

CURRENT AFFAIRS

For Integrated Preparation of CSE Prelims + Mains + Interview



Special Feature

DECEMBER
Monthly MCQs

from



INCLUDES

- ◊ Important Summits in News
- ◊ Important Days in December
- ◊ Important Terms in News
- ◊ Obituaries in News
- ◊ Awards and Prizes

IMPORTANT ARTICLES FROM

☞ YOJANA.....	134
☞ KURUKSHETRA.....	138
☞ DOWN TO EARTH.....	142
☞ EPW.....	144
☞ FRONTLINE.....	87

*MCQs on Prelims Latest Pattern

- Bomb Cyclone
- Gaganyaan Mission
- Mh-60r Helicopters
- Samvidhan Diwas 2024
- Belt and Road Initiative
- National Mission on Natural Farming
- India - Maldives Pact on Local Currencies
- Women Voters Changing Indian Elections

- Tulsi Gowda
- Nayi Chetna 3.0
- Kanhirapoil Megalithic Art
- India Skills Report 2025
- Climate Change Performance Index (CCPI)
- Vision and Roadmap for Science and Technology
- Financial Pressure on Agricultural Households
- Indian Food Import Safety Regulation Status



CHAHAL ACADEMY

IAS-UPSC-CSE

NCERT+GS+CSAT BATCH

Prelims+Mains+Interview

Offline & Live Online



MEDIUM

Batch Start Date

PURE ENGLISH

Jan. 27 | Feb. 3, 10

PURE HINDI

Jan. 27 | Feb. 3, 17

BILINGUAL

Jan. 27 | Feb. 3, 10, 17

ADMISSION OPEN

For more details contact us  **9313218122, 9625921993**

OUR BRANCHES

NEW DELHI | AHMEDABAD | ANAND | BHUBANESWAR | CHANDIGARH | DEHRADUN | GANDHINAGAR |
HYDERABAD | INDORE | JAIPUR | KANPUR | KOLKATA | LUCKNOW | MUMBAI | PATNA | RAIPUR | RAJKOT |
SURAT | THANE | VADODARA | VARANASI

CONTENTS

(A) POLITY & GOVERNANCE1	Bill 2024..... 48
Supreme Court Upholds Secular, Socialist in Preamble..... 1	Foreign Currency Non-Resident Account..... 49
Samvidhan Diwas 2024..... 3	Employees' Provident Fund Organization (EPFO) received ISSA Good Practice Award 2024.....50
Pennaiyar River Dispute..... 6	Merchant Shipping Bill, 2024..... 51
Supreme Court Ruled Against Religious Conversion for Quota Benefits.....7	(D) ENVIRONMENT & GEOGRAPHY 54
Jarawa Tribe Included in Electoral Roll.....8	Bomb Cyclone..... 54
Judicial Vacancies in India..... 9	Refugee Crisis..... 54
Rule 267 in Rajya Sabha.....10	Landslide Mitigation.....56
Impeachment Of High Court Judge..... 11	Earth's Rotational Pole.....58
Privilege Motion.....13	Case Study - Issue of Coastal Erosion in India.....59
Forest Rights Act, 2006.....14	Madhav National Park..... 61
Mercy Petitions.....16	Ratapani Tiger Reserve.....62
Simultaneous Elections.....17	Global Plastics Treaty..... 63
(B) INTERNATIONAL RELATIONS 20	Champions of the Earth.....64
The Eastern Maritime Corridor.....20	Disaster Management (Amendment) Bill, 2024..... 65
India - Maldives Pact on Local Currencies.....21	(E) SCIENCE & TECHNOLOGY67
11th Asean Defence Ministers' Meeting Plus.....22	Gaganyaan Mission..... 67
International Cooperative Alliance.....23	Piezoresponsive Nanomaterials.....68
European Free Trade Association.....25	One Nation one Subscription..... 69
Organisation for The Prohibition Of Chemical Weapons.....26	Shukrayaan: Venus Orbiter Mission..... 71
Ceasefire Between Hezbollah and Israel.....26	Emerging Technologies in Aquaculture..... 72
Belt and Road Initiative.....27	Nafithromycin and Anti-Microbial Resistance.....73
Un Commission on Narcotic Drugs (CND).....29	Applications of Nuclear Techniques..... 75
(C) ECONOMY & AGRICULTURE..... 31	Disease X..... 77
Micro, Small and Medium Enterprises..... 31	PROBA-3 Mission..... 78
Gig Economy.....33	IIT Madras has unveiled India's first Hyperloop Test Track....79
National Mission on Natural Farming.....34	(F) DEFENCE & SECURITY 81
Narasapur Crochet Lace Craft.....36	Telecom Cyber Security..... 81
Riyadh Design Law Treaty.....36	K-4 Submarine-Launched Ballistic Missile (SLBM).....82
Basic Animal Husbandry Statistics (BAHS).....37	Mh-60r Helicopters..... 83
National Federation of State Co-Operative Banks Limited.....38	S-400 Missile Defence Systems..... 84
Coastal Shipping Bill, 2024.....40	Dark Eagle..... 85
Draft National Policy Framework on Agricultural Marketing..... 41	(G) SOCIAL ISSUES87
The Oilfields (Regulation and Development) Amendment Bill, 2024..... 43	Women Voters Changing Indian Elections..... 87
The Banking Laws (Amendment) Bill, 2024.....44	Indigenous Peoples Forum at Cop16.....88
Railways (Amendment) Bill, 2024.....46	Article 142..... 91
Boilers Bill 2024.....47	Right To Disconnect..... 91
The Parliament Passed the Bharatiya Vayuyan Vidheyak	Case Study - Child Marriage in India.....92
	Case Study - Technology facilitated Gender-Based Violence: A Growing Threat.....94

(H) HISTORY & CULTURE96	Chakravarti Rajagopalachari..... 131
Kanhirapoil Megalithic Art..... 96	Subramania Bharati..... 132
Unesco Cultural Heritage Sites..... 97	Tulsi Gowda..... 133
Reang Tribe..... 97	(L) ARTICLES FROM YOJANA DECEMBER 2024 134
Sannathi..... 98	Vision and Roadmap For Science and Technology..... 134
Janjatiya Gaurav Divas: Celebrating Tribal Heritage.....99	Government Initiatives in Climate Change: A Sustainable Path for Viksit Bharat@2047..... 135
Global Engagement Scheme..... 101	(M) ARTICLES FROM KURUKSHETRA DECEMBER 2024..... 138
10th Global Forum of UN Alliance of Civilizations..... 102	Skilling India, Empowering the Workforce..... 138
Raja Raja Chola..... 103	Skill and Entrepreneurial Ecosystem in India..... 139
Intangible Cultural Heritage (ICH)..... 104	(N) ARTICLES FROM DOWN TO EARTH DECEMBER 2024..... 142
India Maritime Heritage Conclave 2024..... 105	Financial Pressure on Agricultural Households..... 142
(I) GOVERNMENT SCHEMES107	A Joke, Indeed..... 142
Nayi Chetna 3.0..... 107	(O) ARTICLES FROM EPW DECEMBER 2024..... 144
Bal Vivah Mukht Bharat Campaign..... 109	Technological Sovereignty: An Imperative for Strategic Autonomy..... 144
Pm E-Drive Scheme..... 110	Indian Food Import Safety Regulation Status..... 146
Iconic Tourist Sites..... 111	(P) QUICK REVISION..... 149
Bima Sakhi Yojana..... 113	Awards and Prizes in December 2024..... 149
(J) REPORTS 114	Obituaries in December 2024..... 150
Climate Change Performance Index (CCPI)..... 114	Important Days in December..... 151
Global Peatland Hotspot Atlas..... 116	Important Summit/Conference in December..... 154
Global Wage Report 2024-25 Released..... 118	Terms in December 2024..... 154
State of Tax Justice 2024' Report..... 120	(Q) DECEMBER - DAILY MCQS FROM THE HINDU & INDIAN EXPRESS.....155
World Drought Atlas 2024..... 122	Daily MCQs Practice..... 155
International Debt Report 2024..... 123	Answer Key..... 165
2nd Caricom-India Summit 2024..... 124	Daily Answer Writing Practice..... 165
World's Children 2024 Report..... 126	
India Skills Report 2025..... 126	
Coal 2024: Analysis and Forecast to 2027' Report..... 128	
(K) PERSONALITIES IN NEWS..... 129	
Shri Guru Tegh Bahadur..... 129	
Jyotirao Phule..... 131	

SUPREME COURT UPHOLDS SECULAR, SOCIALIST IN PREAMBLE

Why in News: The Supreme Court of India has recently dismissed a petition challenging the constitutional validity of the 42nd amendment by which the words 'secular' and 'socialist' were added to the Preamble of the Constitution during the Emergency days in 1976.

Key Details

- The Supreme Court said that these terms have achieved widespread acceptance, with their meanings understood by 'We, the people of India' without any semblance of doubt.
- The court also said that the Parliament's power under Article 368 to amend the Constitution extends to the Preamble and rejected the argument that the words could not have been added retrospectively in 1976 to the original Preamble which has a cutoff date of November 26, 1949.
- The SC judgement said that while it is true that the Constituent Assembly had not agreed to include the words 'socialist' and 'secular' in the Preamble, the Constitution is a living document.

Secular: In 1949, the term 'secular' was considered imprecise, as some scholars and jurists had interpreted it as being opposed to religion. Over time, India has developed its own interpretation of secularism, wherein the State neither supports any religion nor penalizes the profession and practice of any faith. This principle is enshrined in Articles 14, 15, and 16 of the Constitution.

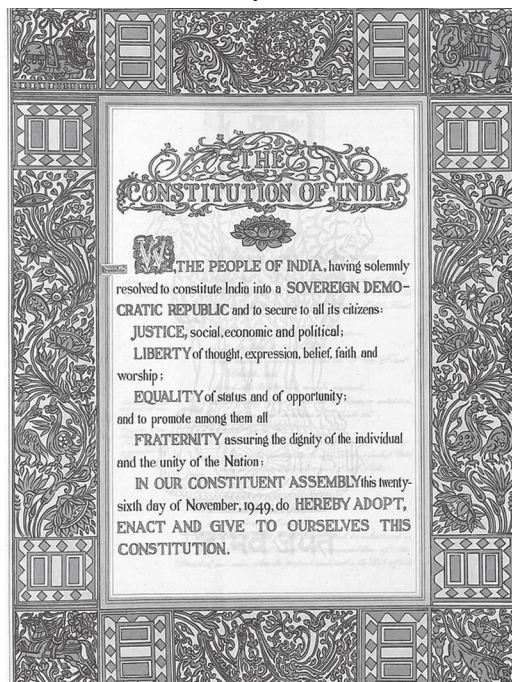
Socialism: It should not be interpreted as restricting the economic policies of an elected government of the people's choice at a given time. Rather, 'socialist' denotes the State's commitment to be a welfare State.

Preamble: The Soul of the Constitution

- The Preamble to the Constitution is a reflection of the core constitutional values that embody the Constitution. It declares India to be a Sovereign Socialist Secular Democratic Republic committed to Justice, Equality and Liberty for the people.
- The Preamble does not grant substantive rights and is not enforceable in the courts, but various Indian courts have engaged with the Preamble and have treated it as guiding

light in the interpretation of the Constitution.

- The opening and last sentences of the Preamble: "We, the people...adopt, enact and give to ourselves this Constitution" signifies the power that is vested in the hands of the people.
- The Preamble of the Indian Constitution was called the soul of the Constitution by Pandit Thakur Das Bhargava.



PRELIMS SPECIAL

Preamble Factoids

- Identity card of the Constitution.
 - N A Palkhivala called the Preamble as the identity card of the Constitution.
- Vision of the makers of the Constitution.
- Soul/Jewel/Horoscope/Key-note of the Constitution.
 - Pandit Thakur Das Bhargava said the Preamble is the Soul and Jewel of the Constitution.
 - Kanhaiyalal Maniklal Munshi referred to the Preamble as the Political Horoscope of the Constitution.
 - Sir Ernest Barker described the Preamble of the Indian Constitution as the key note of the constitution.

- Based on Objectives Resolution authored by Jawaharlal Nehru.

Status of Preamble

- The Preamble is a part of the Constitution. (Kesavananda Bharati case, 1973)
- Preamble can be amended. (Kesavananda Bharati case, 1973)
- Preamble is neither justiciable nor enforceable. (Berubari Union case, 1960; Kesavananda Bharati case, 1973; LIC of India Case, 1995)

- Government cannot be taken to court for violating the Preamble.
- Courts cannot singularly/only rely on the Preamble while giving a judgement.
- Courts can rely on Preamble among other areas while giving a judgement.

Additions - 42nd Constitutional Amendment 1976

- Socialist
- Secular
- Integrity

Word	Meaning
Sovereign	<ul style="list-style-type: none"> • Freedom to conduct external and internal affairs without any interference. • India is a sovereign country i.e. it is free from external control and can frame its policies. • India is free to formulate its own foreign policy.
Socialist	<ul style="list-style-type: none"> • Role of the government as a regulator, facilitator and provider of resources and welfare. • It means commitment to attain ideals like removal of inequalities, provision of minimum basic necessities to all, equal pay for equal work.
Secular	<ul style="list-style-type: none"> • No official religion of the state. • No religion bias of the state. • All religions to be promoted equally. • Every individual is free to believe in, and practice any religion. • Indian secularism is different from western secularism. • Indian state is not against religions. It allows all its citizens to profess, preach and practise any religion they follow. At the same time, it ensures that the state does not have any religion of its own. Constitution strictly prohibits any discrimination on the ground of religion.
Democratic	<ul style="list-style-type: none"> • Government is elected by the people. • Government of the people, by the people and for the people. • Democratic principles are highlighted with the provisions of universal adult franchise, elections, fundamental rights, and responsible government.
Republic	<ul style="list-style-type: none"> • Elected head of State • People are the ultimate sovereign and can hold public offices.
Justice	<ul style="list-style-type: none"> • Fair social, economic, and political opportunities and treatment of the people. • The Preamble covers all the dimensions of justice i.e. social, economic and political. <ul style="list-style-type: none"> ➤ Social justice means that the Constitution wants to make a society where there is no discrimination on grounds like caste, creed, gender, religion, etc. ➤ Political Justice means that every person has an equal, free and fair right without any form of discrimination to take part in political openings. ➤ Economic Justice means there should be no discrimination among people on the basis of their wealth, income, or economic status. It basically means that wealth must be divided on the basis of the work done, not on any other reason.
Liberty	<ul style="list-style-type: none"> • Reasonable freedom for people to flourish. • Liberty of thought and expression. • Preamble prescribes liberty of thought, expression, belief, faith and worship as one of the core values. • But liberty does not mean one can do anything, there has to be a limit set by the law. Anything that can cause public disorder won't come under the purview of liberty. These limits are set by the Constitution to avoid any injury caused in the name of liberty.

Equality	<ul style="list-style-type: none"> • Absence of any special treatment amongst people. • All citizens of India to be treated equally and extended equal protection of law without any discrimination based on caste, creed, birth, religion, sex etc.
Fraternity	<ul style="list-style-type: none"> • A sense of commonality and brotherhood amongst the people. • Harmonious co-existence among various religious, linguistic, cultural and economic groups.

Conclusion

The Supreme Court’s recent upholding of the inclusion of secular and socialist in the Preamble reinforces the evolving nature of the Indian Constitution. While these terms were added during the Emergency, the Court recognized their widespread acceptance and the Parliament’s authority to amend the Constitution, including the Preamble.

- Since then, each year on this day, the nation celebrates the Constitution’s adoption.
- The 75th anniversary of the Constitution’s adoption serves as a poignant reminder of India’s unwavering commitment to democracy, justice, and equality.
 - It highlights the collective responsibility to protect, strengthen, and promote these core values, ensuring that the Constitution remains the guiding force for the country’s growth and unity in the years ahead.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding Preamble of Indian Constitution:

1. Recently, SC agreed to review constitutional validity of 42nd amendment of Indian Constitution.
2. The Constituent Assembly had not agreed to include the words ‘secular’ and ‘socialist’ in original constitution.
3. Preamble is a part of Constitution.

Which of the statements given above is/are correct?

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

Descriptive Question

Q. “The Constitution is a living document.” In light of this statement, analyze the Supreme Court’s reasoning for upholding the addition of ‘Socialist’ and ‘Secular’ in the Preamble. [150 words] [10 marks]

SAMVIDHAN DIWAS 2024

Why in News: India commemorated a historic milestone on 26th November, 2024, marking the 75th anniversary of the adoption of the Constitution of India.

Key Details

- On November 26, 1949, the Indian Constituent Assembly formally adopted the Constitution, which came into effect on January 26, 1950, establishing India as a sovereign, democratic republic.
- **In 2015, the Government of India formally declared November 26 as Constitution Day (Samvidhan Divas) to honor the adoption of the Indian Constitution in 1949.**

About Constitution Day

- Constitution Day, also known as ‘**Samvidhan Divas**’, is celebrated in our country on 26th November every year to commemorate the adoption of the Constitution of India.
- On this day, the Constituent Assembly of India adopted the Constitution of India, which came into effect from 26th January 1950.
- The **Ministry of Social Justice and Empowerment** on 19th November 2015 notified the decision of Government of India to celebrate the 26th day of November every year as ‘Constitution Day’ to promote Constitution values among Indian citizens.

Celebrations/Events on Samvidhan Diwas 2024

- Constitution Day - Samvidhaan Diwas - Hamara Samvidhaan, Hamara Abhimaan
- The 75-year commemorative celebrations will be year-long and the activities would be centered around the four pillars: viz.
 - Preamble of the Constitution
 - Know Your Constitution
 - Making of the Constitution
 - Celebrating the Glory of the Constitution
- The main function of the commemoration events was held on 26th November, 2024 in the Central Hall of Samvidhan Sadan.
- The President of India along with Vice- President, Prime Minister, Speaker, Ministers, MPs and other dignitaries, attended the celebrations of the Constitution Day, 2024 in Central Hall of Samvidhan Sadan.
 - The function began with the National Anthem followed by a welcome speech by the Speaker, Lok Sabha.
 - A short film was played, dedicated to the glory of the Indian Constitution.
 - The Vice- President of India, in his Constitution Day address, emphasized the profound significance of the Constitution and its continued relevance in shaping India’s democratic identity.

- During the event the following releases were undertaken by the dignitaries present on stage:
 - Commemorative Coin and Stamp dedicated to the 75th anniversary of adoption of Constitution of India.
 - Books titled “Making of the Constitution of India: A Glimpse” and “Making of the Constitution of India & its Glorious Journey”.
 - Booklet dedicated to the Art of Constitution of India.
 - The Constitution of India in Sanskrit.
 - The Constitution of India in Maithili.
- All Indians across the world joined in reading the Preamble to the Constitution of India live, alongside the President. It was a moment of collective pride and solidarity, reinforcing the shared responsibility to uphold the Constitution’s ideals.

Timeline: Stages of Constitution Making

- First Session of the Constituent Assembly (13 Dec 1946 - 22 Jan 1947)
 - On 13 December 1946, the Constituent Assembly formally commenced its task of framing the Constitution of India.
 - Jawaharlal Nehru moved the Objectives Resolution, which aimed to declare India as an Independent Sovereign Republic and create a Constitution to govern its future.
 - The Resolution established general principles to guide the work of the Constituent Assembly.
 - On January 22, 1947, the Constituent Assembly unanimously adopted the Resolution.
- Committee Stages and Second Session of Constituent Assembly Debates (27 Feb 1947 - 30 Aug 1947)
 - After the first session of the Constituent Assembly, several committees were established to examine and report on various aspects of the Constitution.
 - These included the Advisory Committee on Fundamental Rights, Minorities, and Tribal and Excluded Areas (comprising the Sub-Committee on Fundamental Rights and the Sub-Committee on Minority Rights), Union Powers Committee, Union Constitution Committee, and Provincial Constitution Committee.
 - These committees submitted their reports to the Constituent Assembly between April and August 1947.
 - Meanwhile, as the committees submitted their reports, the Constituent Assembly discussed the general principles outlined in the recommendations.
- Draft Constitution by the Constitutional Adviser (1 Feb 1947 - 31 Oct 1947)
 - Based on the reports of various committees and discussions in the Constituent Assembly mentioned in the previous stages, **B.N. Rau, the Constitutional Adviser** to the Constituent Assembly, prepared a Draft Constitution.
 - The Draft Constitution was completed by October 1947 and submitted to the Drafting Committee.
- First Draft Constitution (27 Oct 1947 - 21 Feb 1948)

- On 27 October 1947, the Drafting Committee began scrutinising the Draft Constitution prepared by the Constitutional Advisor, along with other notes, reports, and memoranda.
- After making changes, the committee submitted its final Draft Constitution to the President of the Constituent Assembly on 21 February 1948.
- Public Circulation of First Draft (21 Feb 1948 - 26 Oct 1948)
 - After the Draft Constitution was submitted to the President of the Constituent Assembly, it was published and circulated among the public.
 - The Drafting Committee took the inputs into account and held discussions on 23, 24, 27 March and 18 October 1948.
 - On 26 October 1948, the Committee reprinted and resubmitted the version of the Draft Constitution that had been submitted on February 21st, 1948, along with a set of amendments appended to clauses it intended to amend.
- Debates on the Draft Constitution (4 Nov 1948)
 - The Draft Constitution was presented to the Constituent Assembly on 4 November 1948, by B.R. Ambedkar, the Chairman of the Drafting Committee.
 - The Draft Constitution was now opened up for discussion in the Assembly.
- Second Reading of the Draft Constitution (15 Nov 1948 - 17 Oct 1949)
 - In the second reading of the Draft Constitution, the Constituent Assembly engaged in a clause-by-clause discussion of every Article in the Draft Constitution.
 - During this stage, Assembly members frequently proposed amendments to the Draft Constitution, seeking to modify or eliminate specific articles or clauses. But the majority of amendments were ultimately rejected.
- Revision of the Draft Constitution
 - After the debates surrounding the Draft Constitution concluded, the Drafting Committee proceeded to revise it in accordance with decisions made in the Constituent Assembly.
 - This involved tasks such as renumbering articles, making minor changes to the language, and adding or removing clauses.
 - The revised Draft Constitution was then submitted to the President of the Constituent Assembly on 3 November 1949.
 - It was subsequently introduced in the Assembly on 14 November 1949.
- Third Reading of Drafting Constitution (14 Nov 1949 - 26 Nov 1949)
 - During the third reading of the Draft Constitution there were only a few significant debates, and most of the speeches consisted of general comments on the Constitution as a whole.

- Enactment and Adoption of the Constitution of India (26 Jan 1950)
 - On 26 November 1949, the third reading of the Constitution came to an end with the Constituent Assembly voting in favour of the motion proposed by Ambedkar in the previous stage.
 - The final version of the Constitution was signed by members of the Assembly on 24 January 1950, and it came into effect on 26 January 1950.

History of the Indian Constitution

- India's struggle for independence highlighted the need for a governing framework to ensure justice, equality, and liberty for all citizens.
- Therefore, the Government of India Act, 1935 served as a foundation for India's governance but lacked provisions for a sovereign democratic republic.
- The Constituent Assembly was formed in December 1946 through elections held under the **Cabinet Mission Plan**.
 - It had 389 members, including prominent leaders like Dr BR Ambedkar, Jawaharlal Nehru, and Sardar Patel.
 - After Partition, the membership was reduced to 299.
- **The Assembly met for the first time on 9 December 1946** and was presided over by Sachchidananda Sinha (interim) as its chairman.
- The Drafting Committee, led by Dr B.R. Ambedkar was tasked with preparing the draft. The draft was deliberated over in 11 sessions spanning **2 years, 11 months, and 18 days**.
- On 26 November 1949, the Constituent Assembly adopted the Constitution, which came into effect on January 26, 1950, marking India's transition to a democratic republic.

Constitutional Values

- The Constitution lays down certain ideals that form the basis of the kind of country that we as citizens aspire to live in.
- The Constitution helps serve as a set of principles, rules and procedures on which there is a consensus.
- These form the basis according to which the people want the country to be governed and the society to move on.
- The Indian Constitution has certain core constitutional values that constitute its spirit and are expressed in various articles and provisions.
- Value is that which is very essential or 'worth having and observing' for the existence of human society as an entity.
 - Examples: Truth, non-violence, peace, cooperation, honesty, respect and kindness are values
- The Indian Constitution contains all such values, the values that are the universal, human and democratic of the modern age.

Key Features

- It is the longest written constitution in the world, with 395 Articles and 8 Schedules at its inception (later amended).
- The Indian Constitution is a unique blend of rigidity and flexibility, drawing inspiration from various global constitutions.

- It reflects the vision of a progressive, inclusive India, safeguarding the rights of its citizens while emphasising their duties.
- Fundamental Rights and Duties
- Directive Principles of State Policy
- **Integrated Judicial System:** Although the Supreme Court is at the national level, High Courts at the state level and Subordinate Courts at the district and lower level, there is a single hierarchy of Courts.
- **Single Citizenship:** It means that every Indian is a citizen of India, irrespective of the place of his/her residence or birth in the country. This provision in the Indian Constitution definitely reinforces the values of equality, unity and integrity.
- **Universal Adult Franchise (Article 326):** Every Indian after attaining a certain age (at present 18 years) has a constitutional right to vote.
- No discrimination can be made on the basis of religion, race, caste, sex, descent, and place of birth or residence.
- Federal System and Parliamentary Form of Government.

Significance of Constitution Day

- Indian Constitution Day raises awareness of constitutional ideals, rights, and commitments while emphasising justice, liberty, equality, and brotherhood, and fostering national solidarity.
- This day honours the vision and endeavours of the Constituent Assembly in laying the foundation of a sovereign, socialist, secular and democratic republic.
- Constitution Day encourages active civic participation and responsibility, reminding India of its commitment to building a progressive, inclusive, and equitable society.
- The day underscores the importance of justice, liberty, equality, and fraternity, fostering national unity.
- It is a day to reflect on the transformative journey of the nation and reaffirm commitment to the principles that bind the diverse fabric of India.

How is Constitution Day Different from Republic Day?

- Republic Day is a public holiday whereas Constitution Day is not a public holiday.
- Republic Day on January 26 marks the day the Constitution came into force in 1950.
- This date was chosen to honor the anniversary of the Purna Swaraj declaration in 1930, symbolizing India's commitment to complete self-rule.
- Republic Day is celebrated with grand parades, showcasing India's cultural diversity and military strength, reflecting the values enshrined in the Constitution.

use inter-state water disputes to further their political agenda.

- **Environmental factors and climate change** - Inadequate rainfalls leading to reduced flow during the dry season.

Way forward

- **National uniform water policy** - Develop comprehensive framework to prioritize sustainable water sharing among states.
- **Water data collection and processing** - Real time monitoring and sharing of water data such as rainfall, water flow, usage.
- **Cooperative federalism** - Encourage dialogue among states for peaceful solutions through inter-state council.
- **Scientific solutions** - Scientific water auditing through technologies such as GIS mapping, remote sensing.
- **Inter-linking of rivers** - To transfer water from surplus regions to water deficit regions. Ex. Ken-Betwa River linking project.
- **Role of judiciary** - Fast tracking of water dispute resolution.
- **Sustainable agricultural practices** - Production of less water intensive crops in dispute areas, rain water harvesting, crop diversification.

Conclusion: With proactive measures and political will the inter-state disputes can be minimized and we can ensure equitable water sharing.

SUPREME COURT RULED AGAINST RELIGIOUS CONVERSION FOR QUOTA BENEFITS

Why in News: Supreme Court has in a judgment held that **religious conversion without any actual belief**, largely intended to procure quota benefits, **defeats the social ethos of the reservation policy and amounts to a fraud on the Constitution.**

Key Details

- The judgment was based on an appeal filed by a woman from Puducherry, a Christian by birth, who sought conferment of a Scheduled Caste community certificate on the ground that she had embraced Hinduism.
- The court concluded that her **claim to Hinduism was fuelled by an ulterior motive**, to obtain government employment in the Scheduled Caste quota.
- Cancelling any Scheduled caste community certificate conferred to her in the past, the **apex court said conversion merely to claim reservation in employment was a fraud played on the society too.**

Provisions for Scheduled Caste Reservation:

- **Article 341:** The President may with respect to any State or Union territory, and where it is a State, after consultation with the Governor thereof, by public notification, specify the castes, races or tribes or parts of or groups within

castes, races or tribes which shall for the purposes of this Constitution be deemed to be Scheduled Castes in relation to that State or Union territory, as the case may be.

- **Current status** - Constitution (Scheduled Castes) Order, 1950 stipulates that no person professing a religion different from Hinduism, Buddhism or Sikhism can be deemed to be a member of a Scheduled Caste.

Centre for Public Interest Litigation and Ors vs Union of India

- Central government argument
 - The Dalit Christians and Dalit Muslims are already getting reservation and other social benefits from being part of central OBC lists and State OBCs lists.
 - The criteria for inclusion in the SC list is extreme social and education backwardness due to practice of untouchability which is a feature of Hinduism and its Branches alone.
 - Islam and Christianity are foreign religions and do not recognize the caste system and thus granting SC status to convert would introduce a caste system in Christianity and Islam.

Recommendations of various commissions on this issue

- National Commission for Religious and Linguistic Minorities
 - Headed by **Ranganath Mishra.**
 - Recommended **extending the Scheduled Caste Status to Dalit Muslims and Dalit Christians** as they also suffer from similar social disabilities as Dalit Hindus, Sikhs & Buddhists.
- **Sacher committee**
 - Headed by **Justice Rajinder Sachar.**
 - It highlighted that **Dalit Muslims**, a marginalised subgroup within Muslim community **face similar social, economic and educational disadvantages as Scheduled Castes in the Hindu Community.**

Social ethos of reservation in India

- **Justice for historically marginalized communities** - By **ensuring representation** in education, employment and politics reservation fosters social integration of marginalized groups like Scheduled Caste, Schedules Tribes and Other Backward Classes.
- **Substantive equality** - The ethos of reservation is based on achieving substantive equality where historically disadvantaged groups are given a **level playing field to compete in society.**
- **Dignity of the individual** - By enabling marginalized groups to excel in various fields, reservation helps in **challenging deep rooted social stereotypes and prejudice** and restores dignity of individuals.
- **Promotion of social harmony** - Reservation **promotes mutual respect and coexistence among diverse social groups.**

Constitutional Provisions on Reservation

- **Article 15** – The State shall not discriminate against any citizen on grounds only of religion, race, caste, sex, place of birth or any of them.
 - **Clause (4)** - “Nothing in this article or in clause (2) of article 29 shall prevent the State from making any special provision for the advancement of any socially and educationally backward classes of citizens or for the Scheduled Castes and the Scheduled Tribes.”
- **Article 16** – “There shall be equality of opportunity for all citizens in matters relating to employment or appointment to any office under the State.”
 - **Clause (4)** - “Nothing in this article shall prevent the State from making any provision for the reservation of appointments or posts in favour of any backward class of citizens which, in the opinion of the State, is not adequately represented in the services under the State.”
- **Article 38** - “The State shall strive to promote the welfare of the people by securing and protecting as effectively as it may a social order in which justice, social, economic and political, shall inform all the institutions of national life.”
- **Article 39** - “The State shall, in particular, direct its policy towards securing—
 - (a) the citizens, men and women equally, have the right to an adequate means of livelihood;
 - (b) that there is equal pay for equal work for both men and women.”
- **Article 46** - “The State shall promote with special care the educational and economic interests of the weaker sections of the people, and, in particular, of the Scheduled Castes and the Scheduled Tribes, and shall protect them from social injustice and all forms of exploitation.”
- **Article 330 & 332** - “Reservation of seats for Scheduled Castes and Scheduled Tribes in the House of the People (Lok Sabha) and Legislative Assemblies of the States.”

Conclusion

The Constitution incorporates a **multifaceted approach** to dismantling inequity, combining **fundamental rights, directives principles, specific interventions like reservations, and a commitment to dismantling discriminatory structures**. However, affirmative action, particularly through reservations, emerges as a crucial means of fostering social justice in India.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Which religions are covered under the Constitution (Scheduled Castes) Order, 1950, for claiming Scheduled Caste status?

- | | |
|------------|-------------|
| 1. Jainism | 2. Buddhism |
| 3. Sikhism | 4. Islam |

Select the right answer from the options given below:

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

(b) : Answer

Descriptive Question

Q. The practice of untouchability is a key criterion for scheduled caste status in India. Examine the arguments for and against the inclusion of Dalit Muslims and Dalit Christians in the Scheduled Caste category. [250 words] [15 marks]

JARAWA TRIBE INCLUDED IN ELECTORAL ROLL

Why in News: The members of Jarawa Tribe were included in the electoral roll for the first time in India’s election process.

Key Details

- The inclusion of members of the Jarawa Tribe for the Special Summary Revision was done under the Systematic Voters’ Education and Electoral Participation Programme.
- These 19 Jarawas are from the Jirkatang area of South Andaman.

About Jarawa Tribe



- **Geographical location:** The Jarawas are inhabitants of the western coast of Middle Andaman and the South Andaman Islands.
- **Contact history:** The first friendly contact with the tribe was made in 1974 and since then the Jarawas have become non-hostile to the Contact Team, which goes with gifts like coconuts, bananas and other fruits.
- **Occupation and Food Habits:**
 - The Jarawas continue to hunt and gather as a nomadic tribe. They hunt wild pigs and monitor lizards with bows and arrows. The tips of the arrow are made of iron.
 - Unlike Onges and Andamanese, Jarawas do not use dogs for hunting. Men fish with bows and arrows in the coastal waters, while women catch fish with baskets. Molluscus constitutes a major part of their Pisces food.
 - Jarawas collect fruits and roots, including honey, from the forest.
- **Housing:** They build temporary huts in their camps. They use crude rafts to cross creeks and streams.
- **Total population:** The population of Jarawas is 380 as per the census of 2011.

PRELIMS SPECIAL

Who can become a voter or part of electoral roll in India

- Every Indian citizen who has attained the age of 18 years on the qualifying date i.e. first of January of the year of revision of electoral roll, unless otherwise disqualified, is eligible to be registered as a voter in the roll of the part/polling area of the constituency where he is ordinarily resident.
- A person cannot be enrolled as a voter in more than one place in view of the provisions contained under Section 17 and 18 of R.P. Act, 1950.
- Electoral Registration Officer (ERO) of the constituency within which the place of ordinary residence of the applicant in India is the competent authority to verify claim applications and the accompanying documents and also consider objections, if any.

About Systematic Voters' Education and Electoral Participation Programme (SVEEP)

- SVEEP is the flagship program of the Election Commission of India for voter education, spreading voter awareness and promoting voter literacy in India.
- It is a multi-intervention programme that reaches out through different modes and media to educate citizens, electors, and voters about the electoral process in order to increase their awareness and promote their informed participation.
- SVEEP is designed according to the socio-economic, cultural, and demographic profile of the state as well as history of electoral participation in previous rounds of elections.
- The Commission produces several voter awareness materials and disseminates the same through various mediums/platforms of communication i.e., Print Media, Electronic Media, Social Media etc.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding Jarawa tribe:

1. The Jarawas are inhabitants of the Jharkhand.
2. Recently Jarawa tribes are included in electoral roll.

Which of the above statements is/are correct?

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

Answer: (b) 2 only

JUDICIAL VACANCIES IN INDIA

Why in News: There are more than 5,600 vacancies in the judiciary from lower courts to the Supreme Court, the government recently submitted in the Rajya Sabha.

Key Details

- There are two vacancies in the Supreme Court, 364 in the high courts and 5,245 in lower courts across states.
- **Trends in Judicial Vacancy:** Judge vacancies remain endemic.
 - From 2018-2019 to 2022, nationally, **high court vacancies** decreased 8 percentage points from 37.8% to 29.8%, but still hovered around 30%.
 - State wise, the trend was not uniform.
 - At the high court level Sikkim could fill up all its vacancies while Andhra Pradesh brought down its vacancies from 70.3% to 18.9%.
 - The vacancies in Tripura and Uttarakhand, however, increased by 15 and 11.4 percentage points respectively.
 - In 19 states/UTs, 17 High Courts were functioning without one-fourth of their sanctioned bench strength, while both Rajasthan and Gujarat with a shortfall of 48% and 46.2% respectively—functioned with just over half.
 - **Vacancies in district courts**, too, remain chronic.
 - In 10 states/UTs, 25% of the sanctioned strength of judges had not been appointed, the highest vacancies being in Puducherry (57.7%), Meghalaya (48.5%) and Haryana (39%).
 - **Reason:** Vacancies in courts keep on arising periodically due to retirement, resignation, demise, or elevation of judges.

Status of Court Staff

- Court staff are indispensable for smooth judicial functioning and vacancies impede judicial capacity significantly.
- The national average vacancy among court staff across high courts ran at 25.6% a steady rise from 23.8% in 2018-19 and 22.9% in 2016-17.
 - Andhra Pradesh, which got a new high court in 2019, has a 51.2% vacancy.
 - Bihar's high court staff vacancies have doubled from 26.3% to 52.8% between 2018-19 and 2021-2022.

Judge Vacancies and Case Clearance Rates

- Vacancy of judges in courts is one of the reasons for delays and a rising number of pending cases, as there are not enough judges to hear and decide cases.
- Indian courts are jammed with cases and are seeing pendency increase by the day.
- At the same time, they are also functioning with fewer judges than the sanctioned number.
- Across both subordinate courts and High Courts, courts that are recording increasing pendency are doing so regardless of their vacancy levels.

Reasons for Pendency of Cases in India

- The pendency of cases in courts is not only due to shortage of judges in Courts but also due to various other factors.
- Poor availability of physical infrastructure and support staff.
- Increase in the number of state and central legislations.
- Increased complexity of cases.
- Accumulation of first appeals.
- Continuation of ordinary civil jurisdiction in some of the High Courts.
- Appeals against orders of quasi-judicial forums going to High Courts.
- Number of revisions/appeals
- Frequent adjournments
- Indiscriminate use of writ jurisdiction.
- Lack of adequate arrangement to monitor, tracking and bunching of cases for hearing.
- Assigning work of administrative nature to the Judges.
- Poor coordination among agencies involved in the criminal justice system.
 - Although the criminal justice system relies on the cooperation of various agencies like the police, prosecution, forensic labs, and medico-legal experts, the resolution of cases remains within the judiciary's domain.

PRELIMS SPECIAL

Procedure to appoint judges to High Courts

- Judges of High Courts are appointed by the President.
- According to the Memorandum of Procedure, the Chief Justice of the High Court initiates the procedure for the appointment of High Court judges.
- He or she recommends a list of names to the Union Government, who in turn seeks the advice of the Supreme Court collegium on it.
- Once the Collegium makes its recommendations, the Union government notifies the appointments. No timeline is prescribed for this stage of the appointment process.

Way Forward

- **Expedite Judicial Appointments:** Streamline the judicial appointment process at all levels (Supreme Court, High Courts, and lower courts) to reduce delays and ensure timely filling of vacancies.
- **Improve Infrastructure and Resources:** Provide adequate infrastructure, technology, and support staff to enhance judicial efficiency and reduce case backlogs.
- **Improve Administrative Efficiency:** Delegate non-judicial administrative work to specialized administrative officers to free judges for judicial tasks.
- **Focus on Capacity Building:** Invest in training and capacity-building programs for judges and judicial staff to enhance their skills and knowledge.

Conclusion

Judicial vacancies pose a significant challenge to the Indian justice system, leading to delays, and increased case backlogs. Addressing this issue requires a multi-pronged approach, including expediting judicial appointments, increasing judicial strength, improving infrastructure, and implementing comprehensive judicial reforms. A well-functioning judiciary is vital for India's democratic fabric and its aspirations of becoming a developed nation.

RULE 267 IN RAJYA SABHA

Why in News: Rajya Sabha Chairman and Vice-President Jagdeep Dhankhar called for introspection among parliamentarians regarding the frequent use of Rule 267, terming it an "indiscriminate resort" to the provision.

Key details

- The Chairman said that in the past 36 years, Rule 267 has been allowed only on six occasions.
- The Chairman's call for restraint highlights the ongoing debate over the appropriate use of parliamentary procedures and the balance between addressing urgent matters and maintaining the scheduled business of the House.

- Once the MPs submit the motion, the presiding officer of the House can either accept or reject it.
- If accepted, a three-member committee, comprising two judges and a jurist, will be constituted to probe the complaint and determine if it is a case fit for initiating the process of impeachment.
 - **Composition of Committee:** The committee includes one judge from the Supreme Court and the Chief Justice of a High Court if the complaint is against a High Court judge, or two Supreme Court judges if the complaint is against a sitting judge of the Supreme Court.
- As **Article 124 (4)** of the Constitution says, the motion for impeachment “has to be supported by a majority of the total membership of that House and by a majority of not less than two-thirds of the members of the House present and voting” in both the Lok Sabha and the Rajya Sabha.

- After concluding its investigation, the Committee will submit its report to the Speaker or Chairman, who will then lay the report before the relevant House of Parliament.
- If the report records a finding of misbehaviour or incapacity, the motion for removal will be taken up for consideration and debated.
- The motion for removal is required to be adopted by each House of Parliament by:
 - ◆ a majority of the total membership of that House; and
 - ◆ a majority of at least two-thirds of the members of that House present and voting.
- If the motion is adopted by this majority, the motion will be sent to the other House for adoption.
- Once the motion is adopted in both Houses, it is sent to the President, who will issue an order for the removal of the judge.

PRELIMS SPECIAL

Removal of Judges from Office

- **Ground of Removal:** A judge may be removed from office through a motion adopted by Parliament on grounds of ‘proven misbehaviour or incapacity’.
- **Constitutional Provision:**
 - While the Constitution does not use the word ‘impeachment’, it is colloquially used to refer to the proceedings under **Article 124** (for the removal of a **Supreme Court judge**) and **Article 218** (for the removal of a **High Court judge**).
 - The Constitution provides that a judge can be removed only by an order of the President, based on a motion passed by both Houses of Parliament.
- **Procedure:** The procedure for removal of judges is elaborated in the **Judges Inquiry Act, 1968**.
- The Act sets out the following steps for removal from office:
 - Under the Act, an impeachment motion may originate in either House of Parliament.
 - To initiate proceedings: (i) at least 100 members of Lok Sabha may give a signed notice to the Speaker, or (ii) at least 50 members of Rajya Sabha may give a signed notice to the Chairman.
 - The Speaker or Chairman may consult individuals and examine relevant material related to the notice. Based on this, he or she may decide to either admit the motion or refuse to admit it.
 - If the motion is admitted, the Speaker or Chairman (who receives it) will constitute a three-member committee to investigate the complaint.
 - ◆ It will comprise: (i) a Supreme Court judge; (ii) Chief Justice of a High Court; and (iii) a distinguished jurist.
 - ◆ The committee will frame charges based on which the investigation will be conducted. A copy of the charges will be forwarded to the judge who can present a written defence.

Instances of Judicial Impeachment

- The **first impeachment proceedings** were initiated against former **Supreme Court judge Justice V Ramaswami** in **1993** on grounds of financial impropriety. The motion failed, and Justice Ramaswami retired a year later.
- **Justice Soumitra Sen** of **Calcutta High Court** was sought to be impeached in **2011**, also on grounds of corruption. Justice Sen was impeached by Rajya Sabha but he resigned days before Lok Sabha was scheduled to discuss the motion. The proceedings lapsed with Justice Sen’s resignation.
- **Justice S K Gangele** of **Madhya Pradesh High Court** faced impeachment proceedings in **2015** on charges of sexual harassment. A committee set up to investigate the charges cleared him in 2017.
- Justice **J B Pardiwala**, who is a sitting judge of the Supreme Court, was sought to be impeached in **2015** when he was a judge of the Gujarat High Court.
 - The removal process was triggered against remarks the judge had made in a judgment that reservation was one of the reasons that “has not allowed the country to progress in the right direction”.
 - The judge expunged the remarks from his judgment, and the impeachment motion was subsequently dropped by then Rajya Sabha Chairman Hamid Ansari.
- **Justice C V Nagarjuna** of the **High Court of Andhra Pradesh and Telangana** was sought to be impeached in **2017**. He was accused of victimising a Dalit judge and of financial misconduct. Both motions failed after Rajya Sabha MPs who had signed on withdrew their names — as a result of which the motion fell short of the required number.
- The **most recent impeachment attempt** was against former **Chief Justice of India Dipak Misra** in **2018**. The motion was rejected by then Rajya Sabha Chairman M Venkaiah Naidu at the preliminary stage.

- None of the six attempts at impeaching a judge since Independence have been successful. Only in two instances involving Justices Ramaswami and Sen have the committees of inquiry returned a guilty finding.

Conclusion

The impeachment of judges in India is a rigorous and rare process, reflecting the need to uphold judicial accountability while safeguarding judicial independence.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding the Impeachment of High Court Judge:

1. Once the MPs submit the motion, the presiding officer of the House must accept it.
2. The committee includes one judge from the Supreme Court and the Chief Justice of a High Court if the complaint is against a High Court judge.

Which of the statements given above is/are correct?

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

Answer: (b)

PRIVILEGE MOTION

Why in News: Recently a privilege motion was moved against the Leader of Opposition in Lok Sabha demanding his immediate suspension.

About Parliamentary Privilege

- Parliamentary privilege refers to rights and immunities enjoyed by Parliament as an institution and MPs in their individual capacity, without which they cannot discharge their functions as entrusted upon them by the Constitution.
- A privilege motion addresses a breach of parliamentary privileges committed by a minister or member.
- If a member believes that such a privilege has been breached or misused, a motion or complaint can be raised to the house chairman or speaker.
 - Two conditions exist –
 - ◆ The question shall be restricted to a specific matter of recent occurrence
 - ◆ The matter requires the intervention of the Council.
- **Articles 105 and 194** of the Constitution deal with these powers, privileges and immunities.
- **Are these parliamentary privileges defined under law?**

- **According to the Constitution, the powers, privileges and immunities of Parliament and MP's are to be defined by Parliament.**
- No law has so far been enacted in this respect.
- In the absence of any such law, it continues to be governed by British Parliamentary conventions.

What are the main privileges?

- **Article 105** mainly deals with the powers and privileges of both Houses of Parliament and its members and committees.
 - It provides that freedom of speech in Parliament is subject to the provisions of the Constitution and the rules regulating the procedure of the Houses.
 - A member is exempt from legal action for anything said or voted in Parliament or one of its committees. The member is also not liable for any publication of a report, paper, vote or proceedings.
 - Powers, privileges and immunities of each House of Parliament and that of its members and committees are required to be defined by Parliament by law.
- **Article 122:** Validity of any proceeding of Parliament can't be inquired into by a court on the grounds of alleged irregularity of procedure.
- An MP can't be arrested in a civil case, 40 days before the commencement of the session or a committee meeting, and 40 days after its conclusion, under **Section 135A of the Civil Procedure Code, 1908.**
 - This privilege is limited to civil cases.
 - An MP doesn't enjoy any immunity against action in a criminal case, during the session or otherwise.
- A member has immunity from arrest and "service of legal process" within the precincts of the House without prior permission from the Chairman or Speaker.
- **Article 194** outlines the corresponding powers, privileges and immunities of State legislatures and their members and committees.

Breach of Privilege

- A breach of privilege is a violation of any of the privileges of MPs/Parliament.
- Among other things, any action 'casting reflections' on MPs, parliament or its committees; could be considered a breach of privilege.
- This may include publishing of news items, editorials or statements made in newspaper/magazine/TV interviews or in public speeches.

Process to Raise a Question of Privilege

- Parliament is the sole authority to ascertain if there has been a breach of privilege or contempt of the House. No court is entrusted with this power.
- A member of the House can raise a question involving a breach of privilege with the consent of the Chairman or Speaker.

- If the presiding officer gives consent, the Council can either consider the question and come to a decision or refer it to the Committee of Privileges — a **10-member** panel in the **Rajya Sabha** and a **15-member** panel in the **Lok Sabha**.
 - The Chairman is also empowered to refer, suo motu, any question of privilege to the Committee for examination, investigation and report.
- Not more than one question is allowed to be raised at the same sitting.

Working of Privilege Committee

- If the matter is referred to the panel, it examines the question of privilege and decides if a breach of privilege is involved and the nature of the breach and circumstances leading to it.
- A report with recommendations is then presented to the House for its consideration.
- After a motion for consideration of the report, the Committee moves that the House agree or disagree with the amendments and recommendations in the report.
- Further action is taken per the decision of the House, if the resolution is unanimously passed.

Punishment for a Breach of Privilege

- The authority to decide the punishment lies with the House.
- A person found guilty of breach of privileges or contempt can be reprimanded, warned or sent to prison.
- The period for which the House can commit an offender to custody or prison for contempt is limited to the duration of the session of the House.
- In case its member is found guilty, the MP can be suspended from the House or face expulsion.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding privilege motion

1. Article 105 of the constitution deals with the powers and privileges of members of Lok Sabha only.
2. The Committee on privileges comprises 10 members from Lok Sabha.
3. The Lok Sabha speaker cannot Suo moto refer any question of privileges to the Committee for examination.

How many of the statements given above is/are correct?

(a) Only one (b) Only two

(c) All three (d) None

(d) Answer

Descriptive Question

Q. The privilege motion is a key tool to uphold the dignity and authority of parliament. Discuss the relevance and scope of parliamentary privileges in the context of recent controversies. [150 words] [10 marks]

FOREST RIGHTS ACT, 2006

Why in News: Recently community forest rights under the Forest Rights Act, 2006, was accorded to three tribal settlements in the Anamalai Tiger Reserve (ATR).

Forest Rights Act, 2006

- **Objective:** To address the adverse living conditions of many tribal families living in forests and to undo the historical injustice.

Key Features of the Act

- It recognises forest rights of forest-dwelling Scheduled Tribes (FDSTs) who have been occupying the land before **October 25, 1980**.
- An FDST nuclear family is entitled to the land currently occupied subject to a maximum of 2.5 hectares. The land may be allocated in all forests including core areas of **National Parks and Sanctuaries**.
- The Act outlines **12 forest rights** which include the right to live in the forest, to self-cultivate, and to use minor forest produce. Activities such as hunting and trapping are prohibited.
- The Gram Sabha is empowered to initiate the process of determining the extent of forest rights that may be given to each eligible individual or family.

Key Issues with the Act

- There are no reliable estimates of the likely number of eligible families although the act proposes to vest forest land rights to FDSTs. Therefore, it is not known whether there could be significant risk to existing forest cover.
- Communities who depend on the forest for survival and livelihood reasons, but are not forest dwellers or Scheduled Tribes, are excluded from the purview of the Act.
- The Bill specifies October 25, 1980 as the cut-off date to determine eligibility. However, it does not clarify the kind of evidence that would be required by FDSTs to prove their occupancy.
- Terms such as **“livelihood needs”** have not been defined. This could lead to litigation and delay in implementation.

Rights under the Act: The following rights, which secure individual or community tenure or both, are the forest rights of forest-dwelling Scheduled Tribes and other traditional forest dwellers on all forest lands.

- **Right to hold and live in the forest land** under the individual or common occupation for habitation or for self-cultivation for livelihood by a member or members of a forest dwelling Scheduled Tribe or other traditional forest dwellers.
- **Community rights** such as nistar, by whatever name called, including those used in erstwhile Princely States, Zamindari or such intermediary regimes.
- **Right of ownership**, access to collect, use, and dispose of minor forest produce which has been traditionally collected within or outside village boundaries.
- Other community rights of uses or entitlements such as fish and other products of water bodies, grazing (both settled or transhumant) and traditional seasonal resource access communities.
- Rights including **community tenures of habitat** and habitation for primitive tribal groups and pre-agricultural communities.
- Rights in or over disputed lands under any nomenclature in any State where claims are disputed.
- **Rights for conversion of Pattas** or leases or grants issued by any local authority or any State Government on forest lands to titles.
- **Rights of settlement** and conversion of all forest villages, old habitation, unsurveyed villages and other villages in forests, whether recorded, notified or not into revenue villages.
- **Rights to protect**, regenerate or conserve or manage any community forest resource which they have been traditionally protecting and conserving for sustainable use.
- Rights which are recognised under any State law or laws of any Autonomous District Council or Autonomous Regional Council or which are accepted as rights of tribal under any traditional or customary law of the concerned tribes of any State.
- **Right of access** to biodiversity and community right to intellectual property and traditional knowledge related to biodiversity and cultural diversity.
- **Right to in situ rehabilitation** including alternative land in cases where the Scheduled Tribes or other traditional forest dwellers have been illegally evicted or displaced from forest land of any description without receiving their legal entitlement to rehabilitation prior to the 13 December 2005.

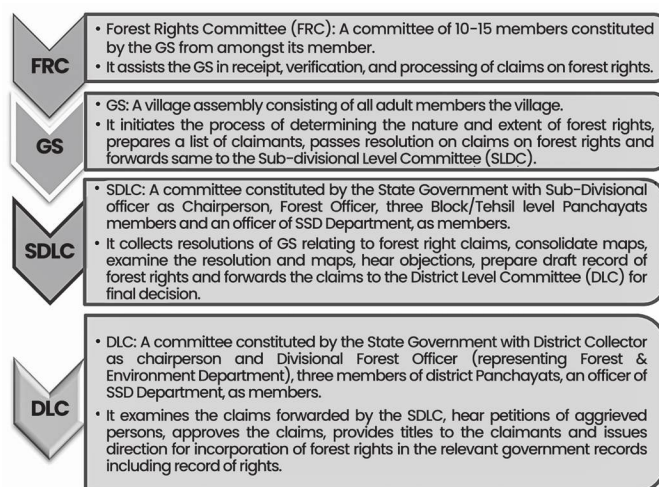


Figure: Process of recognition of forest rights

Benefits for Tribal Settlements and Communities under the Act

- **Sustainable Livelihood:** Specially meant for the Scheduled Tribes to ensure sustainable livelihood to the tribal populations and other traditional forest dwellers whose main livelihoods lie in the forests and the forest resources.
- **Recognition of the rights** of the communities including the tribal and the forest-dwellers for the first time and encouraging their participation in the conservation and management of the forests, forest products and wildlife.
- **Right to intellectual property** and traditional knowledge related to biodiversity and cultural diversity.

Impediments in the Implementation of the Act

- **Lack of support** from dedicated institutions in the claims and recognition process as well as impediments and delays in implementation.
- **Lack of knowledge, awareness and capacity** at different levels, especially in Gram Sabhas/ Gaon Sabhas.
- **Non-recognition of rights** of vulnerable communities such as PVTGs, residents of forest villages, pastoralists and nomadic communities.
- **Contradictory as well as conflicting laws and policies** (particularly those implemented by the forest department such as the Joint Forest Management program, operation of working plans, laws and regulations on minor forest produce (MFP)).
- **Widespread diversion of the forest lands** and community forest resources for the purpose of development projects without the consent of Gram Sabha (which is against the protection specified in the FRA, other protective legislations (PESA) and MoEFCC's own order of FRA compliance in Forest Diversion dated July 30, 2009).

Way Forward

- **Capacity Building for Tribal Communities:** Conduct workshops and training programs for forest-dwelling

communities to help them better understand their rights and participate in conservation efforts. In particular, focus on vulnerable groups such as PVTGs, pastoralists, and nomadic communities.

- **Harmonizing Conflicting Laws:** Resolve contradictions between the Forest Rights Act and other forest-related laws, such as those under the Joint Forest Management program, to ensure clarity in implementation and protection of rights.
- **Protection Against Displacement:** Strengthen safeguards against displacement of forest-dwelling communities and ensure that rehabilitation measures are implemented effectively, in line with the provisions of the Act.
- **Promotion of Traditional Knowledge:** Recognise and incentivise the use of traditional knowledge in biodiversity conservation and sustainable management of forest resources, while ensuring the intellectual property rights of forest-dwelling communities.

Conclusion

The **Forest Rights Act, 2006** is considered a very important landmark in the history of social legislation in the country because this offers people an opportunity to integrate their rights related to the conservation and livelihood security. Proper interpretation and implementation of the Act will empower and strengthen the local self-governance, strengthen the livelihood security of the people towards poverty eradication and facilitate conservation and management of natural resources in the country.

PRELIMS SPECIAL

Anamalai Tiger Reserve

- Anamalai Tiger Reserve (ATR) is located on the southern side of the South Western Ghat landscape. **State:** Tamil Nadu
- It is surrounded by Parambikulum Tiger Reserve on the East, Chinnar Wildlife Sanctuary and Eravikulam National Park on the South Western side.
- The reserve is also surrounded by Nenmara, Vazhachal, Malayattur and Marayur reserved forests of Kerala.
- The Kariyan shola, Grass hills and Manjampatti of Anamalai Tiger Reserve has been identified as a world heritage site by UNESCO.
- Anamalai Tiger Reserve was declared as a Tiger reserve in the year 2007.
- There are two Divisions and six ranges in this Reserve.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

- Q. Consider the following statements regarding Forest Rights Act, 2006:
1. Under Forest Rights Act, 2006 the land may be allocated to claimant in all forests including core areas of National Parks and Sanctuaries

2. The act recognises forests rights of Forest Dwelling Scheduled Tribes who have been occupying the land before October 25, 1980

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (c)

Descriptive Question

Q. Critically analyze the role of the Forest Rights Act, 2006 in empowering tribal communities and other forest dwellers. [150 words] [10 marks]

MERCY PETITIONS

Why in News: The Supreme Court directed all states and union territories to constitute a dedicated cell for the prompt processing of the mercy petitions by death row convicts within the timeline laid down by the respective governments.

Key Details

- **The court held that:**
 - A dedicated cell shall be constituted by the Home Department or the Prison Department of the State Governments/Union Territories for dealing with mercy petitions.
 - ◆ The dedicated cell shall be responsible for the prompt processing of the mercy petitions within the time frame laid down by the respective governments.
 - Inordinate delay in execution of death sentences have a dehumanizing effect on convicts and when such delays are caused by factors beyond the prisoners’ control, the death sentence must be commuted to life imprisonment.
- This decision aims to address the delays often encountered in the review and resolution of such petitions filed by convicts.
- In addition to establishing the dedicated cell, the Supreme Court has mandated that an official from the law and judiciary or justice department of the state governments/ Union Territories be attached to assist in the handling of the mercy petitions.
 - This integration aims to streamline the process and enhance coordination between different departments.

About Mercy Petition

- Background on Mercy Petitions
 - The Constitution granted the President (Article 72) and Governor (Article 161) the power to grant pardons or commute sentences.

- In the Supreme Court's ruling in **Maru Ram vs. Union of India (1981)**, it was established that the President must act based on the Council of Ministers' advice in mercy petitions.
- **Section 472 of Bharatiya Nagarik Suraksha Sanhita (BNSS)** deals with mercy petitions in death sentence cases.
 - Convicts can file mercy petitions within a period of thirty days from the date on which the Superintendent of the jail:
 - ◆ informs him about the dismissal of the appeal, review or special leave to appeal by the Supreme Court; or
 - ◆ informs him about the date of confirmation of the sentence of death by the High Court and the time allowed to file an appeal or special leave in the Supreme Court has expired.
 - Convicts can petition the Governor and President based on dismissal of appeals or confirmation of sentences.
 - For cases with multiple convicts, they all must file petitions within 60 days.

Centre's Role in Mercy Petitions

- The Central Government shall, on receipt of the mercy petition seek the comments of the State Government and consider the petition along with the records of the case.
- The Government shall make recommendations to the President within 60 days.
- Whenever an application is made to the appropriate Government for the suspension or remission of a sentence, the appropriate Government may require the presiding Judge of the Court before or by which the conviction was had or confirmed, to state his opinion as to whether the application should be granted or refused, together with his reasons for such opinion and also to forward with the statement of such opinion a certified copy of the record of the trial or of such record thereof as exists.
- When there is more than one convict in a case, the petitions shall be decided by the President together in the interests of justice.
- No time limit is specified for the President's decision.
- Upon receipt of the order of the President on the mercy petition, the Central Government shall within forty-eight hours, communicate the same to the Home Department of the State Government and the Superintendent of the jail or officer in charge of the jail.

Exclusion of Appeals against President's Decision

- President's decisions on mercy petitions are final.
- Courts cannot question or review the grounds for President's pardons or commutations.

PRELIMS SPECIAL

Article 72: Power of President to grant pardons, etc., and to suspend, remit or commute sentences in certain cases

- The President has the power to grant pardons, reprieves, respites or remissions of punishment or to suspend, remit or commute the sentence of any person convicted of any offence
 - in all cases where the punishment or sentence is by a Court Martial
 - in all cases where the punishment or sentence is for an offence against any law relating to a matter to which the executive power of the Union extends
 - in all cases where the sentence is a sentence of death

Article 161: Power of Governor to grant pardons, etc., and to suspend, remit or commute sentences in certain cases

- The Governor of a State shall have the power to grant pardons, reprieves, respites or remissions of punishment or to suspend, remit or commute the sentence of any person convicted of any offence against any law relating to a matter to which the executive power of the State extends.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

- Q. Consider the following statements regarding Pardoning power of Governors of states:
1. Article 72 of Indian constitution empowers the Governors to grant pardon as well as suspend, remit or commute sentences in certain cases.
 2. Governor can pardon convicted person in cases where the punishment or sentence is by court martial.
 3. Governor's decision on mercy petitions is final.

How many of the above given statements are correct?

- (a) Only one (b) Only two
(c) All three (d) None

(d) Answer

SIMULTANEOUS ELECTIONS

Why in News: The Union Cabinet has recently cleared two Bills to hold simultaneous polls, for the Lok Sabha and State/ UT Assemblies.

Key Details

- Two bills, the **Constitution (One Hundred and Twenty-Ninth Amendment) Bill, 2024**, and the **Union Territories Laws (Amendment) Bill, 2024**, were introduced in Lok Sabha in the final days of the winter session of Parliament to proceed with the legislative process.
- The JPC (Joint Parliamentary Committee) will have 90 days to scrutinise the legislation, review feedback and propose recommendations.

The Constitution (One Hundred and Twenty-Ninth Amendment) Bill, 2024

- **Commencement of simultaneous election:** To bring the provisions of the Bill into force, the President may issue a notification on the date of the first sitting of Lok Sabha after a general election.
 - The terms of all State Assemblies constituted after the date of the notification will expire with the expiry of the full term of Lok Sabha.
 - Hence, elections to Lok Sabha and all State Assemblies thereafter will be conducted together.
 - The bill seeks to insert a new article in the Constitution and amend three articles to put in place the mechanism to hold simultaneous polls to the Lok Sabha and Assemblies. It seeks to insert a new **Article 82A** — simultaneous elections to the House of the People (Lok Sabha) and all legislative Assemblies and to amend **Article 83** (Duration of Houses of Parliament), **Article 172** (Duration of State Legislatures) and **Article 327** (power of Parliament to make provision with respect to elections to Legislatures).
- **Premature dissolution of Lok Sabha or State Assemblies:** If Lok Sabha or a State Assembly is dissolved sooner than its full term of five years, fresh election will be held for a term equal to the remainder of the five-year term.
 - This will synchronise elections for Lok Sabha and all Assemblies every five years.
- **Deferring a state election:** If the Election Commission is of the opinion that the election for a particular State Assembly cannot be held as part of the simultaneous election, it may make a recommendation to the President in this regard.
 - Upon this recommendation, the President may issue an order to conduct election for this State Assembly at a later date.
 - Where the election for a State Assembly is deferred to after the simultaneous election, its term will end with the end of Lok Sabha constituted in that simultaneous election.

The Union Territories Laws (Amendment) Bill, 2024

- It amends the following Acts:
 - the Government of Union Territories Act, 1963,
 - the Government of National Capital Territory of Delhi Act, 1991,
 - the Jammu and Kashmir Reorganisation Act, 2019.

These Acts provide for the structure and functioning of the Legislative Assemblies of Puducherry, Delhi, and Jammu and Kashmir (UT Assemblies).

- **Simultaneous election:** Along with this Bill, the Constitution (One Hundred and Twenty-Ninth Amendment) Bill, 2024 was also introduced in Lok Sabha.

- The Bill extends the provision of simultaneous election to UT Assemblies.
- **Election in case of premature dissolution of a UT Assembly:** If a UT Assembly is dissolved sooner than its full term of five years, fresh election will be held to constitute a new Assembly, whose term will be equal to the remainder of the five-year term.
 - Under the Constitutional Amendment Bill, the same provision applies to Lok Sabha and all State Assemblies.

Benefits of Implementing Simultaneous Elections

- **Reduce Logistical Burden:** This means that election personnel, polling stations, security forces, and other arrangements would only need to be deployed once. Additionally, the preparation of the electoral roll, which is a massive task in itself, would only need to be done once.
- **Reduce Policy Paralysis:** Simultaneous elections would help reduce policy paralysis caused by frequent impositions of the Model Code of Conduct (MCC).
 - When the MCC is in effect, governance comes to a standstill because new schemes or projects cannot be announced or implemented. Simultaneous polls would significantly reduce these periods of administrative limbo.
- **Reduce Expenditure:** The holding of simultaneous elections to Lok Sabha and state assemblies would reduce the massive expenditure that is currently incurred for the conduct of separate elections.
- **Convenience of voters:** Staggered elections lead to voter fatigue and pose a challenge to ensuring participation. Asynchronous elections also disrupt government operations, causing hardship to citizens. Simultaneous elections are expected to be more convenient for voters.

Challenges and Concerns associated with Simultaneous Elections

- **Complexity of Simultaneous Elections:** The main challenge of conducting simultaneous elections is the potential complications if any government were to collapse before completing its term.
- **Logistical Issues:** There would also be logistical issues in conducting simultaneous elections, such as the requirement for twice as many electronic voting machines and Voter Verifiable Paper Audit Trail machines.
 - Additionally, the deployment of security forces and officials in 700,000 polling stations located in widely varying geographic and climatic conditions all at the same time will be extremely difficult.
- **Alter the democratic and federal character:** Critics of simultaneous elections argue that amending the Constitution to implement simultaneous elections would significantly change its democratic and federal nature.
 - Simultaneous elections also have the potential to blur

judgement due to the distinct nature of national and local issues. In simultaneous elections, voters may end up prioritizing one set of issues over the other in ways they might not have done otherwise. This could lead to national issues being ignored or, conversely, local issues being overshadowed by a national 'wave'.

- **Constitutional Amendment:** Another challenge associated with the implementation of simultaneous elections is the requirement of constitutional amendments.

Conclusion

The move to implement simultaneous elections aims to streamline electoral processes, reduce logistical and financial burdens, and minimize policy paralysis, offering significant administrative and governance benefits. However, it presents complex challenges, including constitutional amendments, and potential impacts on the federal and democratic structure of the nation. Balancing these benefits and concerns will be crucial for its successful implementation.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding simultaneous elections initiative in India

1. The union cabinet has recently cleared two bill to hold simultaneous polls for Lok Sabha, State assemblies and local bodies
2. The bills excludes union territories from the exercise of simultaneous election

Which of the statements given above is/ are correct?

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

Answer: (d)

Descriptive Question

Q. Discuss the constitutional, logistical and political challenges associated with implementing simultaneous elections. [150 words] [10 marks]

Free Initiative by Chahal Academy

CCHAHAL
ACADEMY

What to Read in The Hindu

Scan QR Code



THE EASTERN MARITIME CORRIDOR

Why in News: The Chennai-Vladivostok eastern maritime corridor has become operational.

Key Details

- The Chennai-Vladivostok maritime corridor (CVMC), which is likely to boost maritime ties between India and Russia, is operational now, and container ships carrying **crude oil, metal and textile** have started coming to Indian ports.



- The Eastern Maritime Corridor is estimated to reduce the time required to transport cargo between the Indian and Russian Ports of the Far East Region by up to 16 days.

About The Eastern Maritime Corridor

- Chennai-Vladivostok Maritime Corridor is a sea route covering approximately 5,600 nautical miles, or about 10,300 km, aimed at increasing bilateral trade between India and Russia.
 - In 2019 Prime Minister, of India signed a Memorandum of Intent for the route.

Significance of the Route

- Reduce transportation time:**
 - The current trade route between Mumbai and St Petersburg in Russia covers a distance of 8,675 nautical miles, and the time taken for transportation is around 35 to 40 days.
 - A large container ship that travels at the normal cruising speed of 20-25 knots (37-46 kilometres /hour)

will be able to cover this distance in approximately 10 to 12 days.

- Geopolitical:** Vladivostok is the largest Russian port on the Pacific Ocean, and it is located about 50 kilometres from the China-Russia border.
 - The route aligns with India's long-term objective of being the "Net Security provider" in the region.
- Geo-Economic:** The route will allow container ships carrying crude oil, metal and textile coming to Indian ports from Russia's far east region.
 - This would increase trade between both the countries as well as diversify India's dependence on West Asian oil.
- Geo-Strategic:** The CVMC will enhance India's maritime footprints in the Indo-Pacific and the South China Sea - through which the corridor passes - even though the latter is considered by China as its strategic backyard and may potentially conflict with Beijing's strategic goals with the Maritime Silk Route.

- It will also help counter Beijing’s ambitions of global hegemony across this region.

PRELIMS SPECIAL

Important International trade corridors

- **International North-South Transport Corridor (INSTC):** The International North-South Transport Corridor (INSTC) is a 7,200-km (4500 mile) long multi-mode network of ship, rail, and road route for moving freight between India, Iran, Azerbaijan, Russia, Central Asia and Europe. The route primarily involves moving freight from India, Iran, Azerbaijan and the Russian Federation via ship, rail and road.



- **Ashgabat Agreement:** The Ashgabat Agreement is a multimodal transport agreement between the governments of **Kazakhstan, Uzbekistan, Turkmenistan, Iran, India, Pakistan, and Oman** for creating an international transport and transit corridor facilitating transportation of goods between Central Asia and the Persian Gulf. **The agreement came into force in April 2016.**
- **India-Middle East-Europe Economic Corridor (IMEC):** The India-Middle East-Europe Economic Corridor (IMEC) is a planned economic corridor that aims to bolster economic development by fostering connectivity and economic integration between Asia, the Persian Gulf and Europe. The corridor is a proposed route from India to Europe through the United Arab Emirates, Saudi Arabia, Israel and Greece

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following countries:

1. Kazakhstan
2. Uzbekistan
3. Turkmenistan

Which of the above countries are signatories to the Ashgabat Agreement?

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

Answer: (d)

Descriptive Question

Q. The Chennai-Vladivostok Maritime Corridor has the potential to enhance India’s strategic and economic engagement with Russia and the Indo-Pacific region. Discuss. [150 words] [10 marks]

INDIA - MALDIVES PACT ON LOCAL CURRENCIES

Why in News: India and Maldives have recently signed a pact for cross-border transactions in local currencies.

Key Details

- This framework will enable exporters and importers to invoice and settle in their respective domestic currencies, which, in turn, will facilitate the development of trading in the INR-MVR [Indian rupees - Maldivian rufiyaas] pair in the foreign exchange market.
- The use of local currencies will optimise costs and reduce settlement time for transactions.

Recent Developments

- **Budgetary support to Maldives:** This year (2024) on the special request of Government of Maldives seeking budgetary support, SBI - Maldives has subscribed for one more year the USD 100 mn Govt T-bills, at zero-cost (interest free) under a unique G-to-G arrangement.
- **Cooperation in Digital technology:** Recently, India and Maldives signed an agreement to cooperate in the area of digital technology. Recently, during the visit of External Affairs Minister to Maldives, NIPL (India) and the Ministry of Economic Development & Trade signed an agreement to adopt UPI in the Maldives.
- **Economic-Political Reconciliation**
 - India has provided emergency financial assistance to help Maldives address its pressing economic challenges by issuing \$100 million in treasury bills, alongside extending it a \$400 million and 30 billion Indian rupees bilateral currency swap agreement.
 - **Currency Swap Agreement:** Earlier, the RBI signed a Currency Swap Agreement with the Maldives Monetary Authority (MMA) under the **SAARC Currency Swap Framework**, thus, enabled MMA to make withdrawals in multiple tranches up to a maximum of USD 200 million from the RBI.

About India- Maldives Relations

History of the relations

- India and Maldives share ethnic, linguistic, cultural, religious and commercial links steeped in antiquity. India was among the first to recognize Maldives after its independence in 1965 and to establish diplomatic relations with the country.
- India’s prompt assistance during the **1988 coup attempt**, led to development of trust and long-term and friendly bilateral relations with the Maldives.

- India was also the first to assist Maldives during the 2004 Tsunami as well as the water crisis in Malé in 2014 and India’s rapid and comprehensive assistance to the Maldives during COVID- 19 pandemic further reinforced India’s credentials of being the “first responder”.

Strategic Importance

- **Location:** Maldives’ proximity to the west coast of India (barely 70 nautical miles away from Minicoy and 300 nautical miles away from India’s West coast), and its situation at the hub of commercial sea-lanes running through Indian Ocean (particularly the 8° N & 1½° N channels) imbues it with significant strategic importance to India.
- **Neighbourhood First:** Maldives occupies a special place under “Neighbourhood First” Foreign Policy of India, which aims to bring stability and prosperity in the Indian Ocean Region (IOR).
- **Secure Indian Ocean:** Both the nations are key players in maintaining safety and security of the IOR, thus contributing to India-led Security and Growth for All in the Region (SAGAR) vision.

- Malé is the capital and the most populated city, traditionally called the “King’s Island”.
- The Maldives has an average ground-level elevation of 1.5 metres (4 ft 11 in) above sea level, and a highest natural point of only 2.4 metres (7 ft 10 in), making it the world’s lowest-lying country.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

- Q. Consider the following statements regarding Maldives
1. Maldives is the smallest country in Asia.
 2. Maldives is located entirely above the equator.
 3. Maldives is the world’s lowest lying country.

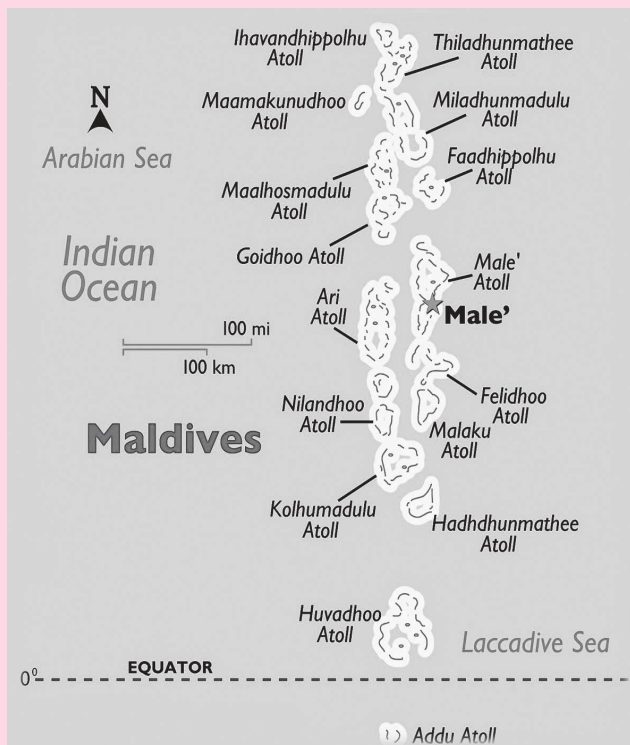
How many of the above statements are correct?

- (a) Only one (b) Only two
 (c) All three (d) None

Answer: (b) (1 & 3 only)

PRELIMS SPECIAL

About Maldives



- The Maldives is a country and archipelagic state in South Asia in the Indian Ocean. The Maldives is southwest of Sri Lanka and India, about 750 kilometres from the Asian continent’s mainland.
- The Maldives is the smallest country in Asia. Including the sea, the territory spans roughly 90,000 square kilometres (35,000 sq mi), with a land area of 298 square kilometres.

11TH ASEAN DEFENCE MINISTERS’ MEETING PLUS

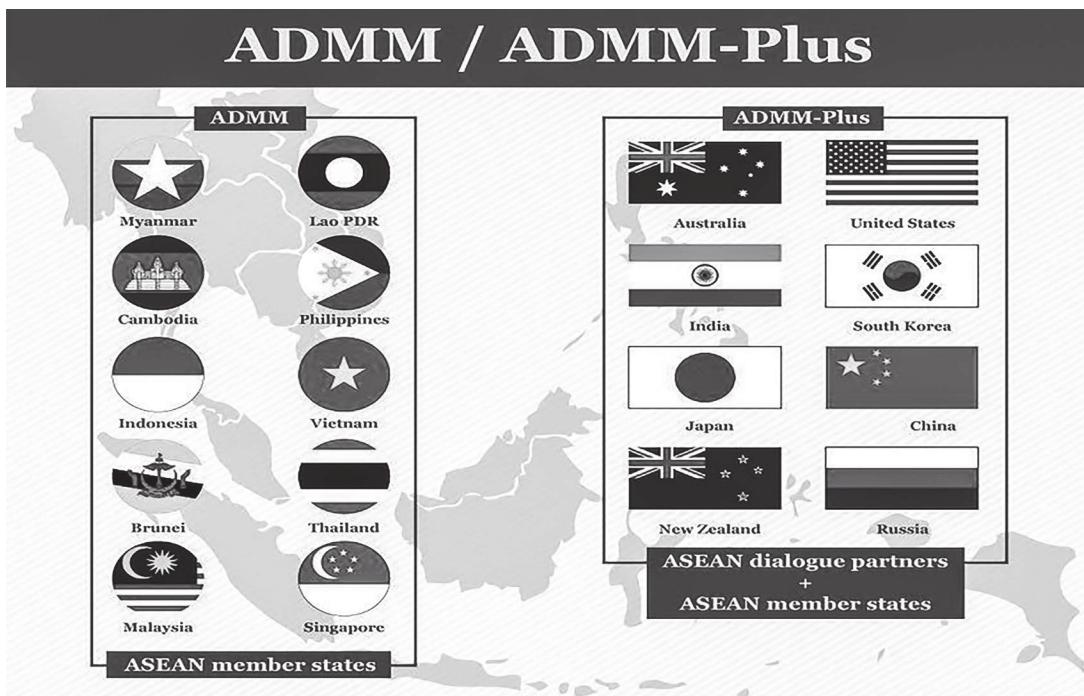
Why in News: Defence Minister of India recently met with US Secretary of Defense, South Korean, Australian & New Zealand on the sidelines of 11th ASEAN Defence Ministers’ Meeting (ADMM)-Plus at Vientiane, Lao PDR.

Key Details

- The dialogue based on the India-US defence partnership, aimed at increasing operational coordination, information-sharing, and industrial innovation.
- Both sides recognised the progress made under the US-India Defence Industrial Cooperation Roadmap, including ongoing collaboration to advance priority co-production arrangements for jet engines, munitions, and ground mobility systems.

About 11th ASEAN Defence Ministers’ Meeting Plus (ADMM-Plus)

- The Meeting exchanged views on regional and international security issues.
- The Meeting also adopted the Joint Statement by the ADMM-Plus on Resilience to Climate-Related and Other Natural Disasters, including through Best Practices Exchange and Capacity-Building.



PRELIMS SPECIAL

ASEAN Defence Ministers' Meeting Plus (ADMM-Plus)

- **Member countries:** The ASEAN Defence Ministers Meeting-Plus (ADMM-Plus) comprises 10 ASEAN Member States and 8 Dialogue Partners (Australia, China, India, Japan, New Zealand, Republic of Korea, Russia and the United States).
- **Beginning:** The first meeting of ADMM-Plus took place in Ha Noi, Viet Nam, on 12 October 2010.
- **Purpose:** The stated purpose of ADMM-Plus is to strengthen security and defence cooperation for maintenance of peace, stability, and development in the region. Since 2017, the ADMM-Plus Ministers meet annually, to further dialogue and cooperation amongst ASEAN and the Plus Countries in the midst of an increasingly challenging regional security environment.
- **Objectives:** The objectives of the ADMM-Plus include.
 - (i) Capacity building of ASEAN Member States to address shared security challenges.
 - (ii) To promote mutual trust and confidence between defence establishments.
 - (iii) To enhance regional peace and stability through cooperation in defence and security.
 - (iv) To contribute to the realisation of an ASEAN Security Community, as stipulated in the Bali Concord II.
 - (v) To facilitate the implementation of the Vientiane Action Programme, which calls for ASEAN to build a peaceful, secure and prosperous ASEAN, and to adopt greater outward-looking external relation strategies with our friends and Dialogue Partners.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following countries:

1. India
2. New Zealand
3. Japan

Which of the above countries are Dialogue Partners of ASEAN?

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

Answer: (d)

Descriptive Question

Q. Examine the role of ASEAN Defence Ministers' Meeting Plus (ADMM-Plus) in strengthening India's strategic and security partnership with ASEAN countries. [250 words] [15 marks]

INTERNATIONAL COOPERATIVE ALLIANCE

Why in News: The Prime Minister of India has recently inaugurated the **ICA Global Cooperative Conference 2024** at Bharat Mandapam in New Delhi.

Key Details

- ICA Global Cooperative Conference and ICA General Assembly is being organised in India for the first time

in the 130-year long history of International Cooperative Alliance (ICA).

- The theme of the conference, **“Cooperatives Build Prosperity for All,”** aligns with the Indian Government’s vision of **“Sahkar Se Samridhhi”** (Prosperity through Cooperation).
- The Prime Minister launched the UN International Year of Cooperatives 2025, which will focus on the theme, **“Cooperatives Build a Better World,”** underscoring the transformative role cooperatives play in promoting social inclusion, economic empowerment, and sustainable development.
- The Prime Minister of India also launched a commemorative postal stamp, symbolising India’s commitment to the cooperative movement.

India’s commitment to the cooperative movement

- The cooperative movement in India has deep roots, drawing inspiration from the ancient Indian ethos of **Vasudhaiva Kutumbakam**, which translates to “the world is one family.”
- The history of the Cooperative Movement in India can be divided into two phases. First, the Cooperative Movement in the Pre-Independence era and second in the Post Independence era.

Cooperative movement in the Post Independence-Era

- After Independence, the new government system aimed to decentralize economic power and promote people’s participation in planning and implementing economic development programs, with a focus on social justice. Cooperatives became an integral part of India’s Five-Year Plans, starting with the First Plan, which emphasized their coordination with village panchayats.
- The establishment of the **National Cooperative Development Corporation (NCDC)** in 1963 and the **National Bank for Agriculture and Rural Development (NABARD)** in 1982 were key milestones in supporting rural credit and cooperative development.
- In 1984, the Indian Parliament passed the Multi-State Cooperative Organisations Act to streamline laws governing cooperatives across states. Further consolidation occurred with the introduction of the National Policy on Cooperatives in 2002, aiming to harmonize the legal framework.
- The Multi-State Cooperative Societies (MSCS Amendment Act 2023 and associated rules seek to enhance governance, increase transparency, and implement structural changes within MSCS, empowering cooperatives with greater independence.

PRELIMS SPECIAL

About Cooperatives

The Cooperative Spirit

Definition

A cooperative is an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise.

Cooperative Values

Cooperatives are based on the values of self-help, self-responsibility, democracy, equality, equity, and solidarity. In the tradition of their founders, cooperative members believe in the ethical values of honesty, openness, social responsibility and caring for others.

Cooperative Principles

- ✓ Voluntary and Open Membership
- ✓ Democratic Member Control
- ✓ Member Economic Participation
- ✓ Autonomy and Independence
- ✓ Education, Training, and Information
- ✓ Cooperation among Cooperatives
- ✓ Concern for Community



Conclusion

- India's cooperative movement, deeply rooted in its cultural and socio-economic landscape, has evolved into a powerful vehicle for inclusive growth, community empowerment, and rural development.
- Through the establishment of the Ministry of Cooperation and its recent initiatives, the government has reaffirmed its commitment to fostering a cooperative-driven model that reaches every corner of the country, facilitating sustainable livelihoods and financial inclusion for marginalized communities.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding International Cooperative Alliance:

1. Recently, India hosted the International Cooperative Alliance (ICA) Global Cooperative Conference for the first time in New Delhi.
2. The theme of Global Cooperative Alliance aligns with Indian Government's vision of 'Sahakar Se Samridhi'

Which of the above statements is/are correct?

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

Answer: (c)

EUROPEAN FREE TRADE ASSOCIATION

Why in News: Recently, the Commerce Secretary of India visited Norway for implementation of the **Trade and Economic Partnership Agreement** between India and the European Free Trade Association (EFTA).

Key Details

- The visit was aimed at furthering the objectives of Trade and Economic Partnership Agreement (TEPA) and unlocking the large market in EFTA countries for Indian exports of goods & services and push for early implementation of \$100 bn investment.

Relevance of Trade and Economic Partnership Agreement (TEPA)

- TEPA is a modern and ambitious Trade Agreement which India signed with four developed nations- Iceland, Liechtenstein, Norway, and Switzerland - an important economic bloc in Europe.
- **Concessions:** EFTA is offering 92.2% of its tariff lines which covers 99.6% of India's exports.

- The EFTA's market access offer covers 100% of non-agri products and tariff concession on Processed Agricultural Products (PAP). India is offering 82.7% of its tariff lines which covers 95.3% of EFTA exports.
- **Expected outcomes**
 - **Boost Manufacturing:** TEPA will give impetus to "Make in India" and Atmanirbhar Bharat by encouraging domestic manufacturing in sectors such as Infrastructure and Connectivity, Manufacturing, Machinery, Pharmaceuticals, Chemicals, Food Processing, Transport and Logistics, Banking and Financial Services and Insurance.
 - **Increase quality jobs:** TEPA is expected to accelerate the creation of a large number of direct jobs for India's young aspirational workforce in the next 15 years in India, including better facilities for vocational and technical training.
 - **Access to technology:** TEPA also facilitates technology collaboration and access to world leading technologies in precision engineering, health sciences, renewable energy, Innovation and R&D.
 - **Boosting the Service sector** TEPA would stimulate our services exports in sectors of our key strength / interest such as IT services, business services, personal, cultural, sporting and recreational services, other education services, audio-visual services etc.

PRELIMS SPECIAL

About European Free Trade Association (EFTA)



- The European Free Trade Association (EFTA) is a regional trade organization and free trade area consisting of four European states: Iceland, Liechtenstein, Norway and Switzerland.
- The organization operates in parallel with the European Union (EU), and all four member states participate in the European single market and are part of the Schengen Area.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following countries:

1. Iceland
2. Liechtenstein
3. Norway
4. Switzerland

How many of the above countries are members of the European Free Trade Association?

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

(d) :Answer

Descriptive Question

Q. Discuss the potential benefits and challenges of the Trade and Economic Partnership Agreement between India and European Free Trade Association (EFTA). [250 words] [15 marks]

ORGANISATION FOR THE PROHIBITION OF CHEMICAL WEAPONS

Why in News: Recently, the 2024 OPCW The Hague Award was conferred upon the Indian Chemical Council (ICC) at a ceremony during the 29th Session of the Conference of the States Parties (CSP) of the Organisation for the Prohibition of Chemical Weapons (OPCW) at the Hague.

Key Details

- This is the first time that the Award recognises the efforts of a chemical industry body.
 - The Award recognizes individuals and organizations that play a significant role in advancing the goals of the Chemical Weapons Convention.
- This Award acknowledges the role played by ICC in promoting chemical safety, compliance with the Convention, and enhancing industry-wide security practices in India.
 - Note: Through initiatives like the Chemical Weapons Convention Helpdesks, ICC has increased industry compliance and facilitated efficient e-filing for chemical declarations.

About the Organisation for the Prohibition of Chemical Weapons

- OPCW, with its Secretariat in the Hague, is the implementing body for the Chemical Weapons Convention.
- **Aim of OPCW:** It has a mission to achieve a world free of chemical weapons.
- **In 2013, OPCW was awarded the Nobel Peace Prize** for its extensive efforts to eliminate chemical weapons.
- To preserve the legacy of this achievement, the OPCW established the 'OPCW-The Hague Award' in collaboration with the Municipality of The Hague in 2014. The Award recognizes individuals and organizations that play a significant role in advancing the goals of the Chemical Weapons Convention.

About The Chemical Weapons Convention

- The Chemical Weapons Convention (CWC) came into force in 1997, and presently has 193 States Parties.
- India is an original signatory to the Convention.
- NACWC is the national authority responsible for implementing the Convention in India.

About the Indian Chemical Council

- As India's premier body representing the chemical industry, ICC represents more than 80% of the Indian chemical Industry which is valued at \$220 billion.
- This Award acknowledges the role played by ICC in promoting chemical safety, compliance with the Convention, and enhancing industry-wide security practices in India.
- Through initiatives like the Chemical Weapons Convention Helpdesks, ICC has increased industry compliance and facilitated efficient e-filing for chemical declarations.
- Additionally, ICC's 'Nicer Globe' initiative has had a substantial impact on chemical transportation safety in India, offering real-time monitoring and emergency response capabilities.
- ICC has conducted other activities to promote chemical safety and security through its 'Responsible Care' (RC) programme and the introduction of the Security Code of RC.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding the Organisation for Prohibition of Chemical Weapons (OPCW)?

1. Secretariat of OPCW is located in the Hague.
2. Recently, OPCW was awarded the Nobel Peace Prize for its efforts to eliminate chemical weapons.
3. India is an original signatory to the Convention

Which of the above statements is/are correct?

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

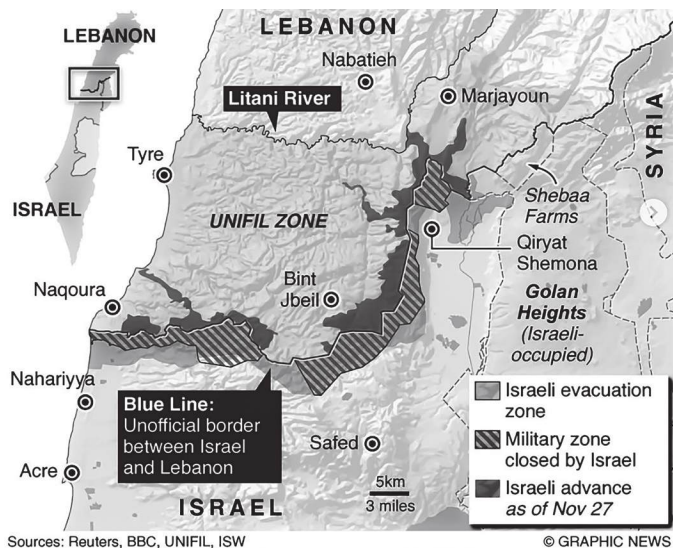
(d) :Answer

CEASEFIRE BETWEEN HEZBOLLAH AND ISRAEL

Why in News: Recently a ceasefire agreement was signed by Israel, Lebanon, and several mediating countries including the United States.

Key Details

- **Beginning of war:** Since 8 October 2023, Israel and Hezbollah had been fighting and on 1 October 2024, Israel began its invasion of Lebanon.
- **Mandate of Ceasefire Agreement:** The agreement mandates a 60-day halt to hostilities, during which Israel must withdraw its forces from Southern Lebanon, and Hezbollah must withdraw its forces to north of the **Litani River**.



Sources: Reuters, BBC, UNIFIL, ISW

© GRAPHIC NEWS

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

- Q. Recently the term blue line was in the news, it is related to?
- (a) Unofficial border between Israel and Lebanon
 - (b) Unofficial border between Israel and Syria
 - (c) Unofficial border between Israel and Egypt
 - (d) None of the above

(a) Answer

- **Overseeing authority:** A five-country monitoring panel, led by the United States, will oversee the implementation, with 5,000 Lebanese troops deployed to ensure compliance.
- **Limitations of Ceasefire:** The agreement does not preclude either Israel or Lebanon from acting in self-defence, but Israeli and Lebanese officials disagreed with what that entails.



Requirements:

- **Disarming all armed groups in Lebanon (i.e., Hezbollah)**
FULFILLED: NO
- **No armed forces in southern Lebanon other than the government of Lebanon and UNIFIL**
FULFILLED: NO
- **Banning foreign forces from Lebanon**
FULFILLED: NO
- **Prohibiting unauthorized arms sales or transfers**
FULFILLED: NO
- **Full control of Lebanon by the Lebanese government**
FULFILLED: NO
- **Israel withdrawing from Lebanon**
FULFILLED: YES

BELT AND ROAD INITIATIVE

Why in News: Nepal and China recently signed an agreement on Belt and Road Initiative paving the way for enhanced economic cooperation on the projects.

Key Details

- The BRI Cooperation Framework agreement was inked during Prime Minister K. P. Sharma Oli’s official visit to China — his first official visit to that country after assuming office for the fourth time.
- A joint statement issued by both sides on Tuesday said that “the two sides expressed their readiness to sign the MoU on building the **Trans-Himalayan Multi-Dimensional Connectivity Network (THMDCN)** and the framework for Belt and Road Cooperation between the two governments as soon as possible.

About Trans-Himalayan Multi-Dimensional Connectivity Network (THMDCN)



- The Trans-Himalayan Multi-dimensional Connectivity Network (abbreviated as THMCN) is an economic corridor between Nepal and China and part of China’s Belt and Road initiative, a global development initiative that develops connectivity especially across Eurasia.



- China’s Belt and Road Initiative (BRI), sometimes referred to as the New Silk Road, is an ambitious infrastructure project.
- Launched in 2013 by President Xi Jinping, the vast collection of development and investment initiatives was originally devised to link East Asia and Europe through physical infrastructure.
- The BRI is composed of six urban development land corridors linked by road, rail, energy, and digital infrastructure and the Maritime Silk Road linked by the development of ports.
- In the decade since, the project has expanded to Africa, Oceania, and Latin America, significantly broadening China’s economic and political influence.
- To date, 147 countries—accounting for two-thirds of the world’s population and 40 percent of global GDP have signed on to projects or indicated an interest in doing so.

Implications of BRI on India and the Region

- **Against India’s Sovereignty:** The inclusion of the so-called China–Pakistan Economic Corridor (CPEC) which passes through parts of the Indian state of Jammu & Kashmir under illegal occupation of Pakistan as a flagship project of BRI, reflects lack of appreciation of India’s concerns on the issue of sovereignty and territorial integrity.
- **China’s hegemony in India’s backyard:** Certain decisions that have an impact on India and are interpreted as China’s undisguised ambition for hegemony include the signing of a maritime agreement with Sri Lanka, the sale of eight submarines to Pakistan, the expansion of facilities

at Gwadar port, and the construction of a base in Djibouti in Africa.

- **Debt-Trap:** Many South Asian countries are taking on significant debt to finance BRI projects, leading to concerns about debt sustainability and dependence on Chinese financing.
- **Environmental Impact:** Several BRI projects have been criticized for their environmental impact, including deforestation, pollution, and disruption of local ecosystems.
- **Transparency and Governance:** Lack of transparency in contract negotiations and project implementation raises concerns about corruption and governance, undermining trust in the initiative.

India’s counter to the Belt and Road Initiative

- **Investing in Infrastructure Connectivity projects:** India can counter the BRI by strengthening regional partnerships and investing in its own infrastructure projects like the International North-South Transport Corridor (INSTC).
- **Alternate soft loans:** India has laid out its rebalancing plan in response to China’s Belt and Road Initiative BRI, emphasizing the provision of soft loans for a variety of economic and capacity-building projects across continents.
- **Concessional lines of credit (LOCs)** from the Government of India (GoI) are an important component of this development partnership in various socio-economic development areas such as power, transportation,

connectivity, agriculture and irrigation, manufacturing industries, water and sanitation, and healthcare.

- **Collaboration with countries:** India should collaborate with countries like Japan and international agencies to strengthen regional connectivity in the Indian Subcontinent and beyond.

Way Forward

- **Challenge for China:**

- The road ahead is not easy. Beijing’s initiative sparks controversy and suspicions. China is already facing allegations of lack of transparency, poor human rights record, obscure business practices, and government overreach.
- The Neo-colonial character of the trade relationship with developing countries: Chinese companies that employ Chinese workers reduce the benefits to the local population in the host country.
- China has been accused of supporting authoritarian regimes, paying low wages, non-compliance with worker safety norms, and environmental safety concerns.

- **Lesson for India:**

- **Engage and Contain:** Kautilya, the famous India theorist on statecraft, suggests it is important to monitor and contain the activities of the state’s “enemy” and its diplomacy through engagement and cooperation rather than war, which is becoming increasingly difficult in today’s globalized world.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Trans-Himalayan Multi-Dimensional Connectivity Network is an economic corridor between?

- (a) China-Bhutan (b) India-Nepal
(c) India-Bhutan (d) None

(p) :aṁsuṁv

Descriptive Question

Q. Critically analyze the implications of the Belt Road Initiative on India and suggest measures that India can adopt to counterbalance China’s growing influence in the region. [250 words] [15 marks]

UN COMMISSION ON NARCOTIC DRUGS (CND)

Why in News: India for the first time has been chosen to Chair the 68th Session of the Commission on Narcotic Drugs (CND) to be held in Vienna, Austria in 2025.

Key Details

- **Significance:** This reinforces India’s growing leadership role on the global stage and its commitment to addressing international issues through established multilateral mechanisms.
 - As Chair, India will be expected to articulate the interests of the Global South in line with its role in promoting the interests and perspectives of developing nations in global discussions.
 - India would also strive to build on the ongoing work of the CND to foster dialogue and understanding on drug policy issues and especially to integrate concerns of emerging economies with the priorities of developed nations to promote holistic and balanced approaches to this key issue.

UN Commission on Narcotic Drugs (CND)

- **History:** The Commission on Narcotic Drugs (CND) was established by Economic and Social Council (ECOSOC) resolution 9(I) in 1946, to assist the ECOSOC in supervising the application of the international drug control treaties.
 - In 1991, the General Assembly (GA) expanded the mandate of the CND to function as the governing body of UNODC (A/RES/46/104).
 - **Headquarters:** Vienna International Center, Vienna, Austria
 - **Chairperson:** Rotating every year
- **Agenda:** The CND’s agenda has two distinct segments.
 - a normative segment for discharging treaty-based and normative functions;
 - an operational segment for exercising the role as the governing body of UNODC.
- **Mandate:** The CND reviews and analyses the global drug situation, considering supply and demand reduction. It takes action through resolutions and decisions.
- **Membership & Bureau:** The CND has 53 member states that are elected by ECOSOC. It is chaired by a Bureau including one member per Regional Group.
- **Policy on Drugs:** The CND adopted the 2019 Ministerial Declaration to accelerate the implementation of joint commitments to address and counter the world drug problem.
- **Drug Control Conventions:** The CND is mandated to decide on the scope of control of substances under the three international drug control conventions (1961, 1971 and 1988 Conventions).
- **Events:** The CND holds an annual regular session, intersessional meetings and a reconvened session, as well as informal consultations and special events.
- **Sessions:** For the regular session and the reconvened session of the CND, pre- and in-session documentation, as well as a report are prepared.

- **Subsidiary Bodies:** The CND has five subsidiary bodies: the Heads of National Drug Law Enforcement Agencies in Europe, Latin America and the Caribbean, Asia and the Pacific and Africa, and the Sub commission in the Near and Middle East.

India's Fight Against Narcotic Drugs

- **Directive Principles:** The National Policy on Narcotic Drugs and Psychotropic Substances is based on the Directive Principles, contained in Article 47 of the Indian Constitution, which direct the State to endeavour to bring about prohibition of the consumption, except for medicinal purposes, of intoxicating drugs injurious to health.
- **International Conventions:** The government's policy on the subject which flows from this constitutional provision is also guided by the international conventions on the subject.
 - India is a signatory to the single Convention on Narcotic Drugs 1961, as amended by the 1972 Protocol;
 - the Conventions on Psychotropic Substances, 1971;
 - the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, 1988.
- **Legislation:** The broad legislative policy is contained in the three Central Acts, viz.
 - Drugs and Cosmetics Act, 1940,
 - The Narcotic Drugs and Psychotropic Substances Act, 1985.
 - The Prevention of Illicit Traffic in Narcotic Drugs and Psychotropic Substances Act, 1988.
 - The responsibility of drug abuse control, which is a central function, is carried out through a number of Ministries, Departments and Organisations.
- Government is making various efforts jointly with State Governments and Union Territories to strengthen the Narcotics Control Bureau (NCB) and other enforcement agencies and to ensure effective implementation of Narcotic Drugs and Psychotropic Substances (NDPS) Act.
 - A National Narcotics Helpline **Madak-Padarth Nished Asoochna Kendra (MANAS)** has been created as a 24x7, toll-free National Narcotics Call Centre.

International Coordination

- Director General Level Talks are being organized with neighbouring and other countries such as Myanmar, Iran, Bangladesh, Indonesia, Singapore, Afghanistan, Sri Lanka, etc. to resolve various issues on drug trafficking having international implications.
- India has signed Bilateral Agreements with 27 countries, Memorandum of Understanding with 16 countries and Agreements on Security Cooperation with 02 countries for combating illicit trafficking of Narcotic Drugs

and Psychotropic Substances (NDPS) and Chemical Precursors as well as related offences.

- Intelligence Sharing and Controlled Delivery (CD) Operations within India and with foreign countries are being carried out regularly.
- India is closely associated with the International Narcotics Control Board (INCB) and all its programs viz. PEN (Pre-Export Notification), PICS (Precursors Incident Communication System), and IONICS (International Operations on New Psychoactive Substances Incident Communication System).
- Narcotics Control Bureau (NCB) co-ordinates with various international organisations such as
 - SAARC- Drug Offences Monitoring Desk (SAARC-SDOMD),
 - Brazil, Russia, India, China, and South Africa (BRICS),
 - Colombo Plan, Association of Southeast Asian Nations (ASEAN), ASEAN Senior Officials on Drug Matters (ASOD),
 - Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Co-Operation (BIMSTEC),
 - Shanghai Cooperation Organization (SCO),
 - United Nations Office on Drugs and Crime (UNODC),
 - International Narcotics Control Board (INCB), etc. for sharing information and intelligence to combat trans-national drug trafficking.

PRELIMS SPECIAL

Narcotics Control Bureau (NCB)

- Statutory body established under the provision of Narcotic Drugs and Psychotropic Substances Act, 1985.
- Works under the Ministry of Home Affairs.
- The Bureau, subject to the supervision and control of the Central Government, is to exercise the powers and functions of the Central Government for taking measures with respect to:
 - Co-ordination of actions by various offices, State Governments and other authorities under the N.D.P.S. Act, Customs Act, Drugs and Cosmetics Act and any other law for the time being in force in connection with the enforcement provisions of the NDPS Act, 1985.
 - Implementation of the obligation in respect of counter measures against illicit traffic under the various international conventions and protocols that are in force at present or which may be ratified or acceded to by India in future.
 - Assistance to concerned authorities in foreign countries and concerned international organisations to facilitate coordination and universal action for prevention and suppression of illicit traffic in these drugs and substances.
 - Coordination of actions taken by the other concerned Ministries, Departments and Organizations in respect of matters relating to drug abuse.

MICRO, SMALL AND MEDIUM ENTERPRISES

Why in News: According to the Udyam Portal, the total number of new jobs created by micro, small and medium enterprises (MSMEs) in the country have increased nearly to 10 crores in the last 15 months.

Key Details

- According to the Report, the total employment also included 2.84 crore jobs by 2.38 crore informal micro units registered with the government through Udyam certification and 5.23 crore women employment.
- Out of the total registered units, 5.41 crore are micro enterprises while small enterprises are 7.27 lakh and medium enterprises are only 68,682.

Key factors responsible for the increase in number of new jobs created by micro, small and medium enterprises (MSMEs)

- **Budgetary Support:**
 - The **Union Budget 2024-25 allocated Rs 22,137.95 crore to the MSME Ministry which was a 41.6 percent increase from the previous fiscal year.** The budget included a number of initiatives to support MSMEs, including a new scheme to provide term loans to manufacturing MSMEs without collateral or a third-party guarantee.
- **Changes in Mudra loans:** The limit for Mudra loans was increased to Rs 20 lakh for entrepreneurs who have repaid previous loans under the “Tarun” category. The turnover threshold for buyers was lowered from Rs 500 crore to Rs 250 crore.
- **Other initiatives:** Financial support for establishing food irradiation units and food quality and safety testing labs. Also, public sector banks were asked to develop in-house capabilities to assess MSMEs for credit, using digital footprint scoring.

About MSME

- MSME (Micro, Small, and Medium Enterprises) is defined under the Micro, Small, and Medium Enterprises Development (MSMED) Act of 2006.
- MSMEs include businesses classified as micro, small, or medium enterprises.
- Micro, Small, and Medium Enterprises (MSMEs) are businesses

defined by their investment in equipment and annual turnover limits, as outlined by the Government of India MSMEs play a vital role in economic development, generating employment and fostering innovation across sectors like manufacturing, services, and trade.

Updated MSME Definition and Criteria in 2024

Type of Enterprise	Investment	MSME Turnover Limit
Micro Enterprise	Rs 1 crore	Rs 5 crore
Small Enterprise	Rs 10 crore	Rs 50 crore
Medium Enterprise	Rs 50 crore	Rs 250 crore

Significance of MSME in India

- **Role in overall growth in economy:** The MSME sector has proven to be a highly dynamic factor in the forecasting of the Indian economy. Since MSMEs produce and manufacture a variety of products for both domestic as well as international markets, they have helped promote the growth and development of various product segments and industries.
- **High Employment contribution:** MSMEs have played an essential role in providing employment opportunities in underprivileged areas. According to the figures, the number of registered MSMEs has now gone up to 5.49 crore from 2.33 crore in August last year while the number of jobs reported by these enterprises has shot up to 23.14 crore from 13.15 crore during this period.
- **Aided industrialization:** They have helped in the industrialization of such areas with a low capital cost compared to the larger industries in cities.
- **Complemented India’s developing story:** MSMEs have also contributed and played an essential role in the country’s development in different areas like the requirement of low investment, flexibility in operations, low rate of imports, and a high contribution to domestic production.

Challenges for MSMEs in India

- **Lack of Credit:** A big obstacle to the MSME sector is

getting a timely loan at a reasonable rate of interest. This has reduced the chances of rapid expansion. The COVID 19 pandemic has a negative impact on MSMEs. The MSME usually suffers from a liquidity crunch.

- **Collateral required for loans:** Traditionally, lenders ask for collateral for business loans.. The majority of small businesses do not have the required collateral in India.
- **Productivity Issues:** MSMEs are often not highly productive because they are operating at low volume, which subsequently inflates their cost of production. The profit margin is also not very high. This has put them at a disadvantage, especially when they are competing against larger enterprises.
- **Marketing Obstacles:** The MSME sector’s progress is being limited by a lack of marketing capabilities. The majority of small businesses don’t have a skillful marketing team. Absence of proper market research, using age old marketing strategies, etc., has made them weak in the prevailing market.
- **Insufficient Infrastructure:** MSMEs’ productivity and profitability are harmed by poor infrastructure facilities. MSMEs’ competitiveness is primarily dependent on the availability of trained labour, electricity, and other basic resources. The infrastructure in rural areas suffers more than in urban areas from this specific problem.
- **Lack of latest technology:** They lack the necessary knowledge, skills, and technical knowledge, which are prerequisites for running a successful business. Upgrades in technology can provide endurance and a competitive advantage in the context of global competition.

Recent initiatives taken for MSME in the budget 2024-25

- Public sector banks have been asked to develop in-house capabilities to assess MSMEs for credit, using digital footprint scoring.
- To facilitate term loans for MSMEs for the purchase of machinery and equipment without collateral and guarantee, a new scheme will be introduced. This guarantee fund will provide guarantees of up to Rs 100 crore.

Way Forward

- **Optimal Framework:** As the MSME sector holds immense potential, the need is to have a right set of policies and enabling framework which guide and support MSMEs to effectively handle their existing problems and venture into new areas.
- **Economy of Scale issue:** While both the Government and the RBI have introduced a plethora of measures for improving access to finance and to promote growth of the sector, the small size of individual units and informal nature of the sector continue to pose challenges.

- **Use of Digital data:**
 - With increased availability of data from several sources, including GSTN, income tax, credit bureaus, etc., it is now possible to appraise the MSME loan proposals expeditiously by doing due diligence online.
 - Further, with the help of Account Aggregators (AA), lenders will have access to potential borrower’s financial information at a single point, of course, with his/her consent.
- **Use of FinTech:** Furthermore, emergence of FinTech companies has made it possible to assess credit worthiness of MSMEs by utilising unexplored data sources such as digital transaction trails, data generated through e-commerce sites, etc. Some lenders are collaborating with FinTech companies to take advantage of such surrogate data for speedier credit underwriting for extending loans to the MSME sector.

Conclusion

- MSMEs should adopt good practices such as including low energy strategies, adopting renewable, waste management, safety of women, and timely wage payment. This would help them further to create quality jobs inclusive for all.
- Governments, business groups, civil society organisations, and other stakeholders can take an active role in raising awareness, sharing best practices, and offering training and resources. Governments and investors can provide financial incentives, such as tax breaks, subsidies, grants, and low-interest loans, to encourage MSMEs to adopt sustainable practices or invest in sustainable technologies.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Consider the following pairs:

Type of Enterprise	MSME Turnover Limit
1. Micro Enterprise	Up to ₹5 Crore
2. Small Enterprise	Up to ₹50 Crore
3. Medium Enterprise	Up to ₹ 100 Crore

How many of the pairs given above is/are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Answer: (b) (1 & 2)

Descriptive Question

Q. Discuss the significance of MSMEs in India’s economic development, highlighting recent government initiatives and challenges faced by the sector. [150 words] [15 marks]

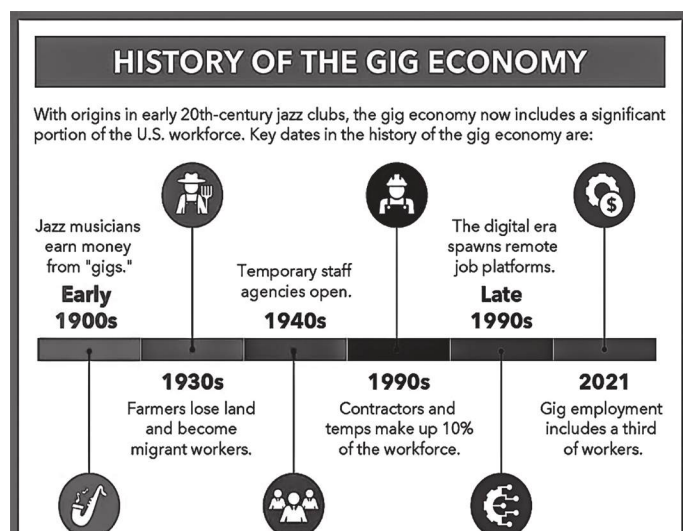
GIG ECONOMY

Why in News: According to Indian Finance minister India Gig Firms have potential to become big international business.

Key Details

- The Gig economy represents a “one-of-a-kind innovation” that can be leveraged to brand India as a destination for inventive solutions to modern and urban needs, helping such startups become some of the biggest players in the international tech business space.

About Gig Economy



- A gig economy, also known as the sharing economy or access economy, relies heavily on temporary and part-time positions filled by independent contractors and freelancers rather than full-time permanent employees.
- Gig workers have flexibility and independence but little or no job security. In a gig economy, employers save money when they do not have to provide benefits such as health coverage and paid vacation time.

Character of Gig Economy

- The gig economy is a **labor market characterized by temporary, contract, and freelance jobs rather than permanent positions.** People earn money from providing on-demand work, services, or goods.
- A wide variety of positions fall into the category of a gig. The work can range from managing short-term rentals, tutoring, writing code, driving for ride-share services (OLA and UBER), delivering food (SWIGGY AND ZOMATO), or authoring freelance articles.
- Colleges and universities cut costs and match professors to their academic needs by hiring more adjunct and part-time professors.

Benefits of Gig Economy

For Employers	For Employees
<ul style="list-style-type: none"> Wider range of applicants due to remote work options Can hire and fire more easily based on seasonal work Do not need to provide costly benefits like health insurance or paid vacation time 	<ul style="list-style-type: none"> Greater flexibility for individuals to set their own schedule Offers various side-hustle opportunities to those who work regular full-time jobs Remote positions allow gig workers to live anywhere that has an internet connection

Challenges of GIG economy in India

- Low Sustainability:** The gig economy trend can make it harder for full-time employees to develop careers and establish a long-term reputation.
- Increases worker exploitation:** The gig economy is often associated with eroding worker rights, loss of health insurance, and sick and vacation pay.
- Low wage hike Pressure:** Employers are under little pressure to pay higher wages. Opening up positions to people living anywhere in the world, including places where the cost of living is much cheaper, allows employers to seek places with lower wages.
- Impact on other aspects of life and work:** The flexibility of working gigs can disrupt the work-life balance, sleep patterns, and daily life. Long-term relationships between workers, employers, clients, and vendors can erode. This can eliminate the benefits of building long-term trust, customary practice, and familiarity with clients and employers.

Conclusion:

The gig economy market is expected to grow at a compounded annual growth rate (CAGR) of 17 per cent to reach a gross volume of \$455 billion by 2024. Its contribution to India’s gross domestic product (GDP) is estimated to be substantial, with the potential to add 1.25 percent to GDP by 2030, and create 90 million jobs in the long term.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

- Q. What are the benefits of the Gig economy for employees?
- Low wage hike pressure
 - Greater flexibility to set own schedule
 - Absence of paid vacation time

Which of the opinions given above is/are correct?

- (a) 1 and 3 only (b) 2 only
(c) 1 and 2 only (d) None

Answer: (b)

NATIONAL MISSION ON NATURAL FARMING

Why in News: The Government of India has launched NMNF to promote natural farming in mission mode across the country as a standalone Centrally Sponsored Scheme under the Ministry of Agriculture & Farmers' Welfare.

Key Details

- **Aim of the Scheme:** NMNF aims at promoting Natural Farming practices for providing safe & nutritious food for all.
 - The Mission is designed to support farmers to reduce input cost of cultivation and dependency on externally purchased inputs.
 - In the next two years, NMNF will be implemented in 15,000 clusters in Gram Panchayats, which are willing, & reach 1 crore farmers and initiate natural farming in 7.5 lakh Ha area.

About Natural Farming

- Natural Farming is a **chemical-free farming system** rooted in Indian tradition enriched with modern understanding of ecology, resource recycling and on-farm resource optimization.
- It is considered as an agroecology based diversified farming system which integrates crops, trees and livestock with functional biodiversity.
 - It is largely based on **on-farm biomass recycling** with major stress on biomass-mulching, use of on-farm cow dung-urine formulations; maintaining soil aeration and exclusion of all synthetic chemical inputs.
 - Farming (NF) in 7.5 lakh Ha area.

Advantages of Natural Farming

- **Improve Yield:** Farmers practicing Natural Farming reported similar yields to those following conventional farming. In several cases, higher yields per harvest were also reported.
- **Ensures Better Health:** As Natural Farming does not use any synthetic chemicals, health risks and hazards are eliminated. The food has higher nutrition density and therefore offers better health benefits.
- **Environment Conservation:** Natural Farming ensures better soil biology, improved agro-biodiversity and a more judicious usage of water with much smaller carbon and nitrogen footprints.

- **Increased Farmers' Income:** Natural Farming aims to make farming viable and aspirational by increasing net incomes of farmers on account of cost reduction, reduced risks, similar yields, incomes from intercropping.
- **Employment Generation:** Natural Farming with greater economic opportunities to India's ballooning youth population.

Limitations of Natural Farming

- **Can be Expensive:** If organic inputs are acquired, organic manure may be more expensive than chemical fertilizers on a per-nutrient basis since it is less widely available.
- **High initial cost:** The farmer should receive higher pricing for organic produce because production in organic farming drops, especially during the first several years.
- **Lack of information Dissemination:** The rules for organic production, processing, transportation, and certification, among other things, are beyond the comprehension of the typical Indian farmer.
- **Complex Certification:** Due to the high expenses and complex paperwork needed by
- certifiers, some farmers might never choose to get certified.

Government programmes to support Natural Farming

- **Paramparagat Krishi Vikas Yojana (PKVY):** Paramparagat Krishi Vikas Yojana promotes cluster based organic farming with PGS (Participatory Guarantee System) certification. Cluster formation, training, certification and marketing are supported under the scheme. Assistance of Rs. 50,000 per ha /3 years is provided out of which 62 percent is given as incentive to a farmer towards organic inputs.
- **Mission Organic Value Chain Development for North Eastern Region (MOVCDNER):** The scheme promotes third party certified organic farming of niche crops of north east region through Farmer Producer Organisations (FPOs) with focus on exports. Farmers are given assistance of Rs 25,000 per hectare for three years for organic inputs including organic manure and bio-fertilisers among other inputs.
- **Capital Investment Subsidy Scheme (CISS) under Soil Health Management Scheme:** Under this scheme, 100 percent assistance is provided to state government, government agencies for setting up of mechanised fruit and vegetable market waste, agro waste compost production units.
- **National Mission on Oilseeds and Oil Palm (NMOOP):** Under the Mission, financial assistance at 50 percent subsidy to the tune of Rs. 300 per hectare is being provided for different components including bio-fertilisers, supply of Rhizobium culture, Phosphate Solubilising Bacteria (PSB), Zinc Solubilising Bacteria (ZSB), Azatobacter, Mycorrhiza and vermicompost.
- **National Food Security Mission (NFSM)** Under NFSM, financial assistance is provided for promotion of bio-fertiliser (Rhizobium / PSB) at 50 percent of the cost limited to Rs 300 per hectare.

Note:

- Organic farming certification in India is governed by the **National Programme for Organic Production (NPOP)** under the **Ministry of Commerce & Industry**.
 - The NPOP provides for Standards for organic production, systems, criteria and procedure for accreditation of Certification Bodies, the National (India Organic) Logo and the regulations governing its use.
 - The standards and procedures have been formulated in harmony with other International Standards regulating import and export of organic products.
 - Farms that have obtained Organic Farming Certification and adhering to the norms specified by the National Programme for Organic Production will be allowed to use the following India Organic logo on the produce.

Organic Farming vs Natural farming

Aspect	Organic Farming	Natural Farming
External Inputs	Uses organic fertilizers like compost and manure.	Avoids external inputs altogether, even organic ones.
Microbial Action	Depends on the addition of organic materials.	Encourages microbial activity and decomposition on the soil surface.
Regulation	Subject to specific guidelines for organic certification.	Generally less regulated.
Cost	Can be more expensive due to the need for bulk manures.	Often considered low-cost due to reliance on local biodiversity.

PRELIMS SPECIAL

About Natural Farming in India

- Nearly 2.7% of the total area under farming in India, is farmed organically or through natural methods, which means using natural processes and inputs to improve the soil health, crop yield and quality, a move away from commonly used chemical fertilizers and pesticides
- Assuming a growth rate of 3.5% in output, 2.8% in demand and 30% yield penalty in organic farming, India can safely shift 2% area each year from conventional farming to organic farming without creating any shortfall in supply to meet domestic demand.

Case Study:

- Sh. Tejpal Jatiya
- Village:** Badwai
- District:** Chittorgarh, Rajasthan

- Practices adopted by Sh. Tejpal Jatiya
- Sh. Tejpal Jatiya has been practicing natural farming for the last six years. He adopted indigenous practices for crop cultivation viz., jeevamrit, beejamrit, intercropping etc., applied crop residues mulch, resulting in control over weeds infestation, avoided insecticides, by growing different herbal plants like aak, dhatura, castor, neem, desi babul on the farm's boundary.
- Output Comparison between Conventional and Natural Farming

Parameters	Natural Farming (0.75 ha)	Conventional Farming (0.75 ha)
Crop	Lemon	Lemon
Cost of cultivation (Rs)	38500	60000
Production (t)	10.5	10.0
Gross return (Rs)	315000	300000
Net return (Rs)	276500	240000
BC ratio	7.19	4.0

Way Forward

- Diversification of local farming systems is required for promoting soil health and mitigating GHG emissions.
- There is a need to develop NF best practices for each agroecology in the country.
- There is a need for a significant policy shift to support NF which produces more nutritious crops such as pulses, oilseeds, and coarse cereals.
- An incentive system needs to be developed to offset the losses of yield/income during the initial years of implementation of NF.
- NF needs scientific evidence, so we need to co-create scientific outputs and validate them at the landscape level.
- There is a need to develop a national and state-level institutional framework for the implementation of NF.
- Policies need to be changed significantly to promote local input use and not to promote their overuse.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding Natural Farming:

- It uses organic fertilizers like compost and manure.
- More than 5% of total land under farming in India comes under Natural Farming.

Which of the statements given above is/are incorrect?

- (a) 1 Only (b) 2 Only
 (c) Both 1 and 2 (d) Neither 1 nor 2

(c) Answer

Descriptive Question

Q. Critically examine the potential of natural farming in ensuring food security and environmental conservation. [150 words] [10 marks]

NARASAPUR CROCHET LACE CRAFT

Why in News: The Narasapur crochet lace craft has got the Geographical Indications (GI) tag, giving the craft in the Godavari region of Andhra Pradesh.

Key Details

About Narasapur Crochet Lace

- **Region:** Originated in Narsapur, West Godavari district of Andhra Pradesh.
- **Making:** Crochets are beautifully crafted with cotton thread and the lace work is done using thin threads and these are again woven with thin crochet needles of varying sizes.
- **Women connection:** It is believed that the women of the farming community of this region started creating highly attractive artefacts from colourful lace, about 150 years ago.
- **Lace Park:** In the year 2004, the first of its kind lace park in West Godavari district in India was established here where thousands of crochet lace makers can market their products.
- **Varieties:** Narsapur’s famed hand-made crochet industry produces doilies, pillow covers, cushion covers, bed spreads, table-runners, and tablecloths etc.
- **Types of products:**
 - The products are available in vibrant colors like orange, green, blue, whitered, and beige. The artefacts also vary, right from hand purses to caps, to mobile phone covers, tops and also stoles.
 - There are also attractive lampshades and wall hangings made from lace.
- **Export market:** The crochet lace products are also exported to countries like UK, USA, France, etc. These artistically woven lace products are gifted as souvenirs.

PRELIMS SPECIAL

About GI Tag

- A geographical indication (GI) is a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin.
- In order to function as a GI, a sign must identify a product as originating in a given place.
- In addition, the qualities, characteristics or reputation of the product should be essentially due to the place of origin. Since the qualities depend on the geographical place of production,

there is a clear link between the product and its original place of production.

- **Right obtained through GI Tag:** Geographical indication right enables those who have the right to use the indication to prevent its use by a third party whose product does not conform to the applicable standards.
- **How are GI Tags issued in India:** GI tags are issued as per the Geographical Indications of Goods (Registration and Protection) Act, 1999. This tag is issued by the Geographical Indication Registry under the Department of Industry Promotion and Internal Trade, Ministry of Commerce and Industry.

Recently Obtained GI Tag products

- **Similipal Kai Chutney (Odisha):** A preserved chutney made from red weaver ants, a product of tribals inhabiting the Mayurbhanj district.
- **Gucci Mushroom (Jammu and Kashmir):** A high-value edible mushroom mainly grown in hilly regions of the country for its unique flavor and aroma.
- **Basohli Pashmina & Painting (Jammu and Kashmir):** The fine quality Pashmina shawls and paintings originating from the region of Basohli.
- **Tweed Fabric:** Quality woolen fabric originating from the Himalayan region of Himachal Pradesh.
- **Loi Blankets:** Thick woolen blankets made in the district of Kishtwar, Jammu and Kashmir is very renowned.
- **Chikri Craft:** Delicate work of metal and inlay from Chikri village in Uttar Pradesh

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Consider the following pairs:

GI Tag Products	State
1. Gucci Mushroom	Jammu and Kashmir
1. Chikri Craft	Uttar Pradesh
2. Narasapur crochet Lace craft	Andhra Pradesh

How many of the above pairs are correctly matched?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Answer: (c)

RIYADH DESIGN LAW TREATY

Why in News: India has recently signed the Final Act of Riyadh Design Law Treaty (DLT).

animals involved in milk production, poultry egg-laying birds, animals slaughtered, and sheep shorn.

- It presents valuable data on veterinary hospitals, polyclinics, gaushalas, state farms, and other infrastructure details, along with the number of artificial inseminations performed, and a global perspective on the livestock sector.
- **Details of the Survey:**
 - **Milk Production:**
 - ◆ As released in BAHS 2024, the total Milk production in the country is estimated as 239.30 million tonnes during 2023-24 registered a growth of 5.62% over the past 10 years which was 146.3 million tonnes in 2014-15.
 - ◆ The top five milk producing States during 2023-24 was **Uttar Pradesh with a share of 16.21 % of total milk production followed by Rajasthan (14.51 %), Madhya Pradesh (8.91 %), Gujarat (7.65 %), and Maharashtra (6.71 %).**
 - ◆ **World scenario:** India is leading in milk production globally .
 - **Egg Production:**
 - ◆ The total Egg production in the country is estimated as 142.77 billion nos. during 2023-24 and registered a growth of 6.8% growth over the past 10 years as compared to the estimates of 78.48 billion numbers during 2014-15.
 - ◆ The major contribution in the total Egg production comes from **Andhra Pradesh with a share of 17.85 % of total Egg production followed by Tamil Nadu (15.64 %), Telangana (12.88%), West Bengal (11.37%) and Karnataka (6.63 %).**
 - ◆ **World scenario:** India is 2nd in Egg production worldwide.
 - **Meat Production:**
 - ◆ The total Meat production in the country is estimated at 10.25 million tonnes during 2023-24 and registered a growth of 4.95 % in 2023-24 over 2022-23.
 - ◆ It is further stated that the Major contribution in the total meat production comes from **West Bengal with 12.62 % share and followed by Uttar Pradesh (12.29%), Maharashtra (11.28 %), Telangana (10.85 %) and Andhra Pradesh (10.41 %).**
 - **Wool Production:**
 - ◆ The total Wool production in the country is estimated as 33.69 million kg during 2023-24 registered a slight growth of 0.22% over last year. It was 36.76 million kg during 2019-20 and 33.61 million kg in previous year.
 - ◆ The Major contribution in the total Wool production comes from **Rajasthan with a share of 47.53% followed by Jammu & Kashmir**

(23.06%), Gujarat (6.18%), Maharashtra (4.75%) and Himachal Pradesh (4.22%).

Potential of Livestock Sector in India

- **Income:** Livestock is a source of subsidiary income for many families in India especially the resource poor who maintain few heads of animals. Cows and buffaloes if in milk will provide regular income to the livestock farmers through sale of milk. Animals like sheep and goat serve as sources of income during emergencies to meet exigencies like marriages, treatment of sick persons, children education, repair of houses etc. The animals also serve as moving banks and assets which provide economic security to the owners.
- **Employment:** A large number of people in India being less literate and unskilled depend upon agriculture for their livelihoods. But agriculture being seasonal in nature could provide employment for a maximum of 180 days in a year. The landless and less land people depend upon livestock for utilizing their labour during lean agricultural season.
- **Food:** The livestock products such as milk, meat and eggs are an important source of animal protein to the members of the livestock owners. The per capita availability of milk is around 459 g / day; eggs are 101 / annum during 2022-23.
- **Social security:** The animals offer social security to the owners in terms of their status in the society. The families, especially the landless which own animals are better placed than those who do not. Gifting of animals during marriages is a very common phenomenon in different parts of the country. Rearing of animals is a part of Indian culture. Animals are used for various socio-religious functions. Cows for house warming ceremonies; rams, bucks and chicken for sacrifice during festive seasons; Bulls and Cows are worshipped during various religious functions. Many owners develop attachment to their animals.
- **Dung:** In rural areas dung is used for several purposes which include fuel (dung cakes), fertilizer (farm yard manure), and plastering material (poor man's cement).

Challenges

- **Low Productivity:** Despite the fact that India possesses the highest livestock population and number one in milk production in the world, the productivity, particularly of ruminants, has been extremely low, turning this precious asset of the poor into a liability.
- **Burden of diseases:** High economic losses due to animal diseases. The diseases in livestock pose a major economic burden on the farmers.
- **Inadequate infrastructure and human resources:** It is reported that there are 67651 veterinarians in India, whereas estimated requirement by VCI is between 1.1-1.2 lakh.
- **Shortage of feed and fodder:** India with only 2.29

percent of land area of the world is maintaining nearly 17 percent of world human population and 10.70 percent of livestock (more than 535.82 million heads) creating a huge pressure on land, water and other resources.

Way Forward

- **Integrated Farming:** To minimize the input cost and productive utilization of the resources, a livestock-based integrated farming system is the need of the hour.
- **Quick processing and Storage:** Since livestock products are highly perishable, they require immediate processing, storage, and preservation, to move them from production areas to demand centers.
- **Public-Private partnership:** As the gross capital formation is very less in the sector, there is an urgent need for public-private partnerships to increase investment.
- **Use of Data:** In the data-driven world, database management of animal information is necessary for monitoring and surveillance of various livestock development programs.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

- Q. Consider the following statements regarding Basic Animal Husbandry Statistics:
1. Rajasthan is the largest milk producer state.
 2. Tamil Nadu is the largest egg producer state.
 3. Uttar Pradesh is the largest meat producer state.

How many of the statements given above is/are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

(d) Answer

Descriptive Question

Q. Analyze the key challenges faced by the livestock sector in India and suggest viable solutions to enhance its productivity and profitability. [150 words] [15 marks]

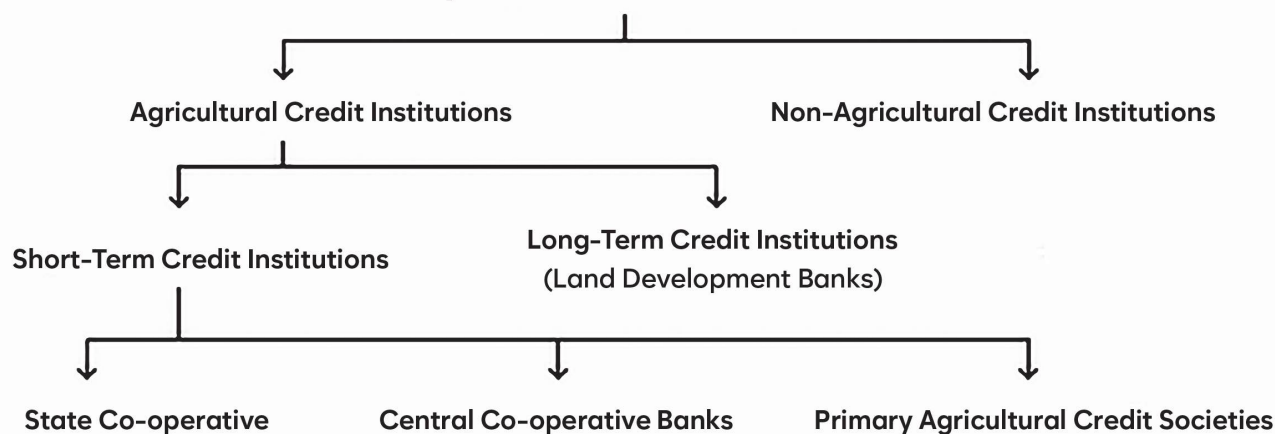
NATIONAL FEDERATION OF STATE CO-OPERATIVE BANKS LIMITED

Why in News: Union Home Minister and Minister of Cooperation recently participated in the **Diamond Jubilee Celebrations of NAFSCOB.**

About National Federation of State Co-operative Banks Limited (NAFSCOB)

- The National Federation of State Co-operative Banks Ltd. (NAFSCOB), was **established on 19th May 1964** with a view to facilitate the operations of State and Central Co-operative Banks in general and Development of Co-operative Credit in particular.
- The Federation functions with two of its wings:
 - Planning, Research and Development (PRD).
 - Computer Services Division (CSD).

Cooperative Credit Institutions



Significance of Cooperative Banks in India

- **Alternative Source of Credit:** The rural population benefits from cooperative banking as they provide credit at a lower rate as compared to the money lenders who tend to provide credit at a higher rate of interest. This protects the rural population from the monopoly of the money lenders.
- **Encourages Savings and Investment:** Cooperative banking has enabled the rural population to save more and invest rather than hoard money. This will have a long-term benefit on the money management of the rural population.
- **Improvement in Farming Methods:** Due to the lower interest rates of the credits provided by the Cooperative

violating directions of the Director General, and providing false information.

- **Compounding of offences:** The Act allows all first offences to be compounded. Under the Bill, only following offences will be compoundable: (i) undertaking coasting trade without licence or with an expired licence, (ii) taking a vessel into sea without licence, (iii) failure to furnish information, and (iv) violating a detention order.
- **Coastal and Inland Shipping Strategy Plan:** The Bill requires the central government to prepare a National Coastal and Inland Shipping Strategic Plan within two years of the commencement of the Act.
- **Powers to exempt:** The central government may exempt any class of vessels from the application of the Bill.

Challenges of the Bill

- **Complexity of the license:** To put it simply, if an Indian entity registers a ship in India after purchasing it, then a license is not required for coastal operations. But if they charter a foreign flag ship for operating in India or outside India, then a license is required.
- **May increase the costs:** With licensing required for engaging foreign flag ships to haul India's exports and imports, the Coastal Shipping Bill will raise the transaction costs for trade.
- **Impact ease of doing business:** Local entities who trade in commodities and charter foreign flag ships for transporting cargo between foreign ports are incensed by the rule that will make it mandatory for them to take a license from the Directorate General of Shipping for doing business.

Way forward

- Government should involve all the industry stakeholders in order to reduce the upcoming challenges associated with the bill and improve facilitation in order to improve the shipping industry and tonnage capacity.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding Coastal Shipping Bill, 2024

1. The bill aims to regulate only self-propelled vessels.
2. The bill decriminalised the act of undertaking coastal trade without license.
3. The bill gives central government power to exempt any class of vessel from the provisions of bill.

Which of the statements given above is/are correct?

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

Answer: (b)

DRAFT NATIONAL POLICY FRAMEWORK ON AGRICULTURAL MARKETING

Why in News: Recently, the Agriculture Ministry has released the national framework on Agricultural marketing and made it open for public feedback and suggestions.

About Draft National Policy Framework on Agricultural Marketing:

- The Department of Agriculture and Farmers' Welfare, under Ministry of Agriculture constituted a **committee** under chairmanship of **Faiz Ahmad Kidwai** in 2024
 - The committee circulated the **Draft National Policy Framework on Agricultural Marketing**, seeking public comments or suggestions.
 - The policy aims to establish a vibrant, competitive and efficient agricultural marketing system.

Key Highlights of the Draft National Policy Framework on Agricultural Marketing

1. Constitution of an **Empowered Agricultural Marketing Reform Committee** of State Agricultural Marketing ministers to promote agriculture market reforms.
 - The committee composition will be similar on the lines of GST empowered committee.
 - The empowered committee will be chaired by the agricultural minister of any state on rotational basis.
 - The committee will aim to **encourage states to adopt reform provisions in state APMC acts** as well as **build consensus among states to move towards unified national market for agricultural produce** through single license and single fee system.
2. The committee suggests the **adoption of the model Act, State Agricultural Produce Marketing (Development & Regulation) Act 2003**, and implementation of 12 areas of reforms identified and circulated by the ministry.
3. **The 12 reform areas include:**
 - Allowing of the setting up of private wholesale markets.
 - Permitting wholesale direct purchase by processors, exporters, organised retailers, bulk buyers from farm-gate.
 - Declaring warehouse/silos/cold storage as deemed market yard.
 - **Single-time levy of market fees** across the state; and a single unified trading licence valid across the state.
4. To ensure better prices for farmers' produce, the committee has proposed a **price insurance scheme** on the lines of PM- Fasal Bima Yojana (PMFBY).

Status of agro-processing units and cold chains for agri supply and storage purposes:

- Recently, the Ministry has approved **41 Mega Food Parks, 399 Cold Chain projects, 76 Agro-processing Clusters, 588 Food Processing Units, 61 Creation of Backward & Forward Linkages Projects & 52 Operation Green projects** under corresponding component schemes of PMKSY.
- Under the **Integrated Cold Chain and Value Addition Infrastructure scheme**, 376 cold chain projects have been approved, out of which 268 have been operationalized, respectively.

Indian agriculture sector facing crisis

- **Social**
 - **Land fragmentation** - According to agriculture census average size of operational holdings of agricultural land is **1.08 hectares**
 - **Behaviour of farmers** - As per **CSDS survey** more than **75% farmers want to quit farming** and do some other work
 - **Suicides** - At least **112,000 people** working in the agricultural sector have committed suicide in the past decade (2012-2022) in India, according to data by the **National Crime Record Bureau**.
 - **Status of women** - According to **NFHS women account for 42% of agricultural labour** but own only **14%** of operational holdings
- **Political**
 - **Loan waiver** - Loan waivers announced by political parties or governments during elections leads to moral hazard among farmers regarding repaying loan
 - **MSP (Minimum Support Price) issues** - According to **Shanta Kumar Committee report only 6% farmers get MSP benefits**
 - **Federal conflict** - Agriculture is the state subject under **schedule 7** of the constitution which leads to centre state conflict over agricultural policies or acts. Ex. Farm bills, 2020
- **Economic**
 - **Rising cost of farming** - Agricultural costs have risen faster than farmers earnings per hectare
 - **Middleman issues** - The data collected through various farmer surveys suggested that middleman margins were between **28% to 38%** of the wholesale price
 - **Poor infra** - It is estimated that **15% of the crop produce is lost between the farm gate and the consumer** because of poor roads and inappropriate storage facilities
 - **Loan traps** - As per **77th round of National Sample Survey**, **50.2%** of agri households in India are in debt
 - **Low insurance penetration** - Crop insurance has

low penetration rate due to lack of information and awareness among farmer

- **Environmental**
 - **Monsoon** - Approximately **60% of the country's farmland is rain-fed** which makes agricultural productivity highly susceptible to the erratic nature of monsoon
 - **Climate change** - Climate change impact on agriculture leads to **1.5% loss in India's GDP**
 - **Desertification and land degradation** - According to **United Nations Convention to Combat Desertification** data, **India lost over 30 million hectares of agricultural land degraded over 2015 to 2019**
 - **Fertilizer use** - As per study conducted by **All India Coordinated Research Project**, over last five decades the continuous use of nitrogenous fertilizer alone had deleterious effect on soil health and crop productivity showing deficiency of other major and micro-nutrients
- **International**
 - **Sanitary and phytosanitary issues** - Stringent norms leading to rejection of Indian agricultural exports

Unregulated agriculture market

- An "**unregulated agriculture market**" in India refers to a marketplace where **farmers sell their produce without the oversight of the Agricultural Produce Market Committee (APMC)**, leading to potential exploitation by middlemen due to a lack of standardized pricing, market information, and proper infrastructure, often resulting in lower returns for farmers; essentially, a market where trading happens outside the designated APMC mandis with no regulatory control on prices or transactions.

Key points about unregulated agriculture markets in India:

- **Lack of regulation:** No set rules governing market practices, price determination, or quality standards, leaving farmers vulnerable to unfair deals.
- **Middlemen dominance:** Unregulated markets often see a large presence of middlemen who can **manipulate prices** to their advantage, reducing farmers' profit margins.
- **Poor infrastructure:** These markets typically lack proper storage facilities, weighing scales, and grading systems, impacting the quality and marketability of produce.
- **Limited market information:** Farmers may not have access to real-time price information, making it difficult to negotiate fair prices.
- **Prevalence in certain regions:** States with weak APMC systems or where the Act is not effectively implemented often have a larger presence of unregulated markets.
- **Doubling farmers income:** Unregulated agriculture markets are influenced by market forces thus do not guarantee fair prices to farmers.

Way Forward for dealing with unregulated markets

- **Price stabilisation mechanism:** Adequate implementation of **MSP (Minimum Support Price)** to protect farmers from uncertainties of markets.
- **Regulation of middleman:** Reduce exploitation by middleman by **setting clear guidelines for commissions and transactions.**
- **E-commerce:** To facilitate farmers, traders and buyers with online trading in commodities. **Ex e-NAM.**
- **Blockchain technology:** To enable traceability of information in the food supply chain.
- **Affordable credit:** Increasing credit limit under **Kisan Credit Card** from current 3 lakh rupees with concessional interest rates.
- **Crop insurance:** Enhancing crop insurance in India through PM Fasal Bima Yojana to cover pre, during and post-harvest losses.
- **Agricultural extension:** To support farmers and rural producers in applying scientific research and new knowledge to agricultural practices through education, training and information. **Ex; Krishi Sakhi Certificates.**
- **Contract farming:** To protect farmers from irregularities of market and climate change by pre-determining prices of agricultural produce.
- **AI and Data Analytics:** Use artificial intelligence to predict market demand, guide production planning, and ensure timely market interventions.

PRELIMS SPECIAL

- **Pradhan Mantri Fasal Bima Yojana (PMFBY)**
 - To cover production risk through insurance coverage and financial support to the farmers in the event of failure of any of the notified crops as a result of natural calamities, pests and diseases.
 - **Type: Central Sector Scheme**
 - **Premium** share to be paid by farmer: **2% for Kharifs, 1.5% for Rabi and 5% for Commercial/Horticultural crops.**
 - **Coverage:** All-inclusive coverage **from pre-sowing to post harvest.**
 - **Ministry: Ministry of Agriculture and Farmers Welfare.**
 - **Voluntary nature of scheme.**
 - **IEC:** Compulsory use of minimum **0.5% of the gross premium** for (Information, Education and Communication) IEC activity.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

- Q. Recently, the Faiz Ahmad Kidwai Committee was in the news it is related to?
- (a) Agricultural Marketing
 - (b) Banking reforms

(c) Women safety in prisons

(d) None of the above

Answer: (a)

THE OILFIELDS (REGULATION AND DEVELOPMENT) AMENDMENT BILL, 2024

Why in News: Oilfields (Regulation and Development) Amendment Bill, 2024 was recently passed in the Rajya Sabha.

Key Details

- **Ministry:** Petroleum and Natural Gas
- **Amends Older Bill:** The Bill amends the **Oilfields (Regulation and Development) Act, 1948.**
- **Definition of mineral oils expanded:** The Act defines mineral oils to include petroleum and natural gas. The Bill expands the definition to include: **(i) any naturally occurring hydrocarbon, (ii) coal bed methane, and (iii) shale gas/oil.** It clarifies that mineral oils will not include coal, lignite or helium.
- **Introduction of petroleum lease:** The original act provides for a mining lease. The lease provides for various activities such as exploration, prospecting, production, making merchantable, and disposal of mineral oils. The Bill replaces the mining lease with a petroleum lease, which also covers a similar set of activities.
- **Rule-making powers of the Central government:** The amendment adds that the central government may also make rules on: (i) merger and combination of petroleum leases, (ii) sharing of production and processing facilities, (iii) obligations of lessees towards protecting environment and reducing emissions, (iv) alternative mechanisms for resolving disputes in relation to the grant of petroleum leases.
- **Decriminalisation of offences:** The Bill removes the criminal punishment of 6 months and instead provides that the offence will be punishable with a penalty of Rs 25 lakh. The Bill also adds following offences: (i) undertaking activities related to mineral oils such as exploring, prospecting, and production without a valid lease, and (ii) non-payment of royalty.
- **Adjudication of penalties:** The central government will appoint an officer of the rank of Joint Secretary or above for adjudication of penalties. The 2006 Act designates the Appellate Tribunal for Electricity, constituted under the Electricity Act, 2003, as the Appellate Tribunal.

PRELIMS SPECIAL

About Petroleum and Natural Gas Board Regulatory Board

- Petroleum and Natural Gas Regulatory Board (PNGRB) is

a statutory body to regulate downstream activities in the petroleum and natural gas sector in India.

- It was constituted under the act of Parliament of India, namely Petroleum and Natural Gas Regulatory Board Act, 2006.
- Its primary functions include regulation of refining, transportation, distribution, storage, marketing, supply and sale of petroleum products and natural gas.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. How will the amendment in Oilfields (Regulation and Development) Act, 1948 help secure India's Energy security. [10 marks,150 words]

THE BANKING LAWS (AMENDMENT) BILL, 2024

Why in News: The Banking Laws (Amendment) Bill, 2024 was recently passed in Lok Sabha.

Key Details

The Banking Laws (Amendment) Bill, 2024 amends the: (i) Reserve Bank of India (RBI) Act, 1934, (ii) Banking Regulation Act, 1949, (iii) State Bank of India Act, 1955, (iv) Banking Companies (Acquisition and Transfer of Undertakings) Act, 1970, and (v) Banking Companies (Acquisition and Transfer of Undertakings) Act, 1980.

- **Definition of fortnight for cash reserves:**
 - Under the RBI Act, scheduled banks must maintain a certain level of average daily balance with the RBI as cash reserves based on the average of the balances held by banks at the closing of business each day of a fortnight.
- **Change Introduced by Bill:**
 - The Bill changes the **definition of fortnight** to the period from: (i) first day to fifteenth day of each month, or (ii) sixteenth day to the last day of each month.
- **Tenure of directors of co-operative banks:**
 - The Banking Regulation Act prohibits the **director of a bank (except its chairman or whole-time director) to hold office** for more than eight years consecutively.
- **Change introduced by Bill:**
 - The Bill seeks to increase this **period to 10 years** for co-operative banks.
- **Prohibition on common directors in case of co-operative banks:**
 - The Banking Regulation Act **prohibits a director on a bank's board to serve on the board of another bank.**
 - This does not apply to directors appointed by RBI.

- **Change introduced by Bill:**
 - The Bill extends this **exemption to the director of a central co-operative bank.** This exemption will apply where he is elected to the board of a state cooperative bank in which he is a member.
- **Substantial interest in a company:**
 - Under the Banking Regulation Act, **substantial interest** in a company refers to holding shares of over **five lakh rupees or 10%** of the paid-up capital of the company, whichever is less.
- **Change introduced by bill:**
 - The Bill amends this to **increase the threshold to two crore rupees.**
 - The central government may alter the amount through a notification.
- **Change Introduced by Bill:**
 - The Bill allows the **appointment of up to four nominees** for these purposes.
 - For deposits, such nominees can be appointed either successively or simultaneously while for other purposes they can be appointed successively.
 - In case of **simultaneous nominees**, the nomination will be effective in a declared proportion.
 - For **successive nominations**, the nominee who has been named higher in the order of nomination will receive priority.
- **Change Introduced by Bill:**
 - The Bill widens the ambit of the funds that can be transferred to the **Investor Education and Protection Fund (IEPF).**
 - These include: (i) shares for which dividend has not been paid or claimed for seven consecutive years, and (ii) any interest or redemption amount for bonds which is unpaid/ unclaimed for seven years.
 - **Any person whose shares or unclaimed/ unpaid money is transferred to IEPF can claim the transfer or refund.**
- **Remuneration of auditors:**
 - At present, the remuneration paid to the auditors of banks is fixed by the RBI in consultation with the central government.
- **Change Introduced by Bill:**
 - The Bill **empowers banks to decide the remuneration of their auditors.**

Significance of Indian Banking Sector

- **Economic**
 - **Financial performance** - Indian banks have led with **healthy credit growth of around 10% over the past decade** with higher Return on Assets than global peers.
 - **Consolidation & Mergers** - Consolidation of Public

Sector banks has resulted in **stronger and bigger banks** leading to greater competition.

- **GDP contribution** - The Banking & Financial Services Industry (BFSI) contributes nearly **13% of the country's GDP** and is expected to grow **30% by 2030**.
- **Social**
 - **Financial inclusion** - Initiatives like **PM Jan Dhan Yojana** led to opening of **More than 53.14 crore accounts** since its inception.
 - **Women empowerment** - Around **55.6% Jan-Dhan account holders are women** along with empowerment through schemes like **Stree Shakti Loans**.
 - **Rural development** - **Regional Rural Banks and cooperative banks** ensure credit flow to rural areas.
- **Technological**
 - **UPI** - UPI transactions **volume grew to 13,116 crore in FY 2023-24** from 92 crore in FY 2017-18 at **CAGR of 129%**; with **value of UPI transactions reaching ₹200 lakh crore in FY 23-24** from ₹1 lakh crore in FY17-18 at CAGR of 138%.
 - **Fintech revolution** - The fintech industry contributed **approximately \$20 billion in revenues in FY23**, representing around 5% of the total revenues generated by all banking, financial services, and insurance (BFSI) companies in India.
 - **Accessibility** - Mobile banking apps and services have bridged the urban-rural divide.

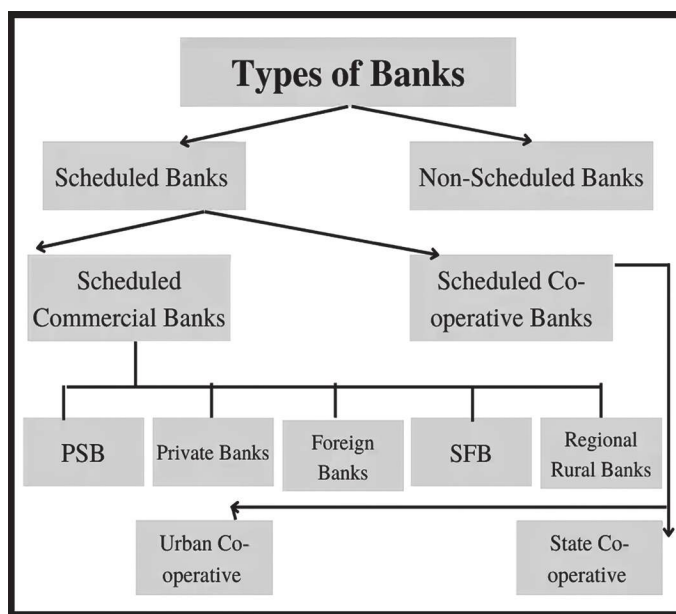
volatility, Trade wars - For ex. USA-China trade war, **Political instability** leads to overall impact on interest rates and reducing profitability of banks.

Way Forward

- **Strengthen risk assessment mechanism** - Use technologies such as **Web3.0 and AI for detection of fraud** and generating early warning signals.
- **Priority sector lending** - It provides stimulation to growth of **small and micro enterprises**.
- **Promoting financial literacy** - **Conduct workshops and initiatives** to educate the unbanked population on using financial services effectively. Ex. **1500+ Financial Literacy Centres** established by RBI across India.
- **Cybersecurity frameworks** - **End-to-end encryptions, multi-layer authentication, regular audit of IT infrastructure** for vulnerabilities, blockchain for secure transactions and record keeping.
- **Integrating ESG (Environmental, Social and Governance) factors** - Financing sustainability initiatives, regularly disclose sustainability factors.
- **Incentives for PSB employees:** Higher remuneration be given to senior management of PSBs, as there exists a wide gap with their private sector counterparts. (**Veerappa Moily committee**)

Challenges to Indian Banking Sector

- **Non-Performing Assets** - Despite improvements, NPAs remain a concern. According to **RBI's Financial Stability Report, Gross NPA accounts for 2.8%**.
- **Financial inclusion** - While initiatives like PM Jan Dhan Yojana (PMJDY) have expanded banking access **around 20% of PMJDY accounts are dormant**.
- **Cybersecurity Threats** - According to **Reserve Bank of India's (RBI) Annual Report**, the number of frauds in the card and internet category dramatically jumped to **29,082 frauds in FY 2024** from 6,699 frauds in FY23.
- **Governance issues in public sector banks (PSBs)** - PSBs face challenges like **political interference, lack of specialization, risk averse nature of officials** leading to poor financial performance.
- **RBI's requirement of a minimum CRAR of 9%** - It aims to prevent banks from becoming highly leveraged but it is **1% higher than the Basel III norms** for internationally active banks thus sucking out liquidity from the market. (**Veerappa Moily Committee**)
- **Resolutions of larger NPAs** under the Insolvency and Bankruptcy Code (IBC) have been taking **much longer than the stipulated time period of 270 days**.
- **Global macroeconomic pressure** - **Exchange rate**



EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. What are the important provisions of the Banking Laws (Amendment) Bill, 2024 was recently passed in Lok Sabha. Explain its significance for the Indian Banking sector. [10 marks,150 words]

RAILWAYS (AMENDMENT) BILL, 2024

Why in News: The Railways (Amendment) Bill, 2024 was recently passed in the Lok Sabha.

Need of the Bill

- The construction of India's railway network began as a branch of the Public Works Department before Independence.
- When the network expanded, **Indian Railways Act, 1890**, was enacted to enable proper functioning of different railway entities.
- Later, the railway organisation was separated from the Public Works Department and the **Indian Railway Board Act, 1905 was then enacted to provide the Railway Board with certain powers** or functions under the Indian Railways Act, 1890.
- While the Act of 1890 was repealed in 1989 when the Railways Act was enacted, the **Railway Board Act, 1905 remained in existence**, and Chairman & members of the board continued to be appointed under this law.
- The government introduced the new Bill to **simplify the law by integrating the Railway Board (1905 Act) into the Railway Act**.

Salient features of the bill

- **Amends the Section 2 of the Railways Act, 1989:** The Bill amends Section 2 of the Railways Act, 1989, and inserts a new chapter IA which **pertains to the Railway Board**. It makes provision to provide certain powers to the Railway Board "as prescribed by the Central Government".
- **Composition and authority of the Railway Board:** The **Chairman and members of the board appointed under the 1905 Act** shall be deemed to have been appointed under the **Railways Act, 1989** as well. The Railway Board is already in existence, and the Bill does not propose to create any new Board or body.
- **Operational efficiency and decentralization:** The Bill also **proposes to improve operational efficiencies and decentralise powers**, granting greater autonomy to Railway Zones, recommended by various committees, including 2014 Sreedharan Committee.
- **Proposal for an Independent Regulator:** The Bill proposes to **establish an independent regulator** to oversee tariffs, safety, and the participation of the private sector in the Railways.
- **Faster approval of Train Services:** The **amendment is expected to speed up the approval process for train services** that will help meet pending demands from various regions.

Working of Indian Railways

- Indian Railways is a departmental undertaking of the central government and a government monopoly.

- The Railway Board has the **powers of policy-making, operations, and regulation** regarding Railways.
- Decision making is **largely centralised with the Board and zones have limited powers** with regards to budgetary control, sanction of infrastructure works and recruitment of human resources.
- The Bill retains the current structure for administration of Railways.
- Over the years, several Expert Committees have suggested measures to improve the functioning of Railways which include changing the organisational structure.

Challenges Faced by Indian Railways

- **High Operating Costs:** Due to significant salary and pension expenditure.
- **Losses in Passenger Business:** Due to poor pricing strategy.
- **Under-Investment in Infrastructure:** Due to poor surplus generation and limited private participation.
- **Freight Competitiveness Challenges:** Due to network congestion and cross-subsidy for passenger services.
- **Passenger Discomfort and Operational Inefficiencies:** Due to overcrowded trains and stations being a common sight in India.
- **Safety Issues:** Accidents, crashes, and safety mistakes continue to be common in India.

Initiatives and Reforms by Government for the Railway Sector

- **Infusion of Capex:** In the Union Budget 2024-25, a record capital expenditure (Capex) of ₹2,62,200 crores has been allocated to the Railways.
- **PM Gati Shakti Mission:** Under the Mission, Indian Railways has adopted a new approach to infrastructure development.
 - **Three Economic Railway Corridors**—Energy, Mineral, and Cement Corridors; Port Connectivity Corridors; and High Traffic Density Corridors have been identified.
 - The focus remains on enhancing capacity, decongesting high-density networks, reducing logistics costs, and improving passenger experience and safety.
- **Measures Taken to Enhance Safety in Train Operations**
 - **Rashtriya Rail Sanraksha Kosh (RRSK)**
 - ◆ Introduced in 2017-18 to replace, renew, and upgrade critical safety assets, with a corpus of ₹1 lakh crore over five years, ending in 2021-22.
 - ◆ Extended in 2022-23, for another five-year period, with Gross Budgetary Support (GBS) of ₹45,000 crores.
 - **Kavach**, an indigenously developed **Automatic Train Protection (ATP) system**, assists loco pilots by automatically applying brakes if the pilot fails to do so, and ensures safe operation during adverse weather conditions.
 - All locomotives are equipped with **Vigilance Control Devices (VCD)** to enhance the alertness of loco pilots.
 - All **unmanned level crossings (UMLCs)** on Broad Gauge (BG) routes were eliminated by January 2019.

- **Ultrasonic Flaw Detection (USFD)** testing of rails is conducted to identify and replace defective rails timely.
- **Modernisation and Upgradation of Railway Infrastructure**
 - **Locomotive:** Indian Railways has implemented a long-term plan to acquire new technology, including 12,000 HP electric locomotives and 9,000 HP electric locomotives for freight operations.
 - **Traction Distribution System:** The existing 1X25 kV system is being upgraded to a 2X25 kV system in a phased manner.
 - **Coaching Stock:** Indian Railways is modernizing its coaching rolling stock. Example: **Vande Bharat Chair Car, Vande Bharata Sleeper Rakes, Vande Metros.**
 - **Non-AC Amrit Bharat Trains:** Indian Railways has introduced complete Non-AC Amrit Bharat Trains to meet the needs of the masses.
 - **Amrit Bharat Station Scheme:** It aims to enhance and modernize railway stations throughout the Indian Railways network.
- **Dedicated Freight Corridors:** To reduce the logistics cost and time.
 - **Two Dedicated Freight Corridors (DFCs):** Eastern Dedicated Freight Corridor (EDFC) from Ludhiana to Sonnagar (1337 Km) and Western Dedicated Freight Corridor (WDFC) from Jawaharlal Nehru Port Terminal (JNPT) to Dadri (1506 Km).

Way forward

- **Modernisation:** Investment in modern infrastructure, including high speed trains, electrification, and advanced signal systems, can greatly improve efficiency and safety.
- **Regulatory Structure for Railway Sector:** Set up independent regulators to fix tariffs, promote competition, and protect consumer interests.
- **Freight Transport:** Focusing on improving freight transport efficiency can not only boost the economy but also reduce congestion on passenger trains.
- **Operations:** Separate core and non-core business (hospitals, schools, catering and security) of the Railways, permit private participation in some railway operations.
- **Organisational structure of Indian Railways:** Corporatisation of Indian Railways, envision the Railway Board as a policymaker alone, provide zones with full financial autonomy.
- **Finances:** Restructure accounting procedure to reflect zone and route-wise profit and loss statements, monetise railway assets, rationalise passenger tariffs.

Conclusion

The record capital expenditure allocated in the Union Budget 2024-25 underscores the government's commitment to elevating Indian Railways to world-class standards. The Railways (Amendment) Bill, 2024 will facilitate these ongoing efforts in modernising the railways.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

- Q. The term 'Kavach' recently seen in news is related to ...
- (a) Automatic Train Protection (ATP) System
 - (b) Radar system to track drones
 - (c) Smart fencing initiative on Indo-Pak border
 - (d) None of the above

(a) Answer

BOILERS BILL 2024

Why in News: The Boilers Bill, 2024 was recently passed in the Rajya Sabha seeking to replace the Boilers Act, 1923.

Highlights of the Bill

- **Replaces Boiler's Act 1923** The Boilers Bill, 2024 retains most of the provisions of the Boilers Act, 1923.
- **Mandatory certification:** Boiler manufacturers must get the design of boilers and boiler components certified. Manufacturing and erection of a boiler will be subject to inspection and certification.
- **Registration of Boilers:** Boilers must be registered before starting operation, and registration must be renewed for continued operation. Alterations and repair can be undertaken only after obtaining prior approval.
- **Designated Authority:** For issuing certificates, the state government will appoint Inspectors. Certain third parties may also be authorised to undertake inspection.
- **Central Boilers Board:** The central government will constitute the Central Boilers Board to frame regulations.

Key Issues and Analysis

- **Need for broader framework:** Countries such as the United Kingdom and South Africa have repealed laws specific to boilers and instead regulate boilers under broader law on occupational health and safety.
- **Exemption leading to safety threat:** The Bill empowers the state government to exempt an area from the application of the Bill. This raises the question whether safety may be ensured where a blanket exemption is provided.
- **No Judicial Recourse:** The Bill disallows judicial recourse against the decisions of the central government, and inspectors appointed by the state government. The only option available to aggrieved individuals will be to file a writ petition in the High Court.
- **Return of Inspector Raj:** The Bill empowers Inspectors to

enter premises. However, it does not specify safeguards against such actions.

Way Forward

- The bill must move ahead renouncing the ills of previous act and help in promoting the Ease of doing Business.
- Judicial Recourse must be open to provide complete justice in case of any situation.
- There must be use of technology to stop unwarranted influence of inspectors.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. The amendments made to the Boiler’s Bill is important for reducing industrial disasters in India. Comment [10 marks,150 words]

THE PARLIAMENT PASSED THE BHARATIYA VAYUYAN VIDHEYAK BILL 2024

Why in News: Recently, the Parliament has passed the **Bharatiya Vayuyan Vudheyak, Bill 2024** replacing Aircraft Act, 1934 to ensure required overhaul in aviation laws of India.

Key Highlights of the Bill:

- **Setting up of multiple regulatory bodies:**
 - **Directorate General of Civil Aviation (DGCA)** - For overseeing safety and performing regulatory functions.
 - **Bureau of Civil Aviation Security (BCAS)** - For overseeing aviation security.
 - **Aircraft Accident Investigation Bureau (AAIB)** - For investigating aviation accidents.
- **Superintendence powers of central government:**
 - The central government will exercise superintendence over these bodies and review or modify their orders.
- **Regulation of Aircraft activities:**
 - The Act regulates activities related to aircrafts including **manufacturing, possession, use, and trade.**
- **Defined offences and penalties:**
 - The Act **empowers the central government** to make offences such as flying an aircraft dangerously, carrying arms or explosives in an aircraft, and depositing rubbish or slaughtering animals near airports.
 - **Penalties:** These are punishable with imprisonment of up to three years, a fine up to one crore rupees, or both.

- **Provision for second appeal:**
 - The Bill introduces a provision for a second appeal against decisions related to the imposition of penalties for violating Rules under it.
- **Single Window Clearance:** The BVV Bill, 2024, moves the responsibility for managing Radio Telephone Operator Restricted (RTR) certifications from the Department of Telecom (DoT) to the DGCA.
- **Arbitrator Appointment:** The Bill allows the Central government to unilaterally appoint an arbitrator (a person who is or has been qualified for appointment as a Judge of a High Court) to resolve compensation disputes related to land acquisition near airports.

Key Issues with Bill

- **Lack of regulatory independence for DGCA**
 - The DGCA **remains under the direct control of the central government**, raising concerns about its independence compared to regulators in other sectors like telecom, insurance etc.
- **Arbitration process for compensation**
 - The bill provides for arbitration in disputes over compensation, but it gives **unilateral power to the government to appoint arbitrators** instead of mutual agreement for appointing arbitrators, thus it raises questions of fairness and impartiality.
- **Union government to impose criminal penalties**
 - The bill allows the government to notify rules and impose criminal penalties for their violation, which may **violate the principle of separation of power** as it gives discretion to the executive as such matters should be determined by the legislature.

Way Forward

- **Regulatory independence for Directorate General of Civil Aviation (DGCA)**
 - **The DGCA should be restructured as an independent statutory regulator with well-defined qualifications, selection criteria and tenure for the Director General similar** to other independent regulators like IRDAI, TRAI.
- **Fair arbitration practices**
 - To ensure impartiality in compensation disputes, the **Arbitration and Conciliation Act, 1996** should be made applicable.
- **Limiting Executive discretion**
 - The bill should clearly define offences and penalties in legislation itself instead of giving discretionary powers to the executive.
- **Strengthening institutional framework**
 - Setting up an **independent appellate tribunal** for hearing appeals against regulatory and compensation related decisions.

Conclusion

While the bill aims to modernize aviation regulation, concerns regarding DGCA's independence, arbitration fairness and executive discretion needs urgent attention.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. What are the key issue with the Bhartiya Vayuyan Vidheyak Bill, 2024. How will restructuring of DGCA along with the amendments of bill help in expansion of Indian civil aviation sector. [15 marks, 250 words]

FOREIGN CURRENCY NON-RESIDENT ACCOUNT

Why in News: The Reserve Bank of India hikes interest rate ceilings on foreign currency non-resident (FCNR) bank deposits to support foreign flows.

Key Details

- FCNR(B) deposits are foreign currency term deposits that non-resident Indians can open with Indian banks.
- Banks are permitted to raise fresh FCNR(B) deposits of 1 year to less than 3 years maturity at rates not exceeding the ceiling of overnight Alternative Reference Rate (ARR) plus 400 bps.
- Similarly, for deposits of 3 to 5 years maturity, the ceiling has been increased to overnight ARR plus 500 bps.
- This relaxation will be available till March 31, 2025.

Foreign Currency Non-Resident (FCNR-B) Account

- The FCNR-B account is a specialised banking facility designed to cater to the financial requirements of NRIs and PIOs.
- What makes it different is its denomination in foreign currencies, providing account holders with the ability to save their overseas income in foreign currencies such as:
 - US Dollar (USD)
 - Euro (EUR)
 - British Pound (GBP)
 - Australian Dollars (AUD)
 - Canadian Dollar (CAD)
- FCNR-B accounts are excellent investment tools for NRIs and PIOs, which helps retain money in foreign currencies while providing good returns on savings.
- Since the overseas earnings will be parked in foreign currencies, it won't be affected by the exchange rate fluctuations, thus ensuring risk-free returns.
- **Features of FCNR-B Account**
 - **Foreign Currency Denomination:** The primary feature that sets FCNR (B) accounts apart is their denomination in foreign currencies. This means that

the account balance is maintained in the selected foreign currency, shielding account holders from the impact of currency fluctuations.

- **Term Deposits:** Foreign Currency Non-Resident B (FCNR B) Term Deposit accounts are commonly structured as fixed-term deposits with varying maturities, typically ranging from one to five years.
- **Interest Rates:** The interest rates on FCNR-(B) accounts are influenced by global market conditions and **are generally higher than what is offered on domestic deposits.** This makes FCNR-(B) accounts an appealing option for NRIs looking to maximize returns on their foreign income.
- **Repatriation:** One of the significant advantages of FCNR (B) accounts is the ease of repatriation. Account holders can freely repatriate both the principal amount and the interest earned back to their home country without any restrictions.
- **Benefits of FCNR (B) Account**
 - **Risk Mitigation:** By holding foreign currency accounts, NRIs can shield themselves from the volatility of exchange rates. This minimizes the risk of losing value in their earnings due to currency depreciation.
 - **Higher Returns:** The competitive interest rates on FCNR (B) accounts make them an attractive option for NRIs seeking better returns on their foreign investments compared to what they might achieve in their home country.
 - **Diversification:** FCNR (B) accounts offer a means of diversification for individuals with income streams in different currencies. This can be particularly beneficial for those working or doing business in multiple countries.
 - **Tax Exemption:** The interest earned on deposits to the FCNR (B) accounts are exempted from taxes in India.
 - **Denominations:** The deposit accounts are denominated in various currencies, ensuring the ability to save the account holder's overseas income in foreign currencies, at present Bank of Baroda is offering FCNR (B) Deposits in five currencies namely USD, EUR, GBP, AUD and CAD.

Types of Non-Resident Indian (NRI) Bank Accounts

- Non-Resident External (NRE) Account (Savings Account/ Fixed Deposit)
 - NRE Accounts are rupee-denominated accounts, wherein the NRIs/PIOs can deposit their money in foreign currency and park such amount in Indian account.
- Non-Resident Ordinary (NRO) Account (Savings Account/ Fixed Deposit)
 - NRO Accounts are rupee-denominated accounts, wherein the NRIs/PIOs can deposit their Indian as well as foreign incomes.

- Foreign Currency Non-Resident (FCNR) Fixed Deposit Account
 - NRIs/PIOs can also invest in FCNR Fixed Deposit Accounts, wherein the funds invested continue to be maintained in foreign currency, unlike the rupee-denominated NRE/NRO Accounts.

Advantages of NRI Deposits

- **Inflow of Foreign Exchange:** NRI deposits contribute to increasing India’s foreign exchange reserves, which strengthens the country’s balance of payments position and boosts investor confidence.
- **Current Account Deficit (CAD):** NRI deposits help reduce the gap in India’s current account deficit, as they provide foreign currency inflows that offset trade deficits.
- **Economic Stability:** Foreign exchange reserves from NRI deposits provide a buffer against currency fluctuations and external economic shocks, enhancing economic stability.
- **Low-Cost External Funding:** Compared to external commercial borrowings or foreign direct investments, NRI deposits often serve as a relatively low-cost source of funds for the Indian economy.

Disadvantages of NRI Deposits

- **Volatility in Capital Flows:** NRI deposits are short- to medium-term in nature, making them prone to sudden withdrawals during periods of global or domestic economic instability, which can impact the economy.
- **Exchange Rate Risks:** If the Indian rupee depreciates significantly, NRIs may withdraw their deposits, creating pressure on foreign exchange reserves and the exchange rate.
- **Cost to the Government and Banks:** Higher interest rates and tax incentives offered on NRI deposits may increase the cost of these funds for the government and banks compared to domestic deposits.
- **Capital Flight Risk:** In times of political or economic uncertainty in India, NRIs may withdraw their funds, leading to capital flight and destabilizing the economy.

PRELIMS SPECIAL

Alternative Reference Rate (ARR)

- It is a benchmark interest rate used as an alternative to traditional benchmark rates such as the LIBOR (London Interbank Offered Rate).
- ARR are generally based on overnight, risk-free rates and are designed to be more reliable and transparent. They were introduced to replace LIBOR due to concerns about its manipulation and lack of transaction-based reliability.
- **Examples**
 - SONIA (Sterling Overnight Index Average) for British Pound.
 - SOFR (Secured Overnight Financing Rate) for U.S. Dollar.
 - SARON (Swiss Average Rate Overnight) for the Swiss franc.

Key Features

- **Based on Actual Transactions:** ARR are derived from real, high-volume transactions in active markets.
- **Overnight Rates:** Unlike LIBOR, which provides forward-looking term rates, ARR are usually overnight rates, requiring adjustments for longer-term contracts.
- **Risk-Free or Low-Risk:** ARR are typically considered risk-free or nearly risk-free because they are based on high-quality collateral or government securities.

Conclusion

The Foreign Currency Non-Residential-Bank (FCNR-B) Account stands out as a secure and advantageous option for individuals looking to park their foreign earnings. Its unique features, including multi-currency options, fixed tenures, attractive interest rates, and easy repatriation, make it an appealing choice for NRIs and PIOs.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements about Foreign Currency Non-Resident (FCNR-B) account:

- (1) FCNR (B) deposits are foreign currency term deposits that non-resident Indians can open with Indian banks.
- (2) Banks can raise fresh FCNR (B) deposits of maturity less than 1 year only.

Which of the above statements are incorrect:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (b)

EMPLOYEES’ PROVIDENT FUND ORGANIZATION (EPFO) RECEIVED ISSA GOOD PRACTICE AWARD 2024

Why in News: Employees’ Provident Fund Organization (EPFO) has been honored with the **International Social Security Association (ISSA) Good Practice Award** for Asia and Pacific 2024

Key Details

- Employees' Provident Fund Organization (EPFO) received **Five Certificates of Merit** for:
 - **Communication Channels: Reaching stakeholders through different Media** - EPFO has adopted the ISSA Guidelines on Communication by Social Security Administrations and implemented it by preparing a communication framework document (CFD) to effectively and **efficiently communicate with stakeholders**.
 - **E-proceedings: Use of information and communication technology in justice delivery** - EPFO has made the inquiry process **online end-to-end, ensuring fairness, and enhanced transparency**, in addition to reducing the average inquiry time.
 - **Nidhi Aapke Nikat 2.0: Ensuring last mile delivery of Services** - For various tasks such as online claim submission, grievance redressal, etc. where grievances are resolved on the spot.
 - **Multilingual Call Centres: Effort towards an inclusive grievance redressal** - Call centres accessible and free of charge in **12 major regional languages**, in alignment with the ISSA Guidelines on Service Quality.
 - **Prayaas: Prioritizing Pensioners: Handing over pension payment orders (PPO) to retiring members of the Employees' Pension Scheme, 1995 on the day of retirement itself.**

All about EPFO

- EPFO is a **statutory body** formed under the **Employees Provident Funds and Miscellaneous Provisions Act, 1952**.
- It is administered by the Ministry of **Labour and Employment**.
- **3 schemes are offered under EPFO:**
 - Employees' Provident Funds Scheme, 1952 (EPF).
 - Employees' Pension Scheme, 1995 (EPS).
 - Employees' Deposit Linked Insurance Scheme, 1976.
- **Key Features:**
 - **Provident Fund Contributions** - Both employer and employee contribute **12%** of the Employee's salary towards the provident fund.
 - **Pension scheme** - Provides monthly pension to employees after retirement
 - **Regulation and supervision** of Provident Funds accounts.
 - **Grievance redressal** for employees regarding provident fund withdrawals, transfers and settlements.
 - **Investment of funds** in safe and productive channels.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements about Employees' Provident Fund Organization (EPFO):

- (1) EPFO is a statutory body formed under the Employees Provident Funds and Miscellaneous Provisions Act, 1952.
- (2) It is administered by the Ministry of Labour and Employment.

Which of the above statements are correct:

- (a) Only 1 (b) Only 2
 (c) Both 1 and 2 (d) Neither 1 nor 2

Answer: (c)

MERCHANT SHIPPING BILL, 2024

Why in News: Minister of Ports, Shipping and Waterways Sarbananda Sonowal introduced The Merchant Shipping Bill, 2024 in Lok Sabha on December 10, 2024.

About the Merchant Shipping Bill, 2024

- The Bill seeks to replace the Merchant Shipping Act, 1958.
- The 1958 Act regulates the shipping sector.

Merchant Shipping Act, 1958

- **Mandatory registration of vessels:** Under the Act, all sea-going Indian vessels must be registered, except certain vessels which are:
 - not mechanically propelled
 - weighing below 15 tons and used only for navigating Indian coasts.
 - ◆ The Act defines vessels to include any ships, boats, sailing vessels, or other vessels used in navigation.
- **Ownership of Indian vessels:** The Act specifies criteria for ownership of Indian vessels.
 - Under the Act, an Indian vessel means a vessel wholly owned by a:
 - ◆ citizen of India
 - ◆ company or body established by or under Indian laws with its principal place of business in India
 - ◆ registered co-operative society
- **Authorities for regulation of shipping:** The Act empowers the central government to appoint the Director-General of Shipping. The government may delegate its powers and functions under the Act to the Director-General.

- **Regulation of training institutes:** The Act requires certain officers on Indian vessels to be duly certified.
- **Seafarer agreement:** The Act requires master in command of an Indian vessel to enter into an agreement with a crew member for formalising terms of employment.
- **Pollution at sea:** The Act requires certain Indian vessels to get a pollution prevention certificate, which certifies compliance with pollution-related regulations. This applies to:
 - oil tankers of at least 150 gross tons
 - other vessels of at least 400 gross tons.
- The Act establishes Boards to advise the central government:
 - the National Shipping Board for matters related to shipping
 - the National Welfare Board for Seafarers, to advise on welfare of seafarers.

Merchant Shipping Bill, 2024

- The Bill retains the provisions regarding the establishment of boards to advise the central government.
- **Mandatory registration of vessels:** The Bill requires all vessels to be registered regardless of type of propulsion or weight. It expands the definition of vessels to include types such as mobile offshore drilling units, submersibles, and non-displacement crafts.
- **Ownership of Indian vessels:**
 - The Bill relaxes the criteria to include:
 - ◆ vessels which are partly owned by the persons mentioned in the 1958 act.
 - ◆ vessels wholly or partly owned by Overseas Citizens of India (OCIs).
 - The thresholds for ownership will be specified by the central government.
 - The Bill also clarifies that it will not be mandatory for vessels wholly owned by OCIs to register in India.
- **Registration of certain foreign vessels:** The Bill adds that a foreign vessel chartered by an Indian person may be registered as an Indian vessel.
 - This will apply where the ownership is intended to be transferred to the charterer after a specified period.
- **Registration for vessels to be recycled:** The Bill provides for temporary registration to unregistered vessels which are to be recycled in India.
- **Authorities for regulation of shipping:** The bill renames the Director-General of Shipping as the Director-General of Marine Administration.
- **Regulatory body for security:** The Bill adds that the central government may create a new body to regulate security of vessels and ports.
- **Regulation of training institutes:** The Bill empowers the Director-General to regulate maritime education

and training. This includes powers to approve training institutes and courses.

- **Seafarer Agreement:** The bill retains the provision of the Seafarer agreement as in the act of 1958.
 - The bill also allows the following persons to enter into such an agreement:
 - ◆ owner of Indian vessel
 - ◆ recruitment and placement service agencies for Indian or foreign vessels
 - The Bill adds that seafarers will also have access to social security as prescribed by the central government.

Pollution at sea: The Bill mandates the pollution prevention certificate for all vessels irrespective of tonnage.

Offences and penalties:

- The Bill retains several offences punishable with imprisonment, fine, or both. These include:
 - ◆ concealment of the nationality of the vessel
 - ◆ misconduct of a seafarer endangering life or vessel
 - ◆ taking a vessel to sea without required certified persons
- The imprisonment term ranges between one month and two years.
- The Bill increases fines for these offences.
- It also retains most offences punishable with civil penalty. These include:
 - ◆ fraudulently altering certain certificates
 - ◆ failure of a shipmaster to assist another ship in a collision
- The Bill **decriminalises** some offences such as:
 - ◆ sending unseaworthy vessels to sea
 - ◆ failure to comply with directions of the Director-General
- It also adds certain new offences. These include:
 - ◆ operating unlicensed recruitment agencies which is punishable with imprisonment, fine, or both
 - ◆ discharging any harmful pollutants into sea, which is punishable with civil penalty.

Recent Developments and Status of Ports in India

• **Ports Performance**

- According to the World Bank's **Logistics Performance Index (LPI)** Report published in 2023, India has secured 38th position out of 139 countries in 2023, up from 44th in 2018 and 54th in 2014.
- As per the report, India has achieved a low **average dwell time** of approximately 2.6 days at ports, which is competitive compared to many developed nations.
- **Turn Around Time (TRT)** of major Ports has reduced from around 94 hours in FY-2013-14 to only around 48.06 hours in FY 2023-24.

- The **average ship berth-day output** and **cargo handling capacity** vis-a-vis FY 2014-15 have improved by 52% and 87% respectively.
- Major Ports in India are witnessing double-digit annual growth and as per the recent World Bank's Logistics Performance Index Report.
- In **timeliness of shipment delivery**, the country witnessed a 17-place jump in ranking from 52 in 2018 to 35 in 2023.
- **Major Port at Vadhavan near Dahanu in Maharashtra:** The project, estimated at INR 76,000 crore, is part of India's efforts to improve port infrastructure, enhance logistics efficiency, and boost economic growth, particularly in the Western region of India.
- **Sagar Aankalan Guidelines:** Introduced on February 16, 2024, the "Sagar Aankalan" guidelines aim to benchmark and improve Indian Ports' Performance. These guidelines are designed to boost logistics efficiency, align with global standards, and increase competitiveness and customer satisfaction in the port sector.
- **World Bank's CPPI 2023 Report:** The CPPI 2023, developed by the World Bank and S&P Global Market Intelligence evaluates the operational efficiency of Ports in receiving and handling container ships.
 - 10 Ports of India made it to the Global Top 100 in the latest edition of CPPI 2023 for the first time.
 - The Major Ports which secured ranks in the top 100 are Visakhapatnam (19), Kamarajar (47), Cochin (63), Chennai (80) and Jawaharlal Nehru (96).

Recent Developments and Status of Shipping in India

- **National Centre of Excellence in Green Port and Shipping:** On March 22nd, 2023, the country inaugurated its first National Centre of Excellence in Green Port and Shipping (NCoEGPS), a collaboration between MoPSW and TERI. The research institution's field station in Gurugram will steer the shipping industry and ports towards carbon neutrality and circular economy.

- **First International Cruise Liner in India:** On November 3rd, 2023, Costa Serena, the first international cruise liner in India, was launched from Mumbai.
- **Indigenous Differential Global Navigation Satellite System (DGNSS) 'SAGAR SAMPARK':** DGNSS corrects GNSS errors for precise vessel positioning, reducing accidents in ports.
- **SAGAR MEY SAMMAN:** It is a campaign to promote the role of women seafarers in India's Maritime Sector.
- Formation of Wholly Owned Subsidiary of SCI in GIFT CITY.
- **Sagarmanthan:** The Great Oceans Dialogue: MoPSW in collaboration with Observers Research Foundation (ORF) organised "Sagarmanthan: The Great Oceans Dialogue" on November 18-19, 2024 in New Delhi.

Recent Developments and Status of Inland Waterways in India

- **Cargo Movement through Inland Waterways:** IWT based freight movement in the country has increased ~7x times- from 18.1 MMT in FY 14 to 133.03 MMT in FY 24.
 - For the current financial year 2024-25, in line with the annual target of 142 million tonnes, 94.81 million tonnes have since been transported during April to November 2024 as compared to 88.89 million tonnes over the same period for FY 23 i.e. an increase of 6.66%.
- **Cargo Promotion Scheme:** IWT Cargo Promotion Scheme launched on 15.12.2024 for providing 35% incentive to promote the utilisation of inland waterways transport sector by cargo owners and for establishing scheduled service for cargo movement on NW-1 and NW-2 and NW-16 via Indo-Bangladesh Protocol (IBP).
- **Inland Waterways Development Council (IWDC):** MoPSW launched IWDC, a new initiative on 12.10.23 to develop Inland Water Transport (IWT) in India.
- **MV Ganga Vilas:** On 13th January 2023, Prime Minister flagged off the world's longest river cruise MV Ganga Vilas. The 51-day cruise from Varanasi to Dibrugarh will cover over 3,200 km across five Indian states and Bangladesh, with visits to 50 tourist spots.

BOMB CYCLONE

Why in News: Recently, a bomb cyclone struck North-western USA and western Canada.

Key Details

- The bomb cyclone, named for the intensification of a storm, brought hurricane-force winds, torrential rain, and heavy snowfall, leading to widespread power outages, school closures, and hazardous conditions in the western and northwestern US.
- **Note:** A cyclone is essentially a giant rising column of air that spins counterclockwise over the Northern Hemisphere. In the Southern Hemisphere, they spin clockwise.

About Bomb cyclone

- A bomb cyclone is a, mid latitude, **rapidly intensifying storm characterised by a significant drop in atmospheric pressure** of at least 24 millibars within 24 hours, a process known as **bombogenesis**.
 - The term bombogenesis comes from the merging of two words: bomb and cyclogenesis. All storms are cyclones, and genesis means creation or beginning. In this case, bomb refers to explosive development and altogether the term means explosive storm strengthening.
- This phenomenon occurs when **cold polar air collides with warm tropical air**, generating intense weather systems comparable in strength to hurricanes.
- Bomb cyclones can cause severe damage due to their rapid development and wide-reaching effects. This storm underscores the importance of staying vigilant and prepared during extreme weather events.
- The system also aligns with an **atmospheric river**, a massive plume of tropical moisture, bringing torrential rains and high winds.

When and where are they most likely to form?

- **Explosive cyclogenesis occurs mostly over oceans and most commonly during the cold season in both hemispheres** - roughly November to March for the northern hemisphere and roughly May through August in the southern hemisphere, though these storms can be earlier or later than that.
- Areas particularly prone are situated in so-called storm tracks along the east coast of continents because this is where the warmest ocean currents exist.

What happens to the atmospheric pressure?

- The average sea-level atmospheric pressure at middle latitudes is about 1012 millibars, or mb. In cyclones, this gets down to as low as 980 mb with regularity. With bomb cyclones, it can drop to 950 mb or lower, and the rate at which they intensify is at least 24 mb in 24 hours.

EXPECTED QUESTIONS FOR UPSC CSE**Prelims MCQ**

Q. Consider the following statements regarding cyclones:

1. Cyclones spin counter clockwise over Southern hemisphere.
2. Cyclones spin clockwise over Northern hemisphere.

Which of the above given statements is/are correct?

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

Answer: (d)

REFUGEE CRISIS

Why in News: United Nations High Commissioner for Refugees (UNHCR) **Launched Global Appeal 2025 to Address Global Refugee Crisis in 2025.**

A **refugee crisis** is a situation where a large number of people are forcibly displaced from their homes and face dangerous or difficult conditions:

- **Displacement:** A refugee crisis can refer to the displacement of people from their home country, the country they arrive in, or the problems they face while on the move.
- **Humanitarian need:** A refugee crisis is a situation of acute humanitarian need.
- **Neighboring countries:** A refugee crisis can also refer to the difficulties that neighboring countries face when hosting a large influx of displaced people.

Key Details

2025 PLANNING FIGURES OF FORCIBLY DISPLACED AND STATELESS PEOPLE

139.3 million forcibly displaced and stateless people in 2025

	Number of Individuals
Refugees	34,024,027
Asylum-seekers (pending cases)	9,471,572
Internally displaced persons (IDPs)	68,528,241
Persons under UNHCR's statelessness mandate	4,577,313
Returnees (Refugees and IDPs)	12,793,841
Other people in need of international protection	6,014,790
Other people in need of international protection	3,863,441
Total	139,273,225

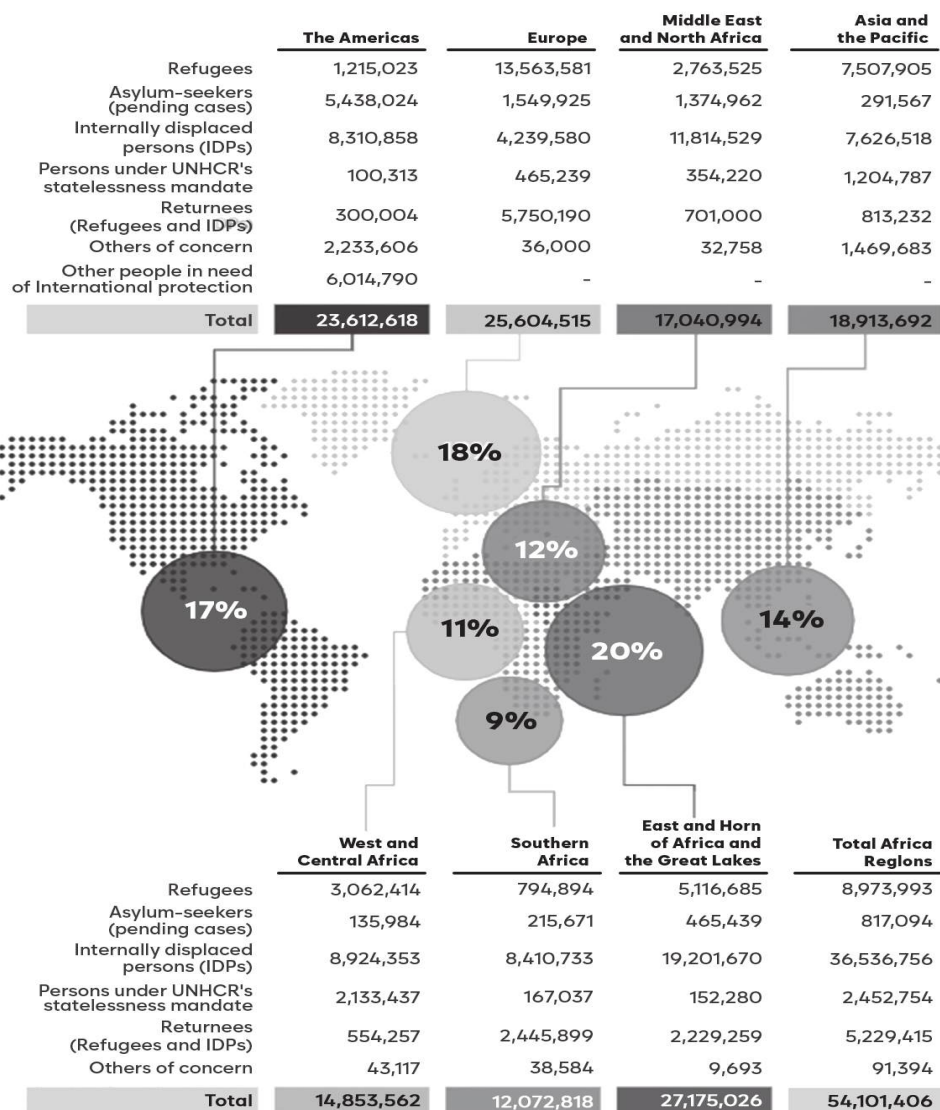
- Global Appeal is a \$10 billion appeal for 2025 to meet critical needs and implement sustainable solutions for millions of refugees, displaced persons and stateless people worldwide.

- The recent and ongoing conflicts in Sudan, Ukraine and Lebanon, which have driven massive displacement, while also noting the protracted nature of many refugee situations, including those involving displaced populations from Myanmar and the Democratic Republic of the Congo (DRC).
- This **Global Appeal 2025** describes how, against this backdrop, and with few solutions on the horizon, the UNHCR expects forced displacement and statelessness to evolve in the coming year.

Focus of Global Appeal

- The appeal focuses on three primary areas: emergency response, inclusion, and long-term solutions.
- The appeal also goes beyond immediate assistance, calling for sustainable approaches that integrate displaced individuals into local and national systems.
- UNHCR aims to work with governments, civil society and development actors to promote inclusion in education, healthcare, and employment.

Region wise displacement



Way Forward

- With forced displacement reaching record levels, the Global appeal has stressed the importance of global solidarity, urging governments, donors, and the private sector to contribute to the \$10 billion target.

PRELIMS SPECIAL

United Nations High Commissioner for Refugees (UNHCR) is a global organization that protects refugees and other people of concern:

Mandate

The UNHCR’s mandate is to protect the rights and well-being of refugees, internally displaced people, and other people of concern. The UNHCR’s goal is to ensure that everyone can seek asylum and find safe refuge.

Established

The UNHCR was established in 1950 to help Europeans displaced by World War II.

Operations

The UNHCR operates in 135 countries and has over 18,000 staff members.

Programs

- HIV prevention, protection, and treatment
- Reproductive health services
- Food security and nutrition
- Water, sanitation, and hygiene services
- Shelter
- Medical care
- Helping people settle in a safe place
- Delivering life-saving supplies
- Mobilizing expert staff to protect people

Current High Commissioner

Filippo Grandi is the 11th United Nations High Commissioner for Refugees. He was first elected in 2016 and will complete his term on December 31, 2025

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

- Q. The programme ‘Global Appeal 2025’ is talked about in the context of?
- Refugee crisis
 - Illegal organ trafficking
 - Drug abuse
 - None of the above

(a) Answer:

LANDSLIDE MITIGATION

Why in News: A High-Level Committee (HLC), under the chairmanship of Union Home Minister and Minister of Cooperation has recently approved funds for disaster mitigation and capacity building projects for various states.

Key Details

- Composition of the High-Level Committee
 - **Chairman:** Union Home Minister
 - Union Finance Minister
 - Union Agriculture Minister
 - Vice Chairman NITI Aayog
- The Committee considered the proposal to mitigate Landslide Risk in 15 States, for funding from **National Disaster Mitigation Fund (NDMF)** and another proposal for training and capacity building of Civil Defense volunteers in all States and UT’s under Preparedness and Capacity Building from the funding window of National Disaster Response Fund (NDRF).

HLC has also approved another project for **training and capacity building** of civil defence in all States/UT’s.

- Earlier, the committee had approved **Urban Flood Risk Mitigation Projects** in seven cities and GLOF (Glacial Lake Outburst Flood) Risk Management in 4 states.

Landslides in India

- A landslide is a **movement of mass of rock, earth or debris down a slope.**
- **Types:** Different types of landslides such as Debris slide, debris flows, Rock slide, rock fall etc. can be triggered by rainfall, undercutting of slopes due to flooding or excavation, earthquakes, snowmelt and other natural causes, as well as anthropogenic causes such as overgrazing by cattle, terrain cutting and filling, excessive development, etc.
- They can occur on many types of terrain given the right conditions of soil, rock, geological structure and slope.
- Landslides are among the main natural catastrophes, which cause major problems in mountainous terrain by killing hundreds of people every year besides damaging property, disrupting transportation and blocking communication links.

Landslide Risk in India

- India is among the **top four countries with highest landslide risk**, where the estimated loss of life per 100 km2 per year is greater than one. In India, most of the landslides occur in the monsoon months (between June and September). Globally, India contributes 16 % rainfall-triggered landslide events.

Landslide Vulnerability Zones

- **Very High Vulnerability Zone:** Highly unstable, relatively young mountainous areas in the **Himalayas**

and **Andaman and Nicobar**, high rainfall regions with steep slopes in the **Western Ghats and Nilgiris**, the **north-eastern regions**, along with areas that experience frequent ground-shaking due to earthquakes, etc. and areas of intense human activities, particularly those related to construction of roads, dams, etc. are included in this zone.

- **High Vulnerability Zone:** Areas that have almost similar conditions to those included in the very high vulnerability zone are also included in this category. The only difference between these two is the combination, intensity and frequency of the controlling factors. All the **Himalayan states** and the **states from the north-eastern region except the plains of Assam** are included in the high vulnerability zones.
- **Moderate to Low Vulnerability Zone:** Areas that receive less precipitation such as **Trans Himalayan areas of Ladakh and Spiti** (Himachal Pradesh), undulated yet stable relief and low precipitation areas in the **Aravali, rain shadow areas in the Western and Eastern Ghats and Deccan plateau** also experience occasional landslides.
 - Landslides due to mining and subsidence are most common in states like Jharkhand, Odisha, Chhattisgarh, Madhya Pradesh, Maharashtra, Andhra Pradesh, Karnataka, Tamil Nadu, Goa and Kerala.
- **Other Areas:** The remaining parts of India, particularly states like Rajasthan, Haryana, Uttar Pradesh, Bihar, West Bengal (except district Darjiling), Assam (except district Karbi Anglong) and Coastal regions of the southern States are safe as far as landslides are concerned.

Government Initiatives to Mitigate Landslides Hazards in India

- **National Landslide Risk Management Strategy (2019)**, it involves:
 - Generation of User-Friendly Landslide Hazard Maps
 - Development of Landslide Monitoring and Early Warning System
 - Awareness Programmes
 - Capacity Building and Training of Stakeholders
 - Preparation of Mountain Zone Regulations & Policies
 - Stabilization and Mitigation of Landslides and Creation of Special Purpose Vehicle (SPV) for Landslide Management
- **National Landslide Forecasting Centre (NLFC)**
 - The NLFC is a pioneering initiative aimed at landslide hazard mitigation in India.
 - **Location:** Geological Survey of India, Dharitri Campus, Salt Lake City, Kolkata
 - It will in due course issue early warning bulletins for all landslide-prone states, operationalizing the regional Landslide Early Warning System (LEWS) nationwide by 2030.

- Equipped with advanced technology, the NLFC will provide early information to local administration and communities, update landslide inventories, and integrate real-time rainfall and slope instability data for enhanced forecasting accuracy.
- **Bhusanket Web Portal:** This web portal will facilitate the dissemination of relevant data and information on landslide hazards, initiating short-range and medium-range landslide forecasting in the country.
- **Bhooskhalan Mobile App:** Integrated with the Bhusanket Web Portal, the user-friendly Bhooskhalan Mobile App will enable quick dissemination of daily landslide forecasts and allow stakeholders to share and update spatial and temporal information on landslide occurrences. The app is available on Bhusanket web portal and will soon be available on Google Play Store.
- **Landslide Atlas of India:** This Atlas provides the details of landslides present in Landslide provinces of India including damage assessment of specific landslide locations. Developed by ISRO.

Landslide Risk Mitigation Scheme (LRMS)

The Scheme envisages financial support for site specific **Landslide Mitigation Projects** recommended by landslide prone States, covering “disaster prevention strategy, disaster mitigation and R&D in monitoring of critical Landslides” thereby leading to the development of Early Warning System and Capacity Building initiatives. The Scheme is under preparation.

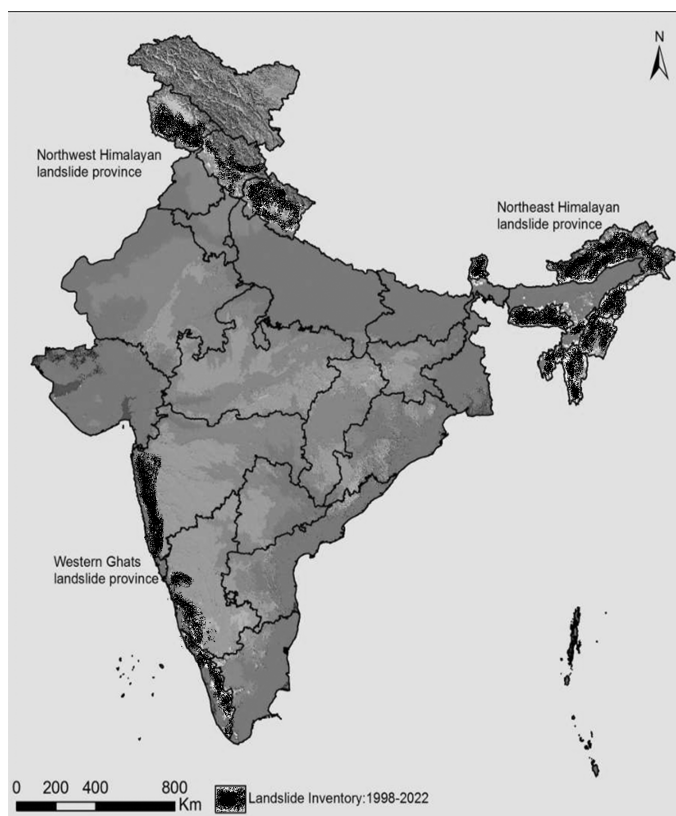


Figure: Landslide Atlas of India

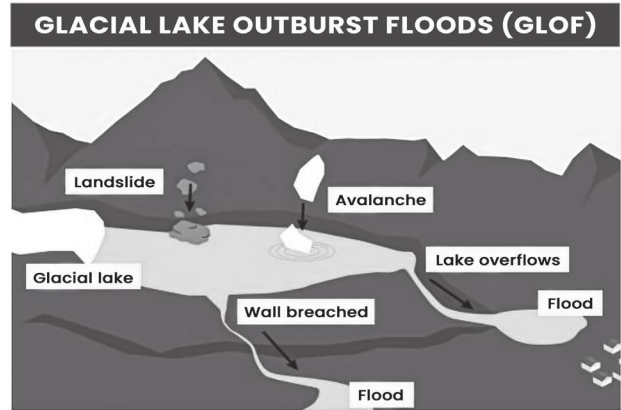
Way Forward

- It is always advisable to adopt area-specific measures to deal with landslides.
- Restriction on the construction and other developmental activities such as roads and dams, limiting agriculture to valleys and areas with moderate slopes, and control on the development of large settlements in the high vulnerability zones, should be enforced.
- This should be supplemented by some positive actions like promoting large-scale afforestation programmes and construction of bunds to reduce the flow of water.
- Terrace farming should be encouraged in the northeastern hill states where Jhumming (Slash and Burn/Shifting Cultivation) is still prevalent.

Conclusion

Landslides pose significant risks to life, property, and infrastructure, particularly in India’s hilly regions. The approval of the National Landslide Risk Mitigation Project by the High-Level Committee is a **commendable step towards addressing this hazard**. By adopting a comprehensive strategy that **combines scientific innovations, sustainable practices, and capacity building**, India can reduce the impact of landslides and build resilience in vulnerable regions.

➤ Most often, the consequences arising out of such situations are highly unpredictable primarily due to lack of availability of sufficient data regarding rainfall intensity, location of landslide, impounded volume and area and physical conditions of lakes/ water bodies.



EARTH’S ROTATIONAL POLE

Why in News: A study published in Geophysical Research Letters reveals that excessive groundwater extraction has caused a significant shift in Earth’s rotational pole.

Key Findings

- A report by Seoul National University, indicates that between 1993 and 2010, the Earth’s pole drifted approximately 80 centimeters eastward due to groundwater depletion.
 - The study estimates that humans have pumped out around 2,150 gigatons of groundwater during the study period.
 - This massive extraction has contributed to a sea level rise of about 0.24 inches and altered the distribution of Earth’s mass, leading to a drift of the rotational pole at a rate of 4.36 centimeters per year.
- **Cause of Tilt:** Polar motion, the movement of Earth’s rotational axis relative to its crust, is influenced by changes in mass distribution across the planet. The redistribution of groundwater from aquifers to oceans has emerged as a significant factor affecting this motion.

Impact and Implications

- **Regional impacts:** The research identifies western North America and northwestern India as key regions where significant groundwater extraction has occurred.
- **On weather patterns:** While the current shift in Earth’s tilt is not enough to affect weather patterns or seasons immediately, researchers caution that continued groundwater depletion could have long-term climatic impacts.
- **Long term changes:** Over geological time scales, changes in polar motion could influence climate systems, underscoring the need for sustainable water management practices.

PRELIMS SPECIAL

Glacial Lake Outburst Floods

- **Definition:** A Glacial Lake Outburst Flood, or GLOF, is a sudden release of water from a lake fed by glacier melt that has formed at the side, in front, within, beneath, or on the surface of a glacier.
- **Glacial Lakes**
 - Glacial lakes are common in the high elevation of glacierised basin. They are formed when glacial ice or moraines or natural depressions impound water.
 - **Types:** There are varieties of such lakes, ranging from melt water ponds on the surface of glaciers to large lakes inside valleys dammed by a glacier in the main valley.
 - These lakes normally drain their water through seepage in front of the retreating glacier.
 - The moraine creates topographic depression in which the melt water is generally accumulated leading to formation of glacial lakes. When this lake is watertight, melt waters will accumulate in the basin until seepage or overflow limits the lake level.
- **Occurrence:** Flash floods caused by the outburst of glacial lakes, called as Glacial Lake Outburst Flood (GLOF), are well known in Himalaya where such lakes had often been formed by landslides.
- **Consequences**
 - GLOFs have immense potential of flooding in downstream areas, causing disastrous consequences due to release of large volumes of water in a very short interval of time.

- **A wake-up Call:** The findings serve as a wake-up call for global policymakers and environmentalists. They emphasize the necessity of addressing groundwater depletion as part of broader efforts to mitigate climate change and manage natural resources sustainably.

About Groundwater depletion in India

- India pumps up the most groundwater globally, mainly for irrigation, domestic and industrial uses.
- Some areas in the Indo-Gangetic basin region have already passed the groundwater depletion tipping point.
- In Punjab and Haryana, groundwater exploitation is reported with 78% of wells in Punjab are overexploited and the region will face critically low groundwater availability in 2025.
- 70% of groundwater withdrawals are used for agricultural purposes.
- As per the report, agricultural intensification is a major factor pushing us towards groundwater depletion risk.

Way forward

- **Review assessment methodology:** A review of the current methodology of assessment of ground-water resources, bringing in an aquifer basis to the assessment
- **Assessing aquifers and its quality:** Comprehensive mapping of aquifers and monitoring ground-water quality at appropriate scales in the various hydrogeologic settings .
- **Focus on domestic water security:** Prioritisation of domestic water security within a strategy to implement the groundwater management programme above.
- **Groundwater data collection:** Setting up a robust and transparent groundwater data collection and sharing mechanisms, mainly as decision support tools in programme implementation and monitoring.

- **The Geographic North Pole:** Also known as “True North,” the Geographic North Pole is the northernmost point on the planet. Sitting in the middle of the Arctic Ocean at 90 degrees north, it is where the Earth spins on its axis.
- **The North Magnetic Pole:** Unlike the Geographic North Pole, the North Magnetic Pole, also known as the Magnetic North Pole, is aligned with the planet’s magnetic field. Earth is a giant magnet, as the motion of liquid metal in the Earth’s outer core generates a geomagnetic field that wraps around the planet
- **The North Geomagnetic Pole:** The planet’s magnetic field is complicated, and it is not an exact dipole – meaning that it does not have two perfectly opposite ends like your typical magnet. By imagining a straight bar magnet cutting through the Earth’s core, however, scientists can approximate the North and South ends of our planet’s giant magnet. Those locations are called the North and South Geomagnetic Poles.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding Earth's Rotational Pole:

1. Excessive groundwater extraction causes significant shift in Earth's Rotational Pole
2. The redistribution of groundwater from aquifers to oceans cause changes in mass distribution across the planet

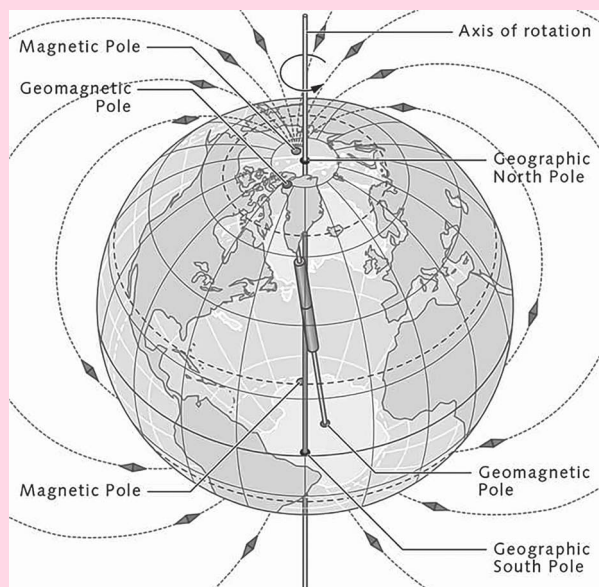
Which of the above given statements is/are correct?

- (a) 1 only (b) 2 only
 (c) Both 1 and 2 (d) Neither 1 nor 2

Answer: (c)

PRELIMS SPECIAL

About Earth's Poles



CASE STUDY - ISSUE OF COASTAL EROSION IN INDIA

Why in News: Environment Ministry has recently replied in the Lok Sabha to highlight the issue of India’s coastline erosion.

Key Details

- According to the **National Centre for Coastal Research (NCCR)**, 34% of India’s coast is eroding, 28% is accreting, and 38% is stable.
- Following the findings of the survey, the Indian National Centre for Ocean Information and Services (INCOIS) has prepared **Multi-Hazard Vulnerability Maps (MHVM)** at a 1:25,000 scale for India’s mainland.

Coastal erosion is the gradual wearing away of land, sediment, or rock along coastlines. It’s a natural process caused by waves, tides, currents, and weather conditions. However, climate change and human activities have accelerated the rate of erosion in many coastal areas.

Causes for Coastal Erosion in India: The erosion of coastal lands is attributed to a combination of natural and human-induced factors such as -

- **Rising sea levels:** Driven by climate change, higher sea levels amplify storm surges and coastal flooding.
- **Sand mining and infrastructure projects:** Unregulated sand extraction and construction of ports, seawalls, and breakwaters disrupt sediment flow, accelerating erosion in vulnerable areas.
- **Mangrove depletion:** The loss of natural barriers like mangroves leaves the coastline exposed to wave action.
- **Cyclonic activity:** The region has seen an increase in cyclonic events, further destabilising coastal systems.
- **Economic and social fallout:** The erosion poses severe threats to livelihoods, particularly for fishing communities dependent on coastal stability.

Solutions to prevent Coastal Erosion

- **Multi- Pronged Strategy:** A multi-pronged approach involving ecosystem restoration (such as **mangrove replantation and sand dune protection**), stricter regulation of sand mining, and innovative solutions like artificial reefs and eco-friendly breakwaters is crucial.
- **Using A.I. and Community:** Additionally, community-driven conservation programs and real-time erosion monitoring using artificial intelligence (AI) can provide sustainable solutions.
- **Case Study: Karnataka**
 - The Karnataka government has prepared a **Shoreline Management Plan** as per the **Coastal Regulation Zone Notification (CRZ)**, 2019, and is implementing the World Bank-funded Karnataka Strengthening Coastal Resilience and the Economy (**K-SHORE**) project.
 - This initiative aims to strengthen coastal protection and enhance resilience against natural disasters, safeguard the livelihoods of coastal communities through sustainable practices, address marine plastic pollution, a growing issue along Karnataka’s beaches.

Important measures taken by Government of India to arrest Coastal Erosion

- **Introduction of Hazard Line:** The Ministry of Environment, Forest & Climate Change has delineated the hazard line for the entire coast of the country. The hazard line is indicative of the shoreline changes, including sea level rise due to climate change. This line is to be used by agencies in Coastal States as a tool for Disaster Management including planning of adaptive and mitigation measures.
- **Coastal Regulation Zone 2019:** MoEFCC has issued Coastal Regulation Zone Notification, 2019 with a view to conserve and protect coastal stretches, marine areas and to ensure livelihood security to the fisher and other local communities.

- **Creation of No Development Zones:** The notification also provides for No Development Zones (NDZ) along various categories of coastal areas to protect India’s coastline from encroachment and erosion.
- **National Strategy for Coastal Erosion:** MoEFCC has framed a national strategy for coastal protection along with guidelines for all Coastal States and Union Territories.
- **Coastal Management Information System :** Considering the importance of collection of data on coastal processes towards coastal protection measures, a new component “Coastal Management Information System (CMIS)” was initiated under the Central Sector Plan Scheme.

PRELIMS SPECIAL

About Indian National Centre for Ocean Information and Services (INCOIS)

- Indian National Center for Ocean Information Services (INCOIS) is an autonomous organization of the Government of India, under the Ministry of Earth Sciences, located in Pragathi Nagar, Hyderabad.
- **Autonomous body:** ESSO-INCOIS was established as an autonomous body in 1998 under the Ministry of Earth Sciences (MoES) and is a unit of the Earth System Science Organization (ESSO).
- **Mandate:** Earth System Science Organisation [ESSO]- INCOIS is mandated to provide the best possible ocean information and advisory services to society, industry, government agencies and the scientific community through sustained ocean observations and constant improvements through systematic and focussed research.

About Multi-Hazard Vulnerability Maps

- The Multi-Hazard Map is a “composite, synthesized and overlay of multiple hazards” developed by INCOIS.
- **Objectives**
 - Multi-hazard vulnerability assessment
 - Generation of the Multi-hazard Vulnerability Maps (MHVM) using shoreline change rate, extreme sea level and high resolution topographic data
 - Generation of the MHVM atlas
 - Spatial statistics of the MHVM
- **Outputs**
 - Multi-hazard Vulnerability Maps of the Indian coast
 - Atlas of the Multi-hazard Maps
 - Spatial Statistics at different administrative levels

About the Coastal Regulation Zone 2019 Notification

- The Coastal regulation zone notification 2019 was issued to replace the 2011 notification and develop the coastal region of the country in a sustainable manner on scientific principles, keeping in view the current global problem of climate change and sea level rise.

- **Approval authority:**
 - The Ministry of Environment forest and climate change will oversee the matter of CRZ clearance only for CRZ-I; i.e. the ecologically vulnerable areas and CRZ IV (area between low tide line and 12 nautical miles seaward) areas
 - For the other two categories namely CRZ-III and CRZ-II (urban areas), the power of clearance has been designated at state level.
- **No Development Zone:** The notification also proposes a no development zone of 20 metres for all islands.
- **Focus on Community participation:** The ecologically vulnerable areas identified on the basis of Environment Protection Act, 1986 are to be managed in partnership with coastal communities and fisherfolks.

EXPECTED QUESTIONS FOR UPSC CSE

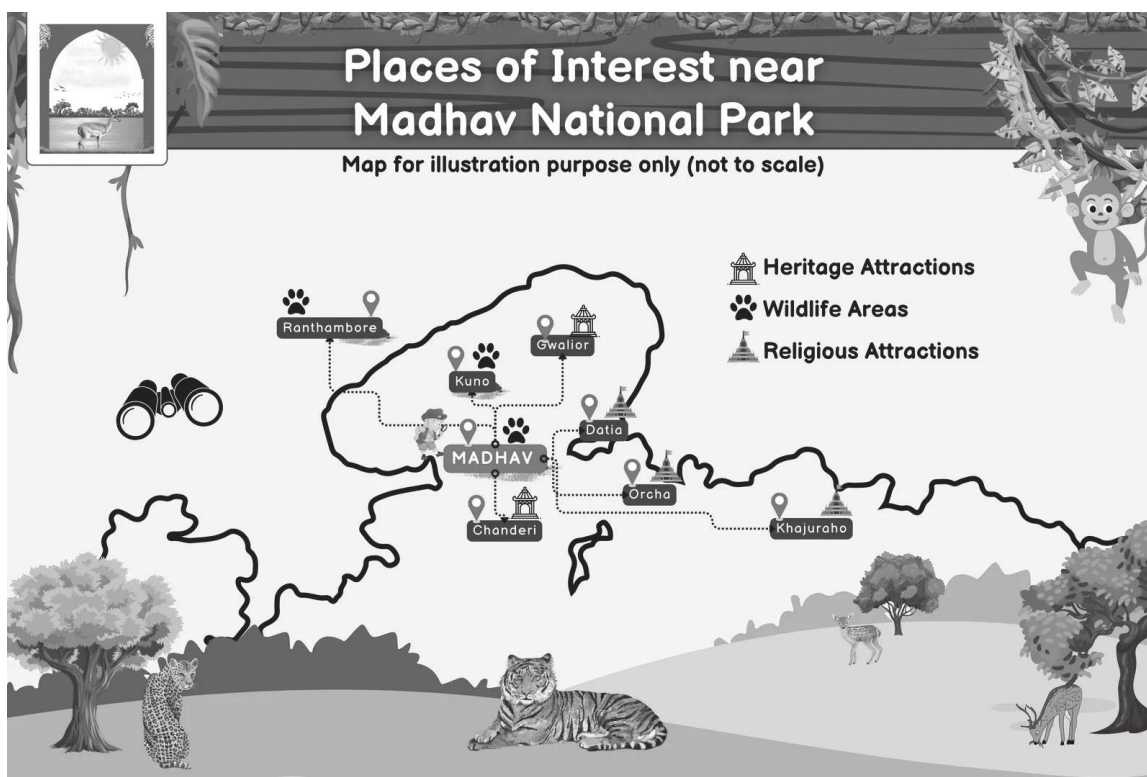
Prelims MCQ

- Q. Indian National Center for Ocean Information Services (INCOIS) is located in?
- (a) Hyderabad (b) Chennai
(c) New Delhi (d) Mumbai

Answer: (a)

MADHAV NATIONAL PARK

Why in News: National Tiger Conservation Authority (NTCA) approves Madhav National Park as the 9th Tiger Reserve of Madhya Pradesh.



About Madhav tiger Reserve

- **Geographical Location:** Madhav National Park is situated in Shivpuri District of Gwalior division in northwest Madhya Pradesh, India.
- **Area span:** The proposed Tiger Reserve will span 1,751 square kilometers, including a 375-square-kilometer core area and a 1,276-square-kilometer buffer zone.
- **Naming of park:** Earlier known as Shivpuri National Park, in 1958, it was renamed Madhav National Park after Madho Rao Scindia, the Maharaja of Gwalior belonging to the Scindia dynasty of the Marathas, and was finalized the following year.
- **Ecology:** Located in the ecoregion of Khathiar-Gir dry deciduous forests, this national park has a varied terrain

of forested hills and flat grasslands around the reservoir and is thus rich in biodiversity. The average rainfall is 816 mm.

PRELIMS SPECIAL

Tiger Reserves in Madhya Pradesh

- There are Nine tiger reserves in Madhya Pradesh. Some of the important ones are:
- **Kanha Tiger Reserve:**
 - Kanha tiger reserve is the first tiger reserve in Madhya Pradesh. Kanha National park was declared a tiger reserve in 1973.
 - It is Located in the “Maikal” ranges of the Satpuras.

- Kanha is the largest tiger reserve in Madhya Pradesh.
- **Bandhavgarh Tiger Reserve:**
 - The Bandhavgarh National park was included in the project tiger in 1993.
 - The vegetation of the tiger reserve comprises tropical moist, deciduous forests with sal, mixed forest and grasslands.
- **Pench Tiger Reserve:**
 - The Pench Tiger Reserve was included in Project tiger in 1992.
 - Pench Tiger Reserve derives its name from the Pench river.
 - The Pench Tiger Reserve is spread over the states of Madhya Pradesh and Maharashtra.
- **Panna Tiger Reserve:**
 - The Panna Tiger Reserve is the 5th tiger reserve in Madhya Pradesh.
 - The Ken river enters the reserve from the southern end and passes through it for almost 55 km.

About National Tiger Conservation Authority (NTCA)

- **Statutory Body:** The National Tiger Conservation Authority (NTCA) is a statutory body under the Ministry of Environment, Forests and Climate Change constituted under enabling provisions of the Wildlife (Protection) Act, 1972, as amended in 2006, for strengthening tiger conservation, as per powers and functions assigned to it under the said Act.
- **Members:** The authority consists of the Minister in charge of the Ministry of Environment and Forests (as Chairperson), the Minister of State in the Ministry of Environment and Forests (as Vice-Chairperson), three members of Parliament, Secretary, Ministry of Environment and Forests and other members.
- **Mandate:** NTCA has been fulfilling its mandate within the ambit of the Wildlife (Protection) Act, 1972 for strengthening tiger conservation in the country by retaining an oversight through advisories/normative guidelines, based on appraisal of tiger status, ongoing conservation initiatives and recommendations of specially constituted Committees.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Consider the following Tiger Reserves?

1. Kanha Tiger Reserve
2. Bandhavgarh Tiger Reserve
3. Pench Tiger Reserve
4. Panna Tiger Reserve

How many of the above tiger reserves are located in Madhya Pradesh?

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

(d) Answer

RATAPANI TIGER RESERVE

Why in News: Ratapani Wildlife Sanctuary in Madhya Pradesh was declared a tiger reserve following the approval from the Ministry of Environment, Forest, and Climate Change through the National Tiger Conservation Authority.

Key Details

- Ratapani Tiger Reserve is the **57th tiger reserve in the country and 8th tiger reserve in Madhya Pradesh.**
- Ratapani Tiger Reserve has a core area of 763.8 sq km, buffer area of 507.6 sq km and total area of 1271.4 sq km.
- **Significance**
 - This conservation initiative will strengthen wildlife management in the forests of Ratapani, Bhopal Sehore area.
 - **Standard protection, habitat management, ecotourism, community engagement activities etc shall be adopted** which will strengthen Wildlife conservation in the Ratapani Tiger landscape.
 - The local communities will get the desired ecotourism benefits with this and it will help in development of the region.

About Ratapani Wildlife Sanctuary

- Cradled in a portion of the Vindhya Mountain Ranges, passing through Raisen and Sehore Districts of Madhya Pradesh, Ratapani Wildlife Sanctuary is one of the most fascinating abodes for a wide variety of wildlife.
- The sanctuary runs parallel on the northern side of Narmada River.
- Kolar River forms the western boundary of the Sanctuary.
- The Sanctuary has Bhimbetika “a group of rock shelters and rock paintings” which is one of the “ World Heritage Site ” declared by UNESCO, and hence the Ratapani Wildlife Sanctuary is of International importance.
- Ratapani reservoir, after which the sanctuary is named, forms a good habitat for crocodiles and other aquatic fauna. Dahod reservoir is another significant water body inside the sanctuary.
- **Flora**
 - The forest in Ratapani is dry deciduous and moist deciduous type, with one of the finest teak (Tectona grandis) as the main tree species.
 - About 55% of the area is covered by teak.
 - The remaining mixed forests consist of various dry deciduous species. Bamboo forest and evergreen Saja Forest in between provides the variety a tourist asks for.
- **Fauna**
 - Sanctuary is home to more than 35 species of mammals, 33 species of reptiles, 14 species of fishes and 10 species of amphibians.

- 104 species of butterflies welcome tourists with gorgeous and attractive colours.
- It is home to 249 species of birds.
- Many other species such as leopard, sloth bear, hyena, spotted deer, sambar deer etc. are also there.

Criteria and Process for Deciding Critical Tiger/Wildlife Habitats in Tiger Reserves / Protected Areas

- Delineation of critical tiger/wildlife habitat (inviolate space/habitat) required for the sustenance of a viable populations of tiger and other wild animals in tiger reserves and protected areas vis-à-vis the Wildlife (Protection) Act, 1972, as amended in 2006, and the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.
- A minimum inviolate space of 800-1000 sq. km. should be maintained as the inviolate area to support a viable population of tiger in tiger landscapes, based on tiger life history parameters, territory sizes and populations viability analysis.
- For National Parks and Sanctuaries, other than Tiger Reserves, critical wildlife habitat area should be demarcated on the basis of species area curves specific for each bio-geographical area, as classified by the Wildlife Institute of India
- The size of the inviolate area within each critical habitat zone will be based on its potential to harbour viable populations of umbrella species (endemic species, top carnivores, mega-herbivores, indicator, wild relatives of species of economic value, endangered and threatened, and migratory species), which would serve to conserve the entire biodiversity of the area.
- Besides National Parks and Sanctuaries, identified corridors of significant wildlife values should also be examined according to the above criteria for delineation as critical wildlife habitat.

How are tiger reserves notified?

- Tiger Reserves are notified by State Governments as per provisions of Section 38V of the Wildlife (Protection) Act, 1972 on the advice of the National Tiger Conservation Authority.
- The following steps are involved in the notification:
 - Proposal is obtained from the State.
 - In-principle approval is communicated from the National Tiger Conservation Authority, soliciting detailed proposals under section 38V of the Wildlife (Protection) Act, 1972.
 - The National Tiger Conservation Authority recommends the proposal to the State after due diligence.
 - The State Government notifies the area as a Tiger Reserve.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

- Q. Tiger reserves are notified under?
- (a) Wildlife (Protection) Act, 1972

- (b) Forest (Conservation) Act, 1980
- (c) Environment (protection) Act, 1986
- (d) None of the above

Answer: (a)

GLOBAL PLASTICS TREATY

Why in News: The International Legally Binding Agreement (ILBI) to end plastic pollution adjourned its negotiations in Busan, Republic of Korea, without finalizing a treaty.

Key Details

- Over 3,300 delegates met in Busan for the fifth session of the Intergovernmental Negotiating Committee (INC-5).
- The world promised to tackle plastic pollution.
 - UNEA-5 is a historic resolution to End Plastic Pollution and forge an international legally binding agreement by 2024.
 - The resolution addresses the full lifecycle of plastic, including its production, design and disposal.
 - **Note:** India does not support any restrictions on the production of polymers.

Intergovernmental Negotiation Committee on Plastic Pollution

- In March 2022, the United Nations Environmental Assembly (UNEA) decided to work towards an international legally binding instrument to end plastic pollution.
- The Intergovernmental Negotiating Committee (INC) was established to develop an international legally binding instrument on plastic pollution, including in the marine environment, beginning its work in the second half of 2022 with the ambition of completing its work by the end of 2024.
- The INC is tasked with developing an international legally binding instrument on plastic pollution, including in the marine environment, which could include both binding and voluntary approaches, based on a comprehensive approach that addresses the full life cycle of plastic.

Why we need to regulate plastic

- Plastic production and consumption is out of control. The absence of global rules and responsibility have left people and the planet to pay the price.
- Plastic pollution is suffocating our rivers and oceans, killing wildlife and contaminating our food, air and water. And it's only getting worse.

Way Forward

- To end the plastic crisis, the UN plastic pollution treaty must introduce new global binding rules to regulate production and consumption.
- These rules must include measures to ban, phase-out,

PRELIMS SPECIAL

Yurok Tribe

- The Yurok Tribe is the largest Indian tribe in California, USA.
- The Yurok people are a Native American cultural group who live in northwest California along the coast of the Pacific Ocean, near the Redwood Coast and Klamath River.
- Also known as the salmon people, the Yurok people were known for their canoes and an economy that mainly subsisted off fishing, specifically salmon, trout, and ocean mammals.

Klamath River

- Location: California, USA
- Source: Upper Klamath Lake
- Mouth: Pacific Ocean



EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Recently; Yurok Tribe was in the news. This tribe inhabits in:

- (a) USA
- (b) Brazil
- (c) Indonesia
- (d) None of the above

Answer: (a)

Descriptive Question

Q. Discuss the significance of Champions of the earth award in promoting environmental conservation and sustainable development. [10 marks] [150 words]

DISASTER MANAGEMENT (AMENDMENT) BILL, 2024

Why in News: The Lok Sabha passed the Disaster Management (Amendment) Bill, 2024, aimed at strengthening India’s disaster management framework.

About Disaster Management Act, 2005

- The Act establishes: (i) National Disaster Management Authority (NDMA), (ii) State Disaster Management Authority (SDMA), and (iii) District Disaster Management Authority.
 - These authorities are responsible for disaster management at the national, state, and district level, respectively.
- **Preparation of disaster management plans:** The Act provides for the constitution of a National Executive Committee and a State Executive Committee to assist NDMA and SDMA in performing their functions.
 - A key function of these Committees is preparing national and state disaster management plans, respectively.
 - NDMA and SDMA approve the respective plans and coordinate their implementation.
- **Functions of NDMA and SDMA**
 - Reviewing the disaster management plans of government departments, (ii)
 - Setting guidelines for the preparation of disaster management plans for authorities below them
 - Recommending the provision of funds for disaster mitigation.
- **Appointments to NDMA:** The Act provides that the central government will provide NDMA with officers, consultants, and employees, as it considers necessary.
- **National Disaster Response Force:** The Act provides for the constitution of a National Disaster Response Force for specialist response to disaster situations.

Key Highlights of Disaster Management (Amendment) Bill, 2024

- The Bill amends the Disaster Management Act, 2005.
- **Preparation of disaster management plans:** The Bill provides that NDMA and SDMA will prepare disaster management plans.
- The Bill empowers NDMA to make regulations under the Act with prior approval of the central government.
- Functions of NDMA will also include:
 - assessing disaster preparedness of states;
 - undertaking a post-disaster audit of preparedness and response.
- **Urban Disaster Management Authorities:** The Bill empowers the state government to constitute a separate Urban Disaster Management Authority for state capitals and cities with a municipal corporation.

- The Urban Authority will comprise the Municipal Commissioner as the chairperson, the District Collector as the vice chairperson, and other members specified by the state government. It will prepare and implement the disaster management plan for the area under it.
- **Formation of State Disaster Response Force:** The Bill empowers the state government to constitute a State Disaster Response Force (SDRF). The state government will define the functions of SDRF and prescribe the terms of service for its members.
- **Statutory status to existing committees:** The Bill provides statutory status to existing bodies such as the National Crisis Management Committee (NCMC) and the High Level Committee (HLC).
 - The **NCMC** will function as the nodal body for dealing with major disasters with serious or national ramifications. The Cabinet Secretary will serve as the chairperson of NCMC.
 - The **HLC** will provide financial assistance to state governments during disasters.
 - ◆ It will approve financial assistance from the National Disaster Mitigation Fund.
 - ◆ Minister of the department with administrative control over disaster management will serve as chairperson of the HLC.
- **Appointments to NDMA:** The Bill empowers NDMA to specify the number and category of officers and employees, with the previous approval of the central government. NDMA may also appoint experts and consultants as necessary.

Conclusion

Several opposition members expressed concerns about the Bill. They argued that the amendments could centralize power and undermine the autonomy of state governments. Government defended the amendment with the argument that it will improve disaster mitigation and preparedness measures.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding Disaster Management (Amendment) Bill, 2024:

1. The bill empowers central government to constitute a separate Urban Disaster management Authority
2. The bill provides statutory status to National Crisis Management Committee (NCMC) and High Level Committee (HLC)

Which of the statements given above is/are correct?

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

Answer: (b)

Descriptive Question

Q. Critically analyze the important provisions of Disaster Management (amendment) Bill, 2024 and discuss its importance for India's disaster preparedness and mitigation framework. [15 marks] [250 words]

Free Initiative by Chahal Academy

What to Read in Indian Express

Scan QR Code





CCHAHAL
ACADEMY

GAGANYAN MISSION

Why in News: Indian Space Research Organisation (ISRO) and Australian Space Agency (ASA) have signed an Implementation Agreement (IA) for further strengthening cooperation in space activities.

Key Details

- The IA, which enables cooperation between both space agencies on crew and crew module recovery for Gaganyaan missions, was signed between the two space agencies on November 20.
- The IA enables the Australian authorities to work with Indian authorities to ensure support for search and rescue of crew and recovery of crew module as part of contingency planning for ascent phase aborts near Australian waters.

About Gaganyaan Mission

- Gaganyaan project envisages demonstration of human spaceflight capability by launching a crew of 3 members to an orbit of 400 km for a 3 days mission and bring them back safely to earth, by landing in Indian sea waters.
- **Critical technologies:** The pre-requisites for Gaganyaan mission include development of many critical technologies including Human-Rated Launch Vehicle for carrying crew safely to space, Life Support System to provide an earth like environment to crew in space, crew emergency escape provision and evolving crew management aspects for training, recovery and rehabilitation of crew.
- **Demonstrator missions:**
 - Various precursor missions are planned for demonstrating the Technology Preparedness Levels before carrying out the actual Human Space Flight mission.
 - These demonstrator missions include Integrated Air Drop Test (IADT), Pad Abort Test (PAT) and Test Vehicle (TV) flights. Safety and reliability of all systems will be proven in unmanned missions preceding manned missions.
- **Launch vehicle:** Human rated LVM3 - HLVM3, was previously known as the Geosynchronous Satellite Launch Vehicle Mark III, - is identified as the launch vehicle for Gaganyaan mission.

Significance of Gaganyaan Mission

- **Fostering Innovation and Growth:**

- The Gaganyaan mission will serve as a breeding ground for innovation, inspiring a new generation of scientists, engineers and entrepreneurs. The development of cutting-edge technologies, from advanced life support systems to sophisticated navigation systems, will push the boundaries of Indian ingenuity.
- **Employment Creation and Private Sector Growth:**
 - The mission will create a ripple effect in the job market, generating employment opportunities for thousands of skilled professionals. With the majority of components and technology being developed indigenously, the private sector will play a pivotal role, leading to its growth and expansion.
- **Human Beneficial Technology:**
 - The technologies developed for the Gaganyaan mission hold immense potential for societal betterment. Advanced life support systems can be adapted for use in disaster relief efforts, while water purification systems developed for the mission can provide clean drinking water to remote areas.
- **International Collaboration and Partnerships:**
 - The Gaganyaan mission will pave the way for future international collaborations in space exploration. India's technological prowess will attract partnerships with other space agencies, leading to joint ventures and knowledge sharing.
- **Interdisciplinary Collaboration and Academia-Industry Partnerships:**
 - The mission will foster collaboration between various disciplines, laboratories, industries, and government agencies. This interdisciplinary approach will break down silos and lead to the development of innovative solutions.

Challenges

- **Human Survival Technologies:**
 - Developing the necessary technologies for human survival in space is a complex and time-consuming process. ISRO is actively working on creating advanced life support systems, radiation shielding, and waste management solutions.
- **Human Training:**
 - While India lacks dedicated astronaut training facilities, ISRO has partnered with international agencies to

provide comprehensive training to the Gaganyaan crew. As the program progresses, India will strive to develop its own state-of-the-art training facilities.

• **Cost-Effectiveness:**

➤ Balancing cost-effectiveness with technological advancement is a critical aspect of the mission. ISRO is using innovative design and manufacturing techniques to develop reliable and affordable technologies.

• **Human Safety:**

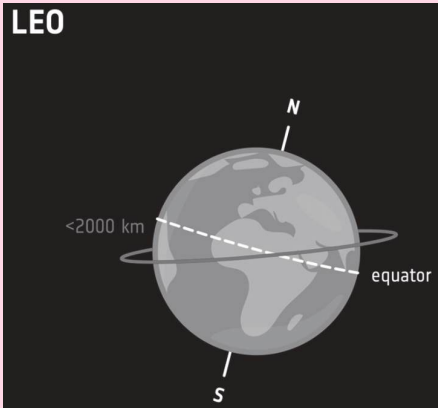
➤ Ensuring the safe return of astronauts is paramount. ISRO is implementing stringent safety protocols and developing robust emergency response systems.

Way Forward

- **Precautionary approach:** ISRO will take all precautions by carrying out a sufficient number of tests before the manned Gaganyaan mission is launched.
- **Gaganyaan as Stepping Stone:** The ultimate vision is building a space station by 2035 and having an Indian person land on the moon by 2040.

PRELIMS SPECIAL

About Low-Earth Orbit



- A low Earth orbit (LEO) is an orbit that is relatively close to Earth's surface.
- **Altitude:** It is normally at an altitude of less than 2000 km but could be as low as 160 km above Earth – which is low compared to other orbits, but still very far above Earth's surface.
- **Advantage of LEO over GEO (Geosynchronous Equatorial Orbit):**
 - Unlike satellites in GEO that must always orbit along Earth's equator, LEO satellites do not always have to

follow a particular path around Earth in the same way – their plane can be tilted.

- This means there are more available routes for satellites in LEO, which is one of the reasons why LEO is a very commonly used orbit.
- Most of the artificial objects in outer space are in LEO, peaking in number at an altitude around 800 km (500 mi). All space stations to date have operated geocentric within LEO.
- No human spaceflights other than the lunar missions of the Apollo program (1968-1972) and the 2024 Polaris Dawn have taken place beyond LEO.

About the Human-Rated Launch Vehicle Mark-3 (HLVM3)

- **Three stages:** It consists of solid stage, liquid stage and cryogenic stage.
- All systems in the LVM3 launch vehicle are re-configured to meet human rating requirements and christened Human Rated LVM3.
- **Capacity:** HLVM3 will be capable of launching the Orbital Module to an intended Low Earth Orbit of 400 km.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding Low Earth Orbit:

1. It is normally at an altitude of more than 2000 km from earth's surface.
2. India's Gaganyaan mission aims to orbit earth at orbit of 400 km altitude.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (b)

PIEZORESPONSIVE NANOMATERIALS

Why in News: Indian researchers have developed peptide (a short chain of amino acids linked by peptide bonds) based adjustable piezoresponsive nanomaterials that can help in energy harvesting and biodevice applications.

About Piezoresponsive nanomaterials

- The nanomaterials displaying the Piezoresistive effect are termed as Piezoresponsive nanomaterials.
- Piezoelectric materials have the unique ability to generate an electric charge when subjected to mechanical stress.

- Access to journals will be provided through a national subscription coordinated by the Information and Library Network (INFLIBNET), an autonomous inter-university centre of the University Grants Commission (UGC) through an entirely digital process.

UPSC MAINS FACTS

Status of Research & Development in India

- **Low Budget allocation:** The Government of India has allocated Rs 16,361 crore for the Union Ministry of Science and Technology in the 2023-24 budget, representing approximately 0.36 percent of the overall budget. This represents a nominal increase of 15% from the previous fiscal year, 2021-2022, when the allocation was approximately Rs 14,217 crore.

- **Low GERD per capita:** Gross Expenditure on R&D (GERD) is a crucial statistic for any nation. India has one of the lowest GERDs in the world, with only \$43 per capita, according to the NITI Aayog's India Innovation Index Report 2021.
 - India must increase its R&D spending; if it wishes to reach the level of an economy worth \$5 or \$10 trillion, it must approach the financial levels of BRICS or other ASEAN nations, including Russia (\$285), Brazil (\$173), and Malaysia (\$293).
- **Brain Drain:** Thousands of students from Indian universities and institutes, including IITs, IIS, NITs, IISERs, migrate annually to developed nations such as the United States, Germany, Japan, Korea, and others.

Government initiatives to promote Research and Development in India:

Department/ Ministry	Scheme	Scheme Details
Department of Biotechnology (DBT)	Biotechnology Industry Partnership Programme (BIPP)	The BIPP is a scheme to support high risk, high impact and transformational process/technology development in biotechnology. It supports up to 50% of the project costs . Companies with Indian promoters holding at least 51% of shares are eligible to apply.
	Contract Research Scheme	The Contract Research Scheme aims to foster collaboration between academia and industry by enabling the validation of biotechnology academic research that has commercialization potential. It aims to do this by funding projects that involve participants from academia and the contract research and manufacturing industry. The scheme supports 100% of the project costs and is given over 5 installments.
	Industry Innovation Programme on Medical Electronics (IIPME)	The IIPME aims to fund scientific and technological research in medical electronics to make it accessible to people at the bottom of the pyramid. The programme offers a mix of loans and grants not exceeding Rs. 100 lakhs for early stages of research and development at Indian companies. All companies that have Indian promoters holding at least 51% of the company's shares are eligible to apply.
Department of Electronics and Information Technology (Deity)	Support for International Patent Protection in Electronics & Information Technology (SIP-EIT)	The SIP-EIT aims to encourage innovation and recognize the value and capabilities of global IP. The programme provides financial assistance up to Rs. 15 lakhs per invention or 50% of the costs required in filing and processing of patent applications. The scheme supports Small and Medium Scale Enterprises and technology start-ups in Electronics and Information Technology.
	Multiplier Grant Scheme	The objectives of the MGS are to nurture and strengthen linkages between academia and industry and to encourage academic R&D institutes to conduct research that can be commercialized. This is done by providing grants to institution level R&D work that is supported by the industry. The government will provide financial support up to twice that provided by industry for the project. Indian companies that create a consortium with academic partners are eligible to apply.
	R&D Funding Scheme	Grants-in-aid are available from Deity for undertaking research projects relevant to electronics and Information Technology. The amounts vary depending on the projects. Any Indian company with an R&D unit approved by the DSIR is eligible to apply.
Ministry of New and Renewable Energy (MNRE)	Research, Design and Development of Solar Photovoltaic Technology (SPV) and Solar Thermal Technology (ST) Programme	The R&D in SPV and ST programme aims to focus on the development of renewable sources of energy for meeting/supplementing the energy demands of the country. Developers and Manufacturers of new and renewable energy technologies, processes, materials, components, sub-systems, products and services in public and private sector are eligible for the programme. Projects that involve the private sector are awarded up to 50% of the project cost .
Council of Scientific and Industrial Research (CSIR)	CSIR Research Grants	In order to develop Science and Technology human resources in India, the CSIR administers research grants through the Human Resource Development Group. Experts/Scientists working in private sector research labs are eligible for the grant that awards stipends up to Rs.30,000 per month as a research fellowship.
Department of Science and Technology	Project Finance through the Technology Development Board	The technology development board aims to facilitate the development of indigenous technology by placing the cess collected through the import of technology into financial assistance for companies that are attempting the development and commercial application of indigenous technology, or adapting imported technology to wider domestic applications. In house R&D units recognized by the DSIR are eligible to receive financial assistance. The assistance is provided in the form of equity participation, loans and in certain cases, grants .
	Global Innovation and Technology Alliance	In order to facilitate collaborative activities between countries, GITA offers soft loans and grants for joint R&D efforts to the Indian applicant. Researchers and managers representing Indian companies are eligible for participation in partnership with a counterpart company from certain countries.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding One Nation One Subscription:

1. It is a central sector scheme.
2. It aims to provides digital access to scholarly research and journals via a unified 'One Nation One Subscription' portal.
3. The budget of around ₹3000 crore is allotted for 2025, 2026 and 2027.

How many of the above statements are correct?

- (a) Only one (b) Only two
 (c) All three (d) None

Answer: (b) (1 & 2)

SHUKRAYAAN: VENUS ORBITER MISSION

Why in News: The Indian Space Research Organisation (ISRO) has received approval from the Indian government for its upcoming Venus Orbiting Satellite mission, named Shukrayaan, which is slated for launch in 2028.

About Venus Orbiter Mission

- The ambitious Venus Orbiter Mission (VOM) is planetary exploration efforts beyond the Moon and Mars.
- This mission aligns with the government’s long-term vision of advancing space exploration capabilities.

- The Venus Orbiter Mission, led by the Department of Space, will place a scientific spacecraft in orbit around Venus.
 - **Aim:** The mission aims to improve our understanding of the planet’s surface, subsurface, atmospheric processes, and the Sun’s influence on its atmosphere.
- ISRO will oversee the development and launch of the spacecraft, following its well-established project management practices.
- The data collected from the mission will be shared with the scientific community, fostering further research.
- The mission is expected for launch in March 2028, offering significant scientific insights and various outcomes, particularly in answering unresolved questions about Venus.
- The total approved budget for the Venus Orbiter Mission is Rs. 1,236 crore, with Rs. 824 crore allocated to spacecraft development.
- **Significance:** Investigating the causes behind Venus’s transformation from a potentially habitable planet to its current state will provide crucial insights into the evolutionary paths of both Venus and Earth.
 - The mission is expected to strengthen India’s capabilities for future planetary exploration, with the potential to handle larger payloads and optimize orbital insertion techniques.
 - The mission’s advanced instruments will generate new, valuable data for the Indian scientific community, creating exciting new research opportunities.

Space Missions Related to Venus	
Mission Name	Details
Mariner 2 USA, 1962	<ul style="list-style-type: none"> • First spacecraft at Venus. Closest distance 35,000 km. • No magnetic field detected.
Venera 4 USSR, 1967	<ul style="list-style-type: none"> • First probe to return data about atmospheric composition. • Crushed by pressure before reaching the surface.
Venera 5 & 6 USSR, 1969	<ul style="list-style-type: none"> • Detected presence of atmospheric nitrogen and oxygen. • Crushed by pressure before reaching the surface.
Venera 7 USSR, 1970	<ul style="list-style-type: none"> • First successful soft landing of a spacecraft on another planet. • Measured surface temperature and pressure.

Venera 8 USSR, 1972	<ul style="list-style-type: none"> • First to measure wind speed as it descended through the atmosphere. • Surface composition measured by a gamma-ray spectrometer.
Mariner 10 USA, 1974	<ul style="list-style-type: none"> • First spacecraft to have an imaging system, flew by on its way to Mercury in 1974. • Recorded atmospheric circulation and cloud-top temperatures.
Pioneer Venus 1 & 2 USA, 1978-1992	<ul style="list-style-type: none"> • Longest mission in orbit around Venus (14 years). First orbiter to make a radar map of the surface. • Measured structure, composition and cloud properties down to 12 km altitude.
Magellan USA, 1990-1994	<ul style="list-style-type: none"> • First almost-global radar mapping of the Venus surface.
Galileo USA, 1990	<ul style="list-style-type: none"> • Spectral imaging of night-side near-infrared emissions. • Detection of radio waves possibly emitted by lightning.
Cassini-Huygens USA/ESA/I, 1998/99	<ul style="list-style-type: none"> • Spectral imaging of night-side near-infrared emissions.
<ul style="list-style-type: none"> • NASA's MESSENGER mission to Mercury also made use of Venus for flybys in 2006 and 2007. 	
<ul style="list-style-type: none"> • ESA-JAXA BepiColombo mission to Mercury also flew by Venus in 2020 and 2021, and conducted scientific observations. 	
<ul style="list-style-type: none"> • Following Venus Express' successful orbiting mission between 2006 and 2014, the only other Venus orbiter has been JAXA's Akatsuki mission; after a failed orbital insertion manoeuvre in 2010 it made a successful second attempt in 2015. 	

Significance of Deep Space / Inter-Planetary Missions

- A Deep Space / Interplanetary mission involves a trip to the planet/s of our solar system outside of the Earth.
- Interplanetary missions are expedited by using any or all of the following viz., Satellites, Lander Crafts and Rovers. The primary objective is to demonstrate technologies relating to communication; survival in deep space environments and on the planets; exploration of planets physical, chemical and atmosphere systems.
- The result from such explorations helps in the:
 - Understanding of the planet's atmosphere w.r.t possible proximity to Earth's environment.
 - Plan for inhabitation / Colonization of the planets.
 - Advance Detection of Catastrophical aspects arising in the solar system such as Sun Storms, Comets and Meteorite strikes etc.

How many of the above pairs are correct?

(a) Only one (b) Only two

(c) All three (d) None

Answer: (a) 1 only

Q. Discuss the scientific objectives and potential benefits of India' Shukrayaan mission in understanding planetary evolution. [10 marks] [150 words]

EMERGING TECHNOLOGIES IN AQUACULTURE

Why in News: Technology such as Biofloc Technology (BFT) and Recirculating Aquaculture Systems (RAS) has seen greater adoption in India's aquaculture sector.

Key Details

- These technologies, while on one hand offer the advantages of intensified production, sustainability and reduced environmental impact, but on the other they also are able to keep diseases away.
- The Department of Fisheries, Government of India, is promoting and encouraging the adoption of these approaches among farmers by providing subsidies through various schemes at national and state level.
- The Indian scientific community, such as ICAR-Central Institute of Freshwater Aquaculture (CIFA) and ICAR-

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following pairs:

Mission name	Country
1. Akatsuki mission	Japan
2. Mariner	France
3. Venera	USA

Central Institute of Brackishwater Aquaculture (CIBA), are also actively researching different aspects of using BFT and RAS.

About Biofloc Technology (BFT)

- BFT is a **closed tank-based fish farming approach** which **cleans the water in fish tanks by using beneficial bacteria** (known as floc).
- **Process:** Heterotrophic bacteria (commonly *Bacillus*, *Pseudomonas*, *Nitrosomonas*, *Nitrobacter*, *Acinetobacter*, and *Alcaligenes*) are used to convert organic waste (such as uneaten feed and fish waste) into microbial biomass, which can then be consumed by the fish or shrimp.
- **Advantage:**
 - This process keeps the water clean without needing to change it often and at the same time reduces the risk of disease as well in the fish.
 - Water stays cleaner, hence farmers do not need to depend on external use of chemicals or antibiotics.
 - BFT also saves money on feed, as fish can get extra nutrients from the recycled waste, making it sustainable, cost-effective and environmentally friendly for fish farming.
 - The inbuilt aeration system to maintain adequate dissolved oxygen levels to promote microbial activity, along with mechanical filtration reduces chances of infection.
- **Suitability:** It is more suitable for small farmers with limited land as it can be established in a small area and even set up for backyard farming.

About Recirculating Aquaculture Systems (RAS)

- RAS is also a closed-loop tank-based farming that recycles water after filtration. RAS filters and cleans the water in the tank, removing waste and keeping it safe for the fish to live in.
- **Process:** It has automated set up of culture tanks with both mechanical and biological filtration units, and effectively prevents the entry of pathogens from external sources.
- **Advantages:**
 - It requires the minimal interventions to assess the culture, water and disease monitoring, which allows for improved biosecurity. So, fish are less likely to get sick and need for disinfectants or antibiotics is thereby reduced.
 - The RAS approach also offers a controlled environment for factors like temperature, oxygen levels and cleanliness, ensuring optimal conditions for healthy fish growth.
 - It can be set up indoors or in areas without natural water sources, allowing fish to be raised closer to cities and where demand is high.

Challenges

- **Small cultivation window:** In Uttar Pradesh, farmers talked about the window for fish farming being small — only 7-8 months, as November to March remain extremely cold.
- **Need for more training:** In Odisha, farmers appeared to be more aware and trained for use of heating rods to maintain water temperature during winter.
- **Subsidies:** Given the high cost of establishment, only farmers who are able to avail subsidies can afford to operate these technologies for farming.

Way Forward

- **More training and skilling:** The need for more training was voiced by farmers as the system requires continuous monitoring, management of water quality parameters and maintenance and proper functioning of filters and other equipment.
- **More Subsidy penetration:** Greater subsidy penetration is required so that most of the farmers can avail the benefit of technology.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following class of microorganisms:

1. Nitrosomonas
2. Acinetobacter
3. Pseudomonas

Which of the microorganisms given above can be used in the process of Biofloc technology?

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

(d) Answer

Descriptive Question

Q. Critically examine the role of Biofloc technology (BFT) and Recirculating Aquaculture Systems (RAS) in ensuring sustainable practices in India. [10 marks] [150 words]

NAFITHROMYCIN AND ANTI-MICROBIAL RESISTANCE

Why in News: Science and Technology Union Minister formally launched the first indigenous antibiotic “Nafithromycin” for resistant infections.

About Nafithromycin

- The antibiotic **Nafithromycin** has been developed with the support of Biotechnology Industry Research Assistance Council (BIRAC), a unit of the Department of Biotechnology and has been brought to market under the trade name **Miqnaf** by pharma company **Wolkardt**.

- It is the **country's first indigenously developed** antibiotic aimed at tackling Antimicrobial Resistance (AMR).
- This innovation is designed to treat **Community-Acquired Bacterial Pneumonia (CABP)**.
- Nafithromycin's efficacy stands out as it **targets both typical and atypical pathogens**, offering a potent solution where no new antibiotic in this class has been developed worldwide for over three decades.
- It is **ten times more effective than azithromycin** and achieves comparable outcomes with just a three-day regimen, as validated by clinical trials.
- Beyond its efficacy, Nafithromycin boasts **superior safety and tolerability**. The antibiotic has minimal gastrointestinal side effects, no significant drug interactions, and remains unaffected by food, making it a versatile option for patients.

India's Fight Against Antimicrobial Resistance

- **Definition:** Antimicrobial Resistance (AMR) occurs when bacteria, viruses, fungi and parasites **no longer respond to antimicrobial medicines**. As a result of drug resistance, antibiotics and other antimicrobial medicines become ineffective and infections become difficult or impossible to treat, increasing the risk of disease spread, severe illness, disability and death.
- While AMR is a natural process driven by genetic changes in pathogens over time, its spread is significantly accelerated by human activities, **particularly the overuse and misuse of antimicrobial drugs in humans, animals, and plants**.
- Antimicrobial resistance (AMR) has become a major global health issue, **with around 6 lakh lives lost in India each year** due to resistant infections.
- India is making significant strides in addressing AMR, particularly through the development of new drugs.
- Nafithromycin, developed with ₹8 crore in funding under the Biotechnology Industry Research Assistance Council (BIRAC) Biotech Industry Program for Phase 3 clinical trials, is a key milestone in this effort.
- **Significance of Nafithromycin for India:** Since India carries a large share of the global pneumonia burden, introducing Nafithromycin is especially important, as there have been no new antibiotics in recent years. Nafithromycin offers improved patient compliance and is a vital step in combating AMR.

Government's Other Initiatives to Combat AMR

- **Surveillance and Reporting:** National surveillance networks, including laboratories across the country, have been established to generate annual AMR surveillance reports, with data submitted to the Global AMR Surveillance System (GLASS).
- **Awareness and Training:** Awareness materials on the judicious use of antimicrobials, hand hygiene, and infection prevention have been developed and shared with stakeholders. National Guidelines on infection prevention have been launched, and

a **"train-the-trainer"** program has been conducted across all states and UTs, with ongoing cascading of training at the state level.

- **Judicious Use of Antimicrobials:** To promote responsible usage, surveillance of antimicrobial use has been initiated at tertiary care hospitals.
- **National Action Plan on AMR (NAP-AMR):** Launched in 2017, the NAP-AMR aligns with the Global Action Plan on AMR. The plan has been implemented across multiple ministries and was initially set for five years.
- **NAP-AMR 2.0 Development:** National consultations were held in 2022 across sectors (human health, research, environment, animal husbandry) to develop NAP-AMR 2.0, which includes SWOT analysis and recommendations for AMR research policies.
- **Red Line Awareness Campaign:** The Ministry of Health and Family Welfare (MoHFW) launched the Red Line campaign to raise awareness about the dangers of using antibiotics without a prescription. The campaign advises the public not to use antibiotics marked with a red vertical line unless prescribed by a doctor.
- **ICMR Guidelines:** The Indian Council of Medical Research (ICMR) has issued treatment guidelines to regulate the use of antibiotics, especially for common conditions like viral bronchitis and low-grade fever. These guidelines aim to prevent unnecessary antibiotic use.
- **Regulation of Antibiotics under Schedule H and H1:** Antibiotics are listed under Schedule H and H1 of the Drugs Rules, 1945, ensuring they are only available with a prescription from a registered medical practitioner. Drugs under Schedule H1 are also subject to strict record-keeping, with supply records maintained for three years.
- **CDSCO Notification for High-End Antibiotics:** The Central Drugs Standard Control Organisation (CDSCO) has included 24 high-end antimicrobials under Schedule H1, mandating strict regulation and oversight to prevent misuse.

Global Cooperation to Fight AMR

- **National Centre for Disease Control (NCDC) Collaborations:** NCDC collaborates with global organizations and countries to address AMR, focusing on AMR surveillance, capacity building, and specialized lab testing.
- Notable international collaborations include:
 - **India-US CDC Partnership:** Focused on AMR surveillance, SOP development, and data management using WHONET (World Health Organization (WHO) Network) software, with support for HAI (Healthcare Associated Infection) surveillance through ICMR-AIIMS.
 - **USAID (United States Agency for International Development) Collaboration:** Focused on strengthening AMR containment in six states.
 - **Indo-Netherlands Collaboration:** Pilot project in Andhra Pradesh integrating AMR surveillance with a One Health approach.
 - **Fleming Fund (UK):** Supported training of trainers on infection prevention and control (IPC), strengthening

AMR surveillance networks in three states, and conducting surveys on antibiotic use in tertiary hospitals.

- **India-Denmark Collaboration:** A recent technical collaboration plan to address AMR.

WHO Global Action Plan on AMR

Key Objectives:

- 01 Raise Awareness**
Enhance communication, education, and training.
- 02 Strengthen Research**
Improve surveillance and evidence base.
- 03 Prevent Infections**
Promote sanitation and hygiene measures.
- 04 Optimize Use**
Ensure judicious use of antimicrobials in health sectors.
- 05 Invest in Innovation**
Promote sustainable investments and new solutions.

Conclusion

India's proactive efforts to combat antimicrobial resistance (AMR) through innovative drug development, such as the launch of Nafithromycin, alongside comprehensive national initiatives, underscore the country's leadership in global healthcare.

The commitment to surveillance, awareness, and international collaboration highlights India's strategic approach to tackling AMR and improving health outcomes. With continued investments in research, capacity building, and partnerships, India is well-positioned to drive meaningful change in the global fight against antimicrobial resistance and contribute to better health worldwide.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding Nafithromycin

1. It is India's first indigenously developed antibiotic.
2. It is designed to treat Community Acquired bacterial Pneumonia.
3. It is 100 times more effective than azithromycin.

Which of the statements given above is/are correct?

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

(a) Answer

Descriptive Question

Q. With AntiMicrobial Resistance emerging as a major global health crisis, evaluate India's efforts in combating AMR through indigenous innovations and various government initiatives. [10 marks] [150 words]

APPLICATIONS OF NUCLEAR TECHNIQUES

Why in News: The International Atomic Energy Agency (IAEA) highlighted the impact of Nuclear Techniques on our lives.

Nuclear Techniques

- Nuclear techniques are **methods and tools that use nuclear properties**, such as radioactive decay, nuclear reactions, or radiation, for various applications across science, industry, medicine, agriculture, and environmental studies.
- These techniques rely on isotopes, radiation sources, or nuclear particles to achieve their purpose.
- **Examples:** Radioisotope Tracing, Radiography, Nuclear Magnetic Resonance (NMR), Isotope Hydrology etc.

Nuclear Techniques by IAEA for Global Challenges

- From enhancing cancer care and food safety to protecting ecosystems and improving water management, nuclear techniques are driving innovative solutions to global challenges.
- **Food Security and Safety:** The work of the IAEA's Insect Pest Control Laboratory in Seibersdorf, is crucial for protecting agriculture from invasive pests, by promoting the pesticide-free Sterile Insect Technique (SIT), a key component of Atoms4Food.
- **Cancer Care:** Nuclear techniques are transforming global health by advancing medical treatments like **radiotherapy** and diagnostics.
 - The IAEA carried out research in 12 cancer centres in 10 LMICs, using a treatment regimen of fewer but higher doses of radiation per daily treatment session over a shorter time frame.
 - This approach (known as hypofractionation) offers a cost-effective tool to enable more patients to receive safe, effective and timely care.
- Climate change-related water issues

- IAEA collaborates with local experts, using isotope data combined with climate models and historical records to predict the frequency, intensity, and scale of meteorological events.
- **Urban water pollution:** By tracing pollution at its source, isotopes offer a sustainable solution to urban water management challenges.
- **Fusion Energy:** IAEA's Nuclear Data Section provides critical atomic and molecular data essential for fusion energy research.
 - IAEA's efforts are helping to transition fusion from a distant dream to a viable energy solution for the future.
- **Protect communities from industrial pollution**
 - Through the IAEA's Coordinated Research Project on ion beam accelerators, scientists are analyzing microscopic particles to assess environmental impacts.
 - These insights empower policymakers to create strategies that safeguard public health and promote sustainable industrial practices.
- **Protect farm animals from disease:** Through the ZODIAC initiative, the IAEA and FAO have developed nuclear-derived tools like the Polymerase Chain Reaction and molecular sequencing to track and contain the swine flu virus.
- **Seafood Safety:** IAEA Marine Environment Laboratories help protect seafood stocks from pollution, such as that caused by oil spills, ensuring safe and sustainable food supplies.
- **Protecting Rivers:** The IAEA has developed a method using stable isotopes to assess how different sources of freshwater, including rainfall, surface runoff, soil water, and groundwater, all contribute to river flow.
- **Water use efficiency in fields**
 - Farmers in Namibia have been trying out a nuclear-based approach to irrigating their fields, which has helped them substantially improve water use efficiency.
- **Groundwater Management:** IAEA develops and implements sophisticated isotope hydrology techniques to better understand the age and flow of groundwater.
- **Wetlands Preservation:** Using advanced nuclear techniques, the researchers traced water sources back to the trans-boundary Guarani Aquifer System, which provides water to over 30 million people in Argentina, Brazil, Uruguay and Paraguay.
- **Diagnose Breast Cancer:** To enhance early detection and diagnosis, the IAEA is training doctors on **mammography** — an X-ray based diagnostic tool pivotal for the timely detection and treatment of breast tumours.
- Energy is essential for sustainable economic growth and improved human welfare.
- Nuclear energy provides access to clean, reliable and affordable energy, mitigating the negative impacts of climate change.
- It is a significant part of the world energy mix and its use is expected to grow in the coming decades.
- **Health**
 - To address needs related to the prevention, diagnosis and treatment of health conditions, in particular non-communicable diseases such as cancer and cardiovascular diseases, the application of nuclear techniques play an imperative role.
 - They can also help monitor and address malnutrition in all its forms, from undernutrition to obesity.
- **Environment**
 - Small changes in our environment can potentially have wide-ranging consequences.
 - The IAEA uses nuclear and isotopic tools to understand the world we live in and provide decision-makers with the information necessary to address modern environmental issues and adapt to future scenarios.
- **Water**
 - Water security – its availability, quality, management and protection – has become a critical issue in human development and environmental and economic sustainability, particularly in light of global population growth.
 - The IAEA approaches this challenge through science-based isotope hydrology methodologies and technical training.
- **Food and Agriculture**
 - Nuclear technologies provide competitive and often unique solutions to help fight hunger and malnutrition, improve environmental sustainability and ensure that food is safe.
 - The IAEA and the Food and Agriculture Organization of the United Nations (FAO) work in partnership to help Member States use these technologies safely and appropriately.
- **Industry**
 - Nuclear science and technology play a major role in bringing innovation, safety and efficiency to industrial processes.
 - Making radiation technologies available to Member States and assisting them in the peaceful use of these technologies are an important part of the IAEA's work.

Applications of Nuclear Technology

- Energy

Conclusion

Nuclear techniques are transforming global efforts to address **critical challenges across health, energy, agriculture, water**

management, and environmental protection. By leveraging innovative and sustainable nuclear solutions, the IAEA is empowering nations to enhance food security, improve healthcare, combat climate change, and promote sustainable development for a healthier and more resilient future.

PRELIMS SPECIAL

Atoms4Food

- Flagship initiative to help boost food security and tackle growing hunger around the world.
- Launched by the International Atomic Energy Agency (IAEA) and the Food and Agriculture Organization of the United Nations (FAO).
- It will support countries to use innovative nuclear techniques in enhancing agricultural productivity, reducing food losses, ensuring food safety, improving nutrition, and adapting to the challenges of climate change.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Nuclear technologies have wide applications in?

1. Food security and safety
2. Cancer care
3. Protecting ecosystems

Which of the applications given above is/are correct?

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

Answer: (d)

Descriptive Question

Q. Discuss the role of nuclear techniques in addressing global challenges across various sectors.

DISEASE X

Why in News: The recent outbreak reported in the first week of December 2024 in the Democratic Republic of Congo has raised concerns that it could be an instance of Disease X.

About Disease X

- Disease X is not an actual but a **hypothetical disease**.
- The World Health Organization (WHO) coined the term in 2018 to describe an unknown pathogen that could potentially unleash a devastating epidemic or pandemic.
- It was conceptualised by the WHO to prepare for future outbreaks that are difficult to predict or identify.
- COVID-19 is widely regarded as the first instance of a real Disease X after the WHO introduced the concept in 2018.

- **Disease X is not a specific illness but a placeholder for an unpredictable and as-yet-undiscovered pathogen capable of sparking a global health crisis.**
- The WHO included it in the **Blueprint for Priority Diseases in 2018** to focus on the risks of emerging diseases that science has yet to encounter.
- **Cause:** The potential culprits behind Disease X are varied. It originates from Pathogen X, which could be a virus, a bacterium, a parasite, fungi, helminths, or even a prion — a misfolded protein capable of causing severe neurological diseases.

Patterns in Emerging Diseases

- While the exact nature of Disease X remains unknown, epidemiological patterns provide critical insights into how new diseases emerge and spread.
- The emergence of viruses such as HIV, SARS, MERS, and Ebola was closely linked to ecological disruptions caused by human activity.
- Regions with high biodiversity and inadequate healthcare systems, like the Congo Basin, are particularly vulnerable. The interconnectedness of our world, with frequent international travel and trade, makes it easier for localised outbreaks to escalate into pandemics, as seen with COVID-19.
- **Role of Epidemiology:** While epidemiology cannot predict the exact moment or source of Disease X, it can help identify high-risk regions and behaviours that increase the likelihood of its emergence.

Challenges in Predicting Disease X

- Forecasting the next Disease X is daunting, as its emergence depends on numerous unpredictable factors.
 - Zoonotic diseases are the most likely source of driving major epidemics.
 - Other scenarios include pathogens mutating to evade treatment, laboratory mishaps, or deliberate biological attacks.
 - Climate change is also reshaping disease transmission dynamics, expanding the range of vector-borne illnesses like malaria and dengue fever while pushing pathogens to adapt to new hosts and environments.
 - The sheer number of potential pathogens adds to the complexity.
- **Undiscovered pathogens:** Only a fraction of viruses capable of infecting humans have been identified, leaving a vast pool of unknown threats.
- **Limitations of Modern Biotechnology:** Genomic sequencing and artificial intelligence are beginning to play an important role in narrowing this vast field of possibilities, but even with these tools, predicting the exact origin, timing, and behaviour of Disease X remains out of reach.

Way Forward: Need for Global Collaboration

- Fighting Disease X will require an unprecedented level of international cooperation.
- **WHO's Efforts**
 - The WHO's ongoing efforts, such as its list of priority pathogens and the proposed Pandemic Treaty, aim to foster a unified global response to health emergencies.
 - These initiatives recognize that pandemics do not respect borders and that fragmented efforts will be insufficient to counter a threat as elusive as Disease X.
- Governments must work together to share data, pool resources, and ensure equitable access to diagnostics, treatments, and vaccines.
- Frameworks like the **Nagoya Protocol**, which ensure equitable sharing of benefits from genetic resources, could be expanded to include biological materials like pathogens.
- It would promote global collaboration, ensuring fair access to research and medical countermeasures during outbreaks.
- **Role of Biotechnology:** Advances in genomic sequencing, artificial intelligence, and real-time data sharing are essential tools for developing diagnostics, therapeutics, and vaccines.
- Strengthening healthcare infrastructure, particularly in low- and middle-income countries, is also crucial.

Conclusion

The outbreak in the DRC serves as a sobering reminder of the risks the world faces. Disease X is no longer a distant hypothetical but an urgent call to action. By strengthening public health systems, investing in research and innovation, and fostering global solidarity, the world can prepare for the unpredictable and safeguard future generations from the devastating consequences of the next pandemic.

PRELIMS SPECIAL

About World Health Organisation

- Founded in 1948, WHO is the **United Nations agency** that connects nations, partners and people to promote health, keep the world safe and serve the vulnerable – so everyone, everywhere can attain the highest level of health.
- **History:** When diplomats met to form the United Nations in 1945, one of the things they discussed was setting up a global health organization. WHO's Constitution came into force on 7 April 1948 – a date celebrated every year as **World Health Day**.
- **Governance:** The World Health Assembly is the decision-making body of WHO and is attended by delegations from all Member States.
- **Work:** WHO leads global efforts to expand universal health coverage.
 - It directs and coordinates the world's response to health emergencies.

- It promotes healthier lives – from pregnancy care through old age.
- Its Triple Billion targets outline an ambitious plan for the world to achieve good health for all using science-based policies and programmes.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding Disease X

1. Disease X is not an actual but a hypothetical disease.
2. World Health Organization (WHO) coined term Disease X to describe an unknown pathogen that could potentially unleash a devastating epidemic or pandemic.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (c)

PROBA-3 MISSION

Why in News: The PSLV-C59/PROBA (PROject for OnBoard Autonomy)-3 Mission has successfully achieved its launch objectives, deploying ESA's satellites into their designated orbit with precision.

About PSLV-C59

- PSLV-C59 vehicle carried Proba-3 spacecraft into a highly elliptical orbit as a Dedicated commercial mission of NewSpace India Limited (NSIL).
- 61st PSLV Flight and 26th PSLV-XL flight.
- Satellites in PSLV-C59
 - Proba-3 of the European Space Agency.

About Proba-3

- Proba-3 is an In-Orbit Demonstration (IOD) mission of the European Space Agency.
- **Goal:** The mission goal is to demonstrate precise formation flying.
- It consists of 2 spacecraft viz. the Coronagraph Spacecraft (CSC) and the Occulter Spacecraft (OSC) were launched together in a stacked configuration.
- Proba-3 is ESA's and the **world's first precision formation-flying mission**. A pair of satellites will fly together, maintaining a fixed configuration as if they were a single large rigid structure in space, to prove innovative formation flying and rendezvous technologies.

- The 2 satellites will adopt a fixed configuration in space, 150m apart while lined up with the Sun so that OSC blocks out the brilliant solar disk for the CSC. This will open up continuous views of the Sun's faint corona, or surrounding atmosphere, for scientific observation.

Continued collaboration with the European Space Agency

- This mission also marks the second ESA satellite launch aboard an Indian rocket. The first, Proba-1, was launched in 2001 using the PSLV.
- This continued collaboration between Isro and ESA highlights the growing international trust in India's space capabilities.
- **Significance:** As the Proba-3 mission progresses, it promises to unlock new insights into space technologies and the study of the Sun's outer atmosphere, further cementing Isro's role as a global leader in space innovation and collaboration.

PRELIMS SPECIAL

Polar Satellite Launch Vehicle (PSLV)

- Polar Satellite Launch Vehicle (PSLV) is the third generation launch vehicle of India.
- It is the first Indian launch vehicle to be equipped with liquid stages.
- After its first successful launch in October 1994, PSLV emerged as a reliable and versatile workhorse launch vehicle of India.
- PSLV earned its title 'the workhorse of ISRO' through consistently delivering various satellites into low earth orbits, particularly the IRS Series of satellites
- Due to its unmatched reliability, PSLV has also been used to launch various satellites into Geosynchronous and Geostationary orbits, like satellites from the IRNSS Constellation
- The PSLV is capable of placing multiple payloads into orbit, thus multi-payload adaptors are used in the payload fairing.
- 4-stage vehicle
 - **First Stage (PS1):** PSLV uses the S139 solid rocket motor that is augmented by 6 solid strap-on boosters.
 - **Second Stage (PS2):** PSLV uses an Earth storable liquid rocket engine for its second stage, known as the Vikas engine, developed by Liquid Propulsion Systems Centre.
 - **Third Stage (PS3):** The third stage of PSLV is a solid rocket motor that provides the upper stages high thrust after the atmospheric phase of the launch.
 - **Fourth Stage (PS4):** The PS4 is the uppermost stage of PSLV, comprising two Earth storable liquid engines.

NewSpace India Limited (NSIL)

- NewSpace India Limited (NSIL), incorporated on 6 March 2019 (under the Companies Act, 2013) is a wholly owned Government of India company, under the administrative control of Department of Space (DOS).
- NSIL is the commercial arm of Indian Space Research

Organisation (ISRO) with the primary responsibility of enabling Indian industries to take up high technology space related activities and is also responsible for promotion and commercial exploitation of the products and services emanating from the Indian space programme.

- The major business areas of NSIL include:
 - Production of Polar Satellite Launch Vehicle (PSLV) and Small Satellite Launch Vehicle (SSLV) through industry;
 - Production and marketing of space-based services, including launch services and space-based applications like transponder leasing, remote sensing and mission support services;
 - Building of Satellites (both Communication and Earth Observation) as per user requirements.
 - Transfer of technology developed by ISRO centres/ units and constituent institutions of Dept. of Space;
 - Marketing spin off technologies and products/ services emanating out of ISRO activities
 - Consultancy services

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding Polar satellite Launch Vehicle (PSLV)

1. PSLV is the third generation launch vehicle of India
2. PSLV is a 3-stage fuel vehicle
3. PSLV is also known as 'the Workhorse of ISRO'

Which of the statements given above is/are correct?

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

Answer: (a)

IIT MADRAS HAS UNVEILED INDIA'S FIRST HYPERLOOP TEST TRACK

Why in News: The construction of **India's first Hyperloop test track**, an 11-km facility at the Discovery Campus of IIT Madras in Chennai's Thaiyur suburb, has been completed.

Key details

- Hyperloop, a proposed **ultra-high-speed**, ground-level, solar-powered cargo and mass transportation system conceptualized in 2013 by American entrepreneur **Elon Musk**.

- The system consists of a network of steel tubes, with pods traveling through a “near-vacuum” environment at speed up to 1,220 km (760 miles) per hour using magnetic levitation and propulsion.
- **Components of Hyperloop:**
 - **Vacuum tube:** A low-pressure tube that’s kept near a vacuum to reduce air resistance.
 - **Travel pod:** Aerodynamically designed pods to reduce air resistance.
 - **Compressor:** It draws air from the pressurized column at the front of the vehicle, and releases it to the rear.

Significance

- **Ultra-fast transportation:** Hyperloop can reach speeds up to 1200 km/hr, making it faster than bullet trains and planes for short to medium distance.
- **Cost effective in the long run:** Lower operational cost and energy efficiency could make hyperloop cheaper than air travel in the long run.
- **Reduced travel time:** For instance, a proposed hyperloop between Mumbai and Pune (Approx 150 km) could reduce travel time from 3 hours to just 25 minutes.

Challenges

- **High Initial Cost** - Building the infrastructure requires substantial investment. According to research by Deloitte, the cost of building a one-kilometer Hyperloop

track ranges between \$25 million and \$45 million, making large-scale deployment challenging

- **Safety Concerns** - Since Hyperloop involves high-speed travel in a near-vacuum, ensuring passenger safety during emergencies is a critical challenge such as leaks and mechanical failures.
- **Regulatory & Legal Barriers** - Hyperloop technology currently lacks established global standards and regulatory frameworks, delaying its adoption.

Way forward

- **Policy and regulatory framework** - Forming a dedicated hyperloop regulatory authority.
- **Indigenous technology development** - Collaboration with academic and research centres like IITs, IISc and ISRO can drive technological innovations.
- **Pilot projects for feasibility testing** - Prioritize small scale pilot projects to test feasibility, safety and economic viability.
- **International collaborations** - Collaborate with countries actively working on Hyperloop technology such as the USA, UAE and European Union.

Conclusion

With the right strategy hyperloop can enhance regional connectivity, reduce carbon emissions and position India as a global leader in futuristic transport systems.

Free Initiative by Chahal Academy

Editorial Analysis of The Hindu

Scan QR Code

CCHAAHAL ACADEMY

THE HINDU

TELECOM CYBER SECURITY

Why in News: Government of India has recently notified Telecommunications (Telecom Cyber Security) Rules, 2024

Key Details

- The Department of Telecommunication has rolled out rules designed to protect the country's critical infrastructure networks from cyberthreats.
- Introduced under the landmark Telecom Act, which passed in 2023, the measures represent a significant regulatory step for the industry. Although the final rules incorporate some changes prompted by public consultations, experts say they still need more guardrails for government access to data.

Key Highlights

- Require telecom entities to report cybersecurity incidents **within six hours**,
- Share user traffic data with cybersecurity authorities
- Adopt a cybersecurity policy that includes risk management approaches
- Stress has been given on training, network testing and risk assessment.

A **telecommunications entity** is a person or entity that provides telecommunication services, or establishes, operates, maintains, or expands a telecommunication network.

In India, the Telecommunications (Telecom Cyber Security) Rules, 2024 have defined the following requirements for telecommunications entities:

- Cybersecurity incident reporting
 - Telecom entities must report cybersecurity incidents to the government within six hours of becoming aware of them. They must also provide additional details within 24 hours.
- Chief Telecommunications Security Officer (CTSO)
 - Telecom entities must appoint a CTSO who is a citizen and resident of India. The CTSO is responsible for implementing the rules and ensuring compliance.
- Access to data
 - The central government or its authorized agency can request traffic data and other data from telecom entities to ensure cybersecurity.

Measures to protect and ensure telecom cyber security

- The Central Government may put in place digital and

other mechanisms as it may consider necessary to identify, or for enabling any person and other stakeholders to identify and report any act that endangers telecom cyber security

- The Central Government shall, after a prima facie examination of the information received under subrule, identify the telecommunication identifier, the use of which is alleged to have endangered telecom cyber security and the person to whom such telecommunication identifier has been issued by the telecommunication entity, and issue a notice to such person, with details thereof.
- The person to whom notice is issued under sub-rule, shall send a written response to the Central Government, within seven calendar days of receipt of such notice, and if no response is received within such period, the Central Government shall proceed to issue an order under sub-rule.
- If a response is received from the recipient of the notice under sub-rule within the time specified therein, the Central Government shall, after giving such person a reasonable opportunity of being heard, make an order thereon as it thinks fit under sub-rule.

Impact on users

- The obligation to provide user data to state authorities raises significant concerns among privacy advocates.
- Contrary to the draft version of the rules, which could have allowed authorities to collect the content of people's messages, the adapted version mainly permits the collection of user metadata. However, this metadata is still considered "extremely sensitive".
- The government can also suspend a person's access to telecom services if they are found to be in breach of the vaguely defined obligations under these rules.

Way forward

- The cybersecurity rules, as well as other rules under the Telecom Act, should be presented before legislators and scrutinized to ensure they provide adequate safeguards for people's rights.
- The Telecom Act replaced colonial-era laws with the intent to modernize India's sector and encourage innovation. The law should not be a missed opportunity.

strategy of delivering nuclear weapons using three different types of platforms, ensuring a nation's capability to respond to a nuclear attack and maintain a credible deterrent.

- **Significance:** Countries build nuclear triads to eliminate an enemy's ability to destroy a nation's nuclear forces in a first-strike attack, which preserves their own ability to launch a **second strike** and therefore increases their nuclear deterrence.

India's Nuclear Triad

- Land Based
 - Nuclear capable missiles like the Prithvi series and Agni Series.
- Air Based
 - Aircrafts that can carry nuclear warheads: Sukhoi Su-30MKI, Mirage 2000, Jaguar and Rafale.
- Sea-Based
 - India completed its nuclear triad with the commissioning of INS Arihant (Arihant Class) in August 2016.

Conclusion

India's successful test firing of the K-4 SLBM from INS Arighaat marks a significant milestone in its nuclear deterrence strategy. The development of the Arihant-class submarines, powered by indigenous technology, further highlights India's commitment to self-reliance in defence. Guided by its nuclear doctrine emphasising no first use and responsible stewardship of nuclear technology, India continues to prioritize credible deterrence, while maintaining its commitment to global nuclear disarmament and non-proliferation.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding K-4 Submarine launched Ballistic Missile (SLBM)

1. K-4 is a nuclear capable short range Submarine launched Ballistic Missile
2. It is developed and designed by Defence Research and Development Organisation

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (b)

MH-60R HELICOPTERS

Why in News: The United States has recently approved a billion dollar deal to sell India support equipment for MH-60R multi-role helicopters under its Foreign Military Sales programme.

Key Details

- The Indian Navy has already received six MH-60R helicopters which are deployed in Kochi with the same configuration used by the US Navy.
- The remaining 18 helicopters will include customised configurations to meet Indian requirements.
- These helicopters are replacing the ageing fleet of Sea King choppers, which served the Indian Navy for over three decades.
- Significance
 - The MH-60R helicopters have emerged as a major force multiplier for the Indian Navy amidst the growing challenges from China and Pakistan in the Indian Ocean Region (IOR).
 - The upgrade is part of a broader strategy to counter China's growing presence in the Indian Ocean and Pakistan's continued support for regional instability.
 - The deal also underscores the growing defence partnership between India and the US, marking a milestone in their shared vision for a free and secure Indo-Pacific region.

PRELIMS SPECIAL

MH-60R SEAHAWK Helicopter

- The MH-60R SEAHAWK helicopter brings transformational anti-submarine (ASW) and anti-surface warfare (ASuW) capabilities to navies around the world.
- **Manufacturer:** Sikorsky / Lockheed Martin
- **Origin:** USA
- Role
 - Anti-submarine warfare
 - Anti-surface warfare
 - Vertical replenishment
 - Passenger and cargo transfer
 - Search and rescue

About Foreign Military Sales (FMS)

- Foreign Military Sales (FMS) is the U.S. Government's program for transferring defence articles, services, and training to our international partners and international organizations.
- The Defense Security Cooperation Agency (DSCA) administers the FMS program for the Department of Defense (DoD).
- Eligible countries may purchase defense articles and services

S-400 SURFACE-TO-AIR MISSILE SYSTEM

Maximum range of S-400: 400km

Minimum range against low flying plane or missile: 40km

S-400 TRIUMF (SA-21 Growler)

Maximum detection range	600km
Maximum altitude	30km
Maximum target speed	4.8km/sec
Targets engaged simultaneously	Up to 36

Missile ranges

- 9M96: 120km
- 48N6: 250km
- 40N6: 400km

Fire control radar

Launcher: Equipped with four missile canisters. Up to eight launchers in S-400 battery

Each canister holds four short-range missiles or one longer range missile

- Can shoot down up to 80 target simultaneously
- Cannot yet accurately target low-flying aircraft and missiles (altitude below 30,000 ft) at great distances

- Why is the S-400 important for India?
 - **Border security:** If deployed towards the Western borders, the system can track movements of Pakistan Air Force aircraft as soon as they take off from their bases.
 - **Defence dome:** S-400 provided a defence dome over critical infrastructure like nuclear facilities, defence establishments, major Indian cities like Delhi, Mumbai, Kolkata, and other strategic locations.
 - **Securing India's Airspace -** From possible intrusions from China or Pakistan.

EXPECTED QUESTIONS FOR UPSC CSE

Descriptive Question

Q. Describe S-400 Missile Defence Systems. How will India benefit from this equipment system. [10 marks, 150 words]

DARK EAGLE

Why in News: United States has successfully tested a new anti-missile system called Dark Eagle, which is capable of intercepting enemy missiles in mid-air.

Key Details

- It is equipped with medium-range missiles and has a launch speed of 20,826 km/h.
- The system’s ballistic missile features two stages, one of which includes a hypersonic glide warhead.
- Its anti-missile system hypersonic glide warhead travels with a speed of 3000-3700 metre per second at the height of 50 kilometres.
- The Dark Eagle anti-missile system is capable of stopping ballistic, cruise, hypersonic missiles and warheads. It is capable of stopping any modernised weapon.

Comparison With Russian Missile Defence System

- The U.S. Army’s Dark Eagle hypersonic missile is designed to reach speeds of up to Mach 17, making it difficult to intercept, particularly at altitudes below 50 km. It is launched from a mobile platform and uses a two-stage ballistic missile to boost a hypersonic glide vehicle (HGV) to its target.
- The **Russian S-400 and S-500 air defense systems** are designed to intercept a variety of threats, including aircraft, ballistic missiles, and cruise missiles.
 - The S-400 has a range of up to 400 km and can engage targets at altitudes of up to 30 km.
 - The S-500 is designed to intercept ballistic missiles at even longer ranges and higher altitudes.
- While both the S-400 and S-500 are capable of intercepting some hypersonic weapons, the Dark Eagle’s speed and maneuverability make it a challenging target. The U.S. military believes that the Dark Eagle’s ability to fly at lower altitudes than traditional ballistic missiles will make it even more difficult to intercept.
- S-500 is still under development and its full capabilities are not yet known. It is possible that the S-500 will be able to intercept the Dark Eagle in the future.

Indian Ballistic Missile Defence (BMD) System

- India’s BMD is planned as a double layered system consisting of land and sea-based interceptor missiles: the first layer named ‘Prithvi Air Defence’ (PAD) and the second layer named ‘Advanced Air Defence’ (AAD).
- The PAD is used for high-altitude interception and the AAD takes care of low-altitude interceptions.
- India has achieved a good amount of self-reliance in BMD by developing and testing missiles like the Prithvi, Akash, Long Range SAM, Quick Reaction-SAM (QR SAM) and Medium Range-SAM (MR SAM).
- The **first layer** of the Indian BMD shield is the land-based Prithvi Air Defence System.
 - Altitudinal range: 50-80 km
 - This system can destroy enemy missiles outside the earth’s atmosphere, which is known as an ‘exo-atmospheric kill’.
- The **second layer** of the Indian BMD system is the AAD, developed for lower altitude interception: up to 15 to 50 km.
 - The AAD can intercept enemy missiles within the earth’s atmosphere, which is known as an ‘endo-atmospheric kill’.

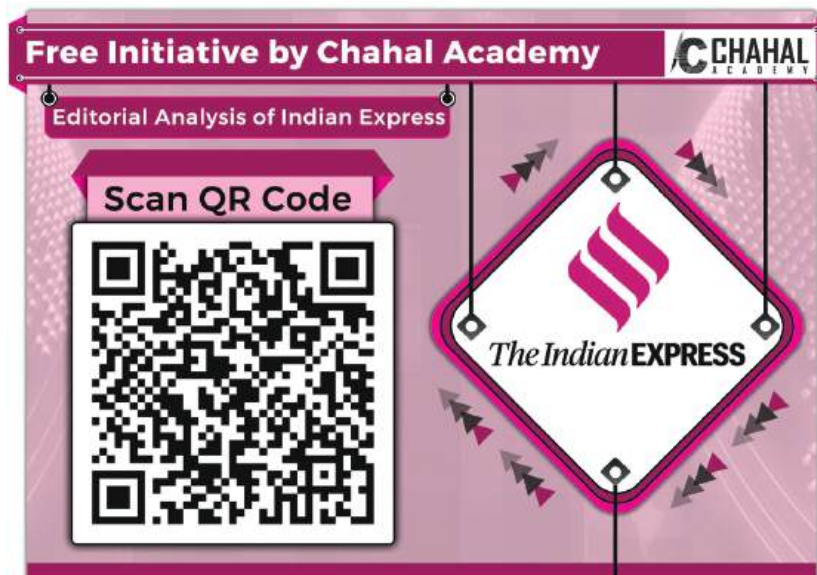
EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Recently, Dark Eagle was seen in news. It is:

- (a) USA made new anti-missile system
- (b). China made new anti-missile system
- (c) Israel’s new Supersonic Missile.
- (d) North Korea’s newly tested Ballistic Missile.

(a) Answer



WOMEN VOTERS CHANGING INDIAN ELECTIONS

Why in News: In Jharkhand and Maharashtra assembly elections the incumbent alliances won by a huge margin, they benefited significantly from the implementation of women-centric direct cash transfer schemes.

Key Details

- There are indications that unlike in the past, financial assistance has helped mobilise women politically, with large-scale cash transfers or other women-centric schemes enabling them to discuss governance at home and in society.
- Examples of Financial Assistance / Cash Transfer Schemes for Women
 - **Majhi Ladki Bahin Yojana** (Maharashtra)
 - **Maiya Samman Yojana** (Jharkhand)
 - **Lakshmir Bhandar Scheme** (West Bengal)
 - **Mukhyamantri Ladli Bahna Yojana** (Madhya Pradesh)

Trends of Women's Participation in Elections

- **Increased women participation in Elections:** The voter turnout of men and women is now almost equal, after continuously showing a double-digit gap in the initial few decades of Independence.
- **Voting Patterns:** Although women participation has increased, women voters' choices have not differed significantly from that of their male counterparts.
 - The voting patterns of women have largely been the same as that of their male counterparts.
- **Parties wooing Women:** Although women's participation has increased significantly, this change has been driven from the top and not the bottom.
 - Rather than women making specific demands of political parties, the parties themselves have been wooing them with economic incentives.

Electoral Participation

- In the past two Lok Sabha elections, the male and female turnout was equal; however, the journey to reach this point has been long.
 - In the 1957 Lok Sabha election, only 39% of women voted compared with 56% of men.

- In 2024, the turnout of both men and women had risen to 66%.
- Since 1962, the male turnout has been continuously above 60%, but the female turnout did not surpass the 60% mark until the 1998 Lok Sabha election.
- Since 2014, the women's turnout has been above 65%.
- Although women's participation has steadily increased over the years, there have been a few occasions when it increased significantly: 1977, 1984, 1998, and 2014.
- Except in 1984, when the sympathy wave following the death of Prime Minister Indira Gandhi played a role, the incumbent party has lost power on all other occasions.

Women's Mobilisation

- **Top-Down Approach:** Women in the Indian electoral system have responded to political leaders and parties making promises or decisions in favour of women; women have not made any aggressive demands from the state.
- **Demand from Women:** In the 1970s and 1980s, the major demand from women in India was for safety from crimes such as rape.
- For a long time, politicians and parties focussed on public safety to win women over.
 - Parties such as the Janata Dal (United) in Bihar and the Bahujan Samaj Party (BSP) in Uttar Pradesh focussed on law and order issues to gain women's support.
 - Leaders such as M.G. Ramachandran (MGR) and Jayalalithaa (Tamil Nadu), Nitish Kumar (Bihar), Mamata Banerjee (West Bengal), and Shivraj Singh Chouhan (Madhya Pradesh) focussed on increasing the enrolment of girls in schools and on women's health, especially in reducing mortality among girl children.

Case Study: Bihar

- In 2007, Nitish Kumar launched the Mukhyamantri Balika Cycle Yojana providing free bicycles to every girl child in class IX to prevent girl students from dropping out of school after a certain age.
- Nitish Kumar went on to launch the Mukhyamantri Kanya Utthan Yojana in 2018 providing Rs.1,000 to every girl completing class XII, Rs.50,000 upon graduation, and Rs.2,000 for sanitary napkins annually.
- He also banned the use of alcohol in Bihar, which helped him win the election.

- In the tightly contested Assembly election in 2020, it was women voters who helped him overcome a huge anti-incumbency wave.
 - Although the Mahagathbandhan, led by the Rashtriya Janata Dal, had a 1 percentage point lead over the Nitish Kumar-led National Democratic Alliance (NDA) among men, Nitish Kumar had a 2 percentage point lead among women voters.

Case Study: West Bengal

- Mamata Banerjee launched schemes such as the Kanyashree Prakalpa (2013), the Rupashree Prakalpa (2018), and the Lakshmir Bhandar (2021) targeting women voters.
- In the 2021 Assembly election, women supported Mamata overwhelmingly; the BJP could not depose the Trinamool government despite its good performance in the 2019 Lok Sabha election.
 - Trinamool Congress had a 13 percentage point lead over the BJP among women. Even in the 2021 election, 4% more women voted for the Trinamool than men.

Significance of women vote for political parties

- **Increased Share of Women Voters**
 - In 1962, women made up only 40% of the total voters.
 - Even in the 1998 Lok Sabha election, this rose to 45%.
 - The gender gap was in double digits (10%) until 2004, but since 2009 it has changed significantly, and the gap has narrowed steadily.
 - In the 2024 Lok Sabha election, the gap was reduced to just 1%.
- **Women’s participation in elections**
 - Along with women’s turnout during elections, women’s participation in elections has increased significantly in the past two decades, bringing their numbers close to that of men.
 - The growth rate of women voters in recent years has surpassed that of men.
 - In the last two Lok Sabha elections, the growth rate of women was 2 percentage points more than men.
- Since women’s share is almost half of the total electorate, a few percentage points inclination towards any political party/alliance could lead to a significant change in the electoral outcome.

Drivers of Increased Women Participation in Elections

- Increased women’s representation at local levels of governance.
- Initiatives such as SVEEP (Systematic Voter’s Education and Electoral Participation) led by the Election Commission of India.
- Transactional benefits inherent in the whole process.
- All these appear to have attracted more women to participate in electoral democracy.

Conclusion

- As their numbers increase, the influence of women voters is likely to grow significantly.
- The results suggest that women prioritise transactional benefits and do not carry any ideological burden.
- In India’s highly patriarchal society, any kind of direct cash transfer empowers women. And the digitisation measures have enabled all political parties to reach women beneficiaries directly, without the help of male intermediaries.
- **Consequence**
 - Increased cash transfers will lead to an increased financial burden on the exchequer, with all parties trying to up the ante.
 - This is not a long-term sustainable plan and will invariably benefit the incumbent government, which holds the purse strings, the most.
- Increased participation of women in electoral politics—signals a new democratic upsurge, which will shift the political discourse from being male-dominated to being more equitable.
- However, it is only when women begin to vote on the pressing issues that concern them that we will see a real woman-oriented polity.

EXPECTED QUESTIONS FOR UPSC CSE

Descriptive Question

Q. How has women voters changed the electoral dynamics of Indian politics. What factors have led to rise of increased women participation in elections. Exemplify how political parties are attending to this voter group. [15 marks, 250 words]

INDIGENOUS PEOPLES FORUM AT COP16

Why in News: The first-ever Indigenous Peoples Forum at COP16 recently took place highlighting the invaluable contributions of Indigenous Peoples to land conservation and sustainable resource management.

Description of the Forum

- Indigenous Peoples, known for their unique traditions and centuries-long practices in agro-ecology and regenerative techniques, play a pivotal role in preserving ecosystems and ensuring agricultural productivity.
- The Forum focuses on critical themes to enhance the integration of Indigenous perspectives into the implementation of the Convention:
- **Framework for engagement:** Discussions centred on developing mechanisms to formalize Indigenous Peoples’ participation in UNCCD strategies, integrating

their traditional knowledge into national and international policies and fostering collaboration with other stakeholders.

- **Restoration of Rangelands:** Addresses the complexities of rangeland degradation, including overgrazing, climate change and land conversion, exploring strategies that harmonize environmental health, economic interests and community well-being.
 - Through strengthened collaboration and the integration of traditional practices into global strategies, COP16 seeks to empower Indigenous Peoples to lead the vital work in land restoration and sustainable development.

About Indigenous People/Communities

- **Definition:** Indigenous Peoples are distinct social and cultural groups that share collective ancestral ties to the lands and natural resources where they live, occupy or from which they have been displaced.

• Features/Characteristics

- The land and natural resources on which they depend are inextricably linked to their identities, cultures, livelihoods, as well as their physical and spiritual well-being.
- They often subscribe to their customary leaders and organizations for representation that are distinct or separate from those of the mainstream society or culture.
- There are an estimated 476 million Indigenous Peoples worldwide. Although they make up just 6% of the global population, they account for about 19% of the extreme poor.

About Indigenous People/Communities in India

- In India, people with indigenous characteristics are known by many names, such as ‘scheduled tribes,’ ‘tribes,’ ‘adivasi,’ ‘janajati,’ ‘griijan,’ ‘vanvasi,’ ‘vanyajati,’ and ‘hill tribe’.

State(s)	Indigenous Community
Andhra Pradesh	Chenchu, Gond, Kolam, Kondas, Pardhan, Lambadis, Sugalis
Assam	Boro, Kachari, Mikir (Karbi), Lalung, Rabha, Dimasa, Hmar, Hajong
Bihar and Jharkhand	Asur, Banjara, Birhor, Korwa, Munda, Oraon, Santhal
Gujarat	Bhil, Dhodia, Gond, Siddi, Bordia
Himachal Pradesh	Gaddi, Gujjar, Lahuala, Swangla.
Karnataka	Bhil, Chenchu, Gond, Kuruba, Kammara, Kolis, Koya, Mayaka, Toda
Kerala	Adiyam, Kammara, Kondkappus, Malais, Palliyar.
Madhya Pradesh and Chhatisgarh	Bhil, Birhor, Damar, Gond, Kharia, Majhi, Munda, Oraon, Parathi
Maharashtra	Bhil, Mhunja, Chodhara, Dhodia, Gond, Kharia, Nayaka, Oraon, Pardhi, Rathwa
Meghalaya	Garo, Khasi, Jyantia
Odisha	Birhor, Gond, Juang, Khond, Korua, Mundari, Oraon, Santhal, Tharua
Rajasthan	Bhil, Damor, Garasta, Meena, Salariya
Tamil Nadu	Irular, Kammara, Kondakapus, Kota, Mahamalar, Palleyan, Toda
Tripura	Chakma, Garo, Khasi, Kuki, Lusai, Liang, Santhal
West Bengal	Asur, Birhor, Korwa, Lepcha, Munda, Santhal
Mizoram	Lusai, Kuki, Garo, Khasi, Jyantia, Mikir
Arunachal Pradesh	Dafla, Khampti, Singpho
Goa	Dhodi, Siddi (Nayaka)
Dadra & Nagar Haveli and Daman & Diu	Dhodi, Mikkada, Varti
Andaman & Nicobar Islands	Jarawa, Nicobarese, Onges, Sentineless, Shompens, Great Andamanese
Uttar Pradesh and Uttarakhand	Bhoti, Buxa, Jaunsari, Tharu, Raji, Nagaland Naga, Kuki, Mikir, Garo
Sikkim	Bhutia, Lepcha
Jammu & Kashmir	Chaddangpa, Garra, Gujjar, Gaddi

Challenges Faced by the Indigenous Communities in India

- **Civil and Political Rights Violations:** Many indigenous communities experience violations of their fundamental rights, including false prosecution when accessing resources like minor forest produce.
- **Land Alienation and Displacement:** Indigenous people are frequently displaced due to large-scale development projects, such as dam construction, mining, and industrialization. Their ancestral lands are often taken over without adequate compensation or rehabilitation.
- **Economic Marginalization:** Indigenous people are among the poorest and most marginalized in Indian society. Many are landless laborers or dependent on subsistence farming, forest produce, or crafts.
- **Educational and Social Backwardness:** Many indigenous communities have extremely low literacy rates and lack access to quality education and healthcare. This perpetuates their socio-economic backwardness.
- **Cultural Erosion:** Indigenous languages, customs, and traditions face threats due to assimilation pressures and globalization. This results in the loss of cultural heritage and identity.
- **Legal and Administrative Issues:** Although laws exist to protect indigenous rights (e.g., Fifth and Sixth Schedules of the Constitution), their implementation is weak, leading to inadequate protection of their rights and interests.

How are Indigenous Peoples affected by changes in climate, biodiversity and ecosystems?

- Due to their subsistence economies and spiritual connection to lands and territories, most Indigenous Peoples suffer disproportionately from loss of biological diversity and environmental degradation.
- Their lives, survival, development chances, knowledge, environment and health conditions are threatened by environmental degradation, large scale industrial activities, toxic waste, conflicts and forced migration, as well as by land-use and land-cover changes (such as deforestation for agriculture and extractives for example).
 - These challenges are further exacerbated by climate change.
- Rather than helping, some mitigation measures can increase the threat to Indigenous Peoples' territories and coping strategies. Example: Biofuel initiatives.
 - While biofuel initiatives are meant to reduce greenhouse gas emissions, they may affect the ecosystems, water supply and landscape on which Indigenous Peoples depend, ultimately leading to an increase in monoculture crops and plantations and a consequent decline in biodiversity, food and water security.
- When the rights of Indigenous Peoples are protected and particularly their rights to land, territories and resources, their culture thrives and nature thrives.

Role of Indigenous Peoples in Developing, Managing and Protecting Natural Spaces and Ecosystems

- Indigenous Peoples' contributions are essential in designing and implementing solutions for ecosystems.
- Traditional knowledge and heritage can contribute to environmental assessments and sustainable ecosystem management.
 - For example, the sustainable production and consumption of indigenous and traditional food has invaluable benefits for natural resources and ecosystems, contributes to a sustainable and healthier diet, and helps mitigate climate change.

Way Forward

- The UN Declaration on the Rights of Indigenous Peoples requires that free, prior and informed consent of Indigenous Peoples to be obtained in matters of fundamental importance for their rights, survival, dignity, and well-being.
- Consultations to obtain this consent must respect local governance and decision-making processes and structures; must occur in indigenous languages and on Indigenous Peoples' time frames; and be free of coercion or threat.

Conclusion

The active involvement of Indigenous Peoples in global strategies for land conservation and sustainable development is indispensable. Their ancestral knowledge, deeply rooted in harmony with nature, offers critical solutions to combat land degradation, climate change, and biodiversity loss. Empowering Indigenous communities through inclusive policies, respect for their rights, and integration of their practices is key to achieving ecological balance and sustainable progress.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Which of the following pairs are correctly matched.

State	Indigenous community
1. Andhra Pradesh	- Chenchu
2. Nagaland	- Khasi
3. Odisha	- Santhal
4. Assam	- Mikir

- (a) One pair only (b) Two pairs only
(c) Three pairs only (d) All four pairs

Answer: (c) (1, 3 and 4 only)

Descriptive Question

Q. How have indigenous people been at the receiving end of the changing climate and land and resource degradation. Comment in the context of the first-ever Indigenous Peoples Forum held at COP16. [10 marks, 150 words]

ARTICLE 142

Why in News: The Supreme Court, under Article 142 of the Constitution, has recently granted permanent commission to a woman Army officer with a distinguished service record.

Key Details

- The apex court, highlighted the principle of fairness, stating that all soldiers, irrespective of litigation status, deserve equal treatment.
 - The court invoked its powers under Article 142 of the Constitution to ensure justice, directing the authorities to grant permanent commission to the officer retroactively from the date when similarly situated officers received the benefit.

Article 142: Enforcement of decrees and orders of the Supreme Court and orders.

- Article 142 of the Constitution of India empowers the Supreme Court to pass any decree or order necessary for doing complete justice in any case or matter pending before it.
- Parameters for exercising powers under Article 142.
 - Jurisdiction:** The powers under Article 142 can be exercised by the court to do complete justice for the parties before it, but in doing so the court shall not nullify valid judicial orders passed in favour of other litigants in other jurisdictions.
 - Substantive Rights:** The powers of the court under Article 142 should not override substantive law. The court must respect litigants' substantive rights within its jurisdiction, preserving legal integrity.
 - Natural Justice:** The powers of the court under Article 142 must not undermine the principles of natural justice. Litigants have a right to be heard before adverse orders are passed, including vacating of stay orders, thus ensuring fairness.
- Examples** of cases in which the Supreme Court invoked Article 142
 - In 2017, the court used Article 142 to ban liquor sales within 500 metres of national highways.
 - In 2024, the Supreme Court used Article 142 to grant Atul Kumar, a Dalit student, admission to the Indian Institute of Technology in Dhanbad after he was unable to make the payment of the admission fee of Rs. 17,500 on time.
 - In granting five acres of land in Ayodhya, but outside the disputed area, to Muslim parties, the Supreme Court used extraordinary powers granted to it by Article 142 of the Constitution.
 - The Court used Article 142 in the case of the Chandigarh Mayor election.

PRELIMS SPECIAL

Rank Comparison

Indian Army	Indian Air Force	Indian Navy
Field marshal	Marshal of the Indian Air Force	Admiral of the fleet
General	Air chief marshal	Admiral
Lieutenant general	Air marshal	Vice admiral
Major general	Air vice-marshal	Rear admiral
Brigadier	Air commodore	Commodore
Colonel	Group captain	Captain
Lieutenant colonel	Wing commander	Commander
Major	Squadron leader	Lieutenant commander
Captain	Flight lieutenant	Lieutenant
Lieutenant	Flying officer	Sub-lieutenant

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

- Q. Regarding the Constitution of India, prohibitions or limitations or provisions contained in ordinary laws cannot act as prohibitions or limitations on the constitutional powers under Article 142. It could mean which one of the following?
- The decisions taken by the Election Commission of India while discharging its duties cannot be challenged in any court of law.
 - The Supreme Court of India is not constrained in the exercise of its powers by laws made by the Parliament.
 - In the event of grave financial crisis in the country, the President of India can declare Financial Emergency without the counsel from the Cabinet.
 - State Legislatures cannot make laws on certain matters without the concurrence of Union Legislature.

(b) : Answer

RIGHT TO DISCONNECT

Why in News: Australia has recently implemented a new regulation called the right to disconnect law, which allows workers to disregard job-related communications beyond their regular working hours.

Case Study: Australia's Right to Disconnect Law

- The Right to Disconnect law was introduced to combat the

increasing intrusion of work into personal lives, a problem that has intensified since the COVID-19 pandemic and blurred the boundaries between work and home.

- In Australia, this law applies to all employees.
- Australia's 'right to disconnect' law allows workers to refuse after-hours calls while still permitting contact with colleagues. Employees can choose not to respond unless required by their job description.
- This addresses the average Australian's 5.4 hours of unpaid work weekly, totalling over seven weeks and approximately AU\$11,055 in lost earnings annually.
- These laws are not unique to Australia. In a world where constant connectivity makes it hard to switch off, over 20 countries have implemented similar rights.
- For instance, **Portugal** fines employers for after-hours contact, and **Belgium** grants this right to 65,000 civil servants in 2022.

Right to disconnect

Under the right to disconnect employees have the right to refuse to monitor, read or respond to contact (or attempted contact) outside their working hours, unless doing so is unreasonable. This includes contact (or attempted contact) from an employer or a third party.

Need for Right to Disconnect

- **Work-Life Balance:** A Right to Disconnect law could finally create that much-needed boundary, allowing employees to truly disconnect after working hours.
- **Psycho-Social Stress:** The expectation to engage in work for over ten hours a day, along with the obligation to remain available for office communications at home, contributes significantly to psycho-social stress. Maintaining healthy social relationships is necessary as neglecting them can weaken social bonds and lead to isolation.
 - A study indicates that psycho-social stress may even elevate the risk of cardiovascular diseases and diabetes.
- **Job Strain:** The pressures of long working hours, stringent deadlines, and an ever-competitive environment can create a highly stressful workplace. The frustration of being accountable for calls and emails after work hours further exacerbates job strain.
- **Lack of Productivity:** Contrary to popular belief, extended working hours do not necessarily correlate with increased productivity.
- **Screen Time:** The prevalence of technology in the workplace has led to prolonged screen time, which can adversely affect health. Moreover, excessive screen time is associated with insomnia, disrupted sleep cycles, eye strain, headaches, back pain, and reduced physical activity.
- **Stronger Personal and Social Relationships:** With a Right to Disconnect law, employees can focus on their personal lives without the constant fear of work interruptions.

This law would ensure that employees can participate fully in their family lives, strengthening social ties and improving overall happiness.

Right to Disconnect: A Constitutional Perspective in India

- **Article 21:** The courts have yet to thoroughly examine the interpretation of the Right to Disconnect, it can be broadly interpreted under Article 21 of the Indian Constitution which guarantees every citizen the Right to Life and Liberty.
- To fully grasp the state's obligations in realising the Right to Disconnect, Article 21 should be interpreted alongside Articles 38, 39, 42, 43, and 47.
 - These articles collectively establish the State's responsibility to promote the welfare and mental well-being of its citizens by ensuring humane working conditions, protecting vulnerable groups, and supporting mental health initiatives.
- In *Kirloskar Brothers Ltd. v. Employees State Insurance Corporation*, the Supreme Court held that employers have a duty to ensure that their employees can lead a meaningful life.

Conclusion

The Right to Disconnect is a novel initiative aimed at alleviating the pressures of work after official hours. Countries like Australia and France have already established legal protections for the Right to Disconnect. In contrast, India introduced the Right to Disconnect Bill in 2018, which has yet to be discussed in Parliament. To effectively implement the Right to Disconnect in India, a robust framework is essential accounting for the diverse nature of work across various sectors, the economic realities, and the competitive pressures that influence both employee expectations and managerial practices.

EXPECTED QUESTIONS FOR UPSC CSE

Descriptive Question

- Q. What does 'Right to Disconnect' refer to. What is the need for Right to disconnect. How does Indian Constitution ensure this right to its citizens. [15 marks, 250 words]

CASE STUDY - CHILD MARRIAGE IN INDIA

Why in News: Jharkhand's Birhor tribe have joined movement against child marriage for first time.

Key Details

- The candlelight marches were being organised by Banvasi Vikas Ashram in support of 'Bal Vivah Mukta Bharat', a campaign against child marriage, launched by the Union Ministry of Women and Child Development.

- Standing under the glow of burning candles, youth, children, women, and elders from the Birhor's community took a collective pledge to work towards ending child marriage.
- The ill effects of child marriage on children's health, education, and overall well-being were discussed to make the Birhor tribe aware of the social evil.

About Child Marriage in India

- Status of Child marriage in India
 - **Reducing trend :** Child marriage is becoming less common in India, but the country still accounts for one in three of the world's child brides. Child brides include girls under 18 who are already married, as well as women of all ages who first married in childhood.
 - **Variation across states:** The prevalence of child marriage varies across states and union territories in India. At least 40 per cent of young women were married before turning 18 in West Bengal, Bihar and Tripura, compared to 1 per cent in Lakshadweep.
 - **Dominant states:** Over half of the girls and women in India who married in childhood live in five states: Uttar Pradesh, Bihar, West Bengal, Maharashtra and Madhya Pradesh. Uttar Pradesh is home to the largest number.
 - **Ratio of Child marriage in girls:** Nearly one in four young women in India (23 per cent) were married or in union before their 18th birthday.
 - **Importance of background:** A girl's risk of child marriage depends on certain background characteristics. Girls who live in rural areas or come from poorer households are at greater risk, and a higher proportion of child brides are found among those with little or no education.
- **Causes of Child marriage in India:**
 - Early and forced marriage can be driven by poverty,
 - Girls being orphaned or in a state of emergency,
 - Lack of girl's education,
 - Gender inequality,
 - Dominant cultural or religious practices,
 - Lack of proper age documentation, and
 - Overall lack of protection for the human rights of children.
- **Effects of Child Marriage in India**
 - Girls who get married at an early age are often more susceptible to the health risks associated with early sexual initiation and childbearing, including HIV and obstetric fistula.
 - Young girls who lack status, power and maturity are often subjected to domestic violence, sexual abuse and social isolation.
 - Early marriage almost always deprives girls of their

education or meaningful work, which contributes to persistent poverty.

- Child Marriage perpetuates an unrelenting cycle of gender inequality, sickness and poverty.
- Getting the girls married at an early age when they are not physically mature, leads to highest rates of maternal and child mortality.
- Government Initiatives to curb Child Marriage in India
 - The Government has enacted 'the Prohibition of Child Marriage Act, 2006' (PCMA) in order to curb child marriages and to take punitive actions against those associated with child marriages.
 - The Ministry of Women and Child Development implements the Beti Bachao Beti Padhao (BBBP) component under the umbrella scheme 'Mission Shakti', wherein creation of awareness on matters pertaining to gender equality and discouraging child marriage is an important focus area.
 - The National Commission for Protection of Child Rights (NCPCR) also undertakes awareness programs and consultations with stakeholders from time to time in this regard.
 - In addition, Government of India has introduced CHILDLINE with short code 1098, a 24X7 telephone emergency outreach service for children in crisis which responds with suitable interventions to call for any form of assistance which a child requires, including for prevention of child marriages in coordination with police, Child Marriage Prohibition Officers (CMPOs), District Child Protection Units etc.

Way Forward

- **Empowering:** Empower girls with information, skills and support networks;
- **Economic support:** Provide economic support and incentives to girls and their families;
- **Garner Community support:** Educate and rally parents and community members;
- **Access to Education:** Enhance girls' access to a high-quality education; and
- **Encourage supportive laws and policies:** In order for the next generation of development programs to make ending child marriage a priority, policymakers must pay attention to these strategies while continuing to test innovative approaches and evaluation techniques.

PRELIMS SPECIAL

About Birhor tribe

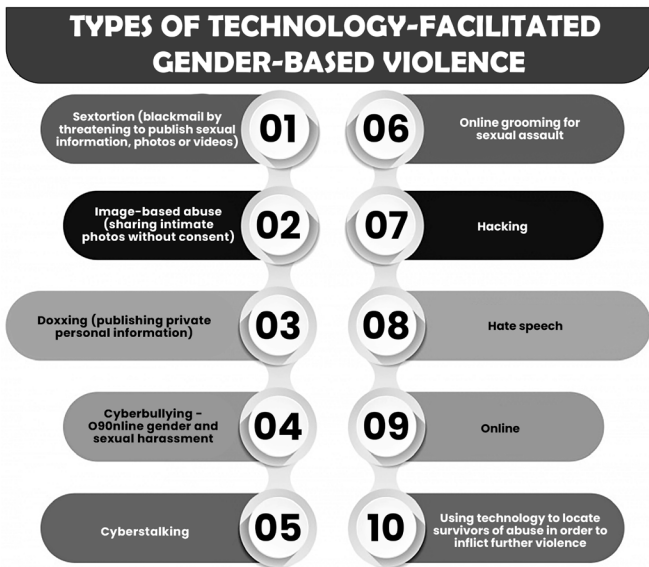
- Birhor (or Birhul) are a tribal/Adivasi forest people, traditionally nomadic, living primarily in the Indian state of Jharkhand.
- **Language:** They speak the Birhor language, which belongs to the Munda group of languages of the Austroasiatic language family.

- **Physical Characteristics:** The Birhors are of short stature, long head, wavy hair and broad nose.
- **Geographical distribution:** Birhors are found mainly in the area covered by the old Hazaribagh, Ranchi and Singhbhum districts before these were broken down into numerous smaller units, in Jharkhand. Some of them are also found in Orissa, Chhattisgarh and West Bengal.
- **Economic activity:** The “primitive subsistence economy” of the Birhors has been based on nomadic gathering and hunting, particularly for monkeys. They also trap rabbits and titirs (a small bird), and collect and sell honey.

CASE STUDY - TECHNOLOGY-FACILITATED GENDER-BASED VIOLENCE: A GROWING THREAT

Why in News: Recently the United Nations Population Fund published its findings on Technology-facilitated gender-based violence.

Technology-facilitated gender-based violence (TFGBV), is an act of violence perpetrated by one or more individuals that is committed, assisted, aggravated and amplified in part or fully by the use of information and communication technologies or digital media against a person on the basis of gender.



How prevalent is technology-facilitated gender-based violence?

- **Institute of Development Studies** - 16 to 58% of women have experienced technology that facilitated gender based violence.
- **Economist Intelligence Unit** - 85% of women who spend time online have witnessed digital violence against other women.
- The **COVID-19 pandemic** increased digital violence as women and girls moved online for work, school and social activities.

- **Black and minority women reported higher rates.**
- **UNESCO** found that **73 percent of women journalists** experienced **online violence** in the course of their work.
- Women who face multiple forms of discrimination, including women with disabilities, Black and indigenous women and other women of colour, migrant women and LGBTIQ + people, are all disproportionately affected.

UNFPA Initiatives

- **Making All Spaces Safe**
 - This initiative is **providing survivors with the response services** they need, when and where they need it, including social, health and justice responses.
 - The programme **also works to prevent TFGBV from occurring in the first place** – through targeted laws and policies, enhancing digital literacy and working to ensure that technology is designed with safety and privacy as core components.
 - It also work to raise awareness of this evolving form of violence to empower survivors and to advocate for **increased accountability and regulation** including through our interactive feature
- **Global Partnership for Action on Gender-Based Online Harassment and Abuse.**
 - UNFPA also leads the **Steering Committee** for the Global Partnership for Action on Gender-Based Online Harassment and Abuse, alongside UN Women, UNICEF and the Association for Progressive Communications.
- **The Virtual Is Real and our bodyright campaign.**
 - In addition, UNFPA is supporting key partnerships globally and nationally to accelerate initiatives that address technology-facilitated gender-based violence.

Way Forward

- Enhance **cooperation** between **governments, the technology sector, women’s rights organizations and civil society** to strengthen policies.
- **Develop and implement laws and regulations** with the participation of survivors and women’s organizations.
- Develop standards of **accountability for Internet intermediaries** and technology sectors to enhance transparency and accountability on digital violence and the use of data.
- **Integrate digital citizenship and ethical use of digital tools into school curricula** to foster positive social norms online and off, sensitize young people—especially young men and boys—caregivers, and educators to ethical and responsible online behaviour.
- Strengthen **collective action of public and private sector entities** and women’s rights organizations.
- Empower women and girls to participate and lead in the technology sector to inform the **design and use of safe digital tools and spaces free of violence.**

Indian actions/initiatives to ensure online safety for women and girls

- **NCRB:** Provides state-wise detail of reported cyber-crimes committed against women and children.
- **Ministerial collaborations:** The **Ministry of Women and Child Development** takes up the matter with **Ministry of Home Affairs (MHA)**, **Ministry of Electronics and Information Technology (MEITY)** and **Ministry of Education** for taking appropriate actions to curb the menace and to ensure safety and security of women and young children on online platforms.
- The Ministry of Education was requested to issue necessary directions to the Central Board of Secondary Education (CBSE) for **incorporating suitable content pertaining to cyber safety in the school curriculum of children** and advise State Governments to do the same through their School Boards.
- **Section 67B** of the **Information Technology (IT) Act, 2000** - Stringent punishment for publishing, transmitting or viewing Child sexual abuse material online.
- **Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021** - The Rules also require Significant Social media Intermediary (SSMI) to endeavour to deploy technology based measures to proactively identify child sexual abuse material.
- **Cyber Crime Coordination Centre (I4C):** To deal with cyber crimes in a comprehensive and coordinated manner.
- **Nirbhaya Fund** - Funds various initiatives aimed at spreading awareness about cyber crimes, issuance of alerts/ advisories, capacity building/ training of law enforcement personnel/ prosecutors/ judicial officers, improving cyber forensic facilities etc. are undertaken.
- **National Cyber Crime Reporting Portal (www.cybercrime.gov.in)** - it enables the public to report incidents of cyber crimes, with a special focus on cyber crimes against women and children.
- A **toll free number 1930** has been operationalized for providing assistance in lodging online cyber complaints.
- To spread awareness on cybercrime, MHA has taken several steps that include dissemination of messages on

cybercrime through Twitter handle **@cyberDost**, radio campaign, publishing of Handbook for Adolescents / Students.

- **The Protection of Children from Sexual Offences (POCSO) Act** contains effective provisions to curb the menace of child abuse. The Act provides **mandatory reporting, child friendly provisions of recording of statements and evidence and speedy trial of the cases**. There are adequate legal penal provisions including under POCSO Act, 2012 for the sexual offences against the children, as per the gravity of offences.
- **United Nations Population Fund**
 - UNFPA is the **United Nations sexual and reproductive health agency**.
 - The goal of UNFPA is to ensure sexual and reproductive rights and choices for all, especially women and young people, so that they can access high-quality sexual and reproductive health services, including voluntary family planning, maternal health care and comprehensive sexuality education.
 - The agency began operating in **1969** as the United Nations Fund for Population Activities.
 - -Its name was changed to the United Nations Population Fund in **1987**.
 - **Headquarters - New York.**
 - UNFPA works with partners in more than 150 countries to provide access to a wide range of sexual and reproductive health services.
 - Its goals are ending unmet need for family planning, preventable maternal death, and gender-based violence and harmful practices including child marriage and female genital mutilation by 2030.

Conclusion

Technology-facilitated violence against women and girls, though not a new phenomenon, has escalated rapidly in recent years posing significant threats to women's safety and well-being both online and off. This underscores the urgent need to protect and uphold women's rights in the digital era.

KANHIRAPOIL MEGALITHIC ART

Why in News: An archaeological discovery attributed to the megalithic period has been made in Kerala's Kasaragod, featuring rock-cut carvings created with iron tools.

Key Details

- At Kanhirapoil in Madikkai panchayat 24 pairs of prehistoric footprints and a human figure have been found carved into rock on private property. It is believed that these carvings date back to the Megalithic period.

Details about Carvings

- The carvings, made with iron tools, include footprints varying in size from six to ten inches, suggesting representations of both children and adults. At the end of the footprints, a human figure has been intricately etched, accompanied by four circular pits around it.

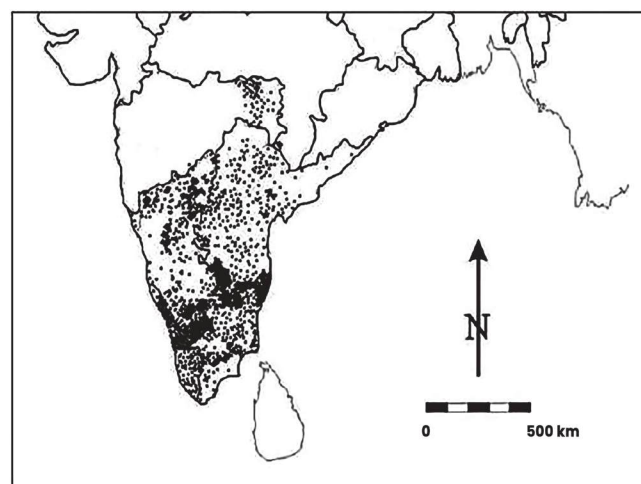
PRELIMS SPECIAL**Megalithic period -**

- The megalithic cultures that existed in India between 2000 BC to 1500 BC have left behind intriguing remains that provide clues about the early beginnings of civilization in the subcontinent.
- The megalithic cultures built massive stone structures like menhirs, dolmens and cairns which still stand today.

Features of Megalithic period in India

- Megalithic cultures built megaliths or big stone structures. They built menhirs which are big upright stones. They built dolmens. They are two or more upright stones with a large flat stone on top.
- The megalithic people lived in small communities. They had primitive tools of stone and bone. They hunted animals and gathered forest produce for food.
- These megalithic cultures built stone circles. They placed big stones in a circle shape. They used these circles for rituals and religious ceremonies. They performed burial rites and other traditions within the stone circles.
- The megalithic people built stone cists.
 - Cists are stone structures built to cover burial chambers. The megalithic cultures made these cists bury their dead. They put pots, weapons and jewellery in the cists with the dead.
- The megalithic cultures believed in an afterlife. They thought the dead needed things in the next life, also. So they put goods inside the burial cists and chambers.

- These megalithic cultures had belief in Mother Goddess. The dressing stones were related to the worship of the Mother Goddess. They worshipped a mother goddess to pray for good crops and children.



Map 1. Distribution of Megalithic sites in Peninsular India.

Megalithic sites in India

- Megaliths are spread across the Indian subcontinent, though the bulk of them are found in peninsular India, concentrated in the states of Maharashtra (mainly in Vidarbha), Karnataka, Tamil Nadu, Kerala, Andhra Pradesh and Telangana.

EXPECTED QUESTIONS FOR UPSC CSE**Prelims MCQ**

Q. Consider the following statements regarding Megalithic Period:

- The megalithic culture built massive stones structures like Menhirs, dolmens and cairns
- Megalithic cultures built cists to cover burial chambers
- Megalithic cultures developed settled agriculture

How many of the above statements are correct?

- (a) Only one (b) Only two
(c) Only three (d) None

Answer: (b) (1 & 2 only)

UNESCO CULTURAL HERITAGE SITES

Why in News: Lebanon’s UNESCO Cultural Heritage sites Baalbek, Tyre, and Anjar are being endangered by recurrent assaults.

Key details

- Lebanon’s cultural heritage at large is being endangered by recurrent assaults on ancient cities such as Baalbek, Tyre and Anjar, all UNESCO world heritage sites, as well as on other historic landmarks.
- Several Israeli strikes in recent weeks on Baalbek in the east and Tyre in the south both strongholds of the Iran-backed militant group Hezbollah hit close to ancient Roman ruins designated as UNESCO World Heritage sites.
- A petition urges UNESCO to protect Baalbek and other heritage sites by establishing “no-target zones” around them, deploying international observers and enforcing measures from the 1954 Hague Convention on cultural heritage in conflict.



Important Heritage Sites in Lebanon

- **Anjar** : The city of Anjar was founded by Caliph Walid I at the beginning of the 8th century. The ruins reveal a very regular layout, reminiscent of the palace-cities of ancient times, and are a unique testimony to city planning under the Umayyads.



- **Baalbek**: This Phoenician city, where a triad of deities was worshipped, was known as Heliopolis during the Hellenistic period. It retained its religious function during Roman times, when the sanctuary of the Heliopolitan

Jupiter attracted thousands of pilgrims. Baalbek, with its colossal structures, is one of the finest examples of Imperial Roman architecture at its apogee.



- **Byblos**: The ruins of many successive civilizations are found at Byblos, one of the oldest Phoenician cities. Inhabited since Neolithic times, it has been closely linked to the legends and history of the Mediterranean region for thousands of years. Byblos is also directly associated with the history and diffusion of the Phoenician alphabet.



- **Tyre**: According to legend, purple dye was invented in Tyre. This great Phoenician city ruled the seas and founded prosperous colonies such as Cadiz and Carthage, but its historical role declined at the end of the Crusades.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

- Q. Recently cultural heritage sites such as Baalbek, Tyre and Anjar were in the news, these sites are located in?
- (a) Lebanon (b) Israel
(c) Iral (d) Syria

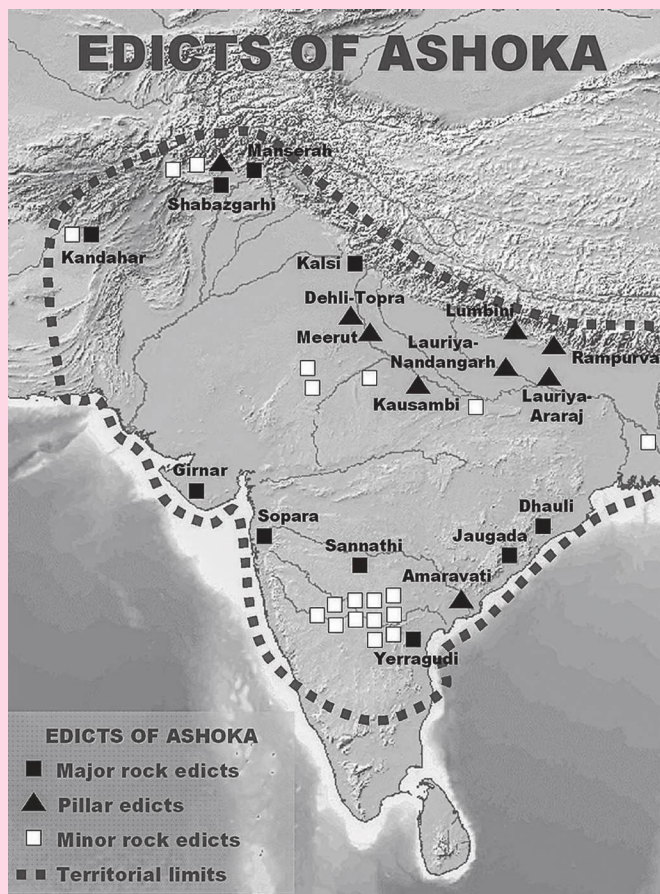
Answer: (a)

REANG TRIBE

Why in News: Members of the Reang community (a Particularly Vulnerable Tribal Group) requested recognition for their language, Kaubru.

PRELIMS SPECIAL

About Ashokan Edicts



- The Edicts of Ashoka are a collection of more than thirty inscriptions on the Pillars of Ashoka, as well as boulders and cave walls, attributed to Emperor Ashoka of the Mauryan Empire who ruled most of the Indian subcontinent from 268 BCE to 232 BCE.
- **Region:** These inscriptions were dispersed throughout the areas of modern-day India, Bangladesh, Nepal, Afghanistan and Pakistan.
- **Language of scripts:** The inscriptions found in the central and eastern part of India were written in Magadhi Prakrit using the Brahmi script, while Prakrit using the Kharoshthi script, Greek and Aramaic were used in the northwest. These edicts were deciphered by British archaeologist and historian James Prinsep.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

- Q. Recently, the Ancient Buddhist site Sannathi was in the news, it is located in?
- (a) Karnataka (b) Andhra Pradesh
(c) Telangana (d) Kerala

Answer: (a)

JANJATIYA GAURAV DIVAS: CELEBRATING TRIBAL HERITAGE

Why in News: Every year on November 15th, Janjatiya Gaurav Divas is celebrated to honor the contributions of these communities, especially in India’s freedom struggle.

Key Details

- November 15th, 2024 marks the 150th birth anniversary of Bhagwan Birsa Munda, a tribal leader and freedom fighter, whose legacy continues to inspire.
- **Note:** Census 2011- India’s Scheduled Tribe (ST) population stands at 10.42 crore (8.6%) of the total population, comprising over 705 distinct groups spread across country.

Schemes for the Welfare of Tribes

- **Dharti Aaba Janjatiya Gram Utkarsh Abhiyan**
 - Launched On **October 2, 2024** the scheme covers 5.38 crore tribal people across 63,843 tribal villages, 549 districts and 2,911 blocks.
 - It aims to address critical gaps in social infrastructure, health, education and livelihood development
 - Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (PM-JANMAN)
 - Launched on 15th November, 2023 with an aim to uplift Particularly Vulnerable Tribal Groups (PVTGs).
 - With a budget of ₹24,104 crore for 2023-24 to 2025-26, the initiative focuses on improving the quality of life for PVTG communities through targeted support, including Aadhar enrolment, community certificates, PM-Jandhan Yojana, and Ayushman cards.
- **The Pradhan Mantri Adi Adarsh Gram Yojana (PMAAGY)**
 - Aims to provide basic infrastructure in villages with a significant tribal population.
 - Under the scheme, 36428 villages having 50% tribal population and 500 Scheduled Tribes (STs) have been identified for providing basic infrastructure facilities in these villages

Eklavya Model Residential Schools (EMRS)

- Aims to provide quality education to Scheduled Tribe (ST) children in remote areas, offering them opportunities for higher education and employment.
- As of now, 1.29 lakh tribal students are enrolled across these schools.
- Pre-Matric and Post-Matric Scholarship Schemes
 - Financial assistance for ST students in Classes IX to Post-graduate courses supporting higher education
- Sickle Cell Anaemia Elimination Mission
 - It aims to targets elimination of Sickle cell anaemia by 2047, which is widely prevalent among tribal population.

- Mission targets screening approximately 7 crore people under 40 years of age in the next 3 years.

Challenges faced by tribal population

- Historical Issues.
- Colonial forest laws limited tribal access to traditional forest resources. Ex. Indian Forest Act, 1927.
- The Criminal Tribes Act, 1871 labeled several tribal communities as criminals.
- **Economic Issues**
 - Big development projects like dams, mines, and industrial sites have forced tribal populations to relocate. Ex. Polavaram dam project.
 - Relying on subsistence economy, depending on shifting cultivation, hunting, and gathering leads to severe economic crunches. Ex. Jhum cultivation practiced by Mizo tribe.
- **Social Issues**
 - Higher prevalence of anemia among tribal women. Ex. 89% of tribal women from Kerala suffering from anemia
 - Substance abuse as a part of tribal social life leading to addiction and severe health issues
- **Cultural Issues**
 - Modern lifestyle and lack of efforts for protection led to several tribal dialects and languages have died out.
 - Sanskritization led to tribals feeling pressure to adopt mainstream cultural practices and causing identity crisis
- **Security Issues**
 - Left-Wing Extremism leads to violence and oppression against them. Ex. Between 2004 to 2023, 8803 tribals have been killed by the LWE outfits across India

Solutions for upliftment of tribals

1. Policy and Governance
 - Implementation of Forest Rights Act, 2006. For example, More than 21 lakh claimants got title rights till 2022

- Strengthening Tribal Advisory Councils under the Fifth and Sixth Schedules of constitution to ensure better administration of tribal areas
- 2. Economic Development
 - Promote entrepreneurship among tribes and to provide concessional finance to them. For example, Venture Capital Fund for STs
 - Job oriented training and skilling of tribal youth. For example, Vocational Training Centres in Tribal Areas Scheme
- 3. Education
 - Build boarding schools like Eklavya Model Residential Schools (EMRS) and education in both tribal and local languages to keep cultural identity while improving reading and writing.
 - Digital India mission to ensure online learning to far off tribal areas for digital education
- 4. Women Empowerment
 - Set up collectives and self-help groups for women to foster their own businesses and economic self-reliance.
 - GOAL initiative - To digitally skill and empower tribal youth especially women
- 5. Cultural Preservation
 - Record and keep alive tribal tongues, tales, and traditional crafts through cultural projects and studies.
 - Create centers and museums dedicated to tribal culture to display their past. Ex. Recently, the Government has sanctioned the establishment of **10 Tribal Freedom Fighters' Museums** across states where tribals fiercely resisted British rule
 - Support the inclusion of tribal languages in school curriculums to save them from vanishing.
- 6. Environmental Care
 - Push programs to manage forests together with tribals for sustainable use and keeping nature safe.
 - Set up ecotourism projects in tribal lands creating job opportunities and looking after the planet.

PRELIMS SPECIAL

Revolt/Movement	Period	Leaders	Region	Cause
Tamars revolt	1789-1832	Bhola Nath Swahay	Chota Nagpur	Evacuation of tenants
Santhal Rebellion	1885-86	Sidhu and Kanhu Murmu	Chotanagpur	British colonial authority and corrupt zamindars
Munda Rebellion	1899-1900	Birsa Munda	Chotanagpur	Transformation of agrarian system, exploitation by zamindars and British policies.
Koya Revolts	1879-1880, 1886	Tomma Dora, Raja Anantayyar	Eastern Godavari, Malkangiri	Erosion of forest rights, exploitation by moneylenders.
Bhil Revolts	1817-19, 1825, 1831, 1846	Govind Guru	Western Ghats	Famine, economic distress, misgovernment.

Kol Revolt	1831-32		Chota Nagpur	Economic exploitation by East Indian Company
Tana Bhagat Movement	1914-1915	Jatra Bhagat, Balram Bhagat	Chota Nagpur	Religious and socio-political resistance against British exploitation.
Rampa Revolt	1922-1924	Alluri Sitarama Raju	Agency areas (Andhra Pradesh)	Opposition to British harassment under the Forest Act.
Kukis' Revolt	1917-19	None mentioned	Manipur	Opposition to British labor recruitment during WWI.
Heraka Cult	1930s	Gaidinliu	Manipur	Resistance against British suppression, formation of Kabui Naga Association.
Khasi	1833	Tirot Singh	Meghalaya	Against the influx of outsiders

Conclusion

By addressing these dimensions, a holistic and sustainable framework can be established for the empowerment and development of tribal communities across the nation.

GLOBAL ENGAGEMENT SCHEME

Why in News: Union Minister for Culture and Tourism has recently submitted the list of schemes and initiatives for the promotion of Indian folk culture in foreign countries in Rajya Sabha.

About Global Engagement Scheme

- To make the world aware of India's rich cultural heritage, the Ministry of Culture implements the Global Engagement Scheme.
- It was earlier called the Scheme for Promotion of International Cultural Relations.
- Objective: To provide artists practicing Indian art forms an opportunity to perform abroad under the banner 'Festival of India'.
- It also provides financial assistance to cultural societies actively promoting Indian Culture abroad to organise cultural activities.
- **Components of the Scheme**
 - Festival of India
 - Grant in aid to Indo Foreign Friendship Cultural Societies Scheme
 - Contribution Grant (contribution to International Organisations and Delegation under CEP) - This component is meant for Indian contribution towards membership of International Organisations like ICROM, UNESCO, World Heritage Fund and to facilitate participation and hosting of international meetings.

Festival of India in Abroad

- Festivals of India abroad seek to promote India's rich cultural heritage and enhance India's image in the global arena in a concerted manner.
- **Aim:** Having a lasting impact on the people of the host country.
 - They are tools of cultural diplomacy that project the soft power of India.
 - The main focus of FOI is to connect and enhance the perception of India in the minds of locals which should ultimately lead to more tangible results in terms of trade and commerce, tourism, medical tourism, AYUSH and so on.
- **Objectives of Festivals of India:**
 - To promote Indian Culture abroad.
 - To strengthen bonds of foreign countries with India.
 - To promote bilateral cultural contracts.
 - To project India's cultural image abroad.
 - To promote inbound tourism.
- **Events for Festival of India:**
 - Dance (classical, folk, contemporary, fusion etc.)
 - Music (vocal, instrumental, sufi, classical, semi-classical, carnatic, contemporary etc.)
 - Exhibitions
 - Theatre
 - Folk Arts including mehendi artists, puppetry etc.
 - Literary Festival (from Sahitya Akademi)
 - Food Festival
 - Film Festival
 - Yoga
 - Fashion Show / Textile Exhibition

Grant-in-aid to Indo-Foreign Friendship Cultural Societies

- **Objectives**
 - Generate greater understanding of India’s culture.
 - Fostering closer friendship with people of other countries.
 - Promoting interaction between eminent Indian scholars with their foreign counterparts by holding of seminars on related topics etc.
- **Salient features of the Scheme**
 - The Grants under this scheme sanctioned to Indo-Foreign Friendship/Cultural Societies actively functioning in foreign countries with the object of fostering closer friendship and cultural contacts between India and foreign country concerned.
 - The Grants are issued to the Indian Missions through the Ministry of External Affairs (MEA) and amount authorised shall be placed with the Mission in their Accounts.
 - ◆ The grants should normally be utilised for the activities of the society and not for the direct activities of the Missions.

Other Initiatives by Ministry of Culture to Promote Indian Folk Culture

- Financial Assistance for Veteran Artists Scheme
 - **Objective:** To support old and poor artists aged 60 and above, who have contributed significantly in their specialized fields of arts, including folk art or are still contributing.
 - Financial assistance under this scheme is provided maximum up to Rs. 6000/- per month to the selected artists after adjusting the amount of State artists pension received, if any.

Significance of Promoting Indian Folk Culture Abroad

- **Preservation of Heritage:** Folk culture, including music, dance, art, and crafts, represents the roots of Indian civilization. Showcasing these traditions globally helps preserve and honor these unique expressions of India’s rich and diverse heritage.
- **Cultural Diplomacy and Soft Power:** Folk culture serves as a powerful tool for building cultural bridges between India and other nations. It fosters mutual understanding, respect, and goodwill, enhancing India’s global soft power and strengthening diplomatic ties.
- **Boosting Tourism:** Highlighting folk culture through international festivals, exhibitions, and performances attracts foreign tourists to India. This benefits local economies and promotes India as a culturally rich travel destination.

Conclusion

Promoting Indian folk culture on a global stage preserves the nation’s rich heritage, strengthens cultural diplomacy

and fosters international goodwill. Initiatives like the Global Engagement Scheme and Festivals of India abroad serve as powerful tools to showcase India’s diversity, enhance its global image, and boost tourism. By celebrating its folk traditions, India continues to build meaningful cultural bridges with the world while honoring its unique cultural legacy.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding Global Engagement Scheme

1. It is administered under Ministry of Tourism
2. It aims to make the world aware of India’s rich cultural heritage

Which of the statements given above is/are correct?

- (a) 1 only (b) 2 only
 (c) Both 1 and 2 (d) Neither 1 nor 2

Answer: (b)

10TH GLOBAL FORUM OF UN ALLIANCE OF CIVILIZATIONS

Why in News: The 10th Global Forum in Cascais, Portugal, was recently organised by the UN Alliance of Civilizations to promote intercultural and inter-faith understanding.

Key Details

- **Theme in 2024:** Restoring trust, reshaping the future.
- The Cascais Declaration was adopted at the forum.
- The next Global Forum of the UN Alliance of Civilization is due to take place in 2026 in the Kingdom of Saudi Arabia.

Cascais Declaration

- The declaration stressed the **importance of intergenerational dialogue** for peace, sustainable development and human rights.
 - It noted the **potential use of AI** as a tool to advance intercultural and inter-religious dialogue and stressed the importance of combatting disinformation, misinformation and hate speech while strengthening information integrity.
 - It noted the contribution of “sports diplomacy” as a tool for promoting dialogue.
 - It emphasised the need to support and strengthen the role of women as negotiators, mediators and peacemakers.

- The declaration also stressed the importance of encouraging the implementation of the UN Plan of Action to safeguard religious sites and called for the implementation of recommendations and commitments that will be made at the UN Global Conference on Safeguarding Religious Sites.
- In the declaration, world leaders and partners pledged to:
 - Emphasise the need to combat all forms of religious intolerance.
 - Acknowledge the central role of inclusive, quality and transformative education in promoting dialogue, peace and human rights.
 - Recognise the role that religious leaders can play in conflict mediation and development cooperation.
 - Underline the positive impact that safe, orderly and regular migration can have on countries of origin and destination, including through promoting cultural pluralism and encourage the creative vision of young people to prevent xenophobia and highlight positive narratives about cultural diversity, social inclusion and mobility.
 - Take note of the adoption of the Pact for the Future, which recognises the role of reinvigorated multilateralism and the importance of the voice of religious leaders and faith-based organizations in promoting a culture of peace.

About United Nations Alliance of Civilizations (UNAOC)

- UNAOC is the premier global platform for intercultural dialogue, understanding and cooperation.
- **Origin:** The United Nations Alliance of Civilizations (UNAOC) was established in 2005, as the political initiative of Mr. Kofi Annan, former UN Secretary-General and co-sponsored by the Governments of Spain and Türkiye.
 - A High-Level Group of experts was formed to explore the roots of polarization between societies and cultures today, and to recommend a practical programme of action to address this issue.
- In its 2006 report, the High-Level Group identified five priority areas for action: Education, Youth, Migration, Media, and Women as peace mediators.
- **Secretariat:** New York
- **UNAOC's Pillars:** UNAOC works mainly in four priority areas to which it brings a multidisciplinary and multi-perspective approach: Youth, Education, Media, and Migration.
- **UNAOC's Projects and Initiatives:** The main objectives of UNAOC's programme activities are:
 - To facilitate the global conversation on the challenges and opportunities for living in a landscape of diversity in our age of global communication and exchanges;
 - To prevent intercultural tensions and crises;
 - To combat stereotypes, misperceptions, discrimination and xenophobia;

- To support innovative grassroots initiatives that contribute to intercultural dialogue and understanding, mutual respect and cooperation across divides.

Conclusion

The 10th Global Forum of the UN Alliance of Civilizations underscored the significance of fostering intercultural and interfaith dialogue to address global challenges. Through the Cascais Declaration, it emphasized inclusive education, the role of women and youth, and the use of AI to combat disinformation. By promoting peace, cultural diversity, and safeguarding religious sites, UNAOC continues to serve as a pivotal platform for building bridges between communities worldwide.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding UN Alliance of Civilizations (UNAOC)

1. UNAOC is the premier global platform for intercultural dialogue, understanding and cooperation.
2. Its secretariat is located in Rome, Italy.
3. The recent, 10th global Forum of UN Alliance of Civilizations was held in Portugal.

How many of the above statements are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Answer: (b) (1 & 3 only)

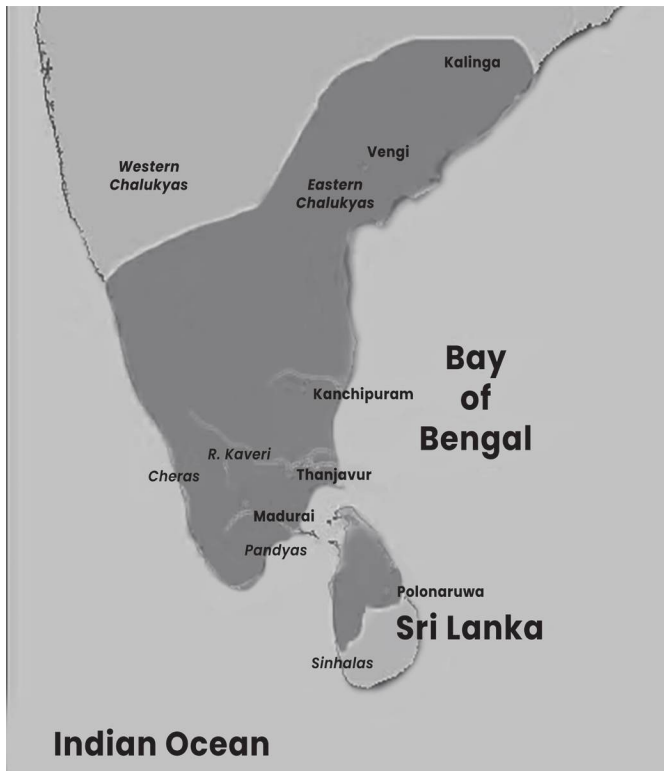
RAJA RAJA CHOLA

Why in News: The birth anniversary of the legendary Chola emperor Raja Raja Chola was celebrated during Sadhaya Vizha in Thanjavur, Tamil Nadu.

Key Details

- The festival is typically observed in the Tamil month of Aippasi, which runs from mid-October to mid-November.
- The Brihadeeswarar Temple, also known as Tanjore Big Temple, hosts this celebration every year.
- The Sathaya Vizha commemorates the celebration by adorning the statue of Raja Raja Cholan, which is located outside the temple, with silk robes.

About Raja Raja Chola



- Rajaraja I, also known as Rajaraja the Great, was a Chola emperor who reigned from 985 CE to 1014 CE.
- **Extent of Empire:**
 - Rajaraja Chola brought the glory of the Chola empire to the world. Rajaraja's empire encompassed vast territories, including regions of the Pandya country, the Chera country, and northern Sri Lanka.
 - He also extended his influence over strategic islands such as Lakshadweep, Thiladhunmadulu atoll, and parts of the Maldives in the Indian Ocean.
- **Art and Architecture**
 - He commissioned the construction of the Rajarajeshwaram Temple in the Chola capital of Thanjavur, which is revered as one of the most prominent examples of medieval South Indian architectural style. Additionally, during his reign, important Tamil literary works by poets such as Appar, Sambandar, and Sundarar were gathered and compiled into a single collection known as the Thirumurai. This earned him the title of 'Thirumurai Kanda Cholar,' meaning The One Who Found Thirumurai.
- **Administration**
 - He initiated a project of land survey and assessment in 1000 CE which led to the reorganisation of Tamil country into individual units known as *valanadus*.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

- Q. The title 'Thirumurai Kanda Cholar' was given to....?
- (a) Raja Raja Chola (b) Rajendra Chola
 (c) Vikram Chola (d) Rajadhiraja Chola

(a) : ANSWER

INTANGIBLE CULTURAL HERITAGE (ICH)

Why in News: The nineteenth session of the Intergovernmental Committee for the Safeguarding of the Intangible Cultural Heritage took place in Asunción, Republic of Paraguay.

UNESCO's Convention for the Safeguarding of the Intangible Cultural Heritage

- **About the Convention:** Adopted in 2003 after, the Convention is the international community's first binding multilateral instrument intended to safeguard and raise the profile of this heritage.
- **Aim:** To incite countries to care about and look after the ICH present in their territories.
- Difference between the 1972 World Heritage Convention and the 2003 Intangible Cultural Heritage Convention
 - The World Heritage Convention deals with monuments, cultural sites and natural sites of outstanding universal value; experts and site managers are key actors for identification and protection; communities are involved.
 - The Intangible Cultural Heritage Convention deals with practices, representations, expressions, knowledge, skills that communities recognize as their cultural heritage; communities and bearers are key actors for safeguarding and transmission; experts are associated.
- **Purposes of the Convention:** The purposes of this Convention are:
 - to safeguard the intangible cultural heritage;
 - to ensure respect for the intangible cultural heritage of the communities, groups and individuals concerned;
 - to raise awareness at the local, national and international levels about the importance of the intangible cultural heritage, and of ensuring mutual appreciation thereof;
 - to provide for international cooperation and assistance.
- **Organs of the Convention**
 - General Assembly of States Parties

- ◆ The General Assembly is the sovereign body of the Convention.
- ◆ The General Assembly shall meet in ordinary session every two years. It may meet in extraordinary session if it so decides or at the request either of the Intergovernmental Committee for the Safeguarding of the Intangible Cultural Heritage or of at least one-third of the States Parties.
- ◆ The General Assembly adopts its own Rules of Procedure.
- Intergovernmental Committee for the Safeguarding of the Intangible Cultural Heritage

About Intergovernmental Committee for the Safeguarding of Intangible Cultural Heritage

- The Intergovernmental Committee for the Safeguarding of the Intangible Cultural Heritage is established within UNESCO.
- It shall be composed of representatives of 18 States Parties, elected by the States Parties meeting in General Assembly.
- The number of States Members of the Committee shall be increased to 24 once the number of the States Parties to the Convention reaches 50.
- Functions of the Committee [Important from UPSC Prelims Point of View]
 - To promote the objectives of the Convention, and to encourage and monitor the implementation thereof.
 - To provide guidance on best practices and make recommendations on measures for the safeguarding of the intangible cultural heritage.
 - To prepare and submit to the General Assembly for approval a draft plan for the use of the resources of the Fund, in accordance with Article 25.
 - To seek means of increasing its resources, and to take the necessary measures to this end, in accordance with Article 25.
 - To prepare and submit to the General Assembly for approval of operational directives for the implementation of this Convention.
 - To examine, in accordance with Article 29, the reports submitted by States Parties, and to summarize them for the General Assembly.
 - To examine requests submitted by States Parties, and to decide thereon, in accordance with objective selection criteria to be established by the Committee and approved by the General Assembly for:
 - ◆ inscription on the lists and proposals mentioned under Articles 16, 17 and 18;
 - ◆ the granting of international assistance in accordance with Article 22.

- **Secretariat**
 - The Committee shall be assisted by the UNESCO Secretariat.
 - The Secretariat shall prepare the documentation of the General Assembly and of the Committee, as well as the draft agenda of their meetings, and shall ensure the implementation of their decisions.

About Intangible Cultural Heritage

- The term 'cultural heritage' has changed content considerably in recent decades, partially owing to the instruments developed by UNESCO. Cultural heritage does not end at monuments and collections of objects.
- It also includes traditions or living expressions inherited from our ancestors and passed on to our descendants, such as oral traditions, performing arts, social practices, rituals, festive events, knowledge and practices concerning nature and the universe or the knowledge and skills to produce traditional crafts.

PRELIMS SPECIAL

Intangible Cultural Heritage Sites in India

- Tradition of Vedic chanting (2008)
- Ramlila, the traditional performance of the Ramayana (2008)
- Kutiyattam, Sanskrit theatre (2008)
- Ramman, religious festival and ritual theatre of the Garhwal Himalayas (2009)
- Mudiyetu, ritual theatre and dance drama of Kerala (2010)
- Kalbelia folk songs and dances of Rajasthan (2010)
- Chhau dance (2010)
- Buddhist chanting of Ladakh: recitation of sacred Buddhist texts in the trans-Himalayan Ladakh region (2012)
- Sankirtana, ritual singing, drumming and dancing of Manipur (2013)
- Traditional brass and copper craft of utensil making among the Thatheras of Jandiala Guru, Punjab (2014)
- Yoga (2017)
- Durga Puja in Kolkata (2021)
- Garba of Gujarat (2023)
- Nowruz (2024)

INDIA MARITIME HERITAGE CONCLAVE 2024

Why in News: Ministry of Ports, Shipping and Waterways (MoPSW) has recently organised the country's first ever India Maritime Heritage Conclave-2024 (IMHC-2024).

Key Highlights of 'India Maritime Heritage Conclave 2024'

- Presided over by Hon'ble Vice President of India, the conclave brought together ministers, experts, and

dignitaries from around the world, serving as a vibrant platform for dialogue and collaboration, reaffirming India's enduring maritime heritage and its pivotal role in shaping the global maritime narrative.

- It aimed to celebrate India's illustrious maritime legacy and its profound contributions to global trade, culture, and innovation.
- **Theme:** "Towards Understanding India's Position in Global Maritime History"
- **Objectives**
 - **Showcase at one place entire India's Maritime Legacy:** Highlight India's advancements in shipbuilding, navigation, and maritime trade.
 - **Global Cultural Confluence:** Trace cultural, religious, and economic confluence between India and Southeast Asia, Far East Asia, West Asia, the Mediterranean, Africa, Europe and beyond.
 - **Technological Evolution:** Explore India's contributions to maritime technology, from ancient times through various cultural phases till date.
 - **Spiritual and Cultural Exchange:** Discuss India's role in spreading philosophies and practices through maritime routes.
 - **Maritime Heritage Preservation:** Raise awareness about the conservation of maritime archaeological sites, monuments artefacts, ancient ports, lighthouses etc.
- A key highlight of the day was the emphasis on the upcoming **National Maritime Heritage Complex (NMHC)** in Lothal, which will showcase India's ancient maritime techniques, including shipbuilding and bead-making, reflecting the nation's role as a global connector.

About India's Maritime Heritage

- India's maritime heritage is deeply rooted in its ancient traditions and rich history, with references to maritime activities found as early as the Rig Veda.
- Indian mythology abounds with tales of the ocean, rivers, and the bounty they bestow upon humanity, symbolizing the profound connection between mankind and the seas.
- Evidence from Indian literature, art, sculpture, painting, and archaeology underscores the existence of a vibrant maritime tradition that shaped the nation's identity.

- India has a maritime history spanning over 4500 years.
 - The earliest man-made dockyard was discovered during excavations at Lothal, Gujarat in 1957.
 - Corroborating archaeological evidences have proved that the Harappans had maritime trade and cultural links far and beyond the Indian coastline.
 - Links as far as Mesopotamia and Egypt in the West to Japan in Far East have been found.

India's Modern Maritime Domain

- Modern India's maritime prowess manifests across all domains with its impressive 7,500 km coastline, 13 major ports, and 200 non-major ports.
- Indian port's remarkable annual handling capacity of 1,200 million tonnes of cargo underscores the maritime sector's pivotal role in our economic landscape.
- The maritime sector facilitates an extraordinary 95% of India's trade volume, and that accounts for 70% of its value, capitalising on our strategic Indian Ocean position.

About National Maritime Heritage Complex

- The Ministry of Ports, Shipping and Waterways is developing a National Maritime Heritage Complex (NMHC) at Lothal.
- It is one of the prominent cities of the ancient Harappan civilization dating to 2600 BCE.
- Here, archaeological excavations have discovered the oldest manmade dockyard, over 5000 years old.
- Setting up a maritime heritage complex at such an important location will befit the historical importance of Lothal and help it develop into a place of extraordinary and unparalleled maritime heritage.

Conclusion: A Roadmap for the Future

The conclave not only celebrated India's maritime achievements but also outlined a path for the future. With its robust coastline, advanced ports, and ambitious initiatives like the National Maritime Heritage Conclave, India is poised to become a maritime leader. The discussions on sustainable blue economy practices further reinforced the vision of a resilient maritime sector driving India's economic and cultural resurgence.

GOVERNMENT SCHEMES

NAYI CHETNA 3.0

Why in News: Union Minister of Rural Development and Agriculture & Farmers' Welfare has recently launched the third edition of **Nayi Chetna – Pahal Badlaav Ki** against gender-based violence.

About Nayi Chetna

- The month-long campaign, organized by the **Deendayal Antyodaya Yojana - National Rural Livelihoods Mission (DAY-NRLM)** under the aegis of the Ministry of Rural Development, will run across all Indian States and Union Territories until 23rd December 2024.
 - This initiative, led by DAY-NRLM's extensive Self-Help Group (SHG) network, embodies the spirit of Jan Andolan.
 - The campaign was a collaborative effort in the spirit of "whole of government" approach and witnessed participation of 9 Ministries/Departments namely Ministry of Women and Child Development, Ministry of Health and Family Welfare, Department of School Education and Literacy, Ministry of Home Affairs, Ministry of Panchayati Raj, Ministry of Social Justice and Empowerment, Ministry of Youth Affairs and Sports, Ministry of Information and Broadcasting and Department of Justice.
- **Aim:** To amplify awareness and drive informed action against gender-based violence through grassroots initiatives.
 - The objectives of Nayi Chetna 3.0 include raising awareness about all forms of gender-based violence, encouraging communities to speak out and demand action, providing access to support systems for timely assistance and empowering local institutions to act decisively against violence.
- The campaign's slogan, "**Ek Saath, Ek Awaaz, Hinsa Ke Khilaaf,**" embodies the call for collective action through convergence efforts, adopting a whole-of-society and whole-of-government approach.
- Since its inception, Nayi Chetna has mobilized millions nationwide, fostering a significant movement for gender equality and women's empowerment.
- **Reach of Campaign:** The first edition reached 3.5 crore people, supported by multiple line ministries, while Nayi Chetna 2.0 engaged 5.5 crore participants across 31 States and Union Territories, with over 9 lakh

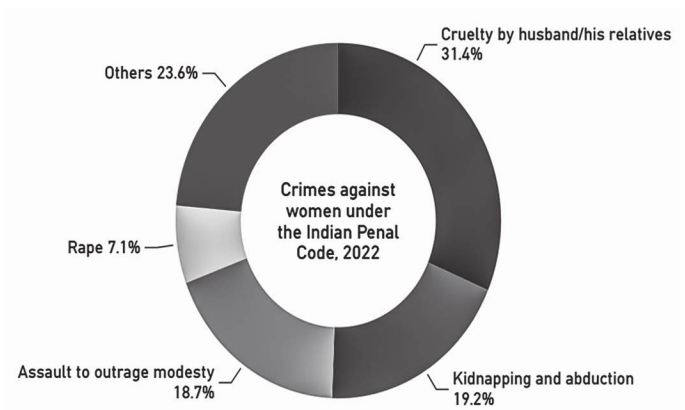
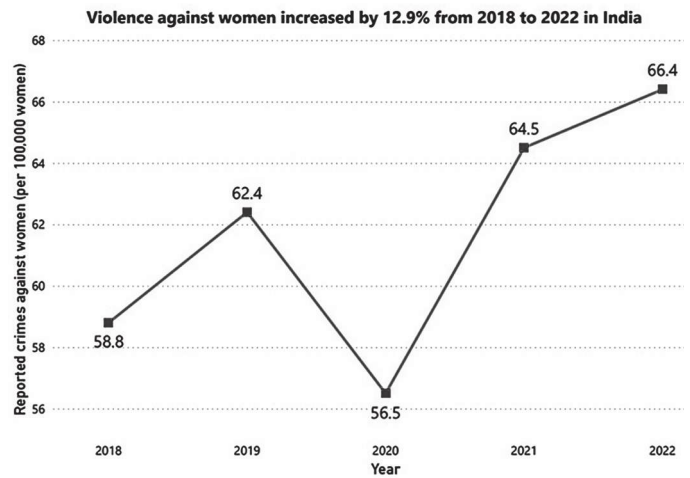
awareness activities on gender-based violence conducted nationwide.

Measures Taken to Check violence Against Women in India

- Constitutional provisions for protection of women
 - **Article 14** confers on men and women equal rights and opportunities in the political, economic and social spheres.
 - While **Article 15** prohibits discrimination against any citizen on the grounds of religion, race, caste, sex etc., **Article 15(3)** makes a special provision enabling the State to make affirmative discrimination in favour of women.
 - **Article 39(a)** further mentions that the State shall direct its policy towards securing to all citizens men and women, equally, the right to means of livelihood, while Article 39(c) ensures equal pay for equal work.
 - **Article 42** directs the State to make provision for ensuring just and humane conditions of work and maternity relief.
 - The Constitution imposes a fundamental duty on every citizen through **Article 51A(e)** to renounce practices derogatory to the dignity of women.
 - **Legislative measures – Legal rights of women** Although women may be victims of any of the crimes such as 'Murder', 'Robbery', 'Cheating' etc., the crimes which are directed specifically against women are characterized as 'Crimes Against Women' These are broadly classified under two categories:
 - The crimes identified under the Indian Penal Code (IPC)
 - ◆ Rape (sec.376 IPC)
 - ◆ Kidnapping & abduction for different purposes (sec.363 – 373 IPC)
 - ◆ Homicide for Dowry, Dowry Deaths or their attempts (sec.302/304-B of IPC)
 - ◆ Torture, both mental and physical (sec.498-A of IPC)
 - ◆ Molestation (sec.354 of IPC)
 - ◆ Sexual harassment (sec.509 of IPC) (referred to in the past as Eve-teasing)
 - ◆ Importation of girls (upto 21 years of age) (sec.366-B of IPC)
 - The crimes identified under the Special laws, such as :
 - ◆ Commission of Sati (Prevention) Act, 1987
 - ◆ Dowry Prohibition Act, 1961
 - ◆ Indecent Representation of Women (Prohibition) Act, 1986
 - ◆ Immoral Traffic (Prevention) Act, 1956

◆ Protection of Women from Domestic Violence Act, 2005

- National Commission for Women
 - The Government has set up a statutory body called National Commission for Women (NCW) with a specific mandate to study and monitor all matters relating to the Constitutional and legal safeguards provided to women; review the existing legislations to suggest amendments wherever necessary; and to look into complaints involving deprivation of the rights of women.
- Protection of Women from Domestic Violence Act, 2005
 - It was notified as a civil remedy to secure women victims from domestic violence and to provide her other reliefs.
- National Policy for the Empowerment of Women
 - The Policy prescribes affirmative action in areas such as Legal System, Decision Making Structure, Economic Empowerment through increased access to resources like micro credit, better resource allocation through Women’s Component Plan, Gender Budget exercises and development of Gender Development Indices and Social Empowerment of Women through.



Way Forward

- **Community Engagement:** Encourage collective action by engaging men, youth, and other community stakeholders in gender sensitization programs to challenge societal norms and behaviours perpetuating violence.
- **Technology and Helplines:** Strengthen access to technology-driven solutions such as apps, 24x7 helplines, and crisis centres for timely assistance and reporting of violence.
- **Economic Empowerment:** Focus on women’s economic independence by enhancing skill development programs and providing greater access to credit, thereby reducing their vulnerability to violence.
- **Enhance Inter-ministerial Collaboration:** Strengthen coordination between ministries to ensure comprehensive and integrated responses to gender-based violence.

Conclusion

Campaigns like Nayi Chetna 3.0 underscore the importance of collective action in addressing gender-based violence and empowering women. Sustained commitment to awareness, legal protections, and socio-economic empowerment will ensure a future free from gender-based violence and pave the way for true gender equality.

Facts for UPSC Mains

- Data from the National Crime Records Bureau (NCRB) reveals that the rate of crimes against women in India (calculated as crimes per 100,000 of the women population) increased by 12.9% between 2018 and 2022.
- In India, the reported crimes against women per 100,000 women population is 66.4 in 2022, in comparison with 58.8 in 2018.
- As per the Women Peace and Security Index 2023 released by Georgetown Institute for Women, Peace and Security, India ranks 128 out of 177 countries in terms of women’s inclusion, justice, and security.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements about Nayi Chetna:

1. It is a campaign, organized by the Deendayal Antyodaya Yojana - National Rural Livelihoods Mission (DAY-NRLM) under the aegis of the Ministry of Panchayati Raj.
2. It is aimed to amplify awareness and drive informed action against gender-based violence through grassroots initiatives.

Which of the above statements are correct:

- (a) Only 1 (b) Only 2
(c) Both 1 and 2. (d) Neither 1 nor 2

Answer: (b)

BAL VIVAH MUKT BHARAT CAMPAIGN

Why in News: To eradicating child marriage and empowering young girls across the nation, the Union Minister for Women and Child Development has recently launched the national campaign Bal Vivah Mukht Bharat.

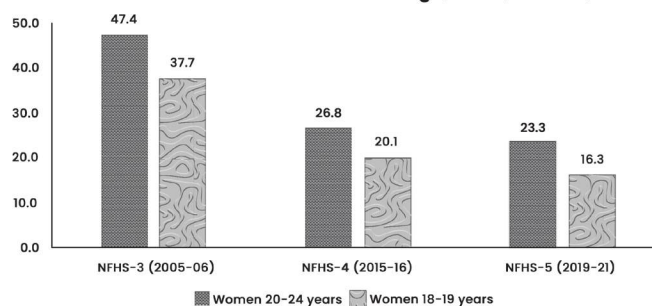
About Bal Vivah Mukht Bharat Campaign

- The campaign is a testament to the ongoing efforts of the Government to eradicate child marriage under the age of 18 and empower young girls across the nation, ensuring a progressive and equitable society where every child's potential can be fully realized.
 - The Bal Vivah Mukht Bharat campaign calls on all citizens to actively oppose child marriage.
 - The campaign focuses on making the country child marriage free that is imperative to promote education, skilling, enterprise and entrepreneurship among girls and women to realise the vision of Viksit Bharat.
 - This initiative is a collaborative effort between the Ministry of Women and Child Development and various other Ministries.
 - The Bal Vivah Mukht Bharat campaign aims to reduce the rate of child marriage in India to below 5% by 2029.
 - The campaign focuses on seven states with the highest rates of child marriage: Assam, Andhra Pradesh, Bihar, Jharkhand, Rajasthan, Tripura, and West Bengal. It also focuses on 300 districts with child marriage rates above the national average.
- Child Marriage Free Bharat portal**, a dedicated online platform to support the campaign's mission of raising awareness against, and prevention of child marriage and effective reporting of incidences of child marriage was launched along the campaign.
 - It is an innovative online platform that enables citizens to report child marriage incidents, file complaints, and access information about Child Marriage Prohibition Officers (CMPOs) nationwide.
 - The portal is a significant step in empowering citizens and enforcing the Prohibition of Child Marriage Act, 2006.

Child Marriage in India: Key Insights from the NFHS-5 (2019-21)

- The age of marriage in India is increasing over time. The median age of first marriage (among women 20–49 years of age) has increased by 2.0 years during the last decade and a half, from a level of 17.2 years in 2005–06 to 19.2 years in 2019–21. For men (age 25–29), this increased from 22.6 to 24.9 during the same period.
- Child marriage reduced from 47.4% in 2005–06 to 26.8% in 2015–16, registering a decline of 21% points during the decade. In the last five years, it declined by 3.5% points to reach 23.3%.
- 43% women aged 20-24 years are married by age 20, and 61% are married by age 21.
- Child marriage, when computed for the younger cohort of women (18–19 years), showed a decline from 37.7% in 2005–06 to 16.3% in 2019-21, indicating a growing trend for decline in the overall prevalence of child marriage in the years to come.

% of Women Married Before 18 Years of Age, India, NFHS-3, 4 & 5



Measures to Prevent Child Marriages

- In order to curb child marriages and to take punitive actions against those associated with child marriages, the Government has enacted the **Prohibition of Child Marriage Act, 2006 (PCMA)**.
- Section 16 of Prohibition of Child Marriage Act (PCMA) authorises the State Government to appoint for the whole State, or such part there of as may be specified, an officer or officers to be known as the '**Child Marriage Prohibition Officers (CMPO)**' having jurisdiction over the area or areas specified in the notification.
- Government has introduced a Bill namely '**the Prohibition of Child Marriage (Amendment) Bill, 2021**' in the Parliament on 21.12.2021 for raising the age of marriage of women to 21 years to make it at par with the men.
- The Ministry of Women and Child Development implements the **Beti Bachao Beti Padhao (BBBP)** scheme, wherein creation of awareness on matters pertaining to gender equality and discouraging child marriage is an important focus area.
- Government of India has introduced **CHILDLINE** with short code **1098**, a 24X7 telephone emergency outreach

service for children in crisis which responds with suitable interventions to call for any form of assistance which a child requires, including for prevention of child marriages in coordination with police, CMPOs, District Child Protection Units etc.

- National Crime Records Bureau (NCRB) compiles and publishes the data on the number of cases of child marriage registered under the Prohibition of Child Marriage Act (PCMA), 2006 in its publication 'Crime in India'.

Way Forward

- **Promote Community-Based Interventions:** Engage with communities, including religious leaders, teachers, and traditional leaders, to change social norms and attitudes towards child marriage.
- **Empowering Girls Through Education and Skilling:** Focus on improving access to quality education, skilling, and vocational training for girls, which not only delays the age of marriage but also promotes their economic independence.
- **Multi-sectoral Collaboration:** Strengthen collaboration between government departments, NGOs, and community-based organizations to ensure a comprehensive and coordinated response to child marriage.

Conclusion

The Bal Vivah Mukt Bharat campaign is a significant step toward addressing the social evil of child marriage and creating an equitable society where every child can realize their potential. A child marriage-free India not only promotes gender equality but also ensures a progressive, educated, and empowered generation, contributing to the vision of Viksit Bharat.

EXPECTED QUESTIONS FOR UPSC CSE

Descriptive Question

- Q. What is the current status of child marriages in India. Mention the government initiatives taken to curb child marriage and way forward in light of National Family health survey- 5. [15 marks, 250 words]

PM E-DRIVE SCHEME

Why in News: The Ministry of Heavy Industry has recently launched the PM Electric Drive Revolution in Innovative Vehicle Enhancement (PM E-DRIVE) Scheme.

Key Details

- **Implementation period:** The scheme will be implemented from 1st October, 2024 till 31st March, 2026.

- **Components of the Scheme:** The PM E-DRIVE scheme is proposed to be implemented through the following components:

- **Subsidies:** Demand Incentives for e-2W, e-3W, e-ambulances, e-trucks and other new emerging EV categories.
- **Grants for creation of capital assets:** e-buses, establishment of network of charging stations & upgradation of testing agencies of MHI, and
- **Administration of the Scheme including IEC** (Information, Education & Communication) activities and fee for project management agency (PMA).

- **Categories of vehicles eligible for support:**

- Buses (only electric buses) (e-bus);
- Three-Wheelers (electric) including registered e-rickshaws & e-carts and L5 (e-3W);
- Two wheelers (electric) – e-2W;
- e-ambulances (electric, plug in hybrid & strong hybrid); and
- e-trucks and other new emerging EV categories (to be notified subsequently).

- **Aim of the Scheme:**

- **Supports Mass mobility:** The scheme promotes mass mobility by supporting means of public transportation.
- **Expedite EV Infrastructure:** Expedite the adoption of EVs by providing upfront incentives for their purchase, as well as by facilitating the establishment of essential charging infrastructure for EVs.
- **Better Air Quality:** The scheme will aid in reducing the environmental impact of transportation and improve air quality.
- **Promote Atmanirbhar Bharat:** The scheme promotes an efficient, competitive and resilient EV manufacturing industry thereby promoting Aatmanirbhar Bharat. This will be achieved by incorporating a phased manufacturing programme (PMP) which encourages domestic manufacturing and strengthening of EV supply chain.
- **Overall Increase Sustainability:** It will address concerns regarding environmental pollution and fuel security as well as to make significant progress in promoting sustainable transportation solutions.

Conclusion

With greater emphasis on providing affordable and environment friendly public transportation options for the masses, scheme will be applicable mainly to vehicles used for public transport or those registered for commercial purposes in e-3W, e-trucks and other new emerging EV categories.

EXPECTED QUESTIONS FOR UPSC CSE

Descriptive Question

Q. What is PM E- Drive Scheme? How can it become a catalyst in boosting EV industry in India. [10 marks, 150 words]

ICONIC TOURIST SITES

Why in News: Ministry of Tourism approves 40 Projects for the development of lesser-known Tourism sites in 23 States, across the country.

Key Details

- By focusing on lesser-known destinations, the Ministry hopes to enhance the overall tourism experience, boost local economies, and ensure sustainable growth in the tourism sector through a strategic approach to new project selection.
 - The initiative aims to ease pressure on high-traffic sites and promote a more balanced distribution of tourists across the country.

- Government investment in the project will stimulate economic growth and creating jobs. By leveraging private sector expertise and capital at destinations, the States can enhance public infrastructure, improve local amenities, and attract more tourists, ultimately boosting the regional economy and fostering long-term development.
- The Ministry is also emphasising for community-based tourism that empowers local populations and preserves cultural heritage.
 - By integrating sustainable practices into tourism planning, State Governments will be able to ensure long-term growth while safeguarding natural and cultural resources by adopting best practices.
- The Ministry of Tourism is also encouraging State Governments to integrate advanced technologies into their tourism projects.
 - By adopting technology, States can streamline operations, optimize tourist flow, and provide sustainable, innovative solutions for growth in the sector.

List of the Approved Projects

State	Project Name
Andhra Pradesh	Gandikota - Enriching the Fort and Gorge Experience
	Akhanda Godavari: (Havelock Bridge & Pushkar Ghat), Rajamahendravaram
Arunachal Pradesh	Siang Adventure & Eco-Retreat, Pasighat
Assam	Assam State Zoo Cum Botanical Garden, Guwahati
	Beautification of Rang Ghar at Sivasagar
Bihar	Development of Matsyagandha Lake, Saharsa
	Karamchat Eco-Tourism and Adventure Hub
Chhattisgarh	Development of Chitrotpala Film City
	Development of Tribal & Cultural Convention Centre
Goa	Chhatrapati Shivaji Maharaj Museum, Ponda
	Proposed Townsquare, Povorim
Gujarat	Ecotourism Destination at Kerly (Mokarsagar), Porbandar
	Tented City and Convention Centre, Dhordo
Jharkhand	Eco-Tourism Development of Tilaiyya, Koderma
Karnataka	Ecotourism & Cultural Hub at Roerich and Devika Rani Estate Tataguni, Bengaluru
	Development of Savadatti Yallammagudda, Belgavi

Kerala	Ashtamudi Biodiversity and Eco-recreational Hub, Kollam
	Sargaalaya: Global Gateway to Malabar's Cultural Crucible
Madhya Pradesh	Orchha A Medieval Splendour
	International Convention Centre for MICE in Bhopal
Maharashtra	Ex-INS Guldar Underwater Museum, Artificial Reef, and Submarine Tourism, Sindhudurg
	Development of "RAM-KAL PATH" at Nashik
Manipur	Loktak Lake Experience
Meghalaya	MICE Infrastructure at Mawkhanu, Shillong
	Re-development of Umiam Lake, Shillong
Odisha	Development of Hirakud
	Development of Satkosia
Punjab	Development of Heritage Street, SBS Nagar
Rajasthan	Development at Amber-Nahargarh and surrounding Area, Jaipur
	Development at Jal Mahal, Jaipur
Sikkim	Skywalk, Bhaleydhunga, Yangang, Namchi
	Border Experience, Nathula
Tamil Nadu	Nandavanam Heritage Park at Mamallapuram
	Garden of flowers at Devala, Ooty
Telangana	Ramappa Region Sustainable Tourism Circuit
	Somasilla Wellness & Spiritual Retreat Nallamala
Tripura	51 Shakti Peethas Park at Banduar, Gomati
Uttar Pradesh	Development of Bateshwar, District- Agra
	Integrated Buddhist Tourism Development, Shrawasti
Uttarakhand	Iconic City Rishikesh: Rafting Base Station

SASCI Scheme and Iconic Tourist Centers

- Under the Special Assistance to States/Union Territories for Capital Investment (SASCI) Scheme of Department of Expenditure, M/o Finance, the operational guidelines for Development of Iconic Tourist Centres to Global Scale were issued by the Ministry of Tourism.
- **Objective:** The aim of this scheme is to infuse long term interest free loans for a period of 50 years to States for comprehensively develop iconic tourist centers in the country, branding, and marketing them at global scale.
- By infusing capital investment in the form of projects, the scheme further envisages growth of local economy and creation of employment opportunities through sustainable tourism projects.
- The States have been given a timeline of 2 years for completing the projects.
- Ministry of Tourism in line with the guidelines and as per the procedure/criteria, shortlisted 40 projects across 23 States for Rs. 3295.76 Crore which have been sanctioned by Department of Expenditure.

PRELIMS SPECIAL

Iconic Tourist Sites

- Taj Mahal and Fatehpur Sikri (Uttar Pradesh)
- Ajanta & Ellora (Maharashtra)
- Humayun’s Tomb, Red Fort and Qutub Minar (Delhi)
- Colva (Goa)
- Amer Fort (Rajasthan)
- Somnath and Dholavira (Gujarat)
- Khajuraho (Madhya Pradesh)
- Hampi (Karnataka)
- Mahabalipuram (Tamil Nadu)
- Kaziranga (Assam)
- Kumarakom (Kerala)
- Mahabodhi Temple (Bihar)

Initiatives for Promotion of Tourism Sector

- Ministry of Tourism launched the **Incredible India Content Hub** on the revamped Incredible India digital portal which is a comprehensive digital repository, featuring a rich collection of high-quality images, films, brochures, and newsletters related to tourism in India.
 - This repository is intended for the use of a diverse range of stakeholders, including tour operators, journalists, students, researchers, film makers, authors, influencers, content creators, government officials and ambassadors.
- The Ministry of Tourism under the schemes of ‘**Swadesh Darshan**’, National Mission on Pilgrimage Rejuvenation and Spiritual Heritage Augmentation Drive (**PRASHAD**)’ and ‘Assistance to Central Agencies for Tourism Infrastructure Development’ provides financial assistance to State Governments/Union Territory Administrations/Central Agencies for the development of tourism related infrastructure and facilities at various tourism destinations in the country.
- Ministry of Tourism has been providing financial assistance to State Governments/ UT Administrations for organising fairs/festivals and tourism related events.
- Ministry is conducting Programmes under the ‘**Capacity Building for Service Providers**’ (CBSP) Scheme to train and upgrade manpower to provide better service standards.
- To enhance the overall experience of tourists by making available a pool of local, trained professionals at tourist sites across the country, Ministry launched the **Incredible India Tourist Facilitator (IITF) Certification Programme** – a Pan-India online learning program.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Which of the following Iconic tourist sites are matched correctly with the states:

Tourist sites	State
1. Dhordo	: Gujarat
2. Gandikota	: Andhra Pradesh
3. Loktak Lake	: Arunachal pradesh
4. Siang Eco-retreat	: Manipur

- (a) One pair only (b) Two pairs only
 (c) Three pairs only (d) All four pairs

Answer: (b) (1 and 2 only)

BIMA SAKHI YOJANA

Why in News: Recently, Prime Minister launched the ‘Bima Sakhi Yojana’ of Life Insurance Corporation, in line with the commitment to women empowerment and financial inclusion.

About Bima Sakhi Yojana

- The ‘Bima Sakhi Yojana’ initiative of Life Insurance Corporation of India (LIC) is designed to empower women aged 18-70 years, who are Class X pass.
- They will receive specialized training and a stipend for the first three years to promote financial literacy and insurance awareness.
- After training, they can serve as LIC agents and the graduate Bima Sakhis would have the opportunity to qualify for being considered for Development Officer roles in LIC.

Government of India Initiatives for Women Empowerment

- **Mahila Samman Savings Certificate**
 - Mahila Samman Savings Certificate, 2023 is a small savings scheme by Govt. of India for women beneficiaries. It aims at inculcating the habit of savings among the women of India.
- **Sukanya Samridhhi Yojana**
 - As part of the ‘Beti Bachao, Beti Padhao’ campaign, the Sukanya Samridhhi Yojana aims to empower parents by encouraging them to save for their daughters’ futures.

- This scheme allows parents to open a Sukanya Samridhi account for girls up to the age of ten at any post office or designated commercial bank branch, starting with a minimum initial deposit of ₹250, and subsequent deposits can be made in multiples of ₹50, provided that at least ₹250 is deposited in a financial year. The total annual deposit limit is capped at ₹1,50,000.
- **One Stop Centre and Universalization of Women Helplines**
 - Ministry of Women and Child Development is administering two schemes from Nirbhaya Fund namely One Stop Centre and Universalization of Women Helplines.
 - The One Stop Centres (OSCs), popularly known as Sakhi Centres, aim to facilitate women affected by violence (including domestic violence) with a range of integrated services under one roof such as Police facilitation, medical aid, providing legal aid and legal counselling, psycho-social counselling, temporary shelter etc.
 - The Women Helpline (WHL) Scheme provides 24 hours emergency and non-emergency response to women affected by violence, both in public and private spaces by linking them with appropriate authority such as Police, One Stop Centre, Hospital, Legal Services etc.
- **Swadhar Greh Scheme**
 - The Swadhar Greh Scheme is being implemented as a Centrally Sponsored Scheme for women who are victims of difficult circumstances, are in need of institutional support for rehabilitation so that they could lead their life with dignity.
- **Ujjawala Scheme**
 - The Ujjawala Scheme is being implemented as a Centrally Sponsored Scheme for Prevention of trafficking and for Rescue, Rehabilitation, Reintegration and Repatriation of victims of trafficking for commercial sexual exploitation.
- **Working Women Hostel**
 - Working Women Hostel Scheme is implemented by the Government with the objective to provide safe and conveniently located accommodation for working women, with day care facility for their children, wherever possible, in urban, semi urban, or even rural areas where employment opportunity for women exist.
- **Mahila Shakti Kendra (MSK)**
 - The Mahila Shakti Kendra (MSK) Scheme was approved in November, 2017 as a centrally sponsored scheme to empower rural women through community participation.
 - This aims to facilitate inter-sectoral convergence of schemes and programs meant for women.
- **Pradhan Mantri Matru Vandana Yojana (PMMVY)**
 - Pradhan Mantri Matru Vandana Yojana (PMMVY) is a Centrally Sponsored Conditional Cash Transfer Scheme, for implementation across the country with effect from 01.01.2017.
 - The maternity benefit under PMMVY is available to all Pregnant Women & Lactating Mothers (PW&LM), excluding PW&LM who are in regular employment with the Central Government or the State Governments or Public Sector Undertakings (PSUs) or those who are in receipt of similar benefits under any law for the time being in force, for first living child of family.
- **Cash Transfer Schemes of various State Governments**
 - Mukhyamantri Majhi Ladki Bahin Yojana - Maharashtra
 - Mukhyamantri Maiya Samman Yojana - Jharkhand
 - Gruha Lakshmi Scheme - Karnataka
 - Mukhyamantri Ladli Bahna Yojana - Madhya Pradesh
 - Lakshmir Bhandar Scheme - West Bengal

Conclusion missing

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements about 'Bima Sakhi yojana'.

1. The 'Bima Sakhi Yojana' is an initiative of Life Insurance Corporation of India (LIC).
2. It is designed to empower women aged 18-70 years, who are Class X pass to promote financial literacy and insurance awareness

Which of the above statements are correct:

- (a) Only 1
- (b) Only 2
- (c) Both 1 and 2.
- (d) Neither 1 nor 2.

Answer: (c)

CLIMATE CHANGE PERFORMANCE INDEX (CCPI)

Why in News: India drops two places but remains among top 10 climate performers in the latest Climate Change Performance Index (CCPI).

About the Climate Change Performance Index (CCPI)

- CCPI is an independent monitoring tool for the climate mitigation performance of 63 countries and the EU.
- Published annually since 2005, the CCPI has promoted important public and political debates in the countries assessed and beyond.
- The CCPI compares the climate change mitigation efforts of 63 countries and the EU. These entities account for over 90% of the world's GHG emissions.
- **Significance:** The CCPI enhances transparency in international climate politics and enables comparison of climate mitigation efforts and progress made by individual countries.
- The climate mitigation performance is assessed in **four categories**:
 - GHG Emissions
 - Renewable Energy
 - Energy Use
 - Climate Policy
- The Index is **published by** Germanwatch, New Climate Institute, and the Climate Action Network.
- Top 3 positions are still vacant as countries must speed up implementation.

Rank	Rank change	Country	Score**
1.*	-	-	-
2.	-	-	-
3.	-	-	-
4.	0-	Denmark	78.37
5.	3 ▲	Netherlands	69.60
6.	14 ▲	United Kingdom	69.29
7.	-1 ▼	Philippines	68.41
8.	1 ▲	Morocco	68.32
9.	3 ▲	Norway 🔥	68.21
10.	-3 ▼	India 🔥	67.99

CCPI and India

- India ranks 10th in this year's CCPI, remaining among the highest performers.
- India receives a high ranking in the GHG Emissions and Energy Use categories, medium in Climate Policy, and low in Renewable Energy.
- While India is the world's most populous country, it has relatively low per capita emissions and low energy use.
- Despite the positive developments, India remains heavily reliant on coal, with the experts noting that its phase-out is progressing too slowly.
- India is among the 10 countries with the largest developed coal reserves, and is currently planning to increase its production.
- **Recommendations**
 - The experts' recommendations include revising the country's NDC to set more ambitious absolute emissions reduction targets across more sectors.
 - The energy transition also should be accelerated while ensuring a just transition.

Conclusion

The climate crisis is an existential threat to life on Earth. To reduce the magnitude of the crisis' impacts, we must limit global warming to 1.5°C, as decided in the Paris Agreement. Only decisive action will reduce greenhouse gas emissions, which are responsible for climate change. As an independent monitoring tool, the CCPI has a leading role in informing on the Paris Agreement's implementation phase.

Since 2005, the CCPI has provided an analysis of countries' climate protection performance. It creates transparency in climate policy, makes it possible to compare climate protection efforts, and lets you see progress and setbacks.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding Climate Change Performance Index (CCPI):

1. It is published by Germanwatch in collaboration with New Climate institute and The Climate Action Network
2. Recently India improved its ranking and elevated to top 10 climate performers in the latest Climate Change Performance Index

3. The top 3 positions are still vacant as countries not doing their best for climate mitigation

How many of the above statements are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Answer: (a) (Option 1)

GLOBAL PEATLAND HOTSPOT ATLAS

Why in News: The State of the World’s Peatlands in Maps released during the UN Climate Change Conference in Baku (COP29).

About Global Peatland Hotspot Atlas

- **Published by:** UN Environment Programme (UNEP)
- The atlas provides evidence for the need to enhance protection and restoration of peatlands, along with investments in research and monitoring.
- The report warns peatland degradation and subsidence due to drainage in the tropics for agriculture, livestock farming, and oil palm plantations.
- The report builds on the 2022 Global Peatlands Assessment and continues to press decision-makers to prioritise peatland protection as a cost-effective climate solution, delivering multiple benefits to people, nature, and climate.
- The Global Peatland Hotspot Atlas is a call to action – not only to protect an ecosystem, but to acknowledge the human dimension and understand how the fate of peatlands is intrinsically linked to the future of our planet and its people.
- It places peatlands where they belong: at the heart of the global environmental agenda. The time to act is now, and the Atlas marks a crucial step toward safeguarding these ecosystems to ensure they continue supporting the generations to come.

About Peat and Peatland

- **Peat**
 - Consists of dead, partly decomposed plant remains (but still macroscopically recognizable) that have accumulated and have been conserved on the spot where they have been produced (in situ).
 - Peat forms in waterlogged areas where microbial decomposition of the dead organic matter is slowed by anoxic conditions or very low.

- **Peatland**
 - Land with a naturally accumulated layer of peat near the surface. Peatlands include both ecosystems that are actively accumulating peat and degraded peatlands that no longer accumulate but in contrast lose peat.
 - They are found in a wide variety of climatic zones and under many different land cover types.
 - Peatland ecosystems are typically classified using hydrological, botanical and physiognomic characteristics. These features disappear or are altered if peatlands are drained or intensively used.
- **Significance of Peatlands**
 - Peatlands are among the most carbon-rich ecosystems on Earth, storing twice as much carbon as the world’s forests.
 - They have a net cooling effect on climate.
 - They slow the flow of water, cleaning it naturally and reducing flood risk.
 - They provide floodplain storage in the lowlands.
 - They support plant life, which provides habitats for wildlife.
 - Support biodiversity

Global Peatland Distribution

- Global peatland distribution is influenced by atmospheric circulation patterns - movements of air driven by temperature and pressure differences - resulting in a higher prevalence of peatlands in boreal regions and the tropics.
- Additionally, peatlands may occur anywhere where the local climate, substrate, topography, and hydrology create conditions for permanently wet soils.
- However, they are less common and extensive in subtropical regions around 30° N and 30° S, where descending dry air caused by global atmospheric circulation limits their formation.

Peatlands within global climate zones

- Differing climatic conditions on Earth play a crucial role in shaping distinct types of peatlands. Each unique set of conditions determines the development of specific peatland types with different hydrological and ecological characteristics.
 - Mosses prevail in arctic, boreal and humid temperate climates.
 - Grass-like plants prevail in more arid temperate and sub-tropical climates.

- Trees prevail in tropical climates.
- Surprisingly, peatlands are also found in sub-tropical savannah, steppe and arid climate zones.

Peatland Biodiversity

- Peatlands are safe havens for rare and threatened species. Protecting them and safeguards the habitats of countless unique animals and plants reliant on these vital ecosystems.

Peatland in Permafrost

- Permafrost conditions significantly influence the dynamics and structures of peatlands in polar / arctic and boreal regions, with climate change strongly degrading or altering them by thawing permafrost.

Mountain peatland and water supply

- Mountain peatlands are vital headwaters for rivers and water bodies, essential for supplying water to both biodiversity and humans.
- Altitude influences temperature and precipitation, resulting in slowed organic matter decomposition and increased carbon accumulation at higher elevations in these ecosystems.

Peatland in Dryland

- Peatlands in dryland, whether in hot or cold steppe and desert climates, face significant regional shrinkage risks that will worsen as climate extremes intensify.

Global Peatland Drainage

- Deep artificial drainage is a common prerequisite for using peatlands for intensive agriculture, forestry, peat extraction, or infrastructure.
- This practice reduces landscape-level water availability, disturbs the ecological functions of peatlands, and transforms them from CO₂ sinks to CO₂ sources.

Global peatland degradation

- Peatland degradation often begins with artificial drainage, but may also result from overgrazing and trampling, oil spills and burning, waste dumping, and infrastructure development, with climate change further intensifying the degradation.
- Heavily degraded peat lands have lost crucial functions such as carbon sequestration and storage, provision of habitat for rare species, cleaning, regulating and storing water, and local climate cooling.

Global greenhouse gas emissions from peatland

- GHG emissions from degraded peatland, estimated at around 1,940 Mt CO₂e annually, account for approximately 4% of global anthropogenic GHG emissions. Water levels play a crucial role, with deeper drainage leading to larger greenhouse gas emissions.

Economic Activities and Peatland Degradation

- **Transport infrastructure on peatland:** The construction

of road, railway, and drainage infrastructure enable exploitation and land use changes, involving soil degradation, habitat fragmentation, pollution, and increased GHG emissions worldwide.

- **Agriculture on peatland:** In temperate, tropical, and subtropical climates, drainage for arable land, livestock farming, and oil palm plantations are the primary drivers of peatland degradation, yet ongoing research on paludiculture offers promising sustainable alternatives.
- **Urbanisation on peatland:** The overall trend of rapid urbanization poses imminent threats to peatlands in rural areas and those near large cities due to drainage and degradation associated with urban development.
- **Mining, oil, and gas deposits on peatland:** The global extraction of minerals, along with oil and gas exploration and exploitation, poses significant threats to peatlands in both boreal and tropical regions.

Flood events, flooding risk, subsidence on peatland

- Peatland drainage leads to peat subsidence and increases flood risk, particularly in regions where peatlands are already vulnerable to floods, along major rivers, coastlines, and at the bases of mountains.

Peatland Fires

- Undrained peatlands do experience surface fires but these do not penetrate into the peat body. In contrast, drained peatlands may suffer prolonged smouldering fires, particularly during El Niño events, resulting in significant GHG emissions and hazardous haze detrimental to human health.

Peatland Protection

- Only 19% of the total peatland area worldwide is found in protected areas.
- Effective protection of peatlands requires holistic management and a landscape approach to conserve the entire hydrological catchment and preserve its valuable ecosystem services for both people and nature.

PRELIMS SPECIAL

Global Peatlands Initiative

- The Global Peatlands Initiative is an effort by leading experts and institutions formed at the UNFCCC COP in Marrakech, Morocco in 2016 to save peatlands as the world's largest terrestrial organic carbon stock and to prevent it from being emitted into the atmosphere.
- Members of the Initiative are working together within their respective areas of expertise to improve the conservation, restoration and sustainable management of peatlands.
- In this way the Initiative is contributing to several Sustainable Development Goals, including by reducing greenhouse gas emissions, maintaining ecosystem services and securing lives and livelihoods through improved adaptive capacity

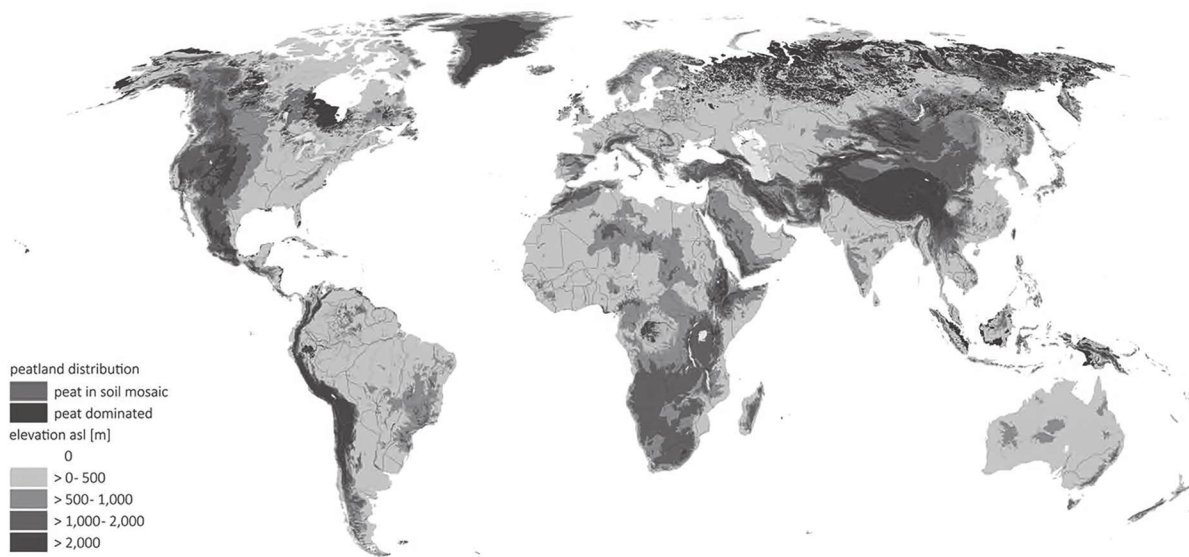


Figure: Global Peatland Distribution

Conclusion

To address the challenges faced by peatlands, immediate and coordinated action is essential to prevent further degradation, restore damaged areas, and protect these vital ecosystems. The Atlas serves as both a warning and a guide, offering actionable insights for sustainable management and biodiversity conservation, ensuring that peatlands continue to provide their invaluable services to both nature and humanity

GLOBAL WAGE REPORT 2024-25 RELEASED

Why in News: Recently ‘Global Wage Report 2024-25’ was released by the **International Labour Organization (ILO)**.

Key Highlights of the Report:

- **Global Wage Trends:**
 - After falling to -0.9% in 2022, global real wage growth recovered in 2023 marking an **increase of 1.8%**.
 - **Preliminary data for the first two quarters** of the year indicate that global real wage growth recorded a **2.7-per-cent increase** in 2024, the largest gain in more than 15 years.
- **Regional Level Wage Growth:**
 - When looking at regional level data, real wage growth continues to be heterogeneous, with **average wages increasing faster in Asia and the Pacific, Central and Western Asia, and Eastern Europe** compared to the rest of the world.
- **Wage inequality:**
 - The report shows that the level of wage inequality differs significantly across countries, with **low-income countries displaying, on average, the highest level of wage inequality** and high-income countries the lowest.
 - In all country income groups analyzed, **women and workers in the informal economy are overrepresented at the low end of the wage distribution.**
- **Gender wage gap:**
 - **Men earn more than women in all country income groups** and across the entire wage scale.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Which of the following organizations brings out the publication known as Global Peatland Hotspot Atlas?

(a) United Nations Habitat
 (b) United Nations Environment Programme
 (c) United Nations Development Programme
 (d) United Nations Framework Convention on Climate Change

Answer: (b)

Descriptive Question

Q. “Peatlands are among the most carbon rich ecosystems on Earth.”Discuss the ecological significance of peatlands and suggest measures for their sustainable management. [10 marks, 150 words]

Equal pay for work of equal value

- Difference between “equal remuneration for work of equal value” and “pay equity”
 - “Equal remuneration for work of equal value” is the principle that is designed to achieve “pay equity”.
 - **Pay equity is about fairness in pay.**
 - Both terms are concerned with **redressing the undervaluation of jobs** typically performed by women.
 - Pay equity entails ensuring that the **same or similar jobs are paid equally**; and **jobs that are not the same, but are of an equal value, are paid equally.**
- **What is equal work?**
 - The concept of “work of equal value” includes but goes beyond “equal work”.
 - Equal pay for equal work means that **similarly qualified women and men will be paid equally when they perform the same or virtually the same work in equivalent conditions.**
 - Where two people are doing work that is the same or similar, they should be paid equally.
 - In some countries the law provides for equal pay where work is performed under similar conditions, or requiring similar qualifications and skills.
 - **Convention No. 100** also refers to work that is not at all alike, but is still of equal value.
- What is work of equal value?
 - When men and women perform **work that is different in content, involving different responsibilities, requiring different skills or qualifications, and is performed under different conditions, but is overall of equal value**, they should receive equal remuneration.
 - This concept is critical to eliminating discrimination and promoting equality, since women and men often perform different jobs, under different conditions and even in different establishments.
 - Women continue to be concentrated in a limited number of jobs, and **jobs held predominantly by women tend to be undervalued.**

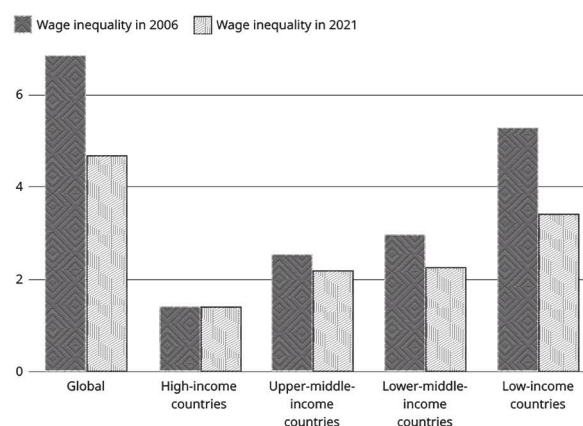
Case Studies - The notion of “work of equal value” in practice around the world

Canada

- The Supreme Court of Canada in a decision of November 2011, reinstated a decision of the Canadian Human Rights Tribunal, finding that clerical work, performed mostly by women, was of equal value to the higher paying sorting and delivery work (postal operations) which was performed mainly by men.
- The decision concerns work of a different nature but which was determined through the Hay method of evaluation to be of equal value.

Iceland

- A claim for equal pay between a female manager of the social affairs department of a municipality and a male engineer was successful before the Supreme Court.



India and Equal pay

Constitutional Provisions:

- **Article 39(d):** Directive Principles of State Policy - It directs state to ensure equal pay for equal work for both men and women.
- **Articles 14, 15, and 16:** The given article Guarantees equality before the law, prohibits discrimination based on religion, race, caste, sex, or place of birth, and ensures equality of opportunity in public employment.

Legislative Measures:

- **Equal Remuneration Act, 1976:** It mandates equal pay for men and women performing the same work or work of a similar nature to prevent gender-based discrimination in employment.
- **Code on Wages, 2019:** This code subsumes the Equal Remuneration Act and reiterates the principle of equal remuneration for men and women for work of similar nature. It also broadens the scope by acknowledging the need for equal pay **across all genders, including transgender individuals.**

Judicial Interpretations:

- **Randhir Singh v. Union of India (1982):** The Supreme Court recognized “**equal pay for equal work**” as a constitutional goal, enforceable through **Articles 14 and 16.**
- **State of Punjab v. Jagjit Singh (2016):** The Supreme Court extended the principle to include **temporary employees**, stating that they **are entitled to wages at par with permanent employees if they perform similar duties.**

Conclusion

To achieve true wage equality, robust mechanisms for compliance, gender neutral job evaluations, awareness programmes and proactive government initiatives are crucial.

Bridging the pay gap is a step towards not only economic growth but also social justice.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding Global Wage report:

1. It is released by the World Economic Forum
2. As per report men earn more than women in all country income groups and across the entire wage scale
3. High income countries display highest level of wage inequality

Which of the statements given above is/are correct?

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

Answer: (c)

STATE OF TAX JUSTICE 2024' REPORT

Why in News: Recently 'State of Tax Justice Report:2024' was released by the Tax Justice Network.

Key highlights of the report:

- The Global revenue losses due to cross border tax abuse amount to an annual **US\$492 billion**, made up of US\$347.6 billion due to corporate tax abuse by multinational companies, and US\$144.8 billion due to undeclared offshore assets of wealthy individuals.
- **The hurtful eight:** A small group of higher income countries - These countries (Australia, Canada, Israel, Japan, New Zealand, South Korea, UK, USA) tried to block the whole world from agreeing tax rules at the UN that can finally curb global tax abuse.
- **Higher income countries** lose bigger sums in absolute terms, but **lower income countries' losses** make up a bigger share of their tax revenues.
- **Multinational corporations** are shifting on average US\$1.13 trillion worth of profit into **tax havens** causing governments around the world to **lose on average US\$294 billion** a year in direct tax revenue.
- The "Axis of tax avoidance" (the UK and its second empire, plus the Netherlands, Luxembourg and Switzerland) are together responsible for 33 per cent. In total, OECD member countries and their dependencies account for more than 6 of every ten dollars lost.

Recommendations as per report:

- **Excess profit taxes and wealth taxes:** These taxes if successfully implemented at national level can help to curb gross inequalities and monopoly power.
- **UN Tax Convention:** To ensure that international rules in future are decided on a globally inclusive basis, and are also effective in curbing cross border tax abuse.
- **Automatic exchange of information:** This initiative aims to create a global standard for public registers of beneficial ownership, covering all companies, legal entities integrated into a comprehensive global asset register to enhance transparency and accountability.
- **Strengthening global institutions:** Taxation related structures including the UN secretariat, its technical bodies and a **UN Centre for Monitoring Taxing Rights** can play an important role in collating and publishing all such data on a rolling basis, as well as providing timely evaluations of new proposed measures.

Role of taxes and financial systems in creating a just society

- **To generate public revenues:** To finance investments in **human capital, infrastructure, and the provision of services** for their people and businesses.
- **Redistribution of wealth:** Collected taxes used for **funding social welfare programmes** to benefit larger populations.
- **Strengthening democracy:** Transparent taxation system helps government to **allocate resources transparently and prioritize public welfare** thus strengthening democratic governance.
- **Support climate action:** Taxes can be designed to address pressing global issues like climate change discouraging harmful practices and incentivizing sustainable behaviour. Ex. Carbon tax (**Coal cess** in India).
- **Empowering government for strategic investment** - Taxes can serve as resources for **technology, infrastructure, defence.**
- **Strengthening ethical business practices:** Transparent and just financial systems encourages **businesses to adhere to ethical practices.**

Status of contemporary international taxation System

- **OECD/G20 Inclusive Framework on BEPS:** The OECD/ G20 **Base Erosion and Profit Shifting (BEPS)** Project equips governments with rules and instruments to address tax avoidance, ensuring that profits are taxed where economic activities generating them take place and where value is created.
- **Global corporate minimum tax:** More than 140 countries have committed to implement a new global tax agreement aimed at ensuring multinational companies pay a minimum rate of tax. The deal, which was proposed by the Organisation for Economic Co-operation and Development (**OECD**), imposes a **minimum effective rate of 15%** on corporate profits.

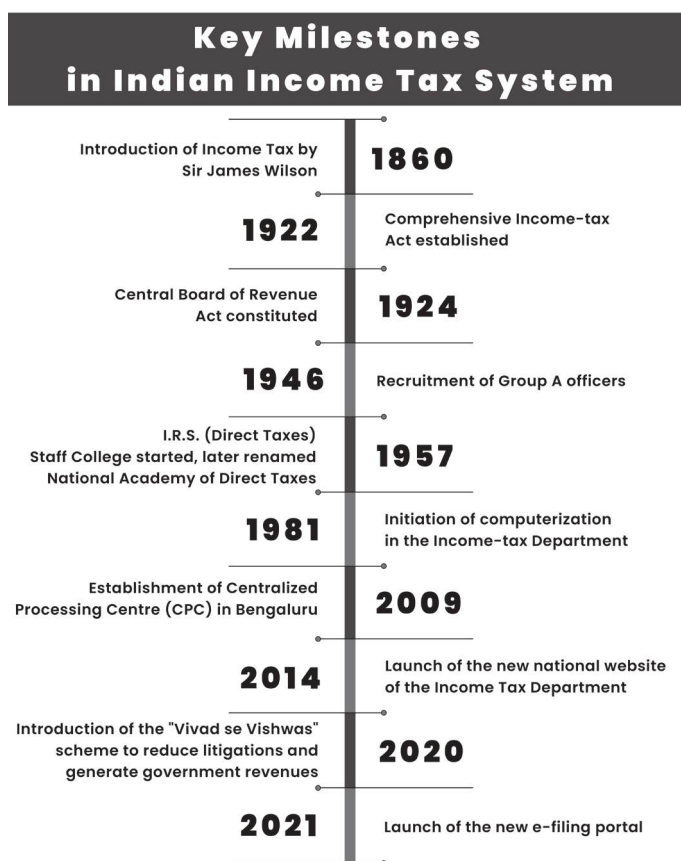
- **Profit Shifting and Tax Havens:** Multinational corporations shift profits to low or zero-tax jurisdictions, exploiting gaps and mismatches in international tax laws. Tax havens, such as the Cayman Islands, Ireland, and Luxembourg, play a central role in this process.
- **Challenges of the Race to the Bottom:** Countries engage in tax competition by lowering corporate tax rates to attract investment, which reduces global tax revenues and perpetuates a “race to the bottom” on corporate taxation.
- **Lack of Transparency:** Limited public access to country-by-country financial reporting for multinational corporations’ hampers efforts to ensure accountability and detect profit shifting.
- **Curbing black money:** Strengthen reporting mechanisms for high value transactions and strict enforcement of anti-money laundering laws. Ex. **Prevention of Money Laundering Act, 2002 (PMLA)**
- **Tax incentives for Small and Medium Enterprises:** Targeted initiatives will ensure promotion of entrepreneurship.

PRELIMS SPECIAL

Corporate tax heaven index

- The Corporate Tax Haven Index is a ranking of countries most complicit in helping multinational corporations underpay corporate income tax.
- The index evaluates how much wiggle room for corporate tax abuse a country’s laws and regulations provide - this is the country’s ‘Haven Score’.
- The index also monitors how much financial activity by multinational corporations enters and exits the country - this is the country’s ‘Global Scale Weight’.
- These two factors are then combined to determine how big of a role the country plays in enabling global corporate tax abuse - this is the country’s ‘CTHI value’ and is what the country is ranked on.
- Topped by the **British Virgin Islands**.

Key Milestones in Indian tax system



Way forward

- **Simplification of taxation:** Reduce complexities in tax slabs and exemptions to improve compliance. Ex. **New Tax Regime India**.
- **Broadening tax base:** Formalization of economy to reduce under reported incomes
- **Streamlining GST and rationalizing rates:** Simplify the Goods and Service Tax structure by reducing the number of slabs
- **Rewarding compliance:** By introducing smaller rebates and rewards for consistent compliance

Conclusion

The Indian Tax System must evolve to balanced growth by leveraging technology, simplifying processes to ensure a robust tax system.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

- Q. State of Tax Justice 2024 Report is released by which of the following:
- World Economic Forum
 - International Monetary Forum
 - International Labour Organisation
 - None of the above

Answer: (d)

Descriptive Question

- Q. In light of the ‘State of Tax Justice 2024’ report, critically analyze the role of international frameworks and global cooperation in addressing cross border tax abuse challenge. [10 marks, 150 words]

WORLD DROUGHT ATLAS 2024

Why in News: The UN Convention to Combat Desertification (UNCCD) and the European Commission Joint Research Centre (JRC) has recently launched the most comprehensive global publication on drought risks and solutions as an urgent wake-up call for world leaders and citizens.

Key Details

- Released at UNCCD's meeting in Riyadh.
- **Features of Atlas**
 - The World Drought Atlas depicts the systemic nature of drought risks for both specialist and non-specialist audiences.
 - Through dozens of maps, infographics, and case studies, it illustrates how drought risks are interconnected across sectors like energy, agriculture, river transport, and international trade and how they can trigger cascading effects, fueling inequalities and conflicts and threatening public health.
 - The Atlas underscores the need for national drought plans and international cooperation to keep communities, economies, and ecosystems afloat in the face of harsher events.
 - It offers guidance for proactive and prospective drought management and adaptation across sectors and governance levels.

Key Messages on Droughts

- **Cause:** Droughts emerge from a combination of natural climate variability, anthropogenic climate change, and human mismanagement of water and land resources. It is not just the absence of rain, snow or soil moisture, droughts are intimately related to human actions.
- **Drought Management:** Sustainable consumption and production practices to protect and manage land are a critical component of drought management.
- **Effect**
 - Droughts affect human populations, multiple sectors, and ecosystems in a complex way and over different spatial and temporal scales.
 - They affect almost every part of the globe and their impacts can cascade through interconnected systems to reach geographically distant areas. Addressing drought requires systemic solutions.
 - Drought is a daunting challenge, as its effects on people's lives and livelihoods and the ecosystems on which they depend are devastating. Through innovation, commitment and solidarity, drought risks can be successfully managed.
- **Way Forward**
 - Climate models project more frequent and severe droughts in the future, and evidence of their increasing impacts calls for immediate actions at all policy levels, international efforts and commitments.

- **Investment** is needed to fill the knowledge gaps and reduce uncertainties in droughts forecasting and risk assessment.
- Enhanced **early warning systems** are essential to reduce risks and achieve resilience.
- The complexity of drought risk demands **cross-sectoral policies** accounting for regional diversity, leveraging local knowledge and promoting communities' engagement.
- Unprecedented **cooperation** among sectors and countries is necessary to achieve drought resilience.
- Sharing knowledge, data, and best practices is essential.
- To successfully manage drought risk, communities, regions and countries must adopt **proactive and prospective approaches** to drought risk management and adaptation.
- Preventive measures such as water management, early warning systems and innovative agricultural practices reduce drought impacts and human vulnerability.
- Combining effective mitigation practices and adaptation pathways can create synergies that support drought resilience.

PRELIMS SPECIAL

UN Convention to Combat Desertification (UNCCD)

- The United Nations Convention to Combat Desertification (UNCCD) was established in 1994 to protect and restore our land and ensure a safer, just, and more sustainable future.
- The UNCCD is the only legally binding framework set up to address desertification and the effects of drought.
- There are 197 Parties to the Convention, including 196 country Parties and the European Union.
- The Convention unites governments, scientists, policymakers, the private sector and communities around a shared vision to restore and manage the world's land.

International Drought Resilience Alliance (IDRA)

- The International Drought Resilience Alliance (IDRA) is the first global coalition creating political momentum and mobilizing financial and technical resources for a drought-resilient future.
- As a growing platform of more than 30 countries and 20 institutions, IDRA draws on the collective strengths of its members to advance policies, actions, and capacity-building for drought preparedness, acknowledging we are only as resilient to drought and climate change as our land is.
- The work of IDRA is aligned with, and supportive of, the mandate of the United Nations Convention to Combat Desertification (UNCCD), which hosts the IDRA Secretariat.

Conclusion

The World Drought Atlas serves as a wake-up call, offering insights into the stark realities of drought and calling for urgency in our response. It reminds us that drought lacks regard for borders, leaving no region or country, regardless of their level of development, immune to its impacts.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. World Drought Atlas is produced by?

- (a) UN Convention to Combat Desertification
- (b) UN Food and Agriculture Organisation
- (c) UN World Food Programme
- (d) None of the Above

Answer: (a)

Descriptive Question

Q. In light of the World Drought Atlas 2024, critically analyse the role of human induced factors in exacerbating droughts and suggest measures for proactive drought management. [10 marks, 150 words]

INTERNATIONAL DEBT REPORT 2024

Why in News: World Bank has released its annual International Debt Report (IDR) 2024 which includes an analysis of end-2023 external debt flows and debt stock positions as well as the macroeconomic and debt outlook for 2024 and beyond.

About International Debt Report

- The International Debt Report (IDR) is a longstanding annual publication of the World Bank featuring external debt statistics and analysis for the low- and middle-income countries that report to the World Bank Debtor Reporting System (DRS).
- For five decades the IDR, along with the associated International Debt Statistics (IDS) database, has helped shape policies in development finance by sharing timely and comprehensive external debt data and analysis with the international community.
- Drawing on data collected through the World Bank's Debtor Reporting System, the IDR has tracked evolving borrowing patterns and new lending instruments over the years, measured the impact of initiatives to relieve debt burdens, and promoted best practices in debt recording and reporting.
- In addition, the IDS-DSSI database includes the actual debt service deferred from by each bilateral creditor and the projected monthly debt-service payments owed to all bilateral creditors.

International Debt Report, 2024

- The report provides **analysis of the near-term macroeconomic outlook** and risks LMICs face amid changing global financial conditions and what they portend for these countries' debt burdens and vulnerabilities going forward.
- It **examines the ability** of the smallest and poorest countries, many of which have underdeveloped domestic financial systems and lack access to global capital markets, to carry debt and sustain larger-than-ever debt service burdens.
- **Identifies steps and efforts** that governments of debtor and creditor countries, together with the international community, have undertaken to move the debt transparency agenda forward, with support from research and input from academia.

Key Takeaways from the Report

- Debt servicing costs of low- and middle-income countries (LMICs), excluding China, reached an all-time high in 2023, double the level of a decade ago.
- Since the onset of the pandemic, multilateral lenders have become the central financial lifeline for LMICs amid a slowing of private lending.
- Official multilateral creditors have been positive contributors to net transfers to LMICs throughout the past decade, offering concessional financing at low interest rates, long maturities, and support for countries through times of shocks that have negatively affected their economies since 2019.
- Total external debt stock of LMICs hit at an all-time high of US\$8.8 trillion in 2023, up 2.4% from the previous year.
- Because of the **monetary tightening** of recent years, interest payments on public and private debt increased across all regions in 2023.

PRELIMS SPECIAL

About Debt Statistics

- The Debt Data Team manages and maintains the World Bank's Debt Reporting System (DRS).
- It works with governments, development partners and creditors to collect, compile, and publish reliable and comprehensive debt data for all World Bank borrowers and enhance data coverage, quality, timeliness, and transparency.
- The Debt Data Team is housed in the Development Economics and Debt Statistics unit of the World Bank's Development Data Group.
- The debt data collected by the World Bank is central to its own operations and, additionally, is recognized as a global public good.

- The World Bank launched the first publication of debt statistics, - World Debt Tables – the forerunner of the International Debt Report - in 1973.
- These data respond to both current international lending patterns and instruments and related analytical needs.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding International Debt Report, 204:

1. It is published by International Monetary Fund
2. It is published biannually by International Monetary Fund

Which of the statements given above is/are correct?

- (a) 1 only (b) 2 only
 (c) Both 1 and 2 (d) Neither 1 nor 2

Answer: (d)

2ND CARICOM-INDIA SUMMIT 2024

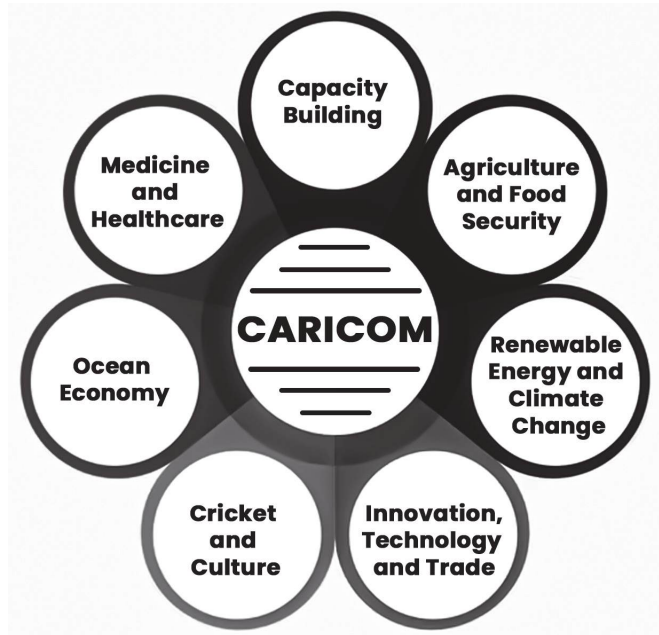
Why in News: Prime Minister of India has proposed 7 key pillars to strengthen ties between India and 'CARICOM'.

Key Details

- The Prime Minister of India has recently made the first visit by an Indian head of State in more than 50 years.
- The Prime Minister of India also suggested to promote the five Ts — **trade, technology, tourism, talent, and tradition** — an online portal could be made to connect the private sector and stakeholders of all countries.
- Caricom heads of government and the prime minister of India last met in 2019 on the margins of the 74th Session of the United Nations General Assembly (UNGA) where they discussed cooperation modalities in renewable energy and climate change through a \$150 million credit line from India.
 - During the summit, PM Modi proposed seven key pillars to strengthen ties between India and 'CARICOM'.

About 7 'key pillars' to boost ties between India and CARICOM

- The seven pillars listed by India also form the acronym: C-A-R-I-C-O-M:



Cooperation between India and CARICOM

- **Energy and Infrastructure** - Countries in the grouping can increase collaboration on renewable energy, energy efficiency, trade and investment in the energy sector, decentralized solar applications as the Region seeks to diversify its energy mix, and promote collaboration in the strengthening of maritime connectivity for the development and consolidation of the CARICOM Single Market and Economy.
- **Agriculture and Food Security**
 - Acknowledging recent issues in the global spectrum countries noted the “CARICOM Agri-Food Systems” Agenda aimed at strengthening the current food and nutrition security in the Region by reducing the Region’s food import bill by 25% by the year 2025
 - They also agreed on collaboration between the Indian Council of Agricultural Research (ICAR) and institutions such as the Caribbean Agricultural Research and Development Institute (CARDI) to boost efforts under the coordination of the CARICOM Ministerial Taskforce on Food Production and Food Security.
- **Health and Pharmaceuticals** – India helped countries in the region tackle the menace of Covid greatly. Further they continue to collaborate in Health sectors including generic medicines; drug testing laboratories; radiation technology; cancer therapy; dialysis machines; sea ambulances and the Bharat Health Initiative for Sahyog Hita and Maitri (BHISHM) Cubes.
- **In Technology:**
 - Technology and Innovation, and Human Resources and Capacity Building in various fields such as education, digital public infrastructure digital health,

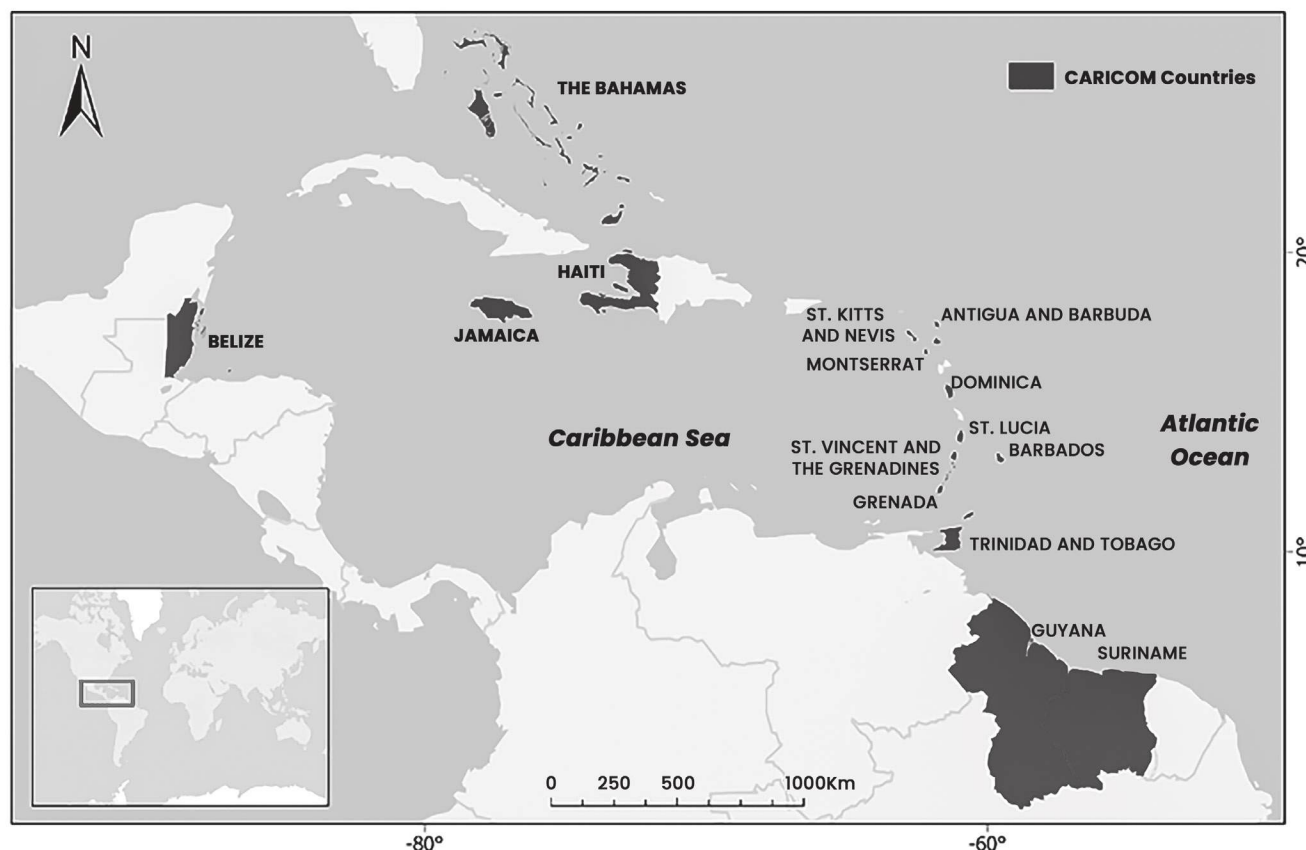
information technology, agriculture, food processing and biofuels, as well as space-based applications which could be utilized, inter alia, in agriculture production, security surveillance, early warning

systems and the tracking of sargassum along coastal areas.

- The two sides will also foster collaboration between their respective institutions of learning and research in areas of common interest.

PRELIMS SPECIAL

About CARICOM



- The Caribbean Community (CARICOM or CC) is an intergovernmental organisation that is a political and economic union of 15 member states (14 nation-states and one dependency) and five associated members throughout the Americas, The Caribbean and Atlantic Ocean.
- **Objective:** It has the primary objective to promote economic integration and cooperation among its members, ensure that the benefits of integration are equitably shared, and coordinate foreign policy.
- **Date of Establishment:** The organisation was established in 1973.
- **Headquarter:** The secretariat headquarters is in Georgetown, Guyana.
- **At UN:** CARICOM has been granted the official United Nations General Assembly observer status.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding Caribbean Community (CARICOM):

1. The organization was established in 1972
2. Its headquarter is located in Guyana
3. Jamaica is member of Caribbean Community

How many of the statements given above is/are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Answer: (b) (2 only)

WORLD'S CHILDREN 2024 REPORT

Why in News: Children will face unprecedented challenges by 2050, UNICEF report warns

Key Details

- The report "The State of the World's Children 2024" by UNICEF highlights that nearly half the world's children, around one billion live in countries that face high risk from climate change and environmental hazards.
- Released on World Children's Day, November 20, the 2024 edition of the report, titled 'From here to 2050', studies the dramatic transformations expected in the near future.

Impact of Climate change on Children

- Climate emergency threatens lives
 - In a stark warning the report reveals that children will face eight times more exposure to extreme heatwaves and triple the risk of extreme river floods compared to the 2000s.
 - Following 2023's record-breaking temperatures, projected climate hazards will disproportionately affect children based on their socioeconomic settings and access to resources.
- **Shifting demographics**
 - The report also projects significant population changes, with Sub-Saharan Africa and South Asia hosting the largest child populations by the 2050s.
 - While still high, Africa's child population will drop below 40 percent – down from 50 per cent in the 2000s. East Asia and Western Europe's data show a 17 per cent drop compared to 29 percent and 20 percent for those regions during the 2000s.
 - These demographic shifts create challenges, with some countries under pressure to expand services for large child populations, while others balance the needs of a growing elderly population.
- **Digital divide**
 - While artificial intelligence and frontier technologies offer new opportunities, the report reveals the digital gap remains stark: In 2024 over 95 percent of people in high-income countries have internet access compared to merely 26 percent in low-income countries.
 - The report notes that youth in developing countries particularly struggle to access digital skills, impacting their educational and workplace prospects.
- **Way Forward**
 - Despite these concerns, some positive trends have emerged. Life expectancy at birth continues to rise, and nearly 96 per cent of children globally are expected to receive primary education by the 2050s.
 - Increased investment in education and public health, and more stringent environmental protection could

narrow the gender gap and reduce exposure to environmental hazards.

- UNICEF recommends urgent investment in education, services and sustainable and resilient cities for children.
- The agency aims to boost climate resilience in infrastructure, technology, essential services and social support systems as well as delivering connectivity and safe technology design for all children.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. World's Children 2024 Report published by?

- (a) United Nations International Children's Emergency Fund
- (b) World Economic Forum
- (c) International Labour Organisation
- (d) Defence For Children International

Answer: (a)

INDIA SKILLS REPORT 2025

Why in News: Wheebox, in association the All-India Council for Technical Education, Confederation of Indian Industry and Association of Indian Universities has published the India Skills Report 2025.

Key Details

- This report analyzes the employability of Indian graduates based on the results of the Wheebox Global Employability Test (GET) taken by 6.5 lakh candidates.
 - The India Skills Report is the culmination of an exhaustive evaluation of candidates who participated in the Global Employability Test (GET) conducted across India.
 - This comprehensive assessment, designed to benchmark employability skills against global standards, provides deep insights into the readiness of India's talent pool for emerging job markets.
 - By evaluating candidates across diverse domains, the report captures critical trends in skills demand, sectoral employability, and regional talent distribution.

Key Findings from the Report

- **Overall Employability:** India's national employability rate stands at 54.81%, indicating a significant pool of talent scoring above 60% on the GET.

- **Employability by Educational Domain**
 - Information Technology (IT) graduates lead with 75% scoring above 60%, followed closely by Computer Science (CS) at 78%.
 - Engineering graduates exhibit high employability, with Electronics and Communication (72%), Electrical (68%), Mechanical (60%), and Biotech (65%) exceeding the benchmark.
 - B.E./B.Tech graduates display a high employability rate (71.50%), while B.A. graduates show moderate employability (54%).
 - MBA graduates lead employability with 78%, reflecting strong alignment with management roles.
 - **Employability by State**
 - Maharashtra leads with 84% employability, followed by Delhi (78%), Karnataka (75%), and Andhra Pradesh (72%).
 - Kerala and Uttar Pradesh maintain strong talent pools at 71% and 70%, respectively.
 - Tamil Nadu (64.06%) and Gujarat (62%) demonstrate potential for growth.
 - **Employability by City**
 - Pune tops the list with 78.32% employability, followed by Bengaluru (76.48%), Mumbai (72.45%), Delhi (70.22%), and Thrissur (72.15%).
 - Hyderabad, Guntur, and Lucknow showcase emerging talent centres.
 - **Skill Availability Across States**
 - English language proficiency is strongest in Maharashtra (67.45%), followed by Karnataka and Uttar Pradesh.
 - Uttar Pradesh tops in numerical skills, followed by Andhra Pradesh and Madhya Pradesh.
 - Critical thinking skills are strongest in Uttar Pradesh, followed by Rajasthan and Madhya Pradesh.
 - Uttar Pradesh leads in computer skills, followed by Kerala and Maharashtra.
 - **Employability by Age Group**
 - The 18-21 age group shows strong potential in Uttar Pradesh (92.20%), Madhya Pradesh (91.15%), and Karnataka (81.89%).
 - Uttar Pradesh again tops the 22-25 age group (94.29%), followed by Kerala (87.47%) and Punjab (87.5%).
 - Gujarat leads the 26-29 age group with sustained employability (78.24%), followed by Maharashtra (71.70%) and Uttar Pradesh (62.50%).
 - **Gender Employability**
 - Male employability is slightly higher (53.47%) than female (46.53%).
 - Top states with male employable resources include Andhra Pradesh, Karnataka, Maharashtra, and Uttar Pradesh.
 - Rajasthan leads in female employability, followed by Gujarat and Kerala.
- **Internship and Work Preferences**
 - A significant portion (93.22%) of users expressed strong interest in internships.
 - Tamil Nadu shows the highest preference for internships, followed by Uttar Pradesh, Kerala, and Karnataka.
 - Male preferences lean towards engineering, design, and technical sectors.
 - Female preferences favour wellness, fashion, human resources, and finance sectors.
 - **Computer Ownership:** Uttar Pradesh leads in computer ownership, followed by Andhra Pradesh and Karnataka.

Hiring Trends

- The demand for freshers is expected to be lower than last year across most industries, with significant variation between sectors.
- The demand for candidates with 1-5 years of experience continues to dominate hiring intent across industries, with Manufacturing and Automotive leading the way.
- Industries like Pharma & Healthcare, BFSI, and IT also exhibit strong interest in candidates with 1-5 years of experience.
- Meanwhile, the demand for candidates with 6-10 years of experience is highest in Pharma & Healthcare, with notable demand also observed in the IT and BFSI sectors.
- These trends reflect a strategic focus on both developing talent and tapping into experienced professionals to meet evolving business needs.

In-Demand Skills

- This year's survey results reflect a clear trend toward prioritising foundational soft skills like ethics, collaboration, and problem-solving, alongside key competencies like digital literacy, management, and cognitive skills.
- In-demand skills are no longer confined to technical expertise alone, with a strong focus on emotional intelligence, self-efficacy, and leadership abilities across industries.

Conclusion

Overall, the report provides valuable insights into the employability landscape of India. It identifies areas of strength and opportunities for improvement, helping stakeholders bridge the skill gap and prepare Indian youth for the global workforce.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding India Skills report, 2025

1. As per report, India's national employability rate stands at 54.81%
2. As per report, Maharashtra leads with 84% employability
3. As per report, female employability is slightly higher than male employability

How many of the statements given above is /are correct?

- (a) Only one (b) Only two
 (c) All three (d) None

Answer: (b) (1 & 2)

Descriptive Question

Q. Examine the findings of India Skills Report, 2025 and suggest policy measures to improve skilling of the workforce. [10 marks, 150 words]

COAL 2024: ANALYSIS AND FORECAST TO 2027' REPORT

Why in News: Recently the International Energy Agency (IEA) published Coal 2024: Analysis and Forecast to 2027' Report.

Highlights from the Report

- **Global coal demand:** Global coal demand is expected to reach a new all-time high of **8.77 billion tonnes (Bt) in 2024**, with electricity generation from coal projected at 10,700 terawatt-hours (TWh).
- **Regional demand growth:** Coal demand in **emerging economies** like China, India is set to **increase** by 1% and 5% respectively whereas Coal demand in **developed economies** like the EU and the US is set to **decline** by 12% and 5%, respectively.
- **Coal demand statistics and projections:**
 - **2023 Review:** Global coal demand reached **8,687 Mt (+2.5% y-o-y)**, with China and India being key drivers.
 - **2024 Projections: Demand will rise by 1%, reaching 8,771 Mt.** The shift in demand continues eastward, dominated by China, India, and ASEAN countries.
 - **2027 Forecast:** Coal demand is expected to plateau at around **8.87 Bt**.
- **Coal-fired Power Generation:** Coal-fired electricity generation in 2024 will set a record at **31,099 TWh**, with moderate growth expected in China and India despite increasing renewable energy penetration.

India Specific Findings:

- **India's Coal Demand:** India will see robust growth, with **coal demand increasing by 70 Mt** to 1,315 Mt in 2024 and further rising to 1,421 Mt by 2027 (+2.6% annually).
- Coal will remain crucial for India's power generation, contributing **74% to the power mix in 2024**, gradually decreasing to 66% by 2027.
- **Power Sector Expansion:** India plans to add **30 GW of new coal-fired capacity**, in addition to the 50 GW already under construction while simultaneously expanding renewable energy capacity.
- **Coal gasification initiative:** India aims to **gasify 100 Mt of coal annually by 2030**, reducing dependency on imported fuels.

PRELIMS SPECIAL

International Energy Agency

- It is an autonomous inter-governmental organisation **within the OECD framework**.
- It works with governments and industry to shape a secure and sustainable energy future for all.
- It was founded in **1974** to ensure the security of oil supplies when an oil embargo by major producers pushed prices to historic levels and exposed the vulnerability of industrialised countries to dependency on oil imports.
- It consists of **31 member countries** and **11 association countries**.
- A candidate country to the IEA must be a member country of the Organisation for Economic Co-operation and Development (OECD).
- **India** joined this organization in **2017** as an **Associate member**.
- **Reports published by IEA:** World Energy Outlook, World Energy Balances, Energy Technology Perspectives, World Energy Statistics and Net Zero by 2050.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding 'International Energy Agency (IEA)'

1. It is a subordinate inter-governmental organisation within the United Nations Energy Programme (UNEP).
2. It consists of 121 member countries and eleven association countries.
3. India was one of the founding members of the organisation.

How many of the above statements are correct?

- (a) Only one (b) Only two
 (c) All three (d) None

Answer: (d)

SHRI GURU TEGH BAHADUR

Why in News: Shaheedi Divas of Guru Tegh Bahadur Ji was observed to honour the sacrifice of the ninth Sikh Guru.

Life of Shri Guru Tegh Bahadur

- **Birth:** Tegh Bahadur was born in Amritsar on April 21, 1621 to Mata Nanki and Guru Hargobind, the sixth Sikh guru, who raised an army against the Mughals and introduced the concept of warrior saints.
- **Childhood**
 - As a boy, Tegh Bahadur was called Tyag Mal because of his ascetic nature.
 - He spent his early childhood in Amritsar under the tutelage of Bhai Gurdas, who taught him Gurmukhi, Hindi, Sanskrit, and Indian religious philosophy, while Baba Budha trained him in swordsmanship, archery, and horse-riding.
 - The Sikhs began to call him Teg Bahadur after the battle of Kartarpur against Painda Khan in which he proved to be a great sword-player or gladiator. But he preferred to call himself 'Tegh Bahadur'.
 - He was married to Mata Gujri at Kartarpur in 1632, and subsequently left for Bakala near Amritsar.
- **Becoming the Guru**
 - After Guru Ram Das, the fourth Sikh guru, the guruship became hereditary.
 - When Tegh Bahadur's elder brother Gurditta died young, the guruship went to his 14-year-old son, Guru Har Rai, in 1644. He remained on the seat until his death at the age of 31 in 1661.
 - Guru Har Rai was succeeded by his five-year-old son Guru Har Krishan, who passed away in Delhi in 1664 before he could reach the age of eight. It is said that when asked about his successor, he took the name of "Baba Bakala", his grand uncle.
 - Guru Tegh Bahadur became the Ninth Sikh Guru in 1664.
 - ◆ Soon afterward, Tegh Bahadur moved to Kiratpur Sahib. In 1665, on the invitation of Raja Bhim Chand of Kahlur who was his devotee, he bought land at Makhawal village and renamed it Chak Nanki (now Anandpur Sahib) after his mother.



- **Time as Guru**
 - Aurangzeb was the ruling Mughal emperor at the time.
 - Guru Tegh Bahadur who started travelling extensively through Malwa and Majha, first came into conflict with the authorities when he started questioning the tradition of worshipping at the graves of pirs and faqirs. He preached against this practice, and urged his followers to be 'nirbhau' (fearless) and 'nirvair' (without envy).
 - His sermons, delivered in a mix of **Sadukhri** and **Braj** languages, were widely understood from Sindh to Bengal.
 - The metaphors he used resonated with people across North India. Guru Tegh Bahadur often alluded to Panchali (Draupadi) and Ganika in his preachings and declared that Hindustan could regain its piety if it took refuge in one God.
- **Run-in with the Mughals**
 - As his message began to spread, a local chieftain at Dhamtan near Jind in present-day Haryana picked him up on fabricated charges of collecting revenue from villagers, and took him to Delhi.
 - But Raja Ram Singh of Amer, whose family was a long-time follower of the gurus, intervened and kept him in his house for around two months until he convinced Aurangzeb that the guru was a holy man with no political ambitions.
- **Travels beyond Punjab**
 - A little more than a year after setting up his headquarters in present-day Anandpur Sahib in 1665, the guru spent four-odd years travelling up to Dhaka in the east, and going up to Puri in Odisha.
 - He also visited Mathura, Agra, Benares, Allahabad, and Patna, where he left his wife and her brother in the care of the local devotees. Guru Gobind Singh was born in Patna in 1666.
 - Raja Jai Singh of Amer had donated land for a dharamshala where the gurus could rest while visiting Delhi. The present-day **Bangla Sahib Gurdwara** is built on this site.
 - While the guru was on the way back from Dhaka, Raja Ram Singh sought his help to broker a truce with the Ahom king. **Gurdwara Dhubri Sahib** on the

banks of the Brahmaputra commemorates this peace accord. The guru was also honoured at Guwahati's Kamakhya temple.

- The guru rushed back to Punjab on learning about the increasing atrocities by the Mughals.

• **Martyrdom**

- Back in Anandpur Sahib, the Guru was approached by Kirpa Das, a Kashmiri Brahmin who sought his protection with a group from the Valley. Das told Guru Tegh Bahadur that local chieftains had told him to convert or face retribution. The guru assured Das and his group of his protection and told them to tell the Mughals that they should first try to convert the guru.
- Aurangzeb considered this an open challenge to his authority. Aurangzeb ordered the public execution of the Guru on November 11, 1675 after the guru declined to embrace Islam.
- He was tortured to death and beheaded at Chandni Chowk along with his three companions, Bhai Mati Das, who was torn asunder, Bhai Sati Das, who was burnt to death, and Bhai Dyala ji, who was put in boiling water.
- **Gurdwara Sis Ganj** was built on the site on which they were executed in 1783.

• **Aftermath**

- The martyrdom of Guru Sahib had far-reaching consequences and deeply influenced the history of India. It exposed the fundamental theistic nature of the contemporary state, highlighted tyranny and injustice.
- It made the people of India hate Aurangzeb and his government as never before and turned the Sikh people into militant people.
- It made them feel that they could protect their religion (Dharma) only through the defense of arms.
- It proposed the way for the final stage in creation of the Khalsa, which played the most important and significant role in the history of India.

Teachings and Philosophy

- The lessons we need to derive from the teachings and sacrifice of Shri Guru Tegh Bahadur Ji are many and multifaceted.
- His sacrifice, his belief in truth, non-violence and a benevolent approach towards all are so inspiring for us even today.
- He fought against superstitions, caste-based discrimination and untouchability so that every human being should lead a life of his choice.
- Religion is a duty for all. A true religion teaches us to be good to all and serve society and people in the best possible manner.

- He stood up for the weak and underprivileged.

Debate over Date

- There is some confusion regarding the date of Guru Tegh Bahadur's martyrdom.
- Until a decade or so ago, it used to be observed on November 11 but ever since some scholars sought to introduce the **Nanakshahi calendar** to fix dates of important events in the Sikh history, it has been observed on November 24.

PRELIMS SPECIAL

About Guru Tegh Bahadur

- Guru Tegh Bahadur had resisted forced conversions of non-Muslims to Islam during Aurangzeb's rule.
- He was publicly killed in 1675 on the orders of Mughal emperor Aurangzeb in Delhi.
- Gurudwara Sis Ganj Sahib and Gurdwara Rakab Ganj Sahib in Delhi are the sites of his execution and cremation.
- In the Guru Granth Sahib, there are one hundred and fifteen hymns of Guru Tegh Bahadur.
- Guru Tegh Bahadur is remembered for his selfless service to people. He travelled across the country with the teachings of Guru Nanak – the first Sikh Guru.
- Guru Tegh Bahadur had set up community kitchens and wells for the local people wherever he went.
- Anandpur Sahib, the famous holy city and a global tourist attraction in the foothills of Himalayas, was founded by Guru Tegh Bahadur.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding Shri Guru Tegh Bahadur

1. Shri Guru Tegh Bahadur is 8th Guru of Sikhism
2. He delivered his sermons in mix of Sadukhri and Braj languages
3. He tortured to death on the orders of Mughal emperor Shah Jahan

How many of the above statements are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Answer: (a) (2 only)

Descriptive Question

Q. Discuss the historical and philosophical contributions of Guru Tegh Bahadur to Indian religious and cultural traditions. [150 words] [10 marks]

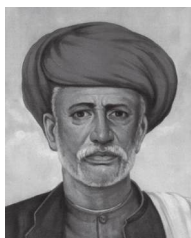
JYOTIRAO PHULE

Why in News: 28th November marks the death anniversary of Jyotirao Phule.

Key details

- Jyotirao Phule (born April 11, 1827, Bombay Presidency [now Maharashtra], India—died November 28, 1890, Pune) was an Indian social reformer, writer, and champion of equality for all people, including poor labourers and women.
- He was a strong critic of the caste system, a means by which people are differentiated and ranked according to the social group into which they are born.
- Phule was inspired by historical movements for independency and against slavery in America as well as the works and teachings of Buddha and Kabir
- In 1848, he opened a pioneering school for girls in Pune, a time when it was extremely rare for any girls in India to receive an education.
- Phule opposed child marriage, and he supported the right of widows to remarry.
- He opened a home for widows, who had become pregnant as well as an orphanage for their children.
- Satyashodhak Samaj
 - In 1873, Phule founded a reform society called Satyashodhak Samaj (“Society of Truth Seekers”) to promote social equality, unite and uplift Shudras and other lower-caste people, and reverse the socio-economic inequality caused by the caste system.
 - The society also emphasized the importance of education and encouraged people to conduct weddings without orthodox rituals.
- Phule also opened his personal water well for all people to use, which symbolized his welcoming attitude, and he invited people from all social classes into his home.
- To publicize his ideas, Phule wrote books, essays, poems, and plays. His best-known work is the book **Gulamgiri (Slavery)**, published in 1873. An attack on India’s caste system, it compares the position of members of the lower castes to that of enslaved people in the United States.
- In 1888, Phule was given the title **Mahatma**, which means “Great Soul” in Sanskrit.
- He died in 1890 in Pune.

Phule’s work and writings inspired later movements for caste reforms in India, including that of Dr. BR Ambedkar, and ongoing efforts to eliminate the discriminatory effects of the caste system in India represent his legacy today.



EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding Jyotirao Phule:

1. In 1848, he opened India’s first school for girls in pune
2. In 1873, he founded ‘Satyashodhak Samaj’ to promote social reforms
3. He published book ‘Gulamgiri’ to showcase shortcomings of India’s caste system

Which of the statements given above is/are correct?

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

(d) :Answer

Descriptive Question

Q. Examine the role of Jyotirao Phule in the empowerment of women and marginalized communities through education and social reforms. How did his initiatives challenge the prevailing social norms of his time? [150 words] [10 marks]

CHAKRAVARTI RAJAGOPALACHARI

Why in News: The Prime Minister of India paid tribute to Chakravarti Rajagopalachari on his 146th birth anniversary.

About Chakravarti Rajagopalachari

- Rajagopalachari was born on 10th December 1878 in Thorapalli village in the Salem district of the then province of Madras (now Tamil Nadu). He was a lawyer, skilled bureaucrat, well-known diplomat and statesman.
- He was greatly influenced by Mahatma Gandhi and his principles of truth and non-violence during the freedom struggle.
 - In 1930, when Gandhiji undertook the Dandi March, he also broke the salt law.
- **Governor-General:** Rajagopalachari was also the first Indian-born governor-general, as all previous holders of the post were British nationals. After Independence, he was appointed as the Governor of West Bengal.
- He contributed significantly to the promotion of Hindi in South India.
- In 1950, Rajagopalachari became the Home Minister in the Jawaharlal Nehru-led government.



- On 14 July 1937, Rajagopalachari assumed the office of the Prime Minister of the then Madras Province. He later took oath as the Chief Minister of Madras in 1952.
- **Swatantra Party:** Due to ideological differences with Nehru, he later broke away from the Congress and formed a new party of his own, the Swatantra Party.
- **Bharat Ratna:** Rajagopalachari was awarded India's highest civilian award 'Bharat Ratna' in 1954 for his contribution to the society. He was the first to receive the highest civilian award.
- **Literary Contribution:** During his imprisonment, he wrote a book called 'Meditation in Jail' and also wrote 'Ramayana' in Tamil.

PRELIMS SPECIAL

Rajaji Formula

- In 1944, Chakravarti Rajagopalachari worked out his own formula to resolve the differences between the Congress and Muslim League.
- Salient Features of Rajaji Formula
 - The Muslim League must endorse the demand for India's independence and cooperate with the Indian National Congress in the formation of a provisional government during the war.
 - Soon after the war ends, a commission will demarcate contiguous districts in the North West and East where the Muslim population is in absolute majority. In these demarcated districts, a plebiscite of all the inhabitants shall ultimately decide the separation from India. If the majority (all communities) decide in favour of forming a separate sovereign state, such decision will be honoured.
 - In the event of separation, mutual agreements shall be entered into for safeguarding defence, commerce and communications and for other essential purposes.
- Jinnah was not impressed with the formula. The Muslim League wanted whole of Punjab and Bengal, and not only districts with an absolute Muslim majority.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements regarding Chakravarti Rajagopalachari

1. Chakravarti Rajagopalachari was the first Governor-General of independent India.
2. Chakravarti Rajagopalachari was also 1st India born Governor General of India

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (b)

SUBRAMANIA BHARATI

Why in News: Prime Minister of India recently unveiled a comprehensive collection of works by Tamil poet and freedom fighter Subramania Bharati to mark his 143rd birth anniversary.

Key Details

- The 23-volume set compendium of his complete works has been compiled and edited by Seeni Viswanathan, titled **Kaala Varisayil Bharathi Padaippugal**.
 - Subramania Bharati's writings instilled patriotism in people, brought the essence of Indian culture and spiritual heritage of the country to masses in a language that the masses can relate to.
 - It contains details of the editions, explanations, documents, background information and philosophical presentation, among others, of the writings of Subramania Bharati.



Subramania Bharati

- C. Subramaniya Bharathiyar (Subramania Bharati) was a poet, freedom fighter and social reformer from Tamil Nadu.
- He was known as Mahakavi Bharathiyar and the laudatory epithet Mahakavi means a great poet.
- He is considered as one of India's greatest poets. His songs on nationalism and freedom of India helped to rally the masses to support the Indian Independence Movement in Tamil Nadu.
- He is celebrated as the father of modern Tamil literary style.

Bharathi: A poet and a Nationalist

- Significantly, a new age in Tamil literature began with Subramaniya Bharathi. Most part of his compositions are classifiable as short lyrical outpourings on patriotic, devotional and mystic themes. Bharathi was essentially a lyrical poet.
- **Poetic Works:** Kannan Pattu; Nilavum Vanminum Katrum; Panchali Sabatam; Kuyil Pattu are examples of Bharathi's great poetic output.
- Bharathi is considered as a national poet due to his number of poems of the patriotic flavour through which he exhorted the people to join the independence struggle and work vigorously for the liberation of the country.
- Instead of merely being proud of his country he also outlined his vision for a free India.
- He published the sensational **Sudesa Geethangal** in 1908.

Bharathi as a Journalist

- Many years of Bharathi's life were spent in the field of

journalism, Bharathi, as a young man began his career as a journalist and as a sub-editor in "Swadesamitran" in November 1904.

- "India" saw the light of the day in May, 1906. It declared as its motto the three slogans of the French Revolution, Liberty, Equality and Fraternity. It blazed a new trail in Tamil Journalism. In order to proclaim its revolutionary ardour, Bharathi had the weekly printed in red paper. "India" was the first paper in Tamil Nadu to publish political cartoons. Bharathi had the weekly printed in red paper.
- He also published and edited a few other journals like Vijaya.
- Bharathi used to attend the Annual sessions of Indian National Congress and discuss national issues with extremist Indian National Leaders like Bipin Chandra Pal, B.G. Tilak and V.V.S. Iyer.
- His participation and activities in the **Benaras Session (1905) and Surat Session (1907)** of the Indian National Congress impressed many national leaders about his patriotic fervour.

Bharathi as a Social Reformer

- Bharathi was also against caste system.
- He declared that there were only two castes-men and women and nothing more than that.
- Above all, he himself had removed his sacred thread. He had also adorned many Dalits with sacred thread.
- He advocated temple entry of Dalits.
- Bharathi was very clear that unless Indians unite as children of Mother India, they could not achieve freedom.
- He believed in women's rights, gender equality and women emancipation.
- He opposed child marriage, dowry and supported widow remarriage.

Conclusion

Subramania Bharati, often referred to as 'Mahakavi Bharathiyar,' is celebrated as the father of modern Tamil literary style. A prolific writer and nationalist, his works continue to resonate with themes of social justice and self-determination. Among his notable creations are Kannan Pattu, Panchali Sapatham, Kuyil Pattu, Pudiya Russia, and Gnanaratham.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. Consider the following tamil literatures:

1. Kannan Pattu
2. Panchali Sapatham
3. Ganaratham

How many of the above literature works were written by Tamil poet Subramania Bharati?

- (a) Only one (b) Only two
(c) All three (d) None of the above

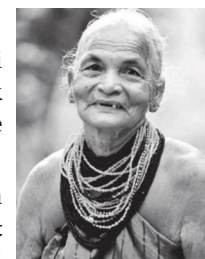
(c) Answer

Q. Subramaniya Bharati was not only a poet but also a revolutionary thinker and freedom fighter. Elaborate. [150 words] [10 marks]

TULSI GOWDA

Why in News: Padma Shri awardee Tulsi Gowda, an environmentalist from Karnataka who is revered as the "tree goddess" by the Halakki tribal community, died from age-related ailments.

Who was Tulsi Gowda?



- Tulsi Gowda was born in Honnali village of Karnataka's Ankola Taluk in 1944. She was a member of the indigenous Halakki tribe.
- For 30 years, Tulsi Gowda was a **temporary volunteer in the forest department**. She was then offered a permanent job due to her **dedication to preserving nature**, and retired from the department at 70.
- Tulsi Gowda never received any formal education, yet her knowledge made her famous as the "**Encyclopedia of the Forest.**"
- Gowda has been credited with **planting and nurturing over 1 lakh trees across Karnataka**.
- She directly supported **afforestation efforts, preventing poaching, and mitigating forest fires** that threatened local wildlife.
- Her contributions have **strengthened one community reserve, five tiger reserves, 15 conservation reserves, and 30 wildlife sanctuaries, ensuring the preservation of diverse ecosystems**.
- In 2021, the Government of India honoured Tulsi Gowda with the **Padma Shri**, the country's fourth-highest civilian award for her exceptional contributions to environmental conservation.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Recently, Padma Shri awardee Tulsi Gowda died due to age related ailments, she was renowned for her dedication towards?

- (a) Destitute women (b) Orphans
(c) Environment (d) None of the above

(c) Answer

ARTICLE FROM YOJANA (DECEMBER 2024)

VISION AND ROADMAP FOR SCIENCE AND TECHNOLOGY

1. Introduction

India, with its rich heritage in science and technology, stands at a unique crossroad to blend traditional wisdom with modern advancements. From Ayurveda and ancient architecture to foundational principles of chemistry and material science, our historical contributions offer a wealth of untapped knowledge. By leveraging modern tools such as Artificial Intelligence (AI) and other emerging technologies, India can:

- Create a new paradigm for global scientific progress.
- Offer innovative solutions combining ancient wisdom with cutting-edge science.
- Address critical national challenges, foster sustainable economic development, and secure a competitive edge on the global stage.

2. Milestones Achieved

- India has made significant strides in the science, technology, and innovation landscape over recent years:
- **Global Standing and Research Advancements**
 - Improved global ranking in scientific research from **7th position (2010)** to **3rd position currently**.
 - Surpassed countries like the UK, Germany, and Japan in annual scientific publications over the last five years.
 - Ranked **3rd globally** in the number of PhDs awarded in Science and Engineering, following the US and China.
 - Climbed from **81st position (2014)** to **39th position (2024)** in the Global Innovation Index (GII).
- **Patent Filings**
 - **Doubled** between 2018 and 2023.
 - Ranked **6th globally** with **82,811 patent filings**.
- **Startup Ecosystem**
 - India is now the **3rd largest startup hub globally**, with:
 - ◆ **140,000 startups (2024)**, up from just 450 in 2016.
 - ◆ **115+ unicorns**.

3. R&D Expenditure

- **Low R&D expenditure:**
 - India spends **0.64% of GDP** on R&D, significantly below the global average of **1.79%**.
 - Leading economies like China (2.43%), the USA (3.46%), and South Korea (4.93%) spend substantially more.
- **Low private sector investment in R&D:**
 - Only **37%** of total R&D expenditure comes from the private sector in India, compared to:
 - ◆ China: 77%.
 - ◆ USA: 78%.
 - ◆ South Korea: 79%.
- **Low number of R&D professionals:**
 - India has **262 full-time equivalent R&D professionals per million population**, lagging behind other major economies.

4. Strategic Roadmap

- A future-oriented roadmap with clear, measurable goals is essential for sustainable growth. Key focus areas include:
- **Sustainability and Resilience**
 - Addressing climate change with transformative technologies:
 - ◆ **E-mobility**, green hydrogen, nuclear energy, photovoltaics, and solar cells for decarbonizing energy systems.
 - ◆ Building a strong supply chain capability in these sectors for strategic autonomy.
- **Countering geopolitical threats:**
 - Developing capabilities in **AI, cybersecurity, and quantum cryptography** to:
 - ◆ Enhance national security.
 - ◆ Achieve strategic autonomy.
 - ◆ Safeguard infrastructure against technological warfare.

5. Resource Optimization

- **Tackling resource constraints:**
 - Advance technologies in **precision agriculture and advanced materials**.
 - Address the growing demand for critical minerals like lithium, nickel, cobalt, and rare earth elements.

- **Enhancing supply chain resilience:** Deploy cutting-edge technologies such as:
 - Advanced manufacturing.
 - AI-driven optimization.
 - Quantum sensors.
 - Deep-sea mining and space exploration.

6. Longevity and Viability of Life

- Modernizing healthcare systems: Focus on assistive technologies and preventive healthcare for an aging society.
- Building sustainable cities: Develop technologies for optimizing transportation, housing, infrastructure, pollution control, and digital connectivity.

7. Key Initiatives and Accomplishments

- India's Leadership in Critical Technologies
 - India is in the **top quintile** globally across 45 of the 64 critical technologies, including:
- Sectors of leadership:
 - Smart materials, biofuels, and Natural language processing (NLP).
 - AI algorithms, photovoltaics, cybersecurity, quantum sensing.
 - Quantum cryptography, advanced optical communications, photonics, drones, and robotics.
- **Mission-Driven Programs**
 - Key national missions to accelerate progress include:
 - ◆ National Quantum Mission.
 - ◆ National Mission on Interdisciplinary Cyber-Physical Systems (NMICPS)
 - ◆ India AI Mission
 - ◆ India Semiconductor Mission
 - ◆ National Green Hydrogen Mission
 - ◆ Mission Mausam
- **Biotechnology and Bio-Economy:**
 - **BioE3 Policy (Biotechnology for Economy, Environment, and Employment):**
 - ◆ Targets a **US\$ 300 million bio-economy** by 2030.
 - ◆ Promotes bio-based chemicals, precision biotherapeutics, and lab-grown foods.
- **Space Exploration**
 - India's ambitious space missions include:
 - ◆ **Chandrayaan-4:** Advancing lunar exploration.
 - ◆ **Bharatiya Antariksha Station:** India's first space station module by 2035.
 - ◆ **Gaganyaan Mission:** Launching a three-member crew into space.
 - ◆ **Astronaut Moon Landing:** Expected by 2040.

- Private sector participation aims to secure a **15% share of the global space economy**.

• Institutional Support: Anundsundan National Research Foundation (ANRF)

- Established under the **ANRF Act 2023**, the ANRF aims to transform India's R&D ecosystem by:

8. Strategic Interventions

- **Global Positioning:** Aligning R&D with national imperatives.
- **Inclusive Growth:**
 - Building R&D capacities in central and state universities.
 - Ensuring equitable access to scientific resources.
- **Excellence in Science:**
 - Cultivating high-impact research ecosystems.
 - Driving frontier technologies.
- **Capacity Building:**
 - Developing world-class infrastructure and skilled multidisciplinary workforce.
- **Industry-Aligned Research:**
 - Bridging the gap between academia and industry.
 - Accelerating commercialization and fostering entrepreneurship.

9. Future Funding and Innovation

- **Ambitious Rs 1 lakh crore R&D fund to:**
 - Boost private sector innovation.
 - Encourage industrial applications of research.
 - Create globally eminent industries to drive Atma Nirbharta in technology.

Conclusion

- India stands poised to lead global advancements in science and technology by:
 - Addressing critical challenges in R&D investment and capacity.
 - Advancing disruptive and sustainable technologies.
 - Integrating ancient wisdom with modern innovations.
- By fostering collaboration across government, industry, and academia, and implementing mission-driven initiatives, India can secure its position as a global leader in innovation, sustainability, and strategic technological progress.

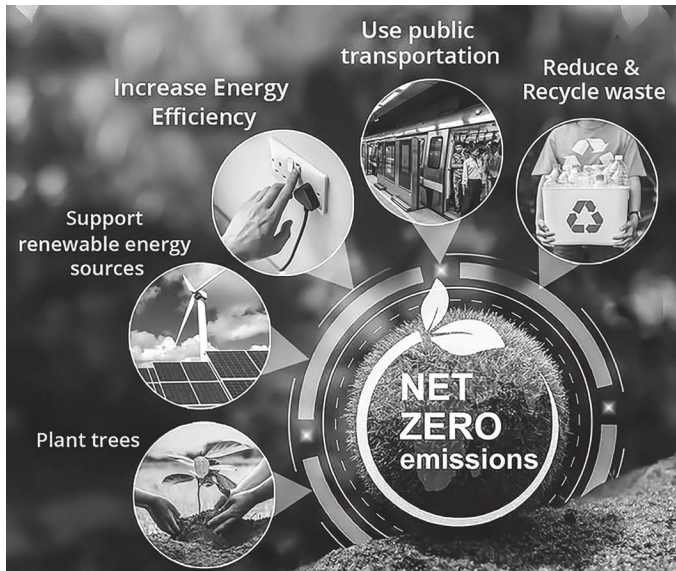
**GOVERNMENT INITIATIVES
IN CLIMATE CHANGE: A
SUSTAINABLE PATH FOR VIKSIT
BHARAT@2047**

1. Introduction

India, one of the most populous countries globally, has been actively addressing climate change while striving for inclusive and sustainable economic growth. Key milestones include:

2. Achievements against NDC Targets (2015):

- **Emission Intensity Reduction:** 33% reduction from 2004-05 levels by 2019.
- **Non-Fossil Fuel Capacity:** Achieved 45.40% installed electric power capacity from non-fossil fuel sources by May 2024.
- **Solar Power Expansion:** Added 15.03 GW solar power in 2023-24, reaching 82.64 GW by April 2024.
 - Revised NDC Targets (2022):
 - ◆ **Emission Intensity Reduction:** 45% by 2030.
 - ◆ **Non-Fossil Fuel Capacity:** 50% installed capacity by 2030.



3. Major Initiatives and Policies

1. PM Surya Ghar Yojana

- **Launched:** February 13, 2024.
- **Budget:** Rs. 75,021 crore.
- **Goals:**
 - ◆ Install rooftop solar panels on 1 crore residential homes.
 - ◆ Supply 300 units of complementary electricity monthly.
 - ◆ Reduce electricity expenses and promote sustainable energy practices.
- **Key Features:**
 - **Financial Assistance:** Up to 60% subsidy for 2 kW systems and 40% for systems up to 3 kW.
 - **Collateral-Free Loans:** To improve affordability.
 - **Target:** Add 30 GW solar capacity, advancing India's renewable energy target of 500 GW by 2030.
 - ◆ **Employment:** Expected to generate over 1.7 million jobs.

- ◆ **Environmental Impact:** Significant reduction in CO2 emissions, fostering a transition to cleaner energy.

4. Sovereign Green Bonds

- **Purpose:** Financing climate-resilient projects.
- **Key Statistics:**
 - ◆ **Initial Issue:** Rs. 8,000 crore (2024).
 - ◆ **Additional Allocation:** Rs. 16,000 crore.
- **Focus Areas:** Renewable energy, clean transport, climate adaptation.
- **Challenges:** High risk perception, insufficient return data.
- **Future Scope:** Mobilizing international investments to further climate resilience.

3. GOBARdhan Initiative

- **Objective:** Transform waste into wealth by establishing 500 biogas facilities.
- **Key Benefits:**
 - ◆ Green energy production from organic waste.
 - ◆ Methane emission reduction.
 - ◆ Supports Swachh Bharat Mission and rural economic opportunities.
- **Extended Applications:** Incorporating urban organic waste and enhancing partnerships with industries.

4. Critical Mineral Mission

- **Objective:** Secure essential minerals like copper and lithium for critical industries.
- **Strategies:**
 - ◆ Enhance domestic production and recycling.
 - ◆ Reduce import dependency.
 - ◆ Foster R&D for resource efficiency and alternative materials.
 - ◆ **Global Collaboration:** Partnering with resource-rich nations for sustainable mineral extraction.

5. MISHTI (Mangrove Initiative for Shoreline Habitats and Tangible Incomes)

- **Launched:** June 2023.
- **Goal:** Conserve and rehabilitate 540 km² of mangroves across nine states and three UTs.
- **Benefits:**
 - ◆ **Climate Resilience:** Natural carbon sinks and storm barriers.
 - ◆ **Socio-Economic:** Eco-tourism, sustainable fisheries, livelihood security.
 - ◆ **Alignment with India's goal** to rehabilitate 26 million hectares of degraded land by 2030.
 - ◆ **Biodiversity Enhancement:** Strengthening ecosystems for marine and coastal species.

6. Amrit Dharohar

- **Launched:** Union Budget 2023-24.
- **Objective:** Maximize wetland use for biodiversity, carbon storage, and ecotourism.
- **Focus:** Restore wetlands to enhance water quality, biodiversity, and local revenue.
- **Extended Goals:** Inclusion of more Ramsar sites and integration with local community conservation practices.

7. Green Credit Programme

- **Purpose:** Incentivize afforestation and ecosystem restoration.
- **Mechanism:**
 - ◆ Participants earn green credits for market exchange.
 - ◆ Supports India's net zero emissions target by 2070.
- **Impacts:** Encourages private sector participation and fosters public awareness about ecological balance.

8. Solar Park Scheme

- **Timeline:** Extended to 2025-26.
- **Goal:** Develop large-scale solar parks, addressing land acquisition and infrastructure challenges.
- **Key Projects:**
 - ◆ Establishing ultra-mega solar power plants in renewable energy zones.
 - ◆ Collaboration with states for land-use optimization.

9. Ecomark Scheme



- **Revised:** Ecomark Rules 2024.
- **Focus:** Label environmentally friendly products.
- **Administration:** Managed by the Bureau of Indian Standards (BIS).
- **Future Prospects:** Expansion to include service sectors like tourism and healthcare.

10. Param Rudra Supercomputers

- **Launched:** 2024.
- **Features:** Advanced computing for climate and scientific research.
- **Cost:** Rs. 130 crore under the National Supercomputing Mission.
- **Applications:**
 - ◆ Precision in climate modeling and early warning systems.
 - ◆ Enhanced research on renewable energy optimization.

11. National Clean Air Programme (NCAP)

- **Launched:** 2019.
- **Target:** Reduce PM10 and PM2.5 levels by 20-30% by 2024.
- **Coverage:** 132 non-attainment cities under NAAQS.
- **Progress:** Integration of air quality monitoring with real-time public dissemination.
- **Extended Goals:** Inclusion of rural air quality monitoring systems.

12. National Action Plan on Climate Change (NAPCC)

- **Launched:** 2008.
- **Key Missions:**
 - ◆ National Solar Mission: 100 GW solar power by 2022.
 - ◆ National Water Mission: Efficient water management.
 - ◆ National Mission for Sustainable Agriculture: Adaptive techniques.
 - ◆ Green India Mission: Afforestation and eco-restoration.
- **Enhanced Framework:** Addition of Urban and Himalayan region-specific sub-missions for localized impacts.

13. Energy Conservation (Amendment) Bill 2022

- **Passed:** December 2022.
- **Features:**
 - ◆ Mandates non-fossil fuel energy sources.
 - ◆ Introduces carbon credit trading.
 - ◆ Strengthens energy efficiency standards across industries.

14. Net Zero Strategy by 2070

- **Presented at COP27 (2022):**
 - ◆ Focus on equity and climate justice.
 - ◆ **Key Strategic Transitions:**
 - ◆ Low-carbon electricity and transport systems.
 - ◆ Urban adaptation and sustainable urbanization.
 - ◆ Enhancing forest and vegetation cover.
 - ◆ Carbon removal technologies.
- **Key Outcomes:** Enhanced global collaboration and technology sharing for low-emission pathways.

4. Conclusion

India's climate initiatives underscore a multi-sectoral approach to reduce emissions and fostering resilience. Programs like green bonds, afforestation efforts, and renewable energy investments highlight the nation's commitment to sustainable development. Success hinges on robust implementation, community engagement, and global collaboration, ensuring India's leadership in achieving its ambitious climate goals, including net zero emissions by 2070. Continued innovation and international cooperation will serve as the foundation for realizing a sustainable and equitable future.

ARTICLE FROM KURUKSHETRA (DECEMBER 2024)

SKILLING INDIA, EMPOWERING THE WORKFORCE

1. Introduction

India is progressing towards becoming the global skill capital, leveraging its demographic advantage as one of the youngest populations in the world. With an emphasis on employable skills, India has seen notable progress, with the percentage of employable final-year and pre-final-year students rising from **33.9% in 2014 to 51.3% in 2024**.

2. Prime Minister's Internship Scheme 2024

(i) Overview

- Announced in Budget 2024-25, this scheme aims to provide **1 crore internship opportunities** over five years in India's top 500 companies.
- It offers **12-month internships**, focusing on practical exposure and bridging academic learning with industry needs.
- **Pilot Phase (October 2024):**
- 1.25 lakh internships targeted for FY 2024-25.
 - Companies selected based on **Corporate Social Responsibility (CSR)** contributions.
- Operates independently of other skill development initiatives.

(ii) Eligibility:

- **Age:**
 - Applicants aged **21-24 years**, Indian nationals, not employed full-time, and not engaged in full-time education (online/distance learners eligible).
- **Educational Qualifications:**
 - Open to high school graduates, ITI-certified individuals, diploma holders, or undergraduates (BA, B. Sc., B. Com, etc.).

(iii) Benefits and Support (DBT Model)

- **Monthly Assistance:**
 - Interns receive **₹5,000 per month:**
 - ◆ ₹500 via CSR funds from companies.
 - ◆ ₹4,500 transferred by the government to interns' Aadhaar-linked accounts.
- **Incidentals Grant:**
 - A **one-time grant of ₹6,000** upon joining through DBT.

- **Training Costs:**

- Covered by companies through CSR funds.

- **Insurance Coverage:**

- **Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY)** and **Pradhan Mantri Suraksha Bima Yojana (PMSBY)** premiums paid by the government.
- Companies may offer additional accidental coverage.

3. Recent Initiatives by the Ministry of Skill Development and Entrepreneurship (MSDE)

- **'Swiggy Skills' Initiative:**

- Collaboration with Swiggy to provide skilling and employment for **2.4 lakh delivery partners**.

- **STRIVE Project:**

- Focuses on entrepreneurship and mentoring in ITIs and NSTIs.

- **PM-JANMAN Initiative:**

- Targets skilling and uplifting vulnerable tribal groups.

- **Capacity Building:**

- Programs for fair price shop owners under **SANKALP: 3,000 participants trained** in entrepreneurship.

- **Marginalized Community Support:**

- Entrepreneurship programs for marginalized groups, jail inmates, and rural communities.

- **Rashtriya Udhyaamita Vikas Pariyojana:**

- Supports **PM Swanidhi beneficiaries** with training and mentoring.

- **Women Empowerment:**

- Skilling in aspirational districts.
- MoUs signed to upskill **20,000 youth in tourism**.

- **Skill India Centre at Rashtrapati Bhavan:**

- Focused on skilling in-house staff.

4. Key Initiatives under the Skill India Mission-

- **Pradhan Mantri Kaushal Vikas Yojana (PMKVY):**

- Short-term skill training programs.

- **Pradhan Mantri Kaushal Kendra (PMKK):**

- Standardized quality training nationwide.

- **Jan Shikshan Sansthan (JSS):**

- Targets non-literate and rural populations.

- **Pradhan Mantri YUVA Yojana:**

- Focuses on entrepreneurship development.

- **Skill India Digital (SID):**
 - AI-driven job-matching tools for continuous learning.
- **PM Vishwakarma Yojana:**
 - Supports traditional artisans with modern skills, integrating them into global markets.



Progress Under Pradhan Mantri Kaushal Vikas Yojana

- ⚙️ **146 prospective skills** qualification approved for market-based future skills
- ⚙️ **1.24 lakh** people trained for jobs in healthcare sector
- ⚙️ **22 Lakh** active apprentices engaged
- ⚙️ **9.93 lakh** participants trained through **39,251** programmes to promote entrepreneurship

7 YEARS OF SKILL INDIA MISSION

5. Latest Achievements

- **Revised Skill Loan Scheme (2024):**
 - Loan cap raised from ₹1.5 lakh to ₹7.5 lakh for advanced skill courses.
- **World Youth Skills Day (July 2024):**
 - Celebrated the **10th anniversary of the Skill India Mission.**
- **Apprenticeship Training (2024-25):**
 - **2.77 lakh apprentices engaged**, with **7.46 lakh** undergoing training as of July 2024.
 - **₹122.36 crore** stipend disbursed via DBT.
- **Indian Institute of Skills (IIS):**
 - **Mumbai IIS inaugurated**, offering training in:
 - ◆ Factory automation, AI, robotics, EVs, and culinary arts.
 - Partnerships with companies like Fanuc India and Taj Skyline.

6. Global Standards in Skilling

- **Skill India International Centres (SIIC):**
 - 30 centres are planned, with **Varanasi and SDI Bhubaneswar operational.**
 - MOUs with **Australia, Denmark, France, Germany, Japan, UAE, UK, etc.**, for standard-setting and mutual recognition of qualifications.

7. Industry Collaboration

- **National Skill Development Corporation (NSDC):**
 - 131 projects benefiting **3.1 lakh people** across **42 aspirational districts.**
 - **Skill Impact Bond:** Targets **50,000 youth** training, ensuring 60% female participation.
- **Directorate General of Training (DGT):**
 - Collaborations with industry leaders (Maruti Suzuki, IBM, Microsoft).
 - **21.5 lakh trainees** prepared for Industry 4.0.
- **NSTI Collaborations:**
 - Training with ISRO, ONGC, BHEL, Indian Railways, etc., covering **1,400 participants (FY24).**

8. Conclusion

India's skill development efforts signify a transformative journey toward becoming a global skill leader. Initiatives like the **Prime Minister's Internship Scheme, Indian Institute of Skills, and Skill India Digital** showcase the country's resolve to align with Industry 4.0, foster entrepreneurship, and enhance employability. By synergizing government programs, private partnerships, and global collaborations, India is empowering its workforce to excel in a competitive global environment.

SKILL AND ENTREPRENEURIAL ECOSYSTEM IN INDIA

Skill development and entrepreneurship are the cornerstones of national progress, spanning agriculture, manufacturing, services, and social sectors. As **Prime Minister Narendra Modi** emphasized in his **Independence Day speech**, India has the potential to emerge as the "*Skill Capital of the World*" owing to its vast youth population. Both skill development and entrepreneurship are crucial for economic growth, employment generation, and social mobility.

1. Understanding Skill Development and Entrepreneurship

- **Skill Development:** It refers to enhancing or acquiring technical, soft, or interpersonal skills for better employability, productivity, and adaptability. It includes formal education, training programs, on-the-job learning, mentoring, and self-study.
- **Entrepreneurship:** It is the process of creating, developing, and managing innovative businesses to generate value. It fosters innovation, utilizes opportunities, and drives economic progress.

Both are complementary, maximizing socio-economic benefits through government initiatives like *Skill India, Make in India, and Startup India.*

2. Government Initiatives for Skill Development

The Ministry of Skill Development and Entrepreneurship

(MSDE) coordinates skill development across the country with objectives to create a learner-centric, demand-driven skill ecosystem.

(i) National Education Policy (NEP) 2020

- NEP 2020 integrates skill education into mainstream education.
- Removes barriers between academic and vocational education.
- Introduces skill modules from *Class 6* to promote career exploration.
- *NSQF-aligned* courses ensure education meets industry standards.
- States like Haryana, Madhya Pradesh, and Sikkim have implemented innovative models like industrial hubs and organic farming practices in schools.

(ii) Samagra Shiksha Scheme

- Aligned with Skill India Mission to vocationalize school education.
- **Key features:**
 - Exposure to skill education in **1 lakh+ upper primary schools**.
 - Hub-and-Spoke model for infrastructure utilization.
 - Career guidance and integration with external stakeholders.

(iii) Pradhan Mantri Kaushal Vikas Yojana (PMKVY)

- Provides **free short-term training** aligned with *NSQF*.
- Focuses on reskilling and upskilling youth (age **15-45**).
- **PMKVY 4.0** emphasizes *new-age skills* like AI, AR/VR, Climate Change, and Green Economy.
 - **Impact:** 1.48 crore beneficiaries, including 65 lakh women.

(iv) Skill India Mission (2015)

- An umbrella scheme improving employment and productivity.
- **Includes:**
 - National Skill Development Mission (NSDM)
 - Creation of specialized group service *Indian Skill Development Services (ISDS)*.

3. Other Key Schemes

- **Jan Shikshan Sansthan (JSS):** Targets non-literates and school dropouts for vocational training (26.4 lakh trained).
- **Craftsman Training Scheme (CTS):** Long-term industrial training via **14,930 ITIs** nationwide.
- **Advanced Vocational Training Scheme (AVTS):** Short modular industrial courses for workers.
- **Vocational Training Program for Women:** Demand-driven courses aimed at socio-economic mainstreaming of women.
- **National Apprenticeship Promotion Scheme:** Combines basic and on-the-job training with industry support.
- **SANKALP:** Supported by the World Bank to strengthen institutions and promote inclusivity.
- **Skill India Digital Hub (SIDH):** A unified digital platform for skill training, education, and employment.

4. Entrepreneurial Ecosystem in India

Entrepreneurship is pivotal for fostering innovation, boosting economic growth, and creating employment. The government has launched several flagship programs to nurture startups and entrepreneurial ventures.

(i) Startup India Program (2016)

- Builds an ecosystem to promote innovation and job creation.
- Focus areas:
 - **Funding Support** through *Stand-Up India* scheme (loans up to ₹10 lakh - ₹1 crore).
 - *Atal Innovation Mission (AIM)* and *Self-Employment and Talent Utilization (SETU)*.
 - Startup India Seed Fund Scheme to fund innovative startups.

(ii) BHASKAR (Bharat Startup Knowledge Access Registry)

- A one-stop digital platform for startup collaboration, research, and knowledge-sharing.
- Aims to empower entrepreneurs across all stages.

(iii) Pradhan Mantri Mudra Yojana (PMMY)

- Provides **micro-credit loans** up to ₹10 lakh for micro-enterprises.
- Covers manufacturing, trading, services, and agri-aligned activities.

SKILL INDIA MISSION
Skilling Youth, Building New India

KEY SCHEMES

- 01 Pradhan Mantri Kaushal Vikas Yojana (PMKVY)
- 02 Pradhan Mantri Kaushal Kendras (PMKK)
- 03 Integration with General Education
- 04 Jan Shikshan Sansthan (JSS)
- 05 Pradhan Mantri YUVA Yojana
- 06 SANKALP (Skills Acquisition and Knowledge Awareness for Livelihood Promotion)
- 07 Vocational Training Programme For Women

(iv) PM Vishwakarma Scheme

- Targets traditional artisans (Vishwakarmas) for upskilling.
- Provides **modern tools, credit support**, and market exposure.
- Implemented by the MSME Ministry and supported by MSDE and Ministry of Finance.

5. Challenges in Skill and Entrepreneurship Development

- Despite significant progress, several challenges persist:
 - **Social Stigma:** Vocational education is still perceived as inferior to academic education.
 - **Inadequate Infrastructure:** Shortage of training facilities and qualified trainers.
 - **Skill Mismatch:** Disparity between skills imparted and industry needs.
 - **Technological Changes:** Rapid advancements like Industry 4.0 demand continuous upskilling.
 - **Regulatory Hurdles:** Complex labor laws hinder entrepreneurial growth.

6. Opportunities and the Way Forward

- India's demographic dividend, coupled with enabling policies, provides a golden opportunity to become a global hub for skills and entrepreneurship. Key steps include:

- **Enhancing Integration:** Bridge the gap between education, skills, and employment.
- **Focus on Digital Skills:** Prepare youth for future industries (AI, Robotics, Green Economy).
- **Promote Inclusive Development:** Increase participation of women, marginalized, and rural communities.
- **Global Collaboration:** Leverage partnerships with international organizations for best practices.
- **Monitoring and Evaluation:** Improve implementation through effective governance and feedback mechanisms.

7. Conclusion

The skill and entrepreneurial ecosystem in India is undergoing a transformative shift. Government initiatives, such as *PMKVY*, *Startup India*, and *Skill India Mission*, are playing a pivotal role in equipping the youth with future-ready skills. While challenges like infrastructure deficits and skill mismatches remain, targeted policies, industry partnerships, and active societal participation can harness India's potential. By enhancing skill development and promoting entrepreneurship, India can realize its vision of *Viksit Bharat* by 2047 and become a global leader in innovation and productivity.

Free Initiative by Chahal Academy CCHAHAL ACADEMY

Daily quiz of 10 MCQs from The Hindu and Indian express

Scan QR Code

THE INDIAN EXPRESS

THE HINDU

ARTICLES FROM DOWN TO EARTH

DECEMBER 2024

FINANCIAL PRESSURE ON AGRICULTURAL HOUSEHOLDS

Status of farmer's income and financial health in India

- **Rising Expenditures exceeds rise in Incomes:** The Standing Committee on Agriculture, Animal Husbandry and Food Processing, has observed in its latest report that while farmer incomes may be rising, expenses are outpacing income growth, leading agricultural families to borrow more.
 - While the average monthly income of households saw a substantial rise of 57.6 percent over a five-year period, increasing from Rs 8,059 in 2016-17 to Rs 12,698 in 2021-22, an increase of 57.6 per cent.
 - But the average monthly expenditure surged even more sharply — from Rs 6,646 to Rs 11,262 (an increase of 69.4 per cent) over the same period, creating an imbalance.
- **Increase in burden of loan :** The percentage of rural families taking loans has risen from 47.4 percent to 52 percent between 2016-17 and 2021-22. This points to a heightened financial pressure on agricultural households and reflects a concerning trend in rural financial health.

Need for Interventions

- The present situation necessitates careful monitoring and targeted interventions to ensure that farmers can manage their debts sustainably while continuing to invest in their agricultural activities.
- There is a need to ensure that farmers don't get entrapped in a vicious cycle of insurmountable debts and the schemes run for welfare of farmers have a tangible impact on the ground.

Way Forward

- **Renaming of Department:** The parliamentary panel also recommended renaming the 'Department of Agriculture and Farmers Welfare' to 'Department of Agriculture, Farmers & Farm Labourers Welfare' which will bring a broader focus on farm labourers.
 - The renaming branding would assist to enhance the scope of initiatives and policies directed towards improving the livelihoods and welfare of both farmers and farm labourers
 - It is vital to a larger effort to streamline agricultural governance and address the diverse needs of those working in agriculture.

- **National Commission for Minimum Living Wages:** It also suggested establishing a 'National Commission for Minimum Living Wages' for farm labourers at the earliest to provide long due rights to farm labourers.

A JOKE, INDEED

Context: COP29 in Baku, Azerbaijan

Introduction

The 29th Conference of the Parties (COP29) to the UN climate summit, held in Baku, Azerbaijan, from November 11 to 24, 2025, faced significant challenges, including geopolitical turmoil, developed nations' reluctance to negotiate in good faith, and the election of Donald Trump as US President. Despite being labelled the most critical COP since the 2015 Paris Agreement, the summit's outcomes were widely criticised as inadequate for addressing global climate finance, mitigation, and adaptation goals.

Climate Finance Fund

Key Outcomes	Gaps
Developed countries to take the lead in providing \$300 billion a year by 2035 to New Collective Quantified Goal (NCQG).	\$300 billion is an unambitious finance commitment, marginally higher than the previous \$100 billion goal, adjusted for inflation by 2035.
A Baku to Belém Roadmap by COP30 to scale up \$300 billion figure to \$1.3 trillion by 2035.	The responsibility to meet the \$1.3 trillion target has been shifted to "all actors," instead of just developed countries.

Carbon Markets

Key Outcome	Gap
Rules adopted for Articles 6.2 and 6.4 after a decade of negotiations.	Adopted rules flagged as flawed, with no safeguards to prevent countries from trading in low-quality carbon credits.

- After a decade of negotiations, COP29 adopted rules for carbon trading mechanisms under Article 6 of the Paris Agreement:

- **Article 6.2:** A decentralised system for trading carbon credits, with weak provisions on transparency and accountability.
- **Article 6.4:** A global carbon market overseen by a UN Supervisory Body, with provisions criticised for potentially enabling low-quality carbon credits.
- **Article 6.8:** A centralised platform for financial support, but it remains underutilised.

Mitigation and Adaptation

Key Outcomes	Gaps
Mitigation Work Programme saw a deadlock and is on the verge of collapse.	No progress made on UAE dialogue on implementing Global Stocktake.
Procedural texts released on Global Goal on Adaptation and National Adaptation Plans.	Adaptation finance far from sufficient. Adaptation Fund sees new pledges of just \$61 million against target of \$300 million.

Criticisms

- The \$300 billion annual climate finance target was seen as inadequate and primarily driven by developed countries' interests.
- Developed nations undermined their obligations under the Paris Agreement, prioritizing private sector contributions and sidelining public financing.
- The Azerbaijan Presidency's role in fast-tracking suboptimal agreements drew criticism for sidelining multilateralism and democracy.

Way Forward: What Next for COP30?

- Brazil, as the host of COP30, has a critical role to play. While it has been vocal on equity in fossil fuel phaseout and taxing the ultra-wealthy, its aspirations for expanding oil and gas production raise concerns.
- COP30 will focus on:
 - Increasing the NCQG target towards \$1.3 trillion.
 - Enhancing transparency and equity in climate financing and carbon markets.
 - Strengthening commitments to mitigation, adaptation, and loss and damage funding.
- Observers and governments remain cautious about Brazil's dual role as a Global South leader and an oil producer.

Initiatives under Action Agenda

The COP29 Presidency announced 14 global initiatives under its Action Agenda, with an aim to advance climate efforts.

- **Joint Solemn Appeal by the COP29 Presidency for a COP Truce**
 - **Sector:** Defence
 - **Purpose:** Reduce global military activities that contribute

5.5% of annual global emissions—higher than those of the aviation and shipping sectors combined—during the month of the conference.

- **Signatories:** 132 countries
- **India's Position:** India is a signatory.
- **COP29 Declaration on Enhanced Climate Action in Tourism**
 - **Sector:** Tourism
 - **Purpose:** Promote sustainable tourism practices by reducing emissions and increasing resilience—ultimately positioning tourism as a key component of climate solutions.
 - **Signatories:** More than 60 countries
 - **India's Position:** List of countries not released yet
- **COP29 Hydrogen Declaration**
 - **Sector:** Energy and Industry
 - **Purpose:** Endorsers commit to scale up renewable, clean/zero-emission and low-carbon hydrogen production and accelerate the decarbonisation of existing hydrogen production from unabated fossil fuels
 - **Signatories:** 45 countries endorsed the declaration at COP28. No new countries added at COP29.
 - **India's Position:** India is a signatory.
- **COP29 Declaration on Reducing Methane from Organic Waste**
 - **Sector:** Waste
 - **Purpose:** Countries must set sectoral targets to reduce methane from organic waste within their future nationally determined contributions.
 - **Signatories:** 30 countries, collectively responsible for nearly half of the global methane from organic waste emissions, have endorsed the declaration.
 - **India's Position:** India has not endorsed the declaration.
- **COP29 Declaration on Water for Climate Action**
 - **Purpose:** Countries commit to taking integrated approaches to combat the causes and impacts of climate change on water basins, paving the way for greater regional and international cooperation.
 - **Signatories:** Nearly 50 countries
 - **India's Position:** List of countries not released yet
- **Declaration on Green Digital Action**
 - **Purpose:** To address challenges toward achieving sustainable, climate resilient and healthy cities, leveraging each sector's opportunities and technical capacities.
 - **Signatories:** Endorsed by 90 countries
 - **India's Position:** List of countries not released yet
- **Declaration on Multisectoral Actions Pathways (MAP) to Resilient and Healthy Cities**
 - **Purpose:** To serve as a strategic guide to enhance resilience and health in urban areas
 - **Signatories:** Endorsed by 40 countries
 - **India's Position:** List of countries not released yet

ARTICLES FROM EPW (DECEMBER 2024)

TECHNOLOGICAL SOVEREIGNTY: AN IMPERATIVE FOR STRATEGIC AUTONOMY

Introduction: Technological sovereignty is the ability and freedom to choose to create or acquire, as well as apply, develop and use for commercial purposes, technologies necessary for industrial innovation. The use of this concept is increasing due to the realignment of the world order and the increasing number of sanctions imposed by the collective West on Iran, North Korea, Venezuela and Russia.

Technological Sovereignty

- The concept of technological sovereignty appeared in the early 21st century.
- **Cause:** The concept of technological sovereignty emerged due to the technological revolution that directly impinged upon the economic prosperity of countries but also the information and communication security sphere.
- **Key Element of Technological Sovereignty:** The primacy of state power in the sphere of regulating relations related to methods of transforming the interacting world.
- **Technological Sovereignty and Technological Security**
 - Technological Sovereignty is linked with the concept of technological security.
 - Although both concepts imply a state of security, technological sovereignty includes the ability to independently create or acquire technologies without the fear of technological dependence.

Relevance of Technological Sovereignty

- **Importance of Technological Sovereignty**
 - **Critical case study:** Russia's situation due to alleged aggression and proxy war.
 - **Focus:** US-China, as they are not in traditional wars but compete technologically.
- **Semiconductors:** Chips are omnipresent in all modern technology. The semiconductor industry is highly dependent on China for 60% of the world's rare earth mining production and 90% of processing and refining.
- **US Response**
 - In 2020, the US realised that it had no domestic production of 14 minerals on the critical minerals list and is completely import-dependent.
 - In 2020, President Trump issued Executive Order

13953 stating that the US dependence on China for critical minerals constitutes a national security threat.

- The CHIPS and Science Act of 2022, signed into law by President Joe Biden, was designed to boost US investment and development.

India—Key Areas for Technological Sovereignty

- India will need to achieve technological sovereignty in
 - **Core Strategic Technologies:** nuclear, space, defence
 - **Critical Digital Technologies:** semiconductors, telecommunications and electronics
 - **Emerging Technologies:** AI, quantum computing and drones
 - Biotechnologies
- **Current Initiatives and Progress**
 - **Semiconductor Industry Development:** Efforts are underway, but geopolitical challenges persist.
 - **Strategic Partnerships:** Signed agreements like iCET, Minerals Security Partnership, TTC with the EU, and IPEF for supply chain agreements.
- **Geopolitical Challenges**
 - **Historical Restrictions:** Technology restrictions primarily from the US in response to India's independent foreign policy. Major restrictions in strategic areas like semiconductors and defence technologies.
 - **Dependence on China:** Significant reliance on Chinese imports for vital components and rare earth materials. Brings India into the strategic competition between the US and China.
- **Satellite Spectrum Allocation**
 - **Strategic Spectrum Issues:** The Department of Telecommunications (DoT) may allot satellite spectrum administratively instead of through auctions. This decision could benefit foreign players, disregarding public interest and Supreme Court judgments.
 - **Starlink's Role:** Elon Musk's Starlink, linked to the US military, poses potential challenges. Non-compliance with India's data localization and interception policies could force concessions to access US technology.

Some Key Technology Areas Impacting India's Strategic Autonomy

Technology Area	Country Initiating Sanctions/Restriction	Remarks
Space/cryogenic engines	USA	India signed an agreement with Roscosmos in the 1990s for the supply and technology transfer of cryogenic engines. The deal was delayed for several years due to USA pressure. The aspects of technology transfer are not public knowledge.
Nuclear power plants	USA	Ronald Reagan rescinded the deal for a lifetime USA supply of low-enriched fuel for the Tarapur nuclear power station.
Nuclear technology/deterrence in the 1960s	Self Imposed	India's idealistic stance on nuclear testing led to its signing of the Partial Test Ban Treaty in 1963. As a result, India was not recognised as a nuclear power when the Nuclear Non-Proliferation Treaty (NPT) was established in 1968. This decision has significantly affected India's access to nuclear technology and fuel, as well as its nuclear deterrence capabilities. Consequently, India is not a member of the Nuclear Suppliers Group (NSG).
Nuclear deterrence post-1998	USA	Following the Pokhran-II nuclear tests in 1998, the talks between Jaswant Singh and Strobe Talbott led to India's agreement to refrain from further nuclear testing, maintain its nuclear arsenal in a recessed deterrence state, and slow down the Agni-V missile programme.
Missile Technology Control Regime (MTCR)	G7 Countries	The original intent of the Missile Technology Control Regime (MTCR) was to restrict the export of missiles and related technologies capable of carrying a payload of 500 kilograms at a range of at least 300 kilometres, or of delivering any weapon of mass destruction. The US allowed certain exceptions for Ukraine (in 1998) and South Korea. India developed its missile programme in the context of the MTCR and was admitted into the group of MTCR countries in June 2016, following an initial rejection in 2015.
Aerospace/commercial aircraft	USA/France	India is focused on importing aircraft, while China is producing its own. For instance, in 2023, Tata's Air India placed an order for 220 planes valued at \$34 billion from Boeing (USA) and another 250 aircraft from Airbus for \$36 billion (France).
Defence/aircraft engines	USA/France/UK	Engines contracted from GE are two years overdue, which is hindering the indigenous Tejas LCA programme. HAL has successfully built aircraft under license from various countries, including French (Mirage, Rafale), British (Jaguar, Hawk), and Russian/Soviet (Su-30, MiG series) manufacturers. However, HAL has not developed the capability to produce engines.
Defence/submarine building technologies	USA/France/Germany	The USA is unwilling to transfer any submarine-building technology/lease a nuclear submarine. India signed a contract for technology transfer for Scorpene submarines with France/DCNS. However, it has been reported that the 6th Scorpene is estimated to have less than 10% indigenous content. Similarly, with Germany for the Type 209 (Shishumar class submarine) built by MDL in the early 1990s. The result is that MDL, the shipyard, has no design and technology innovation capability.

Defence/ aerospace/ helicopter engines, fire control systems, electronic support measures systems	USA	After the 1998 nuclear tests, the USA imposed sanctions on India, which resulted in the grounding of the Indian Navy's Sea King anti-submarine warfare helicopter fleet. This was due to the fact that the helicopters contained USA-made engine components, which were no longer available. Additionally, for the German-origin Type 209 submarines, spare parts from USA-supplied equipment had to be cannibalised to keep them operational.
---	-----	--

Means to Achieve Technological Sovereignty

- **R&D:** India's research and development (R&D) expenditure is only about 0.7% of GDP which is way below the world average of 1.8%.
 - India must triple spending on research and development (R&D) to 3% of its GDP. The private sector needs to contribute 1.5% to the total R&D spending.
- **Challenges in R&D Development**
 - **Low Financial Allocation:** Anusandhan National Research Foundation (ANRF), its budget was revised to ₹258.6 crore in 2023–24, far below the projected ₹2,000 crore.
 - **Governance issues:** ANRF's governing bodies exclude academic representation. 72% of funding is expected from private sources, but bureaucracy in universities deters private sector involvement.
 - **Private Sector Contribution:** The private sector accounts for 37% of R&D expenditure, compared to 70% in the US, Japan, China, and South Korea.
 - **Structural Issues**
 - ◆ Lack of digital university infrastructure to simplify procedures.
 - ◆ No mandatory reporting for corporate R&D despite tax incentives.

Recommendations: Strategic tasks for India with respect to Technological Sovereignty

- Formulate a **national technological sovereignty plan** with an inter-ministerial coordination committee to monitor progress.
- **Increase financial allocation** for the ANRF. Ensure adequate representation of academic and industry in the governing structures.
- Increase incentives for R&D expenditure, especially in core technologies, including in processing of rare earth materials.
- **Diversify supply** for critical materials.
- **Stockpile** critical materials.
- **Survey** for critical materials within the country.
- Establish a **parliamentary committee** for technological sovereignty. A multidisciplinary committee with a core comprising experts in core technologies will need to support this committee. This parliamentary committee is necessary to ensure that the priorities of the technological

sovereignty plan are not affected by changes in governments.

- **Restrict the brain drain** from Indian Institutes of Technology (IITs)/other institutions by policy measures for retention and ensuring adequate remuneration.
- Contracts for key technology areas with any country need to factor in the history of past compliance. Ministries and PSUs need to be held accountable for ToT contracts.

Conclusion

Technological sovereignty is an imperative for strategic autonomy. This has been India's Achilles heel since independence. To achieve this, an interdisciplinary understanding of various technological restrictive regimes that have hampered India's development and affected policymaking since 1947 is a prerequisite. Technological sovereignty is only feasible if research and development expenditure is increased by both the public and private sectors. Moreover, focusing on technologies without taking into account geopolitical supply chain realities may not result in the desired effects.

INDIAN FOOD IMPORT SAFETY REGULATION STATUS

Background and Context

- **Food Import Safety in Global Trade**
 - Food safety is a cornerstone in international agri-food trade and an essential aspect of public health.
 - India, as a major global player in agriculture, has witnessed a surge in food imports, ranging from fresh fruits to processed food products.
 - The introduction of the Food Safety and Standards Act (FSSA) in 2006 marked a significant overhaul of India's food safety regulations, replacing outdated laws like the Prevention of Food Adulteration Act, 1954.
- **Role of FSSAI**
 - Established under the FSSA, FSSAI regulates food imports, ensuring safety and compliance with both domestic and international standards.
 - Functions as a "mini-state" with legislative, executive, and quasi-judicial powers.
 - Aims to harmonize Indian food standards with global benchmarks, fostering consumer protection and trade facilitation.

Challenges in Food Import Safety

- **Lack of Transparency**
 - The Food Import Rejection Alert (FIRA) portal, designed to disseminate data on rejected food imports, has not been updated for over three years.
 - Limited public access to critical information on food safety undermines accountability and hinders informed decision-making.
- **Regulatory Gaps**
 - Ambiguities in regulatory enforcement lead to inconsistencies and inefficiencies.
 - Instances of regulatory arbitrage allow certain entities to bypass compliance standards.
- **Operational Challenges**
 - Shortage of manpower at FSSAI limits its capacity to oversee food imports effectively.
 - Dependence on customs officials for inspections due to resource constraints.
- **Data Deficiencies**
 - Absence of comprehensive data on food import rejections impedes evidence-based policymaking.
 - Comparatively, global entities like the US FDA and EU's RASFF maintain robust systems for publishing detailed and timely information.

Regulatory Framework

- **Key Components**
 - **Food Import Clearance System (FICS):** An online system integrated with customs to streamline the import clearance process. Promotes paperless operations, reducing procedural delays.
 - **Inspection Protocols:** Includes scrutiny of documents, visual inspection, selective sampling, and laboratory testing.
 - **Regulations and Standards:** Imported food must comply with domestic safety laws, including requirements for labelling and minimum shelf life (60% at the time of clearance).
- **Collaborative Mechanisms**
 - Various government agencies, including DGFT and the Ministry of Agriculture, work alongside FSSAI to regulate food imports.
 - Customs authorities play a pivotal role in the clearance process.

Insights from Global Practices

- **United States (FDA)**
 - Publishes monthly import refusal reports detailing product specifics, country of origin, and reasons for rejection.
 - Transparent processes ensure accountability and provide manufacturers with actionable insights.

- **European Union (RASFF)**
 - Operates a real-time alert system for food and feed safety.
 - Facilitates coordinated responses to food safety risks across member states.
- **India's Position**
 - India lags behind these global practices in terms of data transparency and proactive communication.
 - The absence of updated rejection alerts and public databases undermines the effectiveness of the regulatory framework.

Way Forward: Policy Recommendations for the Protection of Public/Consumer Health

- Openness and transparency of the risk assessment process in the food supply chain would contribute to a greater legitimacy of the FSSAI.
 - It is paramount for the FSSAI to embark on an incremental restructuring of the FICS and FIRA.
 - This will work towards strengthening confidence in its functioning.
 - Ultimately, it will ensure its accountability vis-à-vis the consumers, business operators, and the public.
- The FSSAI should eliminate the possible areas of "regulatory cholesterol" palpable in a metastasis of regulations, which are seldom enforced.
 - It should dispel information asymmetry by publishing updated data regarding the imported articles of food refused/rejected.
 - Otherwise, if any such product reaches the consumers, the burden of food-borne illness may constrain the public healthcare system along with related externalities.
- The working of the law should be aimed at dissolving the "regulatory oblivion."
 - Being a signatory of the Trade Facilitation Agreement (TFA), India should initiate measures aimed at fostering good governance by inculcating a better sense of transparency and accountability.
 - The publication of the food import information pertaining to compliance, establishment of contact, and enquiry points, notifying the rejection alert(s), fulfills this obligation for India.
- To address the expectations and priorities of the stakeholders, the FSSAI should regularly conduct or commission pre-legislative consultation or scrutiny.
 - This will be a move towards evidence-based policymaking.
- Regulatory impact assessments (RIA) could be utilised as a key regulatory gear employed to enhance transparency, efficacy, and effectiveness of regulation.
- India should maintain food import statistics for each country of origin of its food imports. Many jurisdictions,

including the US, collect and maintain such data. If the data is updated regularly then the exact category of food product can be pinpointed for ascertaining the industries with the most shipments refused over a period.

- FSSAI should tabulate, inter alia, the country-wise status of food import rejection(s), the details pertaining to the name of the product(s), point of entry in India, manufacturers, importers and exporters' details, country of origin, specific reason(s) of rejection as per the rules and regulations, date of bill of entry, list of ingredients, etc.

Conclusion

Nations across the world, including India, implement food import control measures to foster food import safety. In international agri-food trade and economics, food has been a seminal article of trade and food safety, a centrepiece of the regulatory authorities. However, opacity in the working of the Food Safety and Standards Authority of India, regulatory gaps, irregularities, and instances of regulatory arbitrage pose obstacles to India's journey.

CCHAHAL ACADEMY

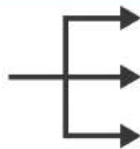
UPSC-CSE

2026/27/28

ADMISSION OPEN FOR

**NCERT+GS+CSAT
Foundation Batches**

MEDIUM



English

Hindi

Bilingual

OPTIONAL SUBJECTS PSIR - SOCIOLOGY - HISTORY - ANTHROPOLOGY - GEOGRAPHY



Chahal Academy, 22-B, Upper Ground Floor, Near Karol Bagh, Metro Pillar No. 112, Old Rajinder Nagar, New Delhi- 110060

For more details contact us **9313218122, 9625993995**

OUR BRANCHES

NEW DELHI | AHMEDABAD | ANAND | BHUBANESWAR | CHANDIGARH | DEHRADUN | GANDHINAGAR | GUWAHATI | HYDERABAD | JAIPUR | KANPUR | KOLKATA | MUMBAI | NAGALAND | PATNA | RAIPUR | RAJKOT | RANCHI | SURAT | THANE | VADODARA

AWARDS AND PRIZES IN DECEMBER 2024

	Award	Winner	Details
1.	Turner Prize	Jasleen Kaur	<ul style="list-style-type: none"> Indian-origin Scottish artist Jasleen Kaur has won the prestigious Turner Prize 2024 for her exhibition, "Alter Altar", which reflects on plurality, personal and political themes. The prize is named after English painter JMW Turner (1775-1851), known for his paintings of sceneries, the ocean and dramatic depictions of light.
2.	National Panchayat Awards	-	<ul style="list-style-type: none"> The Tripura government has bagged seven National Panchayat Awards. The awards were given out at the National Panchayat Award Ceremony held on December 11 in New Delhi. The Amarpur RD block in Tripura's Gomati district has been ranked the best district panchayat and the best block panchayat under the Nanaji Deshmukh Sarvottam Panchayat Satat Vikas Puraskar.
3.	Sahitya Academy Awards	-	<ul style="list-style-type: none"> The Sahitya Akademi was established by Jawaharlal Nehru, who was also its first chairperson, and inaugurated on March 12, 1954. Every year, the Akademi announces awards for authors of works of outstanding literary merit in Indian languages. Awards are currently given for 24 languages; the most recent additions being Bodo and Santhali in 2005. Awards in English began in 1960.
4.	PM Rashtriya Bal Puraskar 2024	-	<ul style="list-style-type: none"> Number of Awardees: 17 children (7 boys and 10 girls). Categories: Art and Culture, Bravery, Innovation, Science and Technology, Social Service, Sports, and Environment.
5.	Order of Mubarak Al Kabeer	Narendra Modi	<ul style="list-style-type: none"> Prime Minister Narendra Modi was awarded Kuwait's highest civilian honour, the Order of Mubarak Al Kabeer, by Amir of Kuwait Sheikh Meshal Al-Ahmad Al-Jaber Al Sabah.
6.	ISSA Good Practice Award	EPFO, India	<ul style="list-style-type: none"> India's EPFO was honoured with the prestigious ISSA Good Practice Award for its continuous efforts to reform and enhance social security systems in the country. The award was presented at the Regional Social Security Forum held in Riyadh, Saudi Arabia, a significant platform for discussing social security matters.
7.	2024 Champions of the Earth Award	-	<ul style="list-style-type: none"> The Champions of the Earth award is the UN's highest environmental honour. Recognizes leaders from public and private sectors, civil society, and academia. Presented annually since 2005. 2024 focus: Combatting land degradation, desertification, and drought.

8.	UNESCO Asia-Pacific Awards 2024	Abathsayeswarar Temple Conservation Project and BJPCI Conservation Project	<ul style="list-style-type: none"> Two Indian heritage conservation projects—the Abathsayeswarar Temple Conservation Project in Tamil Nadu and the BJPCI Conservation Project in Maharashtra have won the UNESCO Asia-Pacific Awards for Cultural Heritage Conservation 2024.
----	---------------------------------	--	--

OBITUARIES IN DECEMBER 2024

	DATE	PERSON	IMPORTANT INFORMATION
1.	20 December 2024	Om Prakash Chautala	<ul style="list-style-type: none"> Former Haryana CM. Chautala holds the distinction of being Haryana's CM for the maximum times but his overall tenure was around six-and-a-half years. The only full term he could complete was from 2000 to 2005.
2.	16 December 2024	Tulsi Gowda	<ul style="list-style-type: none"> Padma Shri awardee, an environmentalist from Karnataka revered as the "tree goddess" by the Halakki tribal community. Known as the 'encyclopedia of forest', Gowda has been credited with planting and nurturing over 1 lakh trees across Karnataka.
3.	15 December 2024	Ustad Zakir Hussain	<ul style="list-style-type: none"> Tabla virtuoso, the percussionist received the Padma Shri in 1988, Padma Bhushan in 2002, and the Padma Vibhushan in 2023. He was the recipient of four Grammy awards in his career.
4.	26 December 2024	Manmohan Singh	<ul style="list-style-type: none"> Former Prime Minister (2004-14) and Finance Minister (1991-96). He was the chief architect of the economic reforms, particularly the LPG (Liberalization, Privatization, and Globalization) policy in the 1990s, which transformed India's economic trajectory.
5.	23 December 2024	Shyam Benegal	<ul style="list-style-type: none"> Film director and documentary filmmaker. Often regarded as the pioneer of parallel cinema, he is widely considered as one of the greatest filmmakers post 1970s. His impressive body of work includes a host of landmark television shows and documentaries, including landmark series such as Yatra (1986) and Bharat Ek Khoj (1988).
6.	25 December 2024	MT Vasudevan Nair	<ul style="list-style-type: none"> He was a renowned Malayalam author-filmmaker. Important works: Valarthumrigangal, Kalam, Gopuranadayil, Swargam Thurakkunna Samayam, Randamoozham, and more. In 1970, he won the Sahitya Akademi prize for his fifth novel, Kaalam. He won the National Award for screenplay four times and the Kerala State film award 11 times.
7.	30 December 2024	Jimmy Carter	<ul style="list-style-type: none"> 39th US President Renowned for his strong moral values, humanitarian efforts, and key role in the Camp David Accords. Despite his one-term presidency, Carter later gained respect for his global peace efforts, winning the Nobel Peace Prize in 2002.
8.	25 December 2024	Osamu Suzuki	<ul style="list-style-type: none"> long-serving chairman and CEO of Suzuki Motor Corporation. Widely credited for transforming Suzuki into a global automotive powerhouse, he played a pivotal role in revolutionizing the Indian car market. Suzuki saw potential in the Indian market and made a bold move in 1980s, he invested a year's worth of Suzuki Motor's earnings to establish a national carmaker in India.

IMPORTANT DAYS IN DECEMBER

	Date	Day	Significance / Remark / Detail
1.	1 Dec 2024	World AIDS Day	<ul style="list-style-type: none"> World AIDS Day is celebrated around the world on December 1st each year. UNAIDS took the lead on campaigning for World AIDS Day from its creation until 2004. From 2004 onwards the World AIDS Campaign's Global Steering Committee began selecting a theme for World AIDS Day in consultation with civil society, organisations and government agencies involved in the AIDS response.
2.	2 Dec 2024	National Pollution Day	<ul style="list-style-type: none"> December 2nd is observed as National Pollution Prevention Day in India. This day is observed in the memory of people who lost their lives in Bhopal gas calamity. Bhopal gas tragedy occurred in the year 1984 on the night of 2-3 December.
3.	2 Dec 2024	International Day for the Abolition of Slavery	<ul style="list-style-type: none"> The International Day for the Abolition of Slavery, 2 December, marks the date of the adoption, by the General Assembly, of the United Nations Convention for the Suppression of the Traffic in Persons and of the Exploitation of the Prostitution of Others (resolution 317(IV) of 2 December 1949). The focus of this day is on eradicating contemporary forms of slavery, such as trafficking in persons, sexual exploitation, the worst forms of child labour, forced marriage, and the forced recruitment of children for use in armed conflict.
4.	3 Dec 2024	International Day of Persons with Disabilities	<ul style="list-style-type: none"> The annual observance of the International Day of Disabled Persons was proclaimed in 1992 by United Nations General Assembly resolution 47/3. It aims to promote the rights and well-being of persons with disabilities in all spheres of society and development, and to increase awareness of the situation of persons with disabilities in every aspect of political, social, economic and cultural life.
5.	4 Dec 2024	Indian Navy Day	<ul style="list-style-type: none"> Indian Navy Day is celebrated on December 4th every year to honor the efforts & role of the Indian Navy in Operation Trident conducted during the Indo-Pakistan war in 1971.
6.	4 Dec 2024	International Day of Banks	<ul style="list-style-type: none"> On 19 December 2019, the UN General Assembly adopted resolution 74/245, which designated 4 December as the International Day of Banks in recognition of the significant potential of multilateral development banks and other international development banks in financing sustainable development and providing know-how; and also in recognition of the vital role of the banking systems in Member States in contributing to the improvement of the standard of living.
7.	5 Dec 2024	International Volunteer Day for Economic and Social Development	<ul style="list-style-type: none"> The General Assembly invited Governments to observe annually, on 5 December, an International Volunteer Day for Economic and Social Development (resolution 40/212 of 17 December 1985). International Volunteer Day is a chance for individual volunteers, communities and organizations to promote their contributions to development at the local, national and international levels.
8.	5 Dec 2024	World Soil Day	<ul style="list-style-type: none"> World Soil Day (WSD) is held annually on 5 December as a means to focus attention on the importance of healthy soil and to advocate for the sustainable management of soil resources. World Soil Day 2024 (WSD) campaign, under the theme Caring for soils: measure, monitor, manage underscores the importance of accurate soil data and information in understanding soils characteristics and supporting informed decision-making on sustainable soil management for food security.

9.	7 Dec 2024	Armed Forces Flag Day	<ul style="list-style-type: none"> Since 1949, 7th December is observed as the Armed Forces Flag Day throughout the country to honour the martyrs and the men in uniform who valiantly fought & continue to fight on our borders to safeguard the country's honour.
10.	7 Dec 2024	International Civil Aviation Day	<ul style="list-style-type: none"> International Civil Aviation Day was established in 1994 as part of ICAO's 50th anniversary activities. In 1996, pursuant to an ICAO initiative and with the assistance of the Canadian Government, the United Nations General Assembly adopted resolution A/RES/51/33, which officially recognized 7 December as International Civil Aviation Day in the UN system.
11.	8 Dec 2024	SAARC Charter Day	<ul style="list-style-type: none"> The South Asian Association for Regional Cooperation (SAARC) commemorates its historic 40th Charter Day on 8 December 2024. The SAARC was launched by the South Asian Heads of State/Government at their First Summit in Dhaka by adopting the Charter on 08 December 1985. Since then, 08 December is commemorated as the SAARC Charter Day every year.
12.	8 Dec - 14 Dec	All India Handicrafts Week	<ul style="list-style-type: none"> All India Handicrafts Week is annually observed from 8th to the 14th December to raise awareness and express support towards Indians focusing on handicrafts.
13.	9 Dec 2024	International Day of Commemoration and Dignity of the Victims of the Crime of Genocide and of the Prevention of this Crime	<ul style="list-style-type: none"> By its resolution 69/323 of 29 September 2015, the United Nations General Assembly established 9 December as the International Day of Commemoration and Dignity of the Victims of the Crime of Genocide and of the Prevention of this Crime. Every 9 December, the United Nations Office of the Special Adviser on the Prevention of Genocide marks the adoption of the Convention on the Prevention and Punishment of the Crime of Genocide – a crucial global commitment that was made at the founding of the United Nations, immediately preceding the Universal Declaration of Human Rights.
14.	9 Dec 2024	International Anti-Corruption Day	<ul style="list-style-type: none"> On 31 October 2003, the General Assembly adopted the United Nations Convention against Corruption and requested that the Secretary-General designate the United Nations Office on Drugs and Crime (UNODC) as the secretariat for the Convention's Conference of States Parties (resolution 58/4). The Assembly also designated 9 December as International Anti-Corruption Day, to raise awareness of corruption and of the role of the Convention in combating and preventing it. The Convention entered into force in December 2005.
15.	10 Dec 2024	Human Rights Day	<ul style="list-style-type: none"> Human Rights Day is observed annually around the world on 10 December. It commemorates the anniversary of one of the world's most groundbreaking global pledges: the Universal Declaration of Human Rights (UDHR). 2024 Theme: Our Rights, Our Future, Right Now.
16.	11 Dec 2024	International Mountain Day	<ul style="list-style-type: none"> International Mountain Day, celebrated since 2003 through FAO, creates awareness about the importance of mountains to life, highlights the opportunities and constraints in mountain development and builds alliances that will bring positive change to mountain peoples and environments around the world. This International Mountain Day 2024 (IMD 2024) focuses precisely on the capacity and needs of its people through a triple approach: "Mountain solutions for a sustainable future – innovation, adaptation and youth."

17.	12 Dec 2024	International Day of Neutrality	<ul style="list-style-type: none"> On 2 February 2017, the UN General Assembly adopted without a vote resolution 71/275 — introduced by Turkmenistan, recognized by the UN as a permanently neutral state since 12 December 1995 — which noted the link between the preservation of peace and the 2030 Agenda for Sustainable Development, and declared 12 December as the International Day of Neutrality.
18.	12 Dec 2024	International Universal Health Coverage Day	<ul style="list-style-type: none"> On 12 December 2012, the United Nations General Assembly endorsed a resolution urging countries to accelerate progress toward universal health coverage (UHC) – the idea that everyone, everywhere should have access to quality, affordable health care. On 12 December 2017, the United Nations proclaimed 12 December as International Universal Health Coverage Day (UHC Day) by resolution 72/138. International Universal Health Coverage Day aims to raise awareness of the need for strong and resilient health systems and universal health coverage with multi-stakeholder partners.
19.	14 Dec 2024	National Energy Conservation Day	<ul style="list-style-type: none"> The National Energy Conservation Day is celebrated on December 14 every year, in order to spread the message on the importance of conserving energy and to showcase the achievements of the nation in energy efficiency and conservation.
20.	18 Dec 2024	International Migrants Day	<ul style="list-style-type: none"> On 4 December 2000, the General Assembly, taking into account the large and increasing number of migrants in the world, proclaimed 18 December International Migrants Day (A/RES/55/93). On that day, in 1990, the Assembly adopted the International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families (A/RES/45/158).
21.	20 Dec 2024	International Human Solidarity Day	<ul style="list-style-type: none"> Solidarity is identified in the Millennium Declaration as one of the fundamental values of international relations in the 21st Century. UN General Assembly, convinced that the promotion of the culture of solidarity and the spirit of sharing is important for combating poverty, proclaimed 20 of December as International Human Solidarity Day.
22.	21 Dec 2024	World Meditation Day	<ul style="list-style-type: none"> To raise awareness about meditation and its benefits, the General Assembly proclaimed 21 December as World Meditation Day, recalling the right of everyone to the enjoyment of the highest attainable standard of physical and mental health.
23.	22 Dec 2024	National Mathematics Day	<ul style="list-style-type: none"> December 22, the birth anniversary of the great mathematician Srinivasa Ramanujan was designated as “National Mathematics Day (NMD)” by the Government of India in December 2011. For the first time, the year 2012 was celebrated as the National Mathematics Year across the country.
24.	27 Dec 2024	International Day of Epidemic Preparedness	<ul style="list-style-type: none"> International Day of Epidemic Preparedness, observed on December 27, highlights the urgent need to invest in systems that can prevent, detect, and respond to infectious disease outbreaks. The first ever International Day of Epidemic Preparedness was held on 27 December 2020.

IMPORTANT SUMMIT/CONFERENCE IN DECEMBER

	Summit/Conference	Details
1.	World Maritime Conference 2024	<ul style="list-style-type: none"> The World Maritime Technology Conference (WMTC) is a premier global event held every three years under the auspices of the World Maritime Technology Congress. The 2024 edition of WMTC was hosted in Chennai, India, from December 4-6, by the Institute of Marine Engineers (India) Chennai Branch.
2.	World Ayurveda Congress	<ul style="list-style-type: none"> The 10th World Ayurveda Congress (WAC 2024) and Arogya Expo were held in Dehradun. With a focus on the theme “Digital Health: An Ayurveda Perspective,” the event aims to explore the integration of Ayurveda with modern technological innovations to redefine global healthcare delivery.
3.	24th BIMSTEC Senior Officials Meeting (SOM)	<ul style="list-style-type: none"> India participated in the 24th BIMSTEC Senior Officials Meeting (SOM), hosted virtually by Thailand on December 20, 2024. The meeting reviewed the progress made by BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation) since the last SOM in March 2023 and discussed key areas of regional cooperation.
4.	45th PRAGATI Meeting	<ul style="list-style-type: none"> Prime Minister Narendra Modi chaired the 45th PRAGATI meeting on December 26, 2024, focusing on the review of eight key projects and public grievances. PRAGATI, an ICT-based multi-modal platform for Pro-Active Governance and Timely Implementation, facilitates coordination between the Centre and state governments.
5.	First Waves Summit	<ul style="list-style-type: none"> India will host the first-ever World Audio Visual Entertainment Summit (WAVES) from February 5-9, 2024.
6.	AOMSUC-14	<ul style="list-style-type: none"> The 14th Asia-Oceania Meteorological Satellite Users’ Conference (AOMSUC-14) was held from December 4–6, 2024, in New Delhi, India. Hosted by the India Meteorological Department (IMD) under the Ministry of Earth Sciences. It was aimed at fostering collaboration and advancing satellite meteorology.

TERMS IN DECEMBER 2024

	Term	Meaning and Details
1.	White Knight Corps	<ul style="list-style-type: none"> It is a corps of the Indian Army that was established in 1972 to oversee operations in the region south of Jammu and Kashmir’s Pir Panjal.
2.	Lake-effect snow	<ul style="list-style-type: none"> It happens when warm, moist air rising from a body of water mixes with cold dry air overhead. Recently, parts of Michigan were battered by lake-effect snow.
3.	Hornbill Festival	<ul style="list-style-type: none"> The Hornbill Festival is taking place in Nagaland from December 1 to December 10, 2024. The festival is organised by the Nagaland government.
4.	Rock bolt technology	<ul style="list-style-type: none"> This is an Australian technique that involves removing loose landslide debris by soil nailing in soil and rock bolting in bedrock. It is successfully treating active landslide zones in the hilly areas of Uttarakhand.
5.	De-dollarisation	<ul style="list-style-type: none"> The Reserve Bank of India (RBI) said that India is not pursuing de-dollarisation. It refers to the reduction of the reliance on the US Dollar currency as a chief reserve currency.
6.	The Satanic Verses	<ul style="list-style-type: none"> Salman Rushdie’s book, The Satanic Verses is back on bookshelves after a 36-year-old import ban was recently lifted by the Delhi High Court.

DECEMBER - DAILY MCQs FROM THE HINDU & INDIAN EXPRESS

DAILY MCQs PRACTICE

Q1 Which one of the followings/following options best describe "Ground Station as a Service (GSaaS)"?

- A service where satellites are launched into space by private companies.
- A cloud-based service that provides satellite operators access to ground station infrastructure for communication with satellites.
- A platform that enables the development of satellite hardware using open-source tools.
- A service offering real-time satellite imaging data directly to end-users.

Q2 Consider the following statements regarding 'National Company Law Tribunal':

- The tribunal was established after the recommendation of Justice Eradi Committee.
- The central government appoints benches for the National Company Law Tribunal in 16 states with varying authorities.
- Each bench of NCLT comprises of 10 judicial members and 10 technical members.

Which of the statements given above are correct?

- 1 and 2 only
- 2 and 3 only
- 1 and 3 only
- 1, 2 and 3

Q3 Which of the following statements are correct in respect of Electronic Voting Machine (EVM):

- The function of an Electronic Voting Machine (EVM) is to record and store votes electronically.
- The IIT Delhi developed the first Electronic Voting Machine (EVM) in India.
- The ballot unit component of an EVM records the votes cast by the voter.

Select the answer using the code given below:

- 1 and 2 only
- 2 and 3 only
- 1 and 3 only
- 1, 2 and 3

Q4 What was the main issue raised in the 'Shri Rama Murthy vs. State of Karnataka' case?

- Rights of prisoners, including overcrowding and living conditions in prisons
- Corruption in the Karnataka government

(c) Abuse of power by police officers

(d) Issues related to the sentencing of undertrials

Q5 What is the objective of the Bilateral Investment Treaty (BIT) between India and the UAE?

- To allow for unrestricted movement of labor between the two countries
- To promote mutual investment and protect investors' rights in both countries
- To regulate trade tariffs between India and the UAE
- To control the immigration policies between India and the UAE

Q6 Consider the following with reference to the limitations of the Most Favoured Nation (MFN) principle in practice:

- Offer special incentives to regional trade partners
- Prevents preferential treatment in regional agreements
- Offering lower tariffs to specific countries

How many of the above is/are correct?

- Only one
- Only two
- All three
- None

Q7 Which one of the followings case laws is not related to 'Right to fair trial' in India?

- Maneka Gandhi v. Union of India (1978)
- Hussainara Khatoon v. State of Bihar (1979)
- Olga Tellis v. Bombay Municipal Corporation (1985)
- State of Maharashtra v. Praful Desai (2003)

Q8 Which one of the following statements about the 'Global Alliance Against Hunger and Poverty' is not correct?

- The alliance was launched at the G20 Leaders Summit in Brazil to implement the Deccan High-Level Principles on Food Security and Nutrition 2023.
- It aims to eradicate hunger (SDG 2), poverty (SDG 1), reduce inequalities (SDG 10), and support other interlinked SDGs.
- The alliance mandates member countries to adopt a unified set of policies to combat hunger and poverty.

Which of the statements given above is/are correct?

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

Q29 Consider the following statements regarding Collegium system in India:

1. The Collegium system is responsible for the appointment and transfer of judges to the Supreme Court and High Courts in the country.
2. 44th Constitution Amendment Act introduced the collegium system to protect the independent nature of judiciary.

Which of the statements above is/are NOT correct?

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

Q30 Which of the following is the best description of INS Arighaat, recently seen in news?

- (a) Amphibious warfare ship
(b) Nuclear powered submarine
(c) Torpedo launch and recovery vessel
(d) Nuclear powered aircraft carrier

Q31 Consider the following with reference to 'The National Population Register (NPR)':

1. The purpose of the NPR is to compile a comprehensive database of the population.
2. Ministry of Home Affairs is responsible for the implementation of the NPR.
3. Only demographic data is collected in the NPR.
4. The NPR mandatorily collects data on caste and religion.

How many of the above is/are correct?

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

Q32 Which of the following statements are correct in respect of the Chief Justice of India:

1. Chief Justice of India is appointed by the President of India.
2. The appointment of the Chief Justice of India is based on the convention of seniority among the judges of the Supreme Court.
3. The President, on grounds of proven misbehavior or incapacity can remove the Chief Justice of India from the office.

Select the answer using the code given below:

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

Q33 Consider the following with reference to the Gross Domestic Product (GDP):

1. The Nominal GDP is different from real GDP because Nominal GDP adjusts for inflation while real GDP does not.

2. GDP per capita is used to measure the standard of living in a country.
3. Government expenditure on infrastructure projects will lead to decrease in the GDP.
4. A decrease in GDP is generally considered a sign of economic recession.

How many of the above is/are correct?

- (a) Only two (b) Only three
(c) All four (d) None

Q34 Consider the following pairs:

	Cyclone	Region
1.	Nivar	Bay of Bengal
2.	Fengal	Arabian Sea
3.	Mocha	West Pacific
4.	Jawad	Arabian Sea

How many of the above pairs is/are correctly matched?

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

Q35 The famous medieval cathedral Notre Dame is located in ...

- (a) Vatican City (b) Rome
(c) Paris (d) Marseille

Q36 Which of the following best describes WOH G64 recently seen in news?

- (a) Star in another galaxy beyond Milky Way
(b) Remote Sensing satellite by NASA
(c) Twin asteroid system between Mars and Jupiter
(d) Latest module to be added to International Space Station (ISS).

Q37 Which of the following statements are correct in respect of the Goods and Services Tax (GST):

1. It was introduced with 101st constitutional amendment.
2. Central Excise Duty was subsumed under the GST.
3. Only Central Government is responsible for GST compliance in India.

Select the answer using the code given below:

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

Q38 What is "Deep Learning" in AI?

- (a) A technology used only in video games
(b) A subset of machine learning using algorithms inspired by the structure and function of the brain
(c) A method of teaching robots to perform manual labor
(d) A way to teach machines to understand emotions

Q39 Section 218 of the Bharatiya Nagarik Suraksha Sanhita (BNSS) 2023 deals with:

- (a) General public offenses
- (b) Offenses related to public servants and judges
- (c) Offenses related to police personnel
- (d) Offenses related to political leaders

Q40 Consider the following statements regarding Repo rate:

1. The repo rate is the interest rate at which the Reserve Bank of India (RBI) lends money to commercial banks.
2. An increase in the repo rate typically makes borrowing cheaper for businesses and individuals, pointing towards a contractionary monetary policy.

Which of the statements above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q41 Which of the following statements are correct in respect of the World Food Programme (WFP):

1. The headquarters of the World Food Programme (WFP) is located in Rome, Italy.
2. The main goals of the World Food Programme (WFP) is to end hunger and improve food security globally.
3. Food-for-Work Program is part of the World Food Programme's (WFP) initiative to assist countries in emergency situations.

Select the answer using the code given below:

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

Q42 What does the GVA (Gross Value Added) represent in an economy?

- (a) The difference between GDP and inflation
- (b) The value of output minus the value of intermediate consumption
- (c) Total market value of goods and services produced
- (d) Total income of the government

Q43 Consider the following statements regarding Fentanyl:

1. It is a potent synthetic opioid drug significantly more potent than morphine.
2. It is approved as a powerful anti-histamine, used for the treatment of allergies.

Which of the statements above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q44 Which of the following best describes 'Brain Rot'?

- (a) It is a medical condition caused by bacterial infections and inflammation in the brain.
- (b) It is a type of neurodegenerative disorder with dementia-like symptoms.
- (c) Supposed deterioration of a person's mental or intellectual state as a result of overconsumption of trivial online content.
- (d) Dementia developed in old-age.

Q45 Consider the following sectors of Indian economy:

1. Pharmaceuticals
2. Renewable Energy
3. Textiles & Apparel
4. Telecom

Which of the above sectors are covered under various Production Linked Incentive (PLI) Schemes?

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

Q46 Which Article of the Constitution of India safeguards one's right to die with dignity?

- (a) Article 19
- (b) Article 21
- (c) Article 25
- (d) Article 29

Q47 Consider the following with reference to 'The Fiscal Deficit':

1. The reduction in fiscal deficit can be achieved through increasing the tax revenue.
2. Borrowings is a part of fiscal deficit calculation.
3. India's fiscal deficit is expressed as a percentage of revenue receipts.
4. The key difference between fiscal deficit and revenue deficit is that revenue deficit is always larger than fiscal deficit.

How many of the above is/are correct?

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

Q48 How is the President of the United States elected?

- (a) By the Senate
- (b) By a direct popular vote
- (c) By the House of Representatives
- (d) By the Electoral College

Q49 Consider the following statements regarding Sri Darbar Sahib Amritsar:

1. Commonly known as the Golden Temple, it is one of the holiest sites in Sikhism.
2. Guru Arjan designed the architecture of Sri Darbar Sahib.
3. The man-made pool on the site of the temple was completed by Guru Amar Das Ji.

How many of the above statements are correct?

- (a) Only one (b) Only two
(c) All three (d) None

Q50 The prestigious Turner Award is awarded for ...

- (a) Outstanding achievement in painting
(b) Significant contribution to English literature
(c) Developments in contemporary British art
(d) Innovation in architectural design

Q51 Which of the following statements are correct in respect of 'The Speaker of Indian Parliament:

1. The Speaker of the Parliament presides over the legislative sessions.
2. The Prime Minister elects the Speaker of the Parliament.
3. In case of tie, Speaker of Parliament has a casting vote.

Select the answer using the code given below:

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

Q52 Recently, a martial law was declared by a country to protect itself against the communist threat and eliminate the anti-state forces. The country imposing the martial law is...

- (a) North Korea (b) South Korea
(c) Philippines (d) Vietnam

Q53 Consider the following with reference to the Proba-3 mission:

1. Under the mission, PSLV-C59 rocket is launched to deploy a lunar rover.
2. Millimeter-level precision in satellite formation flying technology is being shown through the Proba-3 mission.
3. Under the mission, the PSLV-C59 rocket was launched from Chandipur Testing Range, Odisha.
4. European Space Agency (ESA) partnered with ISRO for the Proba-3 mission.

How many of the above is/are correct?

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

Q54 Consider the following with reference to powers that are not held by a Cabinet Minister:

1. Framing policies for their ministry
2. Implementing government schemes
3. Representing their ministry in the legislature
4. Administering government policies

How many of the above is/are correct?

- (a) Only two (b) Only three
(c) All four (d) None

Q55 Consider the following statements regarding the Aircraft Act, 1934:

1. It provides for the control of manufacture, possession, use, operation, sale, import and export of aircraft.
2. The Act has been amended 21 times in total.
3. Bhartiya Vayuyan Vidheyak, 2024 seeks to replace the Act.

How many of the above statements are correct?

- (a) Only one (b) Only two
(c) All three (d) None

Q56 The term Mahaparinirvana signifies ...

- (a) The birth of Gautama Buddha
(b) The enlightenment of Gautama Buddha
(c) The first sermon of Gautama Buddha
(d) The final liberation of Gautama Buddha from the cycle of birth and death

Q57 Which of the following is the most common source of silica in the Earth's crust?

- (a) Sedimentary deposits (b) Rocks such as granite
(c) Volcanic ash (d) Rocks such as granite

Q58 Consider the following with reference to 'The Lok Sabha':

1. The Article 83 of the Indian Constitution provides for the dissolution of the Lok Sabha.
2. 1/5th of the total membership is the quorum required to conduct a meeting of the Lok Sabha.
3. Members of the Lok Sabha are directly elected by the Electoral college.

How many of the above is/are correct?

- (a) Only one (b) Only two
(c) All three (d) None

Q59 The BPALM regimen consisting of four-drug combination is used for the treatment of ...

- (a) Malaria (b) Cancer
(c) Dengue (d) Tuberculosis

Q60 Consider the following statements regarding PRAGATI Platform:

1. It is an initiative by the Ministry of Electronics and Information Technology to monitor and review public grievances and projects across India.
2. It facilitates interaction between the Prime Minister, Union Secretaries, and Chief Secretaries of States to resolve issues in governance and project implementation.

Which of the statements above is/are correct?

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

Q71 Consider the following with reference to the qualification required to become a member of the Lok Sabha:

1. Must be a citizen of India
2. Must be at least 25 years old
3. Must be a graduate
4. Must not be convicted of any criminal offense

How many of the above is/are correct?

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

Q72 Consider the following with reference to the countries sharing the land border with Russia:

1. North Korea 2. Kazakhstan
3. China 4. Finland

How many of the above is/are correct?

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

Q73 Consider the following:

1. Proved Misbehaviour
2. Incapacity
3. Violation of the Constitution

Which of the above are the grounds on which a judge of Supreme Court or High Court can be removed?

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

Q74 Artemisinin-based combination therapy is used in the treatment of ...

- (a) Cancer (b) Tuberculosis
(c) COVID-19 (d) Malaria

Q75 Who is known as the "Hero of Vaikom Satyagraha"?

- (a) Mahatma Gandhi
(b) B.R. Ambedkar
(c) K. Kelappan
(d) Periyar E.V. Ramasamy

Q76 The Shirur Mutt case is important because it clarified the scope of...

- (a) Educational rights of religious minorities
(b) Religious freedoms under Article 25 of the Constitution
(c) Economic rights of religious institutions
(d) Political rights of religious groups

Q77 Which of the following is the most likely effect of a rate cut by the European Central Bank (ECB) on Indian economy?

- (a) Decrease in exports from India due to weakening of Euro.
(b) Increase in the cost of borrowing for Indian companies.

(c) Strengthening of the Indian Rupee against the Euro.

(d) Increase in foreign investments in India due to higher interest rate differentials.

Q78 Consider the following:

1. Damage Respiratory System
2. Heart Attack and Stroke
3. Spike in Blood Pressure
4. Developmental Delays in Children

Which of the above are possibly caused by Air pollution with high levels of PM 2.5?

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

Q79 Where is the headquarters of the Organisation of Islamic Cooperation (OIC) located?

- (a) Istanbul, Turkey (b) Cairo, Egypt
(c) Jeddah, Saudi Arabia (d) Tehran, Iran

Q80 Which of the following is a provision under the 74th Constitutional Amendment Act?

- (a) Control over municipal funds by the state government
(b) Establishment of Gram Panchayats
(c) Reduction of powers of urban local bodies
(d) Reservation of seats for women and backward classes

Q81 Which of the following statement best describes Albedo Effect?

- (a) The increase in Earth's temperature due to greenhouse gases.
(b) The process by which solar energy is absorbed by Earth's surface.
(c) The measure of how much sunlight is reflected by a surface back into space.
(d) The circulation of heat between the atmosphere and the oceans.

Q82 Firely Sparkle recently seen in news is a ...

- (a) NASA Space Probe to Saturn
(b) Distant galaxy
(c) Supernova Star
(d) Newly discovered planet

Q83 Which of the following statements are correct in respect of Deputy Chief Minister:

1. The Deputy Chief Minister must be a member of the ruling party.
2. Bihar was the first state to appoint a Deputy Chief Minister in India
3. State Legislative Assembly holds the power to remove a Deputy Chief Minister in India.

Select the answer using the code given below:

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

Q84 Who appoints the Director of the Central Bureau of Investigation (CBI)?

- (a) Appointments Committee of the Cabinet (ACC)
(b) President of India
(c) Prime Minister of India
(d) Chief Justice of India

Q85 Which of the following areas is not one of the four pillars of the Indo-Pacific Economic Framework for Prosperity (IPEF)?

- (a) Trade
(b) Supply Chains
(c) Infrastructure investment
(d) Fair and resilient economy

Q86 Consider the following with reference to the entities involved in the Mineral Security Partnership (MSP):

1. Only government agencies
2. Only Private sector organizations
3. Only mining corporations

How many of the above is/are correct?

- (a) Only one (b) Only two
(c) All three (d) None

Q87 Which of the following best describes Santa Ana winds?

- (a) Cold, moist winds originating from the Pacific Ocean.
(b) Hot, dry winds originating from inland deserts.
(c) Strong, moist winds from the Indian Ocean.
(d) Mild, humid breezes from the Atlantic Ocean.

Q88 Consider the following statements regarding Prevention of Sexual Harassment (POSH) Act, 2013:

1. The Act mandates the constitution of an Internal Complaints Committee (ICC) in workplaces with 10 or more employees.
2. The ICC is responsible for investigating complaints of sexual harassment and recommending appropriate action.
3. The Act applies only to public sector organizations and excludes private companies.

How many of the above statements are correct?

- (a) Only one (b) Only two
(c) All three (d) None

Q89 Consider the following statements regarding Multidrug-resistant Tuberculosis (MDR-TB):

1. Multidrug-resistant TB (MDR-TB) is a form of TB disease caused by a strain of *M. tuberculosis* complex that is resistant to rifampicin and isoniazid.

2. BPALM regimen is used for the treatment of MDR-TB.

Which of the statements above is/are correct?

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

Q90 Which article of the Indian Constitution mentions the Uniform Civil Code (UCC)?

- (a) Article 29 (b) Article 39
(c) Article 51D (d) Article 44

Q91 Which of the following was a major cause of the global debt crisis in 2008?

- (a) International trade barriers
(b) Declining oil production
(c) Excessive government spending on social welfare
(d) Risky lending practices and subprime mortgages

Q92 Consider the following with reference to the Parliamentary Committees:

1. Parliamentary Committees exist for the entire duration of the Lok Sabha or Rajya Sabha.
2. The Speaker of the Lok Sabha appoints the members of the Parliamentary Committees in India.
3. Standing Committee is not a type of Parliamentary Committee in India.

How many of the above is/are correct?

- (a) Only one (b) Only two
(c) All three (d) None

Q93 Which of the following statements are correct in respect of NAMASTE programme:

1. Under NAMASTE, sanitation workers are trained and provided employment in mechanised sanitation work.
2. Manual scavengers and sanitation workers are primary beneficiaries of the NAMASTE programme.
3. Biodegradable waste composting technology or practice is central to the NAMASTE programme's strategy for eliminating manual scavenging.

Select the answer using the code given below:

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

Q94 What does the term "dragnet surveillance" refer to?

- (a) Surveillance methods that involve randomly collecting data from a wide range of sources
(b) Surveillance focused on a specific target or individual
(c) Surveillance involving only the internet
(d) Surveillance using advanced facial recognition technology only

Q95 It is a cold and treeless biome, characterized by permafrost, low-growing vegetation like mosses and lichens, and a short growing season.

The above line describes which of the following Biomes?

- (a) Montane Rainforest (b) Alpine Grassland
(c) Taiga (d) Tundra

Q96 Consider the following statements regarding Article 368 of the Indian Constitution:

1. It provides the procedure for the amendment of the Constitution.
2. It allows Parliament to amend any part of the Constitution, including Fundamental Rights.
3. As a special law, an amendment under Article 368 requires the President's approval before being introduced in Parliament.

How many of the above statements are correct?

- (a) Only one (b) Only two
(c) All three (d) None

Q97 Consider the following with reference to the Line of Actual Control (LAC) between India and China:

1. Pangong Lake in the Western Sector has been a significant point of contention along the LAC.
2. Jawaharlal Nehru signed the Panchsheel Agreement with China in 1954.
3. Panchsheel Agreement, 1954 formalized the concept of the Line of Actual Control.
4. Operation Snow Leopard was launched during the 2020s India-China standoff in Ladakh.

How many of the above is/are correct?

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

Q98 Which of the following statements are correct in respect of India-Bangladesh borders:

1. The international border between Bangladesh and India passes through Padma River.
2. West Bengal of India has the longest border with Bangladesh.
3. Tripura does not share any border with Bangladesh.

Select the answer using the code given below:

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

Q99 Consider the following statements regarding Common Murre:

1. The Common Murre is a seabird found primarily in the North Atlantic and North Pacific oceans.
2. It is known for its long-distance migrations and lives predominantly in tropical regions.

Which of the statements above is/are correct?

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

Q100 Consider the following statements regarding Sovereign Gold Bonds (SGBs):

1. SGBs are debt securities issued by the State Bank of India (SBI) on behalf of the Government of India.
2. They can be traded in the secondary market.
3. The interest rate on SGBs is flexible and is determined by the amount of initial investment.

How many of the above statements are correct?

- (a) Only one (b) Only two
(c) All three (d) None

Q101 Consider the following statements regarding GLP-1 receptor agonists (GLP-1 RAs):

1. These are a new class of medicines that mimic a hormone that regulates appetite and blood sugar levels.
2. They can be used to manage diabetes and obesity.

Which of the statements above is/are correct?

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

Q102 Consider the following statements regarding Thrissur Pooram:

1. It is an annual Hindu festival held in Kerala.
2. Is a vibrant temple festival featuring majestic elephant processions and traditional percussion performances.
3. It marks the harvest festival and is celebrated with the lighting of traditional lamps.

How many of the above statements are correct?

- (a) Only one (b) Only two
(c) All three (d) None

Q103 The Gateway of India was built to commemorate the visit of which British monarch?

- (a) Queen Elizabeth II (b) Queen Victoria
(c) King George IV (d) King George V

Q104 Consider the following with reference to the countries that are an observer state in the Shanghai Cooperation Organization (SCO):

1. Iran 2. Iraq
3. Mongolia 4. Turkey

How many of the above is/are correct?

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

Answer key

Q1.	b	Q2.	a	Q3.	c	Q4.	a	Q5.	b
Q6.	b (1 and 3 only)	Q7.	c	Q8.	c	Q9.	a (2 only)	Q10.	c
Q11.	c (1, 2, 3, and 4)	Q12.	d	Q13.	d	Q14.	c	Q15.	c
Q16.	b	Q17.	a	Q18.	c	Q19.	c	Q20.	c
Q21.	c	Q22.	d	Q23.	a	Q24.	c	Q25.	c
Q26.	b	Q27.	c	Q28.	b	Q29.	b	Q30.	b
Q31.	c (1 and 2 only)	Q32.	d	Q33.	a (2 and 4 only)	Q34.	a (1 only)	Q35.	c
Q36.	a	Q37.	a	Q38.	b	Q39.	c	Q40.	a
Q41.	d	Q42.	b	Q43.	a	Q44.	c	Q45.	d
Q46.	b	Q47.	a (1 only)	Q48.	d	Q49.	b (1 and 2 only)	Q50.	c
Q51.	c	Q52.	b	Q53.	a (4 only)	Q54.	d	Q55.	c
Q56.	d	Q57.	d	Q58.	a (1 only)	Q59.	d	Q60.	b
Q61.	a (3 only)	Q62.	b	Q63.	c	Q64.	c	Q65.	a (2 only)
Q66.	a	Q67.	b	Q68.	c	Q69.	a	Q70.	c
Q71.	c (1, 2, and 4 only)	Q72.	d	Q73.	c	Q74.	d	Q75.	c
Q76.	b	Q77.	d	Q78.	d	Q79.	c	Q80.	d
Q81.	c	Q82.	a	Q83.	a	Q84.	a	Q85.	c
Q86.	d	Q87.	b	Q88.	b (1 and 2 only)	Q89.	c	Q90.	d
Q91.	d	Q92.	b (1 and 2 only)	Q93.	a	Q94.	a	Q95.	d
Q96.	a (1 only)	Q97.	c (1, 2, and 4 only)	Q98.	a	Q99.	a	Q100.	a (2 only)
Q101.	c	Q102.	b (1 and 2 only)	Q103.	d	Q104.	b (1 and 3 only)		

For Detailed Explanation

Scan QR Code



DAILY ANSWER WRITING PRACTICE

Q1. The Nuclear Non-Proliferation Treaty (NPT) has visioned a nuclear free world, which has not been materialised yet. In the correct context of major powers threatening of nuclear war, discuss the relevance of NPT treaty. Also suggest some measures to move in the era of nuclear weapon free world. (150 words, 10 marks)

- Q2. Indian share market has reached new heights as far as market capitalisation is concerned. In this regard discuss the role of SEBI in regulating the share market. Enlist some concerns regarding functioning of SEBI and suggest some reforms. (150 words, 10 marks)
- Q3. Article 356 of Indian Constitution has expired its life span, and it is time to rethink about the provisions of this constitution. Comment. Also suggest various measures to balance the Internal security of state with federalism. (250 words, 15 marks)
- Q4. Corporate governance manifest not only the good business practices but also magnifies the rule of law in any country. In this context discuss the concerns regarding corporate governance in India and ways to strengthen corporate governance in India. (150 words, 10 marks)
- Q6. The ongoing Middle East conflict and its potential escalation can impact India's efforts to balance its

- diplomatic and economic arrangements with key regional players. Comment. (GS 2; 10 Marks; 150 Words)
- Q7. How has the Census evolved historically in India? Discuss the significance of census and the relationship between census data and delimitation. (GS 2; 15 Marks; 250 Words)
- Q8. RBI is sceptical on reducing the interest rates due to high food prices. What are the cause and implications of food inflation in India? Discuss the measures taken by government to control food inflation. (GS 3; 15 Marks; 250 Words)
- Q9. Delhi and other cities in North India are experiencing poor air quality in November. Discuss the various causes of air pollution. What impact does air pollution have on health, economy, and the environment? (GS 3; 15 Marks; 250 Words)
- Q10. As Australia is planning to keep its teenage population away from social media, describe why social media is considered as a double-edged sword. Discuss the regulatory framework for social media in India. (GS 3; 15 Marks; 250 Words)
- Q11. In light of rising number of vehicles in Indian cities, discuss the idea of paid parking and how it could change urban mobility and cut emissions. (GS 1 and 3; 10 Marks; 150 Words)
- Q12. The federal structure and vision as articulated through the division of powers in the Seventh Schedule is one of the most defining features of the Indian Constitution and it stands strong even after 75 years of constitution. Comment. (GS2; 15 Marks; 250 Words)
- Q13. Considering that 50% of India will be residing in cities by 2050, robust Urban Local Self Governments (ULSGs) are pertinent, for they are critical players in delivering good quality of life to their citizens. How can State Governments ensure the efficacy of the 74th Constitution Amendment Act to build robust ULSGs? (GS2; 10 Marks; 150 Words)
- Q14. The practice of manual scavenging highlights critical concerns such as caste discrimination, human rights and sanitation. What measures are taken by the government to eradicate manual scavenging? Discuss the reasons for prevalence of manual scavenging in India. (GS 1; 15 Marks; 250 Words)
- Q15. Discuss the interplay between demand-pull and cost-push inflation by explaining how both of them can influence each other and contribute to a continuous rise in prices. (GS 3; 10 Marks; 150 Words)
- Q16. Chhatrapati Shivaji's visionary approach to naval strategy and maritime defence shape the foundation of the Indian Navy and influence India's ability to counter foreign dominance in the 17th century. Comment. (GS 1; 15 Marks; 250 Words)
- Q17. How can India leverage its historical and civilizational ties with Indonesia to strengthen bilateral relations and counter China's growing influence in Southeast Asia? (GS 2; 15 Marks; 250 Words)
- Q18. The shift in cropping patterns has driven farmers to transition from traditional subsistence farming to a more diversified and commercially oriented agricultural approach. What are the factors that determine cropping patterns in India? Discuss the changes happening in cropping patterns in the country. (GS3, 15 Marks, 250 Words)
- Q19. Discuss the importance of palliative care in the Indian healthcare system. What are the challenges in implementing palliative care? Suggest ways to improve access to palliative care in India. (GS 2 and 3; 15 Marks; 250 Words)
- Q20. Union Cabinet has approved the introduction of Bills to make the term of the Lok Sabha and state Assemblies simultaneous. What are the recommendations of the Kovind Committee? Discuss the benefits of implementing simultaneous elections and the challenges and concerns associated with simultaneous elections. (GS 2; 15 Marks; 250 Words)
- Q21. Opposition has moved a no confidence motion against the Rajya Sabha Chairman. How is the Vice-President of India elected and how can he/she be removed from the office? Discuss the powers and functions of the Vice-President of India. (GS 2; 15 Marks; 250 Words)
- Q22. Explain the phenomenon of El Niño Southern Oscillation (ENSO). What is Oceanic Nino index (ONI)? Discuss the reasons why La Niña predictions have missed the mark in 2024. (GS 1; 15 Marks; 250 Words)
- Q23. Central Water Commission (CWC) in estimated India's average annual water availability. What is the CWC's water availability figure based on? How is the availability of water distributed across geographic regions? What is the significance of such assessment? (GS 1; 10 Marks; 150 Words)
- Q24. Discuss key aspects of U.S. Dollar's Global Dominance. How do initiatives like the internationalisation of the Indian rupee and the rise of non-traditional reserve currencies challenge the dominance of US dollar, and what potential implications could this have for the global economic order? (GS 2 and 3; 15 Marks; 250 Words)
- Q25. Arctic tundra, which has stored carbon for thousands of years, has now become a source of heat-trapping greenhouse gases (GHGs). How does the Arctic tundra store carbon? Analyse the cause of this shift in the global climate system. (GS 1 and 3; 10 Marks; 150 Words)
- Q26. Discuss the challenges that exist in implementing the Dowry Prohibition Act and related Sections of IPC. Suggest measures to address the challenges related to Dowry Prohibition Act and other related sections. (GS 1 and 2; 15 Marks; 250 Words)

**For Detailed
Explanation**

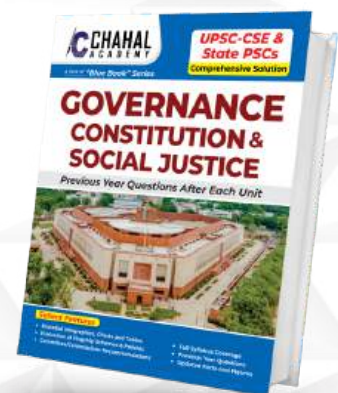
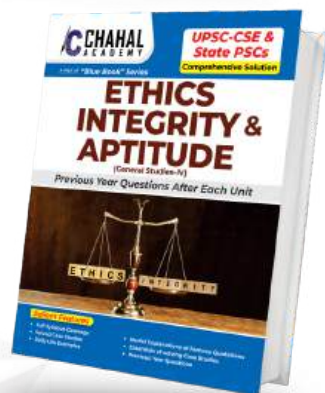
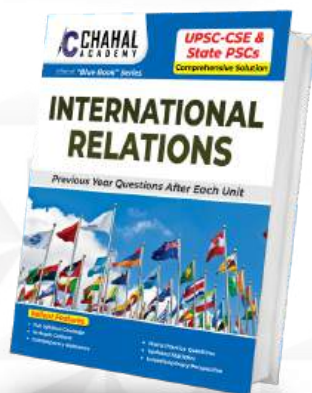
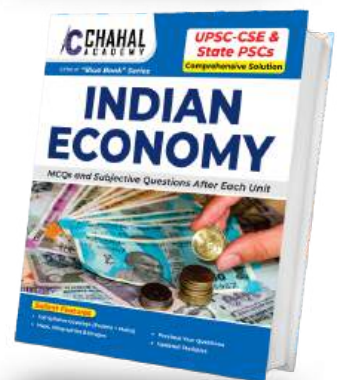
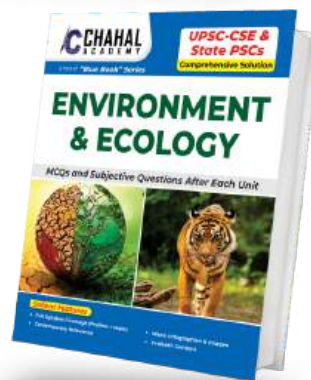
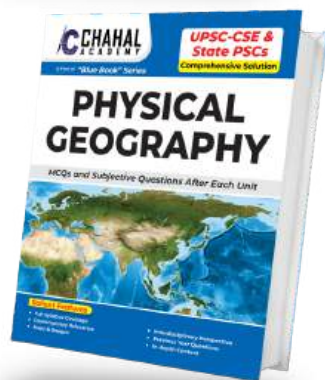
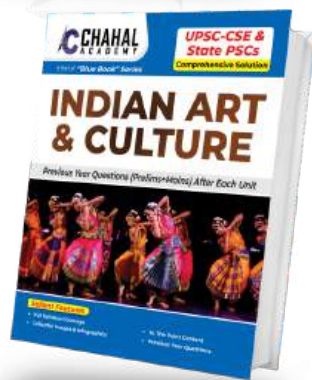
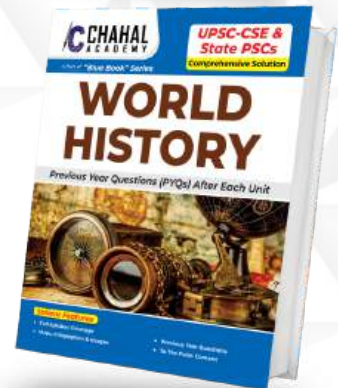
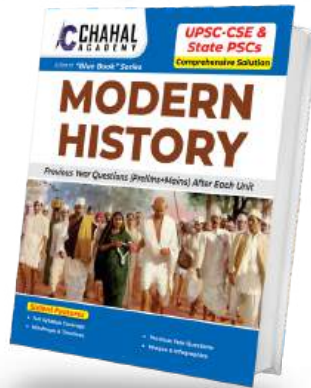
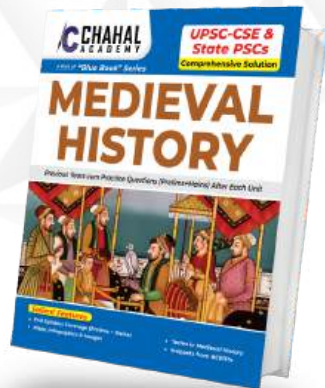
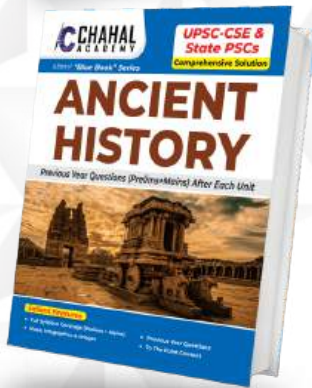
Scan QR Code



Blue Book Series

By Chahal Academy

Books in Our "Blue Book" Series



For any Query or Order-  9205927650

 **CHAHAL ACADEMY**
(Chahal Academy Pvt. Ltd.)

www.chahalacademy.com
Follow Us 

MRP. ₹ 120.00