarily hunt during the day, unlike other big cats, the tear marks help to reflect away the sun's glare, making it easier for them to focus on hunting their prey.

Cheetah: IUCN (Asiatic- Critically Endangered; African-Vulnerable)

- African Cheetah are Bigger in size as compared to Asiatic Cheetah, have darker color. Asiatic Cheetah (only 40-50 survive in Iran) usually have 'Red Eyes'.



Cheetah

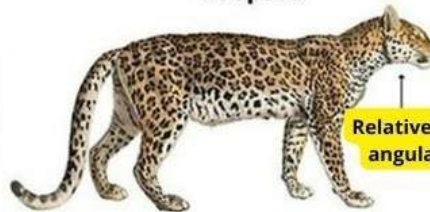
Small, rounded head with black "tear marks"

Partially exposed claws



Solid black spots

Leopard

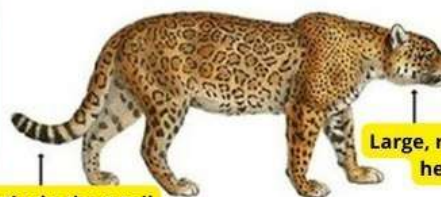


Relatively Small, angular head



Small, densely packed rosettes

Jaguar



Large, rounded head

Relatively short tail



Large rosettes with central spot

Leopard: IUCN: Vulnerable

- India has about 12000 leopard (largest number in MP) and there has been "60% increase in the population count of leopards in India from 2014 estimates"

Jaguar: IUCN: Near Threatened

- The largest cat in the Americas, the Jaguar has the strongest bite force of all wild cats, enabling it to bite directly through the skull of its prey. Melanistic (black) Jaguars are common and are often called black panthers.
- A **black panther** is the melanistic colour variant of the leopard (*Panthera pardus*) and the jaguar (*Panthera onca*).

23. BARDA WILDLIFE SANCTUARY

Context:

The Gujarat Forest Department has begun transferring spotted deer (cheetal) and sambars from Gir Forest to Barda Wildlife Sanctuary, aiming to enhance the prey base for Asiatic lions. This move follows the migration of six lions to Barda from Gir, marking their return after 143 years.

Previous News:



Asiatic Lions



Context: The Gujarat government has planned to translocate 40 adult and sub-adult lions to the Barda Wildlife Sanctuary (Gujarat).

The Asiatic Lion (also known as the Persian Lion or Indian Lion) is a member of the Panthera Leo Leo subspecies that is restricted to India.

Its previous habitats consisted of West Asia and the Middle East before it became extinct in these regions.

Protection Status:

IUCN Red List: Endangered

CITES: Appendix I

Wildlife (Protection) Act 1972: Schedule I



DIFFERENCE BETWEEN ASIATIC AND AFRICAN LION

Asiatic lions are slightly smaller than African lions.

The most striking morphological character, which is always seen in Asiatic lions, and rarely in African lions, is a longitudinal fold of skin running along its belly.

24. STRIPED CAECILIAN (ICHTHYOPHIS SPP)

Context:

A limbless amphibian, the striped caecilian (Ichthyophis spp), has been newly discovered in Assam's Kaziranga National Park and Tiger Reserve during a recent survey.

About Striped caecilian:

They are classified under the order Apoda, a limbless amphibian known for spending most of its life burrowed under soil. These wormlike creatures have smooth, moist skin that appears narrowly segmented, with small eyes covered by skin, limiting visual perception to distinguishing light and dark. They can breathe through their skin

and lungs and belong to the egg-laying genus **Ichthyophis**. Caecilians are found in **six families across Africa, South America, and Southeast Asia**.



About Kaziranga National Park:

1. Located in the State of Assam and is the single largest undisturbed and representative area in the **Brahmaputra Valley floodplain**.

International Status:



- **1985**: It was declared a UNESCO World Heritage Site in 1985.
- **1986**: It is recognized as an Important Bird Area by BirdLife International.

Important Species Found:

1. **KNP is home to the world's most one-horned rhinos**. Pobitora Wildlife Sanctuary has the **highest density of one-horned rhinos** in the world and the second-highest number of Rhinos in Assam after Kaziranga National Park.
2. Much of the focus of conservation efforts in Kaziranga is focused on the **'big four' species— Rhino, Elephant, Royal Bengal tiger and Asiatic water buffalo**.
3. **Rivers and Highways**: The park has the Diphlu River running through it.



25. DEFENCE SYSTEMS IN NEWS: NAGASTRA-1 AND ISKANDER MISSILE

Feature	Nagastra-1	Iskander Missile
Context	Indian Army received the first batch of Nagastra-1 from Solar Industries, developed by Economic Explosives Ltd.	Russia claimed to have struck the Ukrainian military airbase in Mirgorod.
Development	Indigenous UAV-based munitions with over 75% domestic content.	Road-mobile short-range ballistic missile system, service since 2006.
Capabilities	Hover, perform GPS-enabled precision strikes with 2-meter accuracy, and be safely recovered.	Designed for tactical strikes on high-value land targets.
Altitude	Designed for high-altitude operations above 4,500 meters.	Not specified.
Detection	Evades radar detection; low acoustic signature.	Employs manoeuvrable re-entry vehicles and decoys.
Surveillance	Day-night surveillance capabilities.	Not specified.
Operation	Capable of operating in extreme conditions.	Uses inertial and optical guidance systems.
Variants	Not specified.	Iskander-E: Range 280 km for export. Iskander-K: Features a new cruise missile R-500 with a max range of 280 km.
		

26. TARANG SHAKTI-2024

Context:

India will host its inaugural multinational air exercise, **Tarang Shakti-2024**, in August.

Tarang Shakti Exercise:

- Participants:** Ten countries with others as observers; including Australia, France, Germany, Japan, Spain, UAE, UK, and USA.
- Objectives:** Enhance interoperability with friendly foreign countries.
- Exercise Phases:** Two phases in southern India and the western sector.

Red Flag Exercise:

- About:** Air combat exercise with realistic scenarios.
- Hosted by:** U.S. Air Force at Eielson Air Force Base, Alaska.
- Participants:** Indian Air Force, Singapore Air Force, UK's Royal Air Force, Royal Netherlands Air Force, and German Luftwaffe.
- Exercise Details:** Simulates air defence (Red Force) and offensive elements (Blue Force); mainly USAF Aggressor Squadron.



27. REPORTS IN NEWS

Report	Description
Sustainable Development Report 2024	By UN Sustainable Development Solutions Network (SDSN)
	Key Highlights of the report:
	Globally, only 16% of SDG targets are on track for achievement by 2030. Progress varies widely among countries, with Nordic nations leading, BRICS making strides, and Poor & Vulnerable nations falling behind.
	India is ranked 109th out of 166 countries, with on-track performance in Poverty reduction and Quality Education targets while decreasing progress in Sustainable Cities and Climate Action targets.
	New Index of Support to UN-based Multilateralism (UN-Mi): It ranks countries based on their engagement with the UN System. Barbados ranks highest, India at 139th place while the USA ranks last.
	Recommendations of the Report: The UNSDSN recommends keeping the Sustainable Development agenda central to global cooperation until 2050, ensuring it is well-funded. It advocates for strengthening UN agencies and systematically monitoring UN-based multilateralism. Additionally, it emphasizes enhancing governance of technological risks and ensuring universal access to essential technologies and R&D. The recommendations also include establishing a UN Parliamentary Assembly and reforming the UN Security Council by adding India as a permanent member and adopting procedures to override a veto.
SIPRI Yearbook 2024: Armaments, Disarmament, and International Security released	About SDSN: The Sustainable Development Solutions Network is a non-profit created in 2012 by the United Nations to promote the 17 Sustainable Development Goals at national and international levels. As of 2022, the SDSN has over 1,700 members in 50 networks across 144 countries, with offices in New York, Paris, and Kuala Lumpur.
	The SIPRI Yearbook 2024 reports an increase in nuclear weapons development and modernization by the nine nuclear-armed states, with a total global inventory of approximately 12,121 warheads. The USA and Russia hold nearly 90% of these. China's nuclear arsenal is expanding rapidly, now estimated at 500 warheads. Tensions over Ukraine and Gaza have further weakened nuclear diplomacy.
	Nine nuclear-armed states are —the US, Russia, the UK, France, China, India, Pakistan, North Korea, and Israel. India, now with 172 warheads, has slightly surpassed Pakistan's count. Both India and Israel primarily use plutonium in their nuclear weapons.

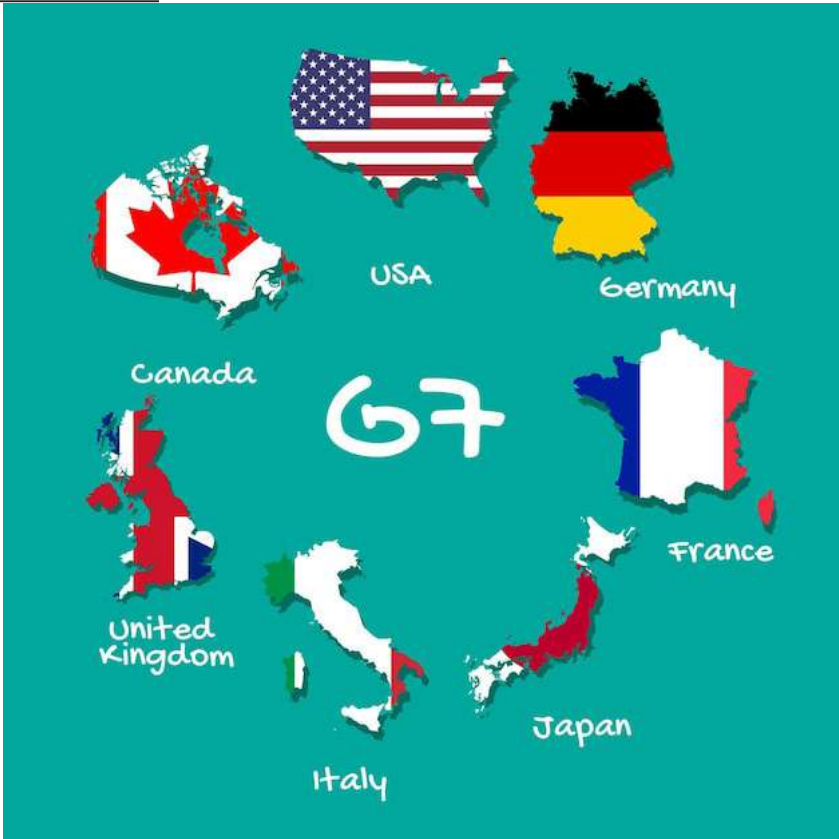
	<p>About SIPRI: Stockholm International Peace Research Institute is an international institute based in Stockholm, Sweden. It was founded in 1966 and provides data, analysis and recommendations for armed conflict, military expenditure and arms trade as well as disarmament and arms control.</p>
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Reports	Description
<p>“Fostering Effective Energy Transition 2024” Report</p>	<p>By World Economic Forum</p> <p>The Energy Transition Index (ETI) evaluates 120 countries on their energy system performance and readiness for secure, sustainable, and inclusive energy systems, focusing on the shift from fossil fuels to renewable energy to reduce CO2 emissions.</p> <p>Key findings from the report highlight that clean energy infrastructure investments reached \$1.8 trillion in 2023, with 90% of the growth occurring in advanced economies and China.</p> <p>Top performers in the index include Sweden, Denmark, Finland, Switzerland, and France</p> <p>India ranks 63rd on the ETI. Notably, eight countries, including Bhutan and Panama, achieved net-zero emissions in 2022.</p> <p>About World Economic Forum: It is an international advocacy non-governmental organization and think tank, based in Cologny, Canton of Geneva, Switzerland. It was founded on 24 January 1971 by German engineer Klaus Schwab.</p>
	<p>Nine Indian ports have found their position among the top 100 global ports in CPPI in 2023.</p> <p>The Container Port Performance Index (CPPI) 2023, developed by the World Bank and S&P Global Market Intelligence, assesses performance based on vessel time in port. It identifies improvement opportunities for terminals and ports, benefiting public and private stakeholders. The top-ranked container port in CPPI 2023 is Yangshan Port in China.</p> <p>Also in the News: The Union Cabinet approved the development of a Greenfield Major Port at Vadhavan in Maharashtra (Palaghar District). This port will be constructed through a Special Purpose Vehicle (SPV) formed by Jawaharlal Nehru Port Authority and Maharashtra Maritime Board on the basis of the Landlord Model.</p>
	<div style="text-align: center;"> <p>Models of Port ownership</p> </div>
	<p style="text-align: center;">Major Ports in India</p>

State of Global air-2024' Report	The report by the Health Effects Institute and UNICEF examines global air pollution trends from 1990 to 2021, highlighting significant health impacts.
	Almost the entire global population (99%) resides in areas with unhealthy levels of PM2.5 pollution , which refers to fine airborne particles less than 2.5 micrometres in diameter.
	Low- and middle-income countries typically face 1.3 to 4 times higher levels of PM2.5 exposure . Air pollution exacerbated COVID-19 outcomes by compromising immune systems and causing lung inflammation and oxidative stress.
	In India, along with China, over half of the global disease burden associated with air pollution was reported, and nearly half of all ozone-related Chronic Obstructive Pulmonary Disorder (COPD) deaths occurred in India in 2021.

MAPPING

INTERNATIONAL

Place	Why in News?
<p>1. THE GROUP OF SEVEN (G7)</p>	<p>Context: The G7 summit was recently hosted by Italy.</p> <ul style="list-style-type: none"> India also participated in the G7 outreach session on Artificial Intelligence, Energy, Africa and the Mediterranean. <p>About G7 Group:</p> <ul style="list-style-type: none"> The Group of Seven (G7) (founded in 1975) (formerly called Library Group; Group of Six (G6); Group of Eight (G8) (reversion)) is an intergovernmental organization made up of seven of the world's largest advanced economies. It includes Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States. <div style="text-align: center;">  </div>

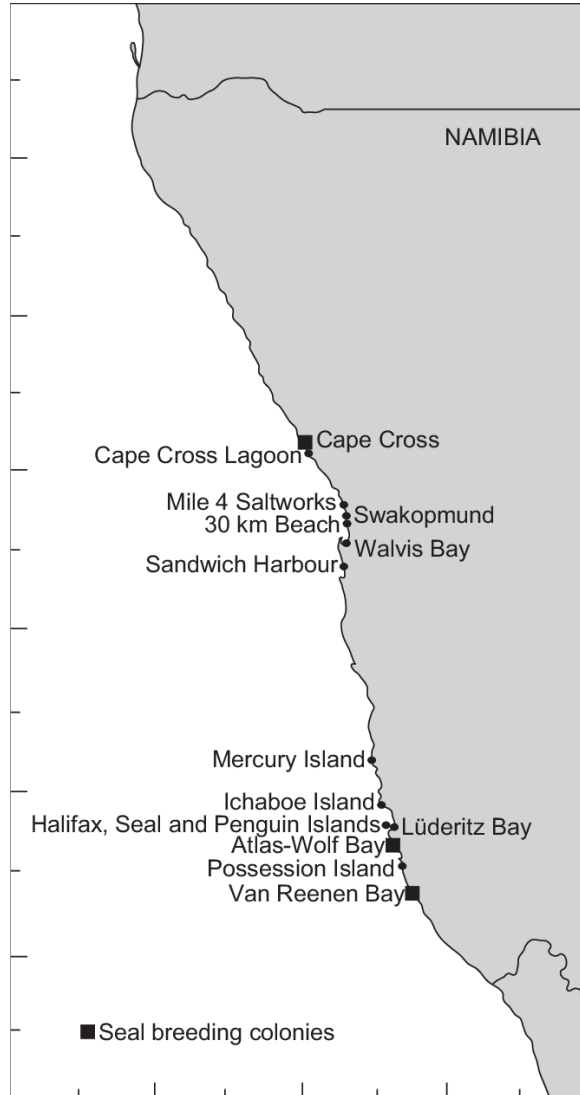
2. MERCURY ISLAND

Context: The documentary “My Mercury” premiered at the **18th Mumbai International Film Festival (MIFF) for Documentary, Short Fiction, and Animation Films**.


- The film explores the life of her brother, Yves Chesselet, a conservationist on **Mercury Island off the coast of Namibia**. The 104-minute documentary portrays Yves’ efforts to reclaim the **island for endangered seabirds and seals, emphasizing the psychological challenges and deep bond between man and nature**.

About Mercury Island:

Mercury Island is a **small rocky island off The Diamond Coast, Namibia**. Despite its small size, **it is recognised by BirdLife International and other global conservation groups** as an Important Bird Area (IBA) for its significant **coastal seabird breeding**.



INDIAN

Place	Why in News?
<p>Kolar Gold Fields (KGF)</p>	<p>Context: The Karnataka government has approved the Centre's proposal to revive gold mining and auction 13 tailing dumps spanning 1,003 acres at Kolar Gold Fields (KGF).</p> <p>The mines, owned by Bharat Gold Mines Ltd. (BGML), are set for revival under the Mines and Minerals Development and Regulation Act, 1957. The move aims to generate employment and boost domestic gold production. KGF is among the deepest in the world. Mining at KGF began in 1880 by Jhon Taylor & Sons. After 121 years of operation, the mines closed on February 28, 2001, due to high operational costs and low revenues. Besides gold extraction, KGF has been utilized for particle physics experiments, leading to the discovery of atmospheric neutrinos.</p> <p>Currently, India operates three gold mines: Hutti and Uti in Karnataka, and Hirabuddini in Jharkhand. India produces approximately 1.6 tonnes of gold annually, far below its consumption of 774 tonnes per year.</p> <p>KGF (Kolar Gold Fields) is situated 100 kilometres from Bangalore in Karnataka's Kolar district.</p>  <p>Fig: Kolar District (Karnataka)</p>