

9 PM Current Affairs Weekly Compilation

For UPSC CSE mains examination



1st Week

Apr. 2024

Features :

Arranged as per syllabus Topics
Most complete coverage of major
News Papers editorials

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GS Paper-1

Subject: Indian Society

Topic- Poverty and Developmental issues, Urbanization, their problems and their remedies.

Factors behind declining fertility - The importance of hope

News: The article talks about a Lancet paper showing global population trends are changing, with declining birth rates instead of overpopulation. It highlights India's situation and suggests policy changes for a better future.

What are the major findings in a paper on global population trends in the Lancet?

Global Population Decline: The Lancet paper projects a significant decrease in the global population. Most countries, including India, are expected to see lower birth rates.

China's Population Halving: By 2100, China's population might drop by up to 50%.

Contrast in Africa: Sub-Saharan Africa is the exception, likely to experience population growth.

Ageing Population: The decline in birth rates suggests a future with more elderly people and fewer young ones.

Economic and Social Impact: The change could affect job markets, healthcare, and social systems, as there will be more old people needing care but fewer young people to support them.

What are the factors behind declining fertility?

Education and Empowerment: Higher education levels and increased empowerment among women lead to smaller family sizes.

Economic and Job Security: The high cost of child-rearing and lack of job security discourage having children. This trend is observed even in wealthy countries with generous parental support policies.

Climate Change Concerns: Young people are reluctant to bring children into a world threatened by environmental issues like climate change.

India's Economic Challenges: In India, 90% of the youth are in low-paying, informal jobs, contributing to uncertainty about the future.

Wealth Inequality: India's extreme wealth inequality, with the richest 1% owning 40% of the wealth, creates societal instability.

Declining Happiness and Democracy Health: India's low ranking in the World Happiness Report and concerns about its democratic status further impact decisions about starting a family.

What should be done?

Restore Hope: Policies should focus on instilling hope in young people about their future.

Promote Education and Job Security: Enhancing education and ensuring job security can address economic uncertainties.

Reform Taxation and Social Security: Implement progressive taxation and improve social security systems to create a more equitable society.

Ensure Universal Healthcare: Universal health coverage should be provided, especially for long-term care

of chronic conditions.

Address Environmental Concerns: Tackling issues like climate change can alleviate young people's fears about the future world for their children.

Strengthen Democracy: Improving the democratic health of a country can positively impact societal outlook and stability.

Issues with the minimum wage in India: Data on what Indians earn does have plenty to reveal of poverty

News: This article discusses how despite official reports, many Indian workers, especially casual ones, earn less than the minimum wage and poverty line, indicating that a significant number of Indians still live in poverty. It also highlights the issue of declining job quality and low wages in India.

For details information on **Poverty Measurement in India** [read here](#)

What does the new Consumption Expenditure Survey (CES) say?

The new Consumption Expenditure Survey (CES) has a different survey design, sparking debate on setting the right poverty line.

It's unclear if this new CES accurately reflects poverty levels without a revised poverty line by experts.

The **CES indirectly indicates poverty through wages of the poorest workers.**

How can poverty levels be estimated?

Poverty levels can be estimated by looking at the wages of the poorest group of wage workers, a method used for initial poverty lines.

The minimum wage for unskilled workers, crucial for this estimation, was ₹424 per day in 2023 and ₹449 in 2024.

The Rangarajan poverty line for 2022-23 is set at ₹1,837 and ₹2,603 monthly per person for rural and urban areas, respectively.

This method considers actual working days from the **Periodic Labour Force Survey**, suggesting a daily earning need of ₹390/₹552 in rural/urban areas to cross the poverty line.

A family poverty line of ₹9,185 in rural and ₹13,015 in urban areas is assumed for a five-member family.

What are the issues with the minimum wage in India?

The government notified minimum wages are often lower than what is needed to meet the poverty line. For example, the 2024 minimum wage is ₹449 per day, below the ₹483 recommended by the labour ministry.

According to the **India Employment Report 2024**, over half of casual workers didn't receive the minimum wages.

Specifically, 76% of agricultural workers and 70% in construction earned below minimum wages.

Additionally, 41% of regular workers earned less than the minimum wage.

This situation points to a widespread issue of wages being insufficient to lift workers above the poverty line.

What does all of this mean for poverty and unemployment in India?

The data suggests that a **significant portion of Indians live in poverty, with low wages and poor job quality.**

Even though poverty might have reduced since 2011-12, many workers, including those in better positions, still face meager earnings.

This challenges claims of India eliminating extreme poverty, highlighting the reality of poorly paid workers and deteriorating job quality.

GS Paper 2

Subject: Indian Polity

Topic- Indian Constitution—Historical Underpinnings, Evolution, Features, Amendments, Significant Provisions and Basic Structure.

Bharatiya Nyaya Sanhita

Context- The central government has notified July 1 to be the day on which the recently enacted three criminal laws will come into effect. However, Section 106(2) of the Bharatiya Nyaya Sanhita (BNS), 2023 has been put on hold due to opposition by All India Motor Transport Congress.

What are some sections of Bharatiya Nyaya Sanhita that require revision?

Apart from Section 106(2), there is a need to reconsider a few more provisions of the BNS. These are-

- 1) **Section 112-** This defines petty organized crime.
- 2) **Section 303(2)-**This defines theft.
- 3) **Section 143-**This is related to human trafficking.

Why is the reconsideration of certain provisions required?

1) Section 106-

- A) The increase in sentence from 5 to 10 years of imprisonment for just fleeing the scene without reporting to the police or a magistrate soon after the accident is bit disproportionate
- B) This clause violates the fundamental right of prohibition against self-incrimination which is enshrined under Article 20(3) of the constitution.

Further, in *Nandini Satpathy vs P.L. Dani*, the Supreme Court has widened the scope of Article 20(3) and held that the accused must not be compelled to give testimony because it amounts to procurement of evidence by psychic torture, overbearing and intimidatory methods. Thus, disclosure of culpability by informing the police or a magistrate under Section 106 due to fear of enhanced punishment may not qualify the test of constitutionality

2) Section 112-

Offences like unauthorized selling of tickets and selling of public examination question papers are not properly defined. These offences are not linked with any special Act. Further, the range of '**any other similar criminal acts**' is unspecified in this section, and this makes it more indefinite and open-ended. The Supreme Court in *Shreya Singhal vs Union of India (2015)* struck down

66A of the Information Technology Act, 2000 because it found the expression “grossly offensive” used in the Section to be open-ended, undefined and vague.

3) Section 303-

Provision-In cases of theft where the value of the stolen property is less than 5000, and a person is convicted for the first time and if the person returns of the value of property or restoration of the stolen property then he will be punished with community service. The First Schedule to the Bhartiya Nagarik Suraksha Sanhita (BNSS) categorizes the offence under this category as a non-cognizable offence.

Issue-

A) While the value of ₹5,000 may not impact the pocket of rich person but it is a huge sum for say a daily wage earner. Since it is a non-cognizable offence, police may refuse to file a first information report.

B) Property offenders could not be put under police if property offences are not registered.

4) **Section 143-** Sub-sections (6) and (7) of Section 143 of the BNS which punish trafficking of a child and trafficking of a person by a public servant,t,or a police officer respectively do not provide any discretion to the judiciary to award punishment.

The Supreme Court in **Mithu vs State of Punjab (1983)** held that any law which does not give discretion to judiciary is not just, fair, and reasonable within the meaning of Article 21 of the Constitution and hence unconstitutional.

Topic-Parliament and State Legislatures - structure, functioning, conduct of business, powers & privileges and issues arising out of these

Systemic challenges in parliamentary oversight: Parliaments past, a mirror to changing dynamics

News: This article discusses how the Indian Parliament, particularly the 17th Lok Sabha, has functioned recently. It highlights shifts in focus, like more questions about health and agriculture and fewer about national security. It also notes changing trends in parliamentary debates and oversight.

What are the systemic challenges in parliamentary oversight?

Decline in Questions to the Prime Minister: The Prime Minister's Office received only 28 answers out of 1,146 questions from Rajya Sabha MPs, indicating limited engagement at the highest executive level.

Reduced Focus on Key Ministries: Interest in national security issues has decreased, with the Ministry of Home Affairs witnessing a 32% drop in queries.

Changing Ministerial Priorities: The Ministries of Health and Agriculture are now receiving more questions, shifting focus from earlier priorities.

Increasing Disallowed Questions in Rajya Sabha: The percentage of disallowed questions in the Rajya Sabha is rising, with 36.6% relating to key ministries like Health, Home Affairs, and Finance, suggesting hindrances in oversight.

Missed Opportunities for Discussion: Crucial issues, like student suicides due to exams, were not adequately addressed, indicating missed chances for accountability and debate.

What changes have occurred in parliamentary discussions?

Increased Use of Zero Hour Over Time: Over the past 15 years, the use of Zero Hour in parliamentary discussions has seen a significant increase: a 62% rise in the Rajya Sabha and a 34% increase in the Lok Sabha. This trend suggests a growing focus on addressing immediate and pressing issues.

Decline in Traditional Interventions: The use of 'Half-an-Hour Discussions', 'Short Notice Questions', 'Calling Attention', 'Short Duration Discussions', and 'Special Mentions' has decreased, suggesting a shift away from these traditional methods.

Way forward-To revitalise legislative engagement, Indian Parliament should seize every opportunity for accountability and constructive debate, focusing on enacting policies that prioritize national welfare, as seen in the proactive dynamics of the 16th Lok Sabha.

Topic- Structure, Organization and Functioning of the Executive and the Judiciary— Ministries and Departments of the Government; Pressure Groups and Formal/Informal Associations and their Role in the Polity.

Issues faced by the Indian judicial system

News: The article discusses the problem of over 10 million pending cases in India's courts. It focuses on the need for reform in the judicial system, like limiting adjournments, using technology, and improving court management to make the process faster and more efficient.

For details information on **Judicial reform** read [Article1](#), [Article2](#), [Article3](#)

What are the issues faced by the Indian judiciary system?

Overwhelming Case Backlog: Over 10 million cases are pending in Indian courts, leading to significant delays.

Frequent Adjournments: More than half of the cases exceed the three-adjournment limit, contributing to delays.

Staff Shortage: Courts operate with insufficient staff regardless of the number of cases, affecting efficiency.

Ineffective Court Management: Lack of clear timelines and effective management strategies slow down case processing.

Technology Underutilization: Despite potential benefits, technological solutions like e-filing and video conferencing are not fully integrated.

What are the impacts of these issues?

Prolonged Detention: With 77.1% of over 500,000 inmates in 2021 awaiting trial, prolonged pre-trial detention is a major issue.

Business Challenges: The slow judicial process hinders 'ease of doing business,' affecting economic growth and investor confidence.

Public Trust Erosion: The unreliability and inefficiency of the judiciary decrease public trust in the legal system.

What should be done?

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Strict Enforcement of Three-Adjournment Rule: Limit adjournments per case to three to avoid unnecessary delays, as currently, more than half of the cases exceed this limit.

Improve Court Management: Adopt clear timelines for each case, a practice effective in developed countries but lacking in India.

Enhance Staffing in Courts: Address the staff shortage, as courts often have the same number of staff regardless of the increase in case files.

Integrate Technology Effectively: Fully utilize e-filing and video conferencing, proven useful during the COVID-19 pandemic, to expedite cases.

Implement NCMS Policy and NFCE: Fully enforce the National Courts Management Systems policy and the National Framework of Court Excellence to establish performance benchmarks and improve court operations.

Monetary Disincentive for Adjournments: Introduce fines, such as ₹10,000 for the first adjournment, doubling for subsequent ones, to discourage unnecessary delays.

Social Audit of Judiciary Policies: Conduct social audits of policies like NCMS to ensure their effectiveness and enhance judicial efficiency.

Topic- Salient Features of the Representation of People's Act

Impact of Artificial Intelligence on Indian elections

Context- The BJP has used Artificial Intelligence (AI) to translate the speech of Prime Minister into eight different languages ahead of the Lok Sabha elections. This general election may potentially be considered as India's first AI election.

How has India's electoral strategy evolved over last 3 decades?

The electoral strategy has evolved due to the deployment of new technologies for electoral purposes.

- 1) **Phone Calls**-There was extensive usage of phone calls in the 1990s. Similarly, the Uttar Pradesh Assembly election in 2007 witnessed the first mass mobile phone elections.
- 2) **Social media platforms**- This was widely used in the 2014 general elections. Some analysts have even referred to it as India's first social media elections or the Facebook elections. An estimated ₹500 crore had been spent in digital spending in 2014 elections.
- 3) **WhatsApp election** -2019 general election was widely dubbed as the "first WhatsApp election" in India. Few Indian States elections have shown that how WhatsApp can be abused to mislead voters for political purposes very quickly. As per election campaign consultant, it is an effective political platform because it is an excellent tool to organize and mobilize party workers.

Read more- [Role of AI in elections: Many elections, AI's dark dimension](#)

How can the use of AI hamper the sanctity of the electoral process in 2024 elections?

The global elections of 2024 are indeed AI driven elections.They can significantly hamper the sanctity of electoral process by;

- 1) **Misinformation** - Voters in New Hampshire got a phone call that sounded like U.S. President. However, it was a robocall made by AI that discouraged Democratic voters from going to polling stations on election day.
- 2) **Creation of fake audios** - Just before parliamentary elections in Slovakia, in September 2023 last year, a fake audio of a conversation between a journalist and the leader of the pro-North Atlantic Treaty

Organization Progressive Slovakia Party was shared on Facebook. Consequently, in a close race, Progressive Slovakia lost out.

3) **Deepfakes**-They were used in the recent Assembly elections in Madhya Pradesh and Telangana, either through doctored clips of the game show “Kaun Banega Crorepati” or a fake video of a leader who was pushing voters to support their opponent.

4) **Setting false trends**-AI-powered bots can generate fake accounts that amplify messages and generate artificial trends to give the false impression that a particular politician or subject is widely supported.

How can AI play a constructive role in the election process?

It can play a far wider role in elections than just disseminating disinformation such as-

1) It can be used in the entire spectrum of campaign strategies. It can be used for voter identification and for content development and delivery.

2) It can do real-time analytics on campaign performances. It can ensure that political campaigns are data-driven and help in setting effective micro-targeting strategy.

The political landscape is changing quickly due to GenAI technology. This presents both the potential and challenges for the 2024 elections.

Role of political parties in addressing climate issues

Context - WHO has recently released The State of the Global Climate report which states that 2023 was the hottest year in the recorded history of the planet. As per the report, records for a rise in ocean temperatures, glacier retreat and diminishing Antarctic ice cover were also broken. The author makes a case for mainstreaming climate change issue into political discourses during the election year.

Read more- [Time for a technology manifesto](#)

How can election season present an opportunity to ensure climate justice?

1) The concerns expressed in WMO report should alarm all political parties to take climate change as an important election issue. It is possible that people may wholeheartedly welcome such stands taken by political parties.

2) Political parties can commit themselves to enhancing public awareness on climate change and spelling out mitigatory steps to reduce global warming.

3) It is possible to have political differences in approaching climate change issues, but this will provide voters an opportunity to assess these views and make an informed decision.

4) In order to be counted as a true world power in the Amrit Kaal, Indian political parties can demonstrate strong commitment to the principle of climate justice and make this an important political issue.

All political parties are presenting their ideas to shape India’s economic prosperity and the well-being of its people. However, without addressing the issue of a climate change action plan, this idea of prosperity would be incomplete.

Subject: Governance

Topic- Government Policies and Interventions for Development in various sectors and Issues arising out of their Design and Implementation

Introducing too much technology into the worker's life

Context-The article highlights the problems of technological intervention for implementation of MGNREGA. The author argues that the objective of MGNREGS is not to offer a playing field for technological interventions, but to provide deprived households a sense of work security.

What is Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)?

Read more- [MGNREGS](#)

What is the significance of MGNREGS?

As per scholarly study in World Development, these schemes lead to higher nutritional intake and empower women. This also pay women on par with men and serve as insurance substitutes. It empowers marginalized communities by giving them pronounced benefits and contributes to ensuring political transparency. These principles must not be sidelined by enthusiasm for technological intervention.

What are the challenges with technological intervention for implementation of MGNREGA?

There are challenges in the project of linking rural employment guarantees to digitized individual identification systems such as-

- 1) **Sidelining the worker-** There are issues related to poor internet connectivity, fingerprint recognition issues, difficulties faced by the disabled, unrecorded working days and name duplication. Further, there are problems such as lack of awareness, errors in linking, authentication, elimination of names, discrepancy in name spellings, and issues in seeding. In all these problems, workers have little or no fault.
- 2) **Omission of workers-** There are more than 26 crore workers registered with MGNREGS. As per research, around 5.2 crore workers were deleted from the database in 2022-23. Further, as per the article of The Hindu Newspaper, around 34.8% of job card holders were not eligible for The Aadhaar-Based Payment System (ABPS).

What should be the way forward?

The enhanced budgetary allocation to MGNREGS must be utilized for addressing technological problems and making technology an enabler of socio-economic transformation for workers. In the backdrop of increasing socio-economic inequality, diminishing social security, and rising rural distress, it is important to ensure that technology does not threaten any workers livelihood security

Living wills –A dignified way to death

Context - Recently, 30 people in Thrissur in Kerala have executed living wills. The Supreme Court has legalized living wills since 2018 to allow terminally ill patients, with no hope of a cure or recovery, to withdraw treatment and die with dignity.

What is a living will?

It is a legal document that outlines preferences for medical treatment for terminally ill patients who are unable to communicate their decisions, particularly regarding life-sustaining measures and end-of-life care.

What is the existing procedure for executing living will?

1) **Streamlined procedure**- The Supreme Court has streamlined the procedure to overcome the challenges posed by previously recommended complicated procedure-

A) Under this, living wills must be handed over to a “competent officer” in the local government after being signed in the presence of two witnesses and attested before a notary or a gazette officer. The competent officer will serve as a custodian of living will.

B) If the patient is terminally ill and can't make decisions anymore, the doctor will check the living will either against the copy kept by the custodian or against digital health records of concerned patients.

2) **Certification by medical board**-The decisions on withholding or withdrawing treatment are certified first by a primary medical board and then confirmed by a secondary medical board. The secondary board should have a doctor who is nominated by the chief medical officer.

Further, as per the Supreme Court, if the patient does not have a living will then the primary medical board will have to obtain the written consent of the ‘next of kin’ for withdrawing/withholding treatment.

What are the issues in the implementation of living will in India?

1) **Lack of custodians for living wills**- State governments have not designated custodians for living wills. For ex- a public interest litigation had to be filed in the High Court of Bombay to appoint custodians across the State recently.

2) **Absence of protocol**- The National Health Authority has not produced protocols that could allow living wills to be authenticated through digital health records.

3) **Complicated Procedure**-As per guidelines, the secondary board must have a doctor nominated by the chief medical officer. This implies that hospitals cannot have secondary medical boards unless the chief medical officer has nominated a doctor in the hospital where the concerned patient is admitted. Therefore, terminally ill patients, even those who have made living wills, are not able to make critical decisions about medical care

4) **Ambiguous guidelines**- Indian law does not have a clear definition for ‘next of kin’. Further, there is lack of clarity when any family members disagree about the best course of action. Due to all this, officials will refrain from taking decisions on such a sensitive subject.

5) **Lack of state government willingness**- This area is complex and requires attention from medical and legal experts, therefore state governments are reluctant to implement it with determination.

Read more- [Apex court allows ‘living will’ for terminally ill](#)

What should be the way forward?

The Central government can bridge the gap in expertise by developing and publishing model orders and protocols. These protocols can provide the State governments with the necessary confidence and the guidance to effectively implement the Supreme court judgment.

Indians seeking surrogacy abroad: FOR LOVE OF A CHILD

News: The article discusses how strict surrogacy laws in India lead people to seek surrogacy abroad. It explains that only altruistic surrogacy is allowed in India.

For details information on **India's surrogacy laws** read [Article 1](#), [Article 2](#), [Article 3](#)

Why are Indians seeking surrogacy abroad?

Restrictive Laws in India: India's laws limit surrogacy to altruistic, non-commercial types, which excludes many people.

Diverse Needs: Individuals like single men and women, and LGBTQIA+ individuals, who are excluded by Indian laws, are seeking surrogacy abroad.

Global Options: Countries like the US, Canada, Mexico, Colombia, and some in East Europe offer commercial surrogacy, with costs ranging from Rs 50 lakh to Rs 6 crore.

What are the impacts of India's surrogacy laws?

Economic Impact: Previously, commercial surrogacy benefitted women from lower socio-economic backgrounds. Now, the ban on commercial surrogacy limits these economic opportunities.

Stigmatization: The laws accentuate stigma against single women and same-sex couples, as they don't fit the traditional family model.

Legal Challenges: The Supreme Court is being approached to reconsider these laws, indicating a legal struggle and a need for more inclusive legislation.

Assisted Reproductive Technologies are often inaccessible due to their high cost, restricting access for the economically weak.

Way forward -To move forward, India's surrogacy laws should be more inclusive, recognizing diverse family structures. The laws need to adapt to modern societal changes, allowing single individuals, LGBTQIA+ couples, and non-traditional families the right to surrogacy, as endorsed by the Supreme Court's 2022 judgment

Topic- Issues Relating to Development and Management of Social Sector/Services relating to Education.

Post autonomy challenges faced by colleges

Context- The University Grants Commission (UGC) has recently launched a new regulation to grant autonomy to colleges. As per The National Education Policy 2020, colleges should be granted autonomy so that they can enhance their capacity for innovation, self-governance, and academic freedom.

What is the significance of granting autonomy to colleges?

1) **Flexibility** -Autonomous colleges can tailor their curriculum to meet the evolving needs of students and industries. They can experiment with new teaching methodologies and research initiatives. This can drive the frontiers of knowledge and contribute to societal development.

2) **Accountability**-It cultivates a culture of accountability and responsibility among colleges.They get

ownership of their academic and administrative decisions. This empowerment enhances institutional efficiency and fosters a sense of pride and identity within colleges. This, in turn, motivates faculty and staff to strive for excellence.

3) **Improved ranking**- In the 'Colleges Category' of The National Institutional Ranking Framework (NIRF) of 2023, there were 55 autonomous colleges in top 100. This speaks volume of the significance of granting autonomy to colleges. Further, in the top 10 colleges of the NIRF Rankings of 2023 from the college category, 5 are autonomous colleges

What are the challenges faced by colleges after getting autonomous status?

UGC encourages the autonomy of colleges. However, there are some universities that do not want to give up their control over colleges and pose various challenges before colleges such as-

- 1) **Restriction on the autonomy to change the syllabus**-Some universities impose caps on syllabus changes. They allow only a fraction, that is 25% to 35%, of the syllabus which can be altered. This constraint prevents colleges from exercising their autonomy in curriculum development and academic innovation.
- 2) **Delay in recognizing autonomy**- Universities do not recognize autonomy of colleges in a timely manner. Such delays hamper the efficiency of colleges' operation and undermine the spirit of autonomy.
- 3) **Undermining autonomy of colleges**-UGC gives complete autonomy to colleges. However, universities do not want to give complete autonomy to colleges in critical areas such as syllabus design, the introduction of new courses, and the evolution of methods for assessing student performance.
- 4) **Imposition of Arbitrary Fees**-University may charge arbitrary fees for affiliation purposes of colleges. This undermines the autonomy of colleges and violates principles of transparency and fairness.

What should be the way forward?

- 1) The State Councils for Higher Education should ensure effective implementation of UGC regulations on autonomy.
- 2) Universities should streamline decision-making processes between colleges and universities. This would ensure that autonomy translates into meaningful empowerment for colleges.
- 3) Universities should collaborate with autonomous colleges and allow them the freedom to innovate and excel so that they can uphold academic standards.
- 4) Universities should create a conducive environment so that colleges can take full advantage of autonomy granted to them. This will help colleges drive innovation, excellence, and inclusivity in higher education.

Subject: International Relations

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

India's new focus in foreign policy: How Delhi maps the world

News: The article discusses how India is focusing on islands and maritime regions for its foreign policy and security, considering new partnerships and regions like Europe, the Middle East, and Africa. It also mentions internal challenges in regions like South Asia.

For details information on **India's foreign policy** read [Article1](#), [Article2](#), [Article3](#)

What is India's new focus in foreign policy?

Strategic Islands and Maritime Regions: India is emphasizing strategic importance on islands and maritime territories, like in the Maldives, Papua New Guinea, Mauritius, and the development of Andaman and Lakshadweep.

Adopting the Indo-Pacific Framework: India has embraced the Indo-Pacific concept, moving away from seeing it as an American plot. This shift is a response to tensions with China and aligns with the Quadrilateral Security Dialogue (Quad) involving Australia, India, Japan, and the US.

Increased Focus on Eurasia and Europe: India joined the Shanghai Cooperation Organisation, indicating interest in Eurasia. There's also a growing engagement with Europe, as seen in increased diplomatic visits and a free trade agreement with EFTA countries.

Broadening Relations with the Middle East and Africa: India is strengthening ties with the Middle East, including partnerships with UAE and Saudi Arabia, and showing a naval presence in the Red Sea region. This reflects a more integrated approach towards the Middle East, Africa, and the eastern Mediterranean.

Shifting Attention from South Asia: With the decline of SAARC, India's focus is moving from South Asia to sub-regional and trans-regional cooperation, such as with the Bay of Bengal nations.

New Focus on Zomia and Khorasan: India is looking towards new regions like Zomia and Khorasan due to geopolitical changes on its eastern and western borders.

What challenges does India face in shaping its new foreign policy?

Tension with China: India's deteriorating relations with China, marked by several military crises, pose a significant challenge, especially in adopting the Indo-Pacific strategy and managing regional dynamics.

Balancing Ties with Russia and the West: India's approach to Eurasia is changing, influenced by the escalating conflict between Russia and the West and the strengthening alliance between China and Russia. This evolution presents India with the challenge of maintaining a balance in its relations with both sides.

Economic Engagement with Europe: While India is increasing its diplomatic and trade ties with Europe, successfully negotiating and finalizing a comprehensive free trade agreement remains a complex challenge.

Internal Challenges in South Asia: The failure of SAARC and changing dynamics with Pakistan require India to adapt its approach in South Asia, focusing more on sub-regional cooperation.

Topic: Effect of policies and politics of developed and developing countries on India's interests

EU's Corporate Sustainability Due Diligence Directive (CSDDD): The EU's sustainability directive may weaken trade ties

News: This article discusses the EU's Corporate Sustainability Due Diligence Directive, which requires EU companies to be accountable for environmental and human rights issues in their supply chains.

What is the EU's Corporate Sustainability Due Diligence Directive (CSDDD)?

9 PM Compilation April [First Week] 2024

The CSDDD is a new European Union directive focusing on corporate responsibility for environmental and human rights issues within supply chains.

The CSDDD demands adherence to international human rights laws and stringent environmental standards, including measures against pollution and deforestation.

While the CSDDD aims to promote sustainability, the current version is considered watered down, offering potential loopholes and lacking support for developing countries like India in meeting these high standards.

What are the issues with EU's Corporate Sustainability Due Diligence Directive (CSDDD)?

Watered-Down Version: The adopted version of the CSDDD is criticized for being less stringent than the original proposal.

Higher Thresholds for Applicability: It raises the thresholds for industry applicability, potentially excluding smaller businesses from its scope.

"Obligation of Means" Clause: The directive mandates companies to implement "appropriate measures" for due diligence, which might be insufficient for actual impact mitigation.

Lack of Support for Developing Countries: It does not adequately address support for firms in developing countries, like those in India, that are expected to meet high sustainability standards.

Unaddressed External Constraints: The CSDDD overlooks external factual or legal constraints in third countries, which can hinder compliance.

What is India doing in response?

Adjusting to International Standards: India is modifying its supply chains and manufacturing processes to meet the CSDDD and CBAM requirements.

For information on **Carbon Border Adjustment Mechanism (CBAM)** [read here](#)

Export Importance to the EU: The EU is a major destination for Indian exports, receiving 14.9% of them in 2021, highlighting the need for compliance with EU directives.

Involvement in IPEF: Through the Indo-Pacific Economic Framework, India is focusing on resilient and sustainable supply chain development.

Creation of Labour Rights Advisory Board: Under the IPEF, India is forming a Labour Rights Advisory Board, including workers, employers, and government representatives.

Drafting National Action Plan: India is working on a 'zero draft' National Action Plan for Business and Human Rights, incorporating human rights and environmental protection measures.

What are the impacts of the EU's Corporate Sustainability Due Diligence Directive (CSDDD) on India?

Positive Impacts on India:

Attracting EU Investment: Compliance with the CSDDD could draw more foreign investment from the EU to India by adhering to human rights and environmental standards.

Promoting Sustainable Business: The directive can lead to sustainable business growth in India, aligning with global sustainability standards.

Negative Impacts on India:

Financial Burden: Indian exporters may face increased financial strain due to the need to align with the CSDDD's stringent standards, on top of the EU's Carbon Border Adjustment Mechanism.

Potential Loss of Business: There is a risk of losing EU business if Indian firms fail to comply with the CSDDD's environmental and human rights requirements.

Challenges in Meeting Standards: Some Indian practices, like the Green Credits Programme, might not meet the CSDDD standards, indicating a gap between current domestic standards and those required by the directive.

Topic-Important International institutions, agencies and fora, their structure, mandate.

NATO responding to global security issues: Nato@75: The transatlantic alliance seeks a global role

News: This article discusses NATO's 75th anniversary and its expansion, with new members from Europe due to concerns about Russia. It also talks about NATO's global reach and challenges, including funding and differing member interests, especially considering a potential Trump presidency in the US.

For details information on NATO read [Article 1](#), [Article 2](#), [Article 3](#)

What is NATO's current situation?

NATO turns 75: The North Atlantic Treaty Organization marks its 75th anniversary.

Membership growth: Grown to 32 members, including recent additions of Finland and Sweden.

Influence of Ukraine conflict: Putin's invasion of Ukraine has driven Eastern European countries toward NATO for security.

Global Reach: Extending influence into the Indo-Pacific region, addressing challenges like China's rise.

What challenges does NATO face?

Expansion Tensions: NATO's eastward expansion, including Baltic states and countries like Finland and Sweden, provokes Russia, fueling geopolitical tensions.

Internal Disagreements: Different member countries have conflicting interests and approaches, creating challenges in unified decision-making.

Funding Concerns: Issues with member nations contributing sufficient funds to NATO, a point of contention, especially with a potential Trump presidency, who questions the principle of mutual defense unless members increase funding.

How is NATO responding to global security issues?

Expansion in Response to Russia: NATO has added new members like Finland and Sweden, driven by concerns over Russian aggression, especially post-Ukraine invasion.

Global Reach Beyond Europe: The alliance is extending its focus to the Indo-Pacific region, confronting challenges like China's rise.

Diverse Global Partnerships: NATO is working with partners globally, including countries like Australia,

Japan, and South Korea, acknowledging their significance in regional security.

Financial Commitment to Defense: Planning a substantial \$100 billion aid package for Ukraine, demonstrating its commitment to support nations facing security threats.

GS Paper 3

Indian Economy

Topic- Indian Economy and issues relating to Planning, Mobilization of Resources, Growth, Development and Employment.

Challenges for Indian agriculture to realize its aspiration of a Viksit Bharat by 2047: Viksit must be inclusive

News: The article discusses the challenges and necessary strategies for Indian agriculture to realise its aspiration of a Viksit Bharat by 2047.

How has Indian agriculture grown over the years?

Indian agriculture's growth has been steady, with an average annual growth rate of 3.3% from 1991-92 to 2023-24.

Under the Modi government (last 10 years), agriculture grew at 3.6%, slightly better than the 3.5% during the Manmohan Singh era.

Agriculture, engaging about 45% of India's workforce, contributes around 18% to the GDP. However, the agri-GDP growth for 2023-24 is just 0.7%.

By 2047, agriculture's GDP share might drop to 7-8%, but it could still involve over 30% of the workforce.

What are the challenges for Indian agriculture to realize its aspiration of a Viksit Bharat by 2047?

Climate Change Impact: Agriculture is vulnerable to climate risks, like rising temperatures and unseasonal rains that dropped growth to 0.7% in 2023-24.

Workforce Imbalance: Despite contributing about 18% to GDP, agriculture employs 45% of the workforce, indicating low productivity. This discrepancy could lead to economic imbalances.

Resource Management: Challenges in water consumption, soil degradation, and greenhouse gas emissions need urgent attention.

Technology and Innovation Lag: Modernization in farming practices and infrastructure is crucial for coping with climate challenges and increasing productivity.

Policy Limitations: Current policies, including export controls and stocking limits, resemble outdated strategies of the 1960s, indicating a need for reforms in areas like subsidies, research, and market access.

What should be done?

Increase Investment in Agriculture R&D and Innovation: Allocate more resources to agricultural research and innovation to enhance productivity.

Promote High-Value Agriculture: Shift focus to sectors like poultry, fishery, dairy, and horticulture, which offer higher economic returns.

Improve Market Access for Farmers: Develop policies and institutions to connect farmers to national and international markets, potentially through digital platforms like E-NAM and ONDC.

Rationalize Subsidies: Redirect funds from food and fertilizer subsidies towards more sustainable agricultural practices.

Enhance Skill Development: Focus on training rural populations for better job opportunities in a rapidly urbanizing India.

How has the RBI evolved: Next phase for RBI: Central bank should be empowered further

News: The article discusses the Reserve Bank of India's (RBI) 90th anniversary and its role in economic growth. It also highlights areas needing improvement, such as banking regulation and adapting to new financial technologies.

How has the RBI evolved?

Inflation-targeting central bank: RBI evolved into an inflation-targeting central bank, enhancing monetary policy transparency and boosting investor confidence.

Foreign exchange reserves: Managed the external sector skillfully, accumulating large foreign exchange reserves to reduce currency volatility.

Macroeconomic stability: Improved macroeconomic stability, evident in recent years through effective management.

Reduction in NPAs: Non-Performing Assets (NPAs) in banks reduced significantly, with the banking system in its best position in over a decade.

Technology in payments: The RBI's role in facilitating technology adoption in payments, making India a leader in this area, is acknowledged.

Central bank digital currency: Pioneered experiments with central bank digital currency, indicating readiness for future financial challenges.

What challenges is the RBI facing?

Banking Regulation and Supervision: The RBI needs to enhance its regulatory and supervisory mechanisms, as demonstrated by the problems at YES Bank and Infrastructure Leasing & Financial Services Ltd.

Transparency with Regulated Entities: There's a challenge in maintaining transparency, specifically highlighted by the RBI's dealings with Paytm Payments Bank.

Regulating New-Age Fintech Firms: The RBI faces the challenge of effectively regulating emerging fintech firms while balancing the need for innovation.

Limited Powers over Public-Sector Banks: The RBI's constrained ability to regulate public-sector banks is mentioned, indicating a need for legal changes to empower the institution more effectively.

Potential Fiscal Dominance of Monetary Policy: The government's role in fiscal policy could overshadow the RBI's monetary policy, stressing the need for the government to maintain low fiscal deficits.

Topic- Changes in industrial policy and their effects on industrial growth.

Development of India's defense ecosystem: India's atmanirbhar defense sector

News: This article discusses India's efforts to strengthen its defense industry. It mentions policy changes, increased domestic production, and growth in exports. There's also a focus on innovation and involving women in defense roles, aiming for a self-reliant and developed India.

What initiatives have been taken for the development of India's defense ecosystem?

Policy Initiatives:

Defence Acquisition Procedure (DAP) 2020 ensures 50% indigenous content in procurement.

New Procurement Category — Buy (Global-Manufacture in India): Encourages foreign companies to set up maintenance and manufacturing in India.

Positive Indigenisation Lists (5,000 items in this list) mandate domestic sourcing for certain defense items.

Financial Investments:

The Swedish Arms Major SAAB's Announcement: **First 100% FDI project for manufacturing Carl Gustav M4 rocket system** in India.

Increased Domestic Procurement Budget: From 40% to 75% of the total capital procurement budget dedicated to domestic procurement.

Increasing Private Contributions: Private sector's defense production contribution reached Rs 21,083 crore, about 20% of the total.

DRDO:

Review of Defence Research and Development Organisation (DRDO): A committee established for a holistic review to align DRDO with contemporary challenges.

Building "Fit to Purpose" Capabilities: Focus on developing domestic defence R&D and innovation, with substantial budget allocation.

Participation of women:

Initiatives like **Nari Shakti** and the **opening of Sainik Schools** and the **National Defence Academy** to women have significantly increased the participation of women in the armed forces.

Naval Platform Development:

The development of naval platforms includes significant projects like the **INS Vikrant**, which is the largest warship built in India, showcasing advanced maritime capabilities.

Additionally, under **Project 17A**, frigates such as the **INS Vindhyagiri** have been launched, further enhancing India's naval strength with modern warships.

Other Developments

The Srijan Indigenisation Portal: Facilitates the indigenisation of around 34,000 imported items.

Way forward -To propel India towards becoming a developed nation by 2047, it's essential to maintain momentum in indigenous defence production and elevate private sector involvement. Simultaneously, forging strong global strategic partnerships is key to securing India's place in the global defence value chains.

India should target per capita, not aggregate GDP: Path to Viksit Bharat

News: The article compares the economic growth of China and India from 1990 to 2022. It discusses China's rapid GDP growth, surpassing the US and its potential to become the world's largest economy. It also covers India's slower growth and its status as an emerging economy.

How have China and India's economies grown since 1990?

In 1990, China's GDP, reflecting all goods and services produced within the country, was just 23% higher than India's.

Back then, China and India ranked as the world's 11th and 12th largest economies, with nominal GDPs of \$395 billion and \$321 billion, respectively.

Fast forward to 2022, the economic gap widened significantly, with China's economy becoming 5.3 times larger than India's.

China's economy grew at a faster pace, averaging 10% in the 1990s and 10.4% in the 2000s, compared to India's growth of 5.8% in the 1990s and 6.3% in the 2000s.

By 2010, China's GDP had grown to \$6.1 trillion, 15.4 times its 1990 level, while India's GDP reached \$1.7 trillion, only 5.2 times its 1990 level.

China's per capita GDP in 2022 was \$12,720, near the high-income threshold. India's was \$2,411, in the lower-middle income range.

By 2022, China's economy size (\$18 trillion) surpassed the US's 2014 level, whereas India, with a GDP of \$3.4 trillion, resembled China's economy in 2007.

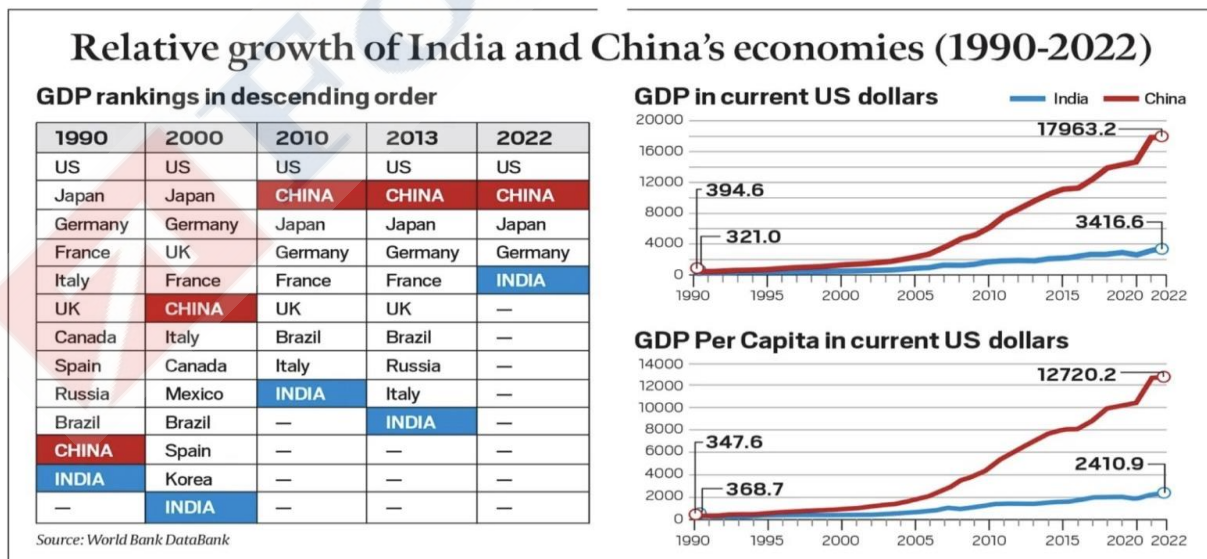


Table and charts on India and China's economic growth rates, from 1990 to 2022.

Why should India target per capita, not aggregate GDP?

Standard of Living vs. Global Influence: While Monaco, Liechtenstein, and Bermuda have high per capita GDPs, they are not superpowers. This shows that high per capita income doesn't always correlate with global power, but it does indicate better living standards for citizens.

India's Large Population: Given its massive population, India's per capita GDP is more crucial for reflecting individual prosperity than aggregate GDP.

Economic and Demographic Balance: India, being a lower-middle-income country, should balance improving its per capita GDP, like China (which increased its per capita GDP from \$348 to \$12,720), and enhancing overall economic size.

Long-term Development Goals: For sustainable development, India should aim for higher per capita GDP to ensure widespread prosperity, aligning with its goal of becoming a developed nation by 2047.

Finding of the India Employment Report (IER) 2024: Turning the spotlight on the urban poor

News: The India Employment Report (IER) 2024 raises concerns about whether the working class is actually benefiting from economic growth. It highlights a trend of increasing low-paid, casual jobs and a decrease in better-paying employment in urban areas, exacerbating poverty among the urban poor.

What are the major findings of the India Employment Report (IER) 2024?

The major findings of the India Employment Report (IER) 2024 are:

Economic Growth and Benefit Distribution: Economic growth of 5.4% from 2015-16 to 2022-23 raised questions about its benefits reaching the working class.

Urban-Rural Disparities in Employment and Wages: Urban areas saw a higher unemployment rate at 4.8% in 2000, compared to 1.5% in rural areas. Despite higher urban unemployment, urban wages were notably higher: 76% more for the self-employed, 44% more for regular employees, and 22% more for casual labor in 2022.

Changing Migration Trends: The report indicates a shift in migration patterns, with overall migration increasing but male migration slightly decreasing from 2000-08 and further in 2021.

Urban Poverty and Migration: Rural-to-urban migration led many to settle in slums, highlighting the need to analyze income and employment trends in these areas to understand economic mobility prospects for the urban poor.

Women in the workforce: The number of women in the workforce has dropped in slums but increased overall in urban areas. The study shows that casual labor wages have increased, but these jobs often lack security and benefits.

For more information [read here](#)

Topic- Issues related to Direct and Indirect Farm Subsidies and Minimum Support Prices; Public Distribution System - Objectives, Functioning, Limitations, Revamping; Issues of Buffer Stocks and Food Security; Technology Missions; Economics of Animal-Rearing

Climate change impacting wheat production in India: POINTERS FROM WHEAT

News: This article discusses the current situation of wheat harvests in India, affected by climate change. It mentions the challenges of temperature changes and the need for the country to develop wheat varieties that can withstand these changes for future sustainability.

How is climate change impacting wheat production in India?

Wheat stocks in government storage are the **lowest in seven years, at 9.7 million tonnes as of March 1.**

Climate change is causing temperature fluctuations, impacting wheat growth in India.

In 2022 and 2023, unseasonal rains and temperature spikes during grain formation led to yield losses.

Warm temperatures at sowing time in central India (MP, Gujarat, Maharashtra) resulted in fewer tillers and premature flowering.

Conversely, the Indo-Gangetic plains (Punjab, Haryana, UP, Bihar) are expecting a bumper harvest, thanks to normal March temperatures and good grain-filling progress.

Overall, despite lower yields in central India, the country might harvest more wheat than in the previous two years, balancing the impacts of climate change.

How can India adapt to these changes?

India needs to **focus on breeding climate-resilient wheat varieties**, resistant to drought and heat.

The strategy should **shift from high fertilizer reliance to more efficient use of inputs** like water, nutrients, and energy.

Emphasis on Green Revolution 2.0, **aiming for higher yield with less resource consumption.**

Research to identify plant genes responsible for desirable traits like drought and heat tolerance is crucial.

Adapting sowing times and practices based on changing climate patterns can help mitigate adverse impacts.

Considering global wheat price trends, **temporarily easing import restrictions** could also be a strategic move.

Topic- Effects of Liberalization on the Economy, Changes in Industrial Policy and their Effects on Industrial Growth.

Major concerns in global economics: Firms in a tough global environment

News: Global economic integration previously spurred growth, but now, trends towards de-integration are impacting the economy. These include changes in trade rules, environmental taxes, shifts in China's economy, and various government actions, all are affecting the world economy and business strategies.

How is the third globalization different from the early one?

Economic Engagement: Third globalization involves more restricted economic engagement for countries misaligned in foreign policy and military affairs. Earlier, global access was more open, regardless of such alignments.

Case of Russia and China: The belief that integrating countries like Russia and China into globalization would lead them to freedom didn't hold; they now face restrictions due to differing policies.

Capital Destruction: This phase involves tangible and intangible capital destruction, like factory closures in China and oil extraction issues in Siberia, impacting global GDP.

What are the major concerns in global economics?

Carbon-Border Taxes Impacting Global Production:

Carbon-border taxes, like the European Carbon Border Adjustment Mechanism, aim to equalize the cost of production inside and outside Europe. These taxes are not protectionist but ensure fair competition and are similar to VAT on imports.

The shift towards renewable energy, especially in China (33% renewables), affects countries like India with less developed energy policies.

Nationalistic Policies:

Since 2013, under President Xi Jinping, China has seen centralized power, nationalism, and hostility towards foreigners. Their economy, previously boosted by credit, infrastructure, and construction, is struggling. China's attempt to subsidize exports conflicts with global trade rules and impacts other economies.

Unsystematic Movements in Trade Policy:

The erratic and unpredictable changes in trade policies by various countries have disrupted global trade norms established by agreements like GATT/WTO. An example is the looming threat to international digital service trade agreements, influenced by shifting political climates and elections.

What is the situation of Indian Internationalization?

Indian internationalization has faced challenges, with modest growth in foreign direct investment (FDI) and exports in the last decade.

From 2012 to 2022, total exports grew by about 3% per year in real dollars.

Services exports have been a strong component, showing significant success.

Government policies have been somewhat positive, like reducing import duties for phone parts and electric vehicles, benefiting companies like Apple, Xiaomi, and Tesla.

However, the overall strategy lacks focus, leading to underperformance in international markets compared to potential. Indian firms are increasingly integrating into the global economy through exports and FDI.

Way forward

There is a need to be more proactive in understanding and adapting to the economic and political landscape. In the era of the third globalization, diversification and envisioning potential risks are crucial for firm survival. Understanding the implications of carbon-border taxes, Chinese subsidies, and the unpredictable nature of global trade policies is vital.

Topic- Infrastructure: Energy, Ports, Roads, Airports, Railways etc

Nuclear energy- A solution for clean energy transition

News- Brussels has recently hosted a first-of-its-kind Nuclear Energy Summit. It was touted as one of the most high-profile international meetings on nuclear energy ever.

Context- This meeting is one of the latest in a series of efforts that were being made in the last few years to project nuclear energy as an important solution to deal with problems of climate change and energy security.

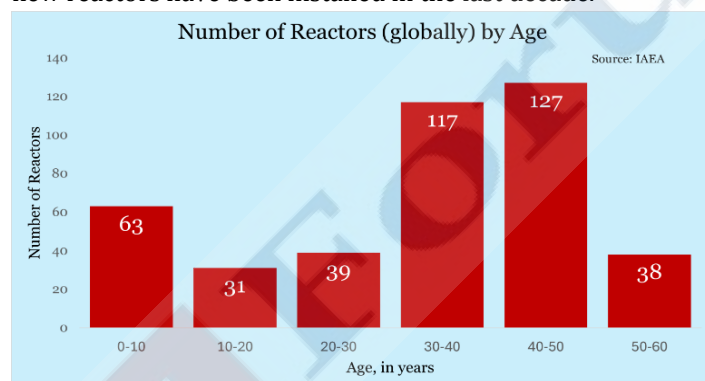
What is India's position on nuclear energy?

- 1) India has 23 operational nuclear reactors. The currently operational reactors have a combined installed electricity generating capacity of 7,480 MW (about 7.5 GW). The share of nuclear energy in total electricity generation capacity is just about 3.1%. This is among the lowest in countries that do use nuclear energy
- 2) There are at least ten more reactors that are under construction, and the capacity is supposed to triple to 22,480 MW by 2031-32.

India does acknowledge the role of nuclear energy in its decarbonization plan and is planning for a rapid expansion in the coming years. However, despite this also, the share of nuclear energy in electricity generation is likely to remain extremely modest in the future.

What is the status of nuclear energy installation in the world?

- 1) As per IAEA data, the number of operational nuclear reactors has come down in the last 20 years, from 437 in 2003 to 411. The average life of these reactors is more than 31 years, which also highlights the fact that few new reactors have been installed in the last decade.



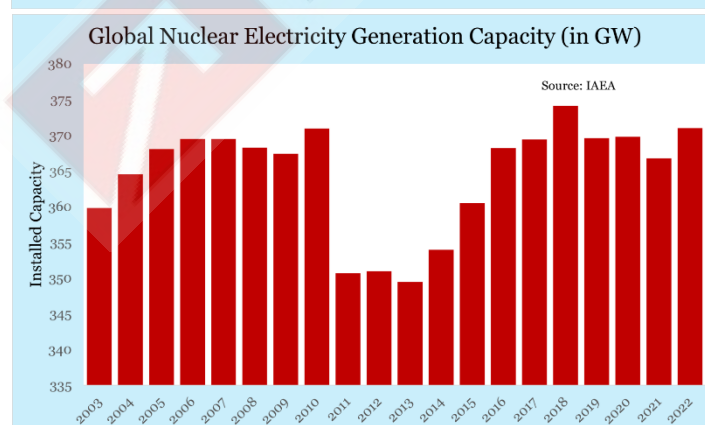
- 2) The total installed electricity generation capacity has shown only a marginal increase during this period, from about 360 GW in 2003 to 371 GW now.

- 3) It accounts for less than 10 % of global commercial electricity generation. Its share has been declining for almost three decades now.

What is the significance of nuclear energy in meeting the twin objective of energy security and decarbonization?

- 1) **Reduced carbon emission-**It is a clean source of energy with a minimal carbon footprint. As per IAEA, (International Atomic Energy Agency) even when the entire life cycle is considered such as reactor construction, uranium mining and enrichment, waste disposal and storage etc, greenhouse gas emissions are only in the range of 5 to 6 grams per kilowatt hour.

This is more than 100 times lower than coal-



fired electricity, and about half the average of solar and wind generation.

2) **Incessant Supply**-It provides continuous power, unlike wind or solar which are seasonal or time-dependent.

3) **Endorsed by IPCC & others**- Adoption of nuclear energy is recommended by IPCC(Intergovernmental Panel on Climate Change) for decarbonization. As IAEA, it is already contributing to reducing greenhouse gas emissions. Nuclear power generation results in avoiding emissions of more than 1 billion tonnes of CO2 equivalent every year.

What are the reasons for low installation of nuclear energy in the world?

1) **Safety concerns**- This is one of the main reasons behind the poor uptake of nuclear energy in recent years. For ex- Fukushima accident in 2011 and the continuing crisis at the Zaporizhzhya nuclear power plant in Ukraine.

2) **High cost**- Nuclear reactors require high investments and a technology base.They take years to build and must operate under a variety of regulations and constraints which makes them unattractive for many small and developing countries.

3) **Lack of research**-There has been lack of research to bring down the cost of nuclear energy like solar and wind in the last decade. As a result, rapid adoption of nuclear energy could not occur.

Read more- [India's Nuclear Energy Program](#)

What are the steps taken to promote nuclear energy in the world?

1) Initiatives by IAEA-

a) It has also organized the first-of-its-kind Nuclear Energy Summit in Brussels recently.

b) It has launched an '**Atoms4Climate**' initiative to highlight the potential of nuclear power to accelerate the clean energy transition.

c) It has set up a pavilion for the first time at COP27 in Sharm el-Sheikh.

2) **COP Outreach**-Outcome from COP 28 formally acknowledged that nuclear energy is one of the zero, or low-emission technologies that should be promoted to achieve rapid decarbonization. This was the first time that nuclear energy was mentioned in any COP outcome.

There is this misperception that renewables will solve everything in the short run. However, in the long run, as the demand for clean energy increases, there will be requirement of nuclear energy in a big way.

Challenges faced by local solar panel manufacturers: Solar manufacturing challenge

News: This article discusses how subsidies and import restrictions aimed at boosting local solar panel manufacturing may not be effective due to lower costs of imported panels and the commoditized nature of the product.

For details information on **Solar Energy in India** read [Article 1](#), [Article 2](#)

What challenges are faced by local solar panel manufacturers?

Competition from Low-Cost Imports: Local manufacturers struggle to compete with cheaper solar panels imported from Southeast Asia. These imports are often more affordable even with tariffs applied. For instance, best-in-class modules from Southeast Asia are becoming "irresistibly cheap" for US developers.

Standardized Product Issue: The solar industry produces highly standardized products. This makes it challenging for local manufacturers to offer something unique or superior. As Pol Lezcano of Bloomberg NEF notes, the solar industry's commoditized nature limits the competitive advantage of local production.

Global Manufacturer Dominance: The sheer scale of production by global leaders like China's JinkoSolar overshadows local manufacturing. JinkoSolar alone shipped over 78 gigawatts in 2023, with plans to increase to 100-110 gigawatts in 2024, surpassing demand in major markets outside China.

Economic Shifts: Companies like Meyer Burger are moving operations from Europe to the US due to deteriorating business climates, demonstrating the challenging environment for local solar panel production in certain regions.

What efforts are being made to boost local solar panel manufacturing?

Subsidies and Incentives: The article highlights that countries like the US and Europe are offering subsidies to encourage local solar panel manufacturing. These include financial incentives to make local production more viable against cheaper imports.

Import Disincentives: Alongside subsidies, there are disincentives for importing solar panels. This approach includes imposing tariffs on imported solar products to make locally manufactured panels more competitive.

Strategic Company Movements: An example is provided with Meyer Burger, a Swiss solar panel maker. Facing a challenging business environment in Europe, the company is refocusing on manufacturing in the US, influenced by the local manufacturing push there.

What is the status of methane control efforts?

Methane emissions, mainly from the energy sector and agriculture, are a significant concern. Global efforts are underway to monitor and reduce these emissions. For instance, over 50 oil and gas companies have committed to reducing their methane emissions by the end of the decade. Tools like the MethaneSAT satellite and initiatives like the International Methane Emissions Observatory are helping in tracking and managing methane emissions effectively.

Green Hydrogen: Why green hydrogen presents both major opportunities, significant challenges

News: The article discusses India's efforts to use green hydrogen, a cleaner fuel, for transportation. It talks about government funding for pilot projects, development by vehicle manufacturers, and challenges like cost, infrastructure, and technology for hydrogen fuel compared to traditional and electric vehicles.

For details information on green hydrogen read [Article 1](#), [Article 2](#), [Article 3](#)

What is the New Scheme by the Ministry of New and Renewable Energy (MNRE)?

MNRE's New Scheme: The Ministry of New and Renewable Energy (MNRE) in India has announced a key scheme with several components:

Funding Allocation: Rs 496 crore allocated, extending until 2025-26.

Pilot Project Support: Focus on pilot projects to test green hydrogen as a vehicle fuel.

Infrastructure Focus: Development of hydrogen refuelling stations.

Role of the Ministry of Road Transport & Highways: Collaboration in selecting and executing projects.

Project Execution Agency: The selected company or consortium will act as the executing agency.

Viability Gap Funding (VGF): MNRE, based on the Project Appraisal Committee's recommendation, will approve VGF for each project, considering their specific needs, merits, and feasibility.

Timeframe: The executive agency must complete the pilot project within two years.

How is Green Hydrogen Produced?

Green hydrogen is produced using a process called electrolysis, where water is split into hydrogen and oxygen. This process is powered by renewable energy sources, making it environmentally friendly and virtually emission-free.

Unlike grey hydrogen, which is created from natural gas and emits a lot of carbon, green hydrogen uses water as its feedstock and doesn't release any carbon upon consumption.

This method positions green hydrogen as an end-to-end sustainable energy solution.

What are the benefits of green Hydrogen Fuel?

Emission Reduction: Green hydrogen, being virtually emission-free in production and usage, significantly reduces greenhouse gases.

Environmental Impact: It aids in combating global warming and climate change by offering a cleaner alternative to fossil fuels.

Energy Independence: India could reduce its dependence on costly fossil fuel imports, contributing to energy security.

Economic Opportunity: There's potential for India to become a global hub in the production and export of green hydrogen, fostering new business opportunities.

Sustainable Transportation: It's a promising solution for the transportation sector, particularly for heavy-duty vehicles like trucks and buses, where it can replace diesel, reducing pollution.

Technological Advancement: Green hydrogen production advances renewable energy technologies and supports the shift towards sustainable energy practices.

What challenges does Green Hydrogen face?

Cost Challenges:

High production costs make green hydrogen currently more expensive than other fuels. Storage demands stronger carbon fibre for high-pressure cylinders, adding to the expense. Developing infrastructure like refueling stations incurs significant costs.

Technical and Supply Issues:

Storing and transporting hydrogen is complex due to high pressure requirements. Supply complications, as observed with Shell's hydrogen refueling stations in California.

Safety and Standards:

Hydrogen's flammability necessitates stringent safety protocols and handling standards.

Competition and Market Readiness:

Electric vehicles (EVs), particularly with advancements in battery technology, pose a competitive challenge. Green hydrogen-powered vehicles are yet to gain widespread acceptance as an alternative to battery electric vehicles (BEVs) for personal transportation.

What are Hydrogen Fuel Cell Vehicles?

Hydrogen fuel cell vehicles (FCEVs) use hydrogen to generate electricity through a fuel cell, powering the vehicle. They store hydrogen in high-pressure tanks and convert it into electricity, with water being the only byproduct.

These vehicles are **lighter than battery electric vehicles (BEVs)** because hydrogen is a light element and fuel cell stacks weigh less than EV batteries. FCEVs are seen as a viable option, especially for heavy-duty trucks, due to their **increased payload capacity**.

Subject: Science & Technology

Topic- -Awareness in the fields of IT, Computers, robotics, nanotechnology, issues relating to intellectual property rights

Lawsuit filed by The New York Times against OpenAI and Microsoft: Copyright VS Ai

News: This article discusses a lawsuit filed by The New York Times against OpenAI and Microsoft. The NYT claims these companies used its copyrighted content without permission to train their AI models, which then created similar content, potentially infringing on NYT's copyrights.

For details information on generative artificial intelligence read [Article 1](#), [Article 2](#), [Article 3](#)

How does the NYT argue its case?

Claims of Content Usage: The NYT claims OpenAI and Microsoft used its content, like articles and opinion pieces, to train their AI without permission.

AI Generating Similar Outputs: They argue this AI can generate outputs like NYT's style, sometimes using verbatim text.

Competition and Financial Impact: The lawsuit suggests this capability competes directly with the NYT, potentially taking away readers and revenue. The newspaper mentions financial losses but doesn't specify an amount, seeking an injunction instead.

Targeted and Extensive Use of NYT Content: The NYT emphasizes that their content was specifically targeted and extensively used in AI training.

Argument Against Fair Use: The NYT contests the idea that this usage constitutes fair use, arguing that it's not transformative and directly competes with their original works.

What is OpenAI and Microsoft's Defense?

OpenAI's Defense Against Hacking Claims: The article mentions OpenAI's response, stating that "the Times paid someone to hack OpenAI's products" to generate specific results for their complaint.

Allegation of Manipulating AI Results: OpenAI asserts that it took the NYT "tens of thousands of attempts" and exploiting a bug through "deceptive prompts" to elicit verbatim passages of NYT articles.

Comparison to VCR Legal Battle: Microsoft draws a parallel to the historical lawsuit involving VCRs, where the entertainment industry initially opposed them, fearing copyright infringement. This comparison is made to highlight how new technology, despite initial resistance, can ultimately benefit an industry. **Technological Innovation and Consumer Choice:** Microsoft emphasizes the importance of supporting technological advancements and consumer choice, suggesting that restricting AI development could hinder progress in these areas.

Way forward -Moving forward, the resolution of this lawsuit could set a precedent for how AI technology uses copyrighted material. Collaborative approaches, like those between Axel Springer and OpenAI, might offer a model for balancing innovation with copyright protection.

Subject: Environment

Topic - Conservation, Environmental Pollution and Degradation, Environmental Impact Assessment.

Climate engineering - Potential & Concerns

Context- African countries have called for a moratorium on climate engineering at the recently held United Nations Environment Assembly in March 2024. Further, nations like United States have highlighted the need for scientific group to undertake studies regarding potential risks and benefits of Climate engineering.

What is the negative impact of climate change?

- 1) Heat records are routinely broken.
- 2) Wildfire seasons have become more extreme.
- 3) There has been an increase in the strength of Hurricane.
- 4) Due to rise in sea level, small islands national and coastal areas are submerging.
- 5) Climate change can pose a threat to food and energy security. This may lead to climate-induced migration and can threaten the security of any nation.

What is climate engineering?

Description-It is a set of proposed actions to deliberately change the climate. It is also called geoengineering, sunlight reduction methods or solar climate intervention.

Strategy-

- 1) It will mimic the cooling effects of large volcanic eruptions by placing large amounts of reflective particles in the atmosphere.
- 2) It will make low clouds over the ocean brighter. This would reflect a small amount of sunlight back to space to cool the planet.

What can be the potential advantages of climate engineering?

- 1) **Preventing temperature rise-**Activities like fossil fuel use and industrialization are currently emitting 37 billion tons of carbon dioxide into the atmosphere annually. However, existing carbon dioxide removal projects that includes growing trees and direct air capture devices remove only 2 billion tons of carbon dioxide. Thus, it may take a long time to achieve the target of Net Zero emissions. Climate engineering may help in the interim.

2) **Climate Modification** - It can allow countries with increasingly dangerous heat waves to cause deliberate cooling. For ex- Australia is currently exploring the feasibility of rapidly cooling the Great Barrier Reef to prevent its demise.

What are the concerns associated with climate engineering?

- 1) **Regional conflicts**-The climate doesn't respect national borders. So, a climate engineering project in one country may affect temperature and rainfall in neighboring countries. The countries may blame climate engineering for extreme events such as hurricanes, floods and droughts without any scientific evidence.
- 2) **Endanger interest of poor countries**- Climate change can leave the poorest regions most vulnerable to harm, and climate engineering should not accentuate that harm. Poorer countries may get negatively impacted by climate engineering solutions of rich countries.
- 3) **High Cost** - Building a fleet of airplanes to carry megatons of reflective particles into the stratosphere each year is a very costly process. It will be difficult to get funding for this scientific project.
- 4) **Limitation of climate models** - Current information about climate engineering relies heavily on climate models. However, they cannot address questions of geopolitics and conflict.

Climate engineering may provide solutions to the challenges posed by climate change. Nevertheless, there is a need for more research that may help policy makers to make informed decisions.

Subject: Internal Security

Topic- Challenges to Internal Security through Communication Networks, Role of Media and Social Networking Sites in Internal Security Challenges, Basics of Cyber Security; Money-Laundering and its prevention.

Inclusion of less serious offences under PMLA

Context-The article highlights the problems of inclusion of certain offences under PMLA (Prevention of Money Laundering Act) which are not directly aimed at combating money laundering.

What is the historical background of enactment of PMLA?

- 1) **United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances**- This convention urged all countries to take urgent steps to prevent the laundering of the proceeds of drug crimes and other connected activities.
- 2) **Establishment of FATF**- After this convention, 7 major industrial nations held a summit in Paris (July 1989) and established the Financial Action Task Force (FATF) to examine the problem of money laundering and recommend measures to tackle this menace.
- 3) **Political Declaration and Global Programme of Action** -This resolution urged all member-countries to enact suitable pieces of legislation to effectively prevent the laundering of drug money.
- 4) **Countering World Drug Problem Together** -Since drug trafficking is a trans-border operation, the UN held a special session on June 1998 on the theme 'Countering World Drug Problem Together and made another declaration on the urgent need to combat money laundering. Accordingly, the Indian Parliament enacted the Prevention of Money Laundering Act in 2002.

Why is historical background important?

It is important to emphasize the original objective and the circumstances under which the law was enacted. The UN resolutions, and the FATF recommendations are all focused on the prevention of money from the laundering of drugs.

What are the issues with inclusion of less serious offences under PMLA?

1) **Diluting the original intent of law**- The UN resolution has only focused on the offence of the laundering of drug money, which has the potential to destabilize the economy and endanger the sovereignty of the nation. However, inclusion of other less serious offences in the schedule dilutes the original intent of law. For ex-the Prevention of Corruption Act, 1988, was added to the schedule of offences in 2009. As a result of this, a public servant charged with corruption and a hard-core drug trafficker are treated alike.

2) **Violation of the provisions of Article 253**- Article 253 empowers the Parliament to enact laws for implementing the international conventions. Any law enacted under this article cannot go beyond the subject matter of the law, which in this case, is money laundering. Further, Item 13 in the Union list of the Seventh Schedule of the Constitution is also specific about this point. Thus, inclusion of other offences under PMLA is violation of provisions of the constitution.

3) **Breach of fundamental principle of Anglo-Saxon jurisprudence**- As per this principle, a person is presumed innocent until proven guilty. However, under PMLA, a person is presumed to be guilty until proven innocent. So, inclusion of less serious offences under PMLA may create a situation where the accused is languishing in jail without trial because the person would be presumed to be guilty until proven innocent.

4) **Violation of article 14 & 21**-The bail provision of the PMLA Act (Section 45) was held unconstitutional by the Supreme Court in Nikesh Tarachand Shah vs Union of India (2018) as violation of Article 14 and Article 21. However, Parliament restored this provision with certain amendments which was upheld by the Supreme Court in Vijay Madanlal Choudhary vs Union of India (2022). There is no problem in ensuring tough bail provisions for serious crimes like money laundering but inclusion of less serious offences under the act infringes upon fundamental rights of accused to get bail.

Read more-[Money Laundering- Explained, pointwise](#)

Problems with App and App based businesses

Context- There is an increase in the number of Anti-trust cases across the globe against organizations such as Google for abusing their dominant position. Google has lost its Play Store case against the Competition Commission of India, which ruled that Google is abusing its dominant position and fined it ₹1,337 crore. The article highlights that the apps are not the right way to access Internet services.

How has the evolution of the internet been?

1) **Easy access**- In the beginning, the Internet was designed in such a way that anyone could connect to the Internet and start providing or consuming a service. In the entire design of the network layer, there were no gatekeepers except for very basic functionality such as allocation of Internet Protocol addresses and root servers for resolving top-level domains like .com, .org, and .net.

2) **Expansion of services**-Due to easy access, the Internet grew rapidly in the 1990s and 2000s. There was the introduction of many services such as emails, websites which enabled the sharing of information and gave rise to e-commerce.

3) **User friendly**- A web browser was needed to access the website. This was made simpler by standardization of protocols and languages. In the beginning, Yahoo provided a directory of websites under various categories. However, with the increase in the number of websites, Google came up to quickly provide a list of web pages that matched users search queries.

Read more- [Issue of delisting of India Companies from Googles play store](#)

How has the introduction of mobile phones facilitated the development of App business?

After the introduction of mobile phones, everyone wanted to port their websites so that these sites could be easily viewed on small hand-held devices.

Mobile manufacturing companies like apple urged third-party developers to build web applications (apps) that could run on its Safari browsers.

What are the problems with Apps?

1) **Security challenge**- Apps can exploit **local privilege escalation vulnerabilities** and get control over the devices because they have direct access to machines. App stores may contain apps with malware, commit financial frauds, or even steal private information. Therefore, running untrusted software natively is a big security challenge.

2) **Mandatory sharing of personal details**-Businesses promises immersive experience and push their users to install their apps rather than providing their services through the standardized browser. However, to get such an experience, users needed to give control over their SMSs, photos, videos, and location. The users cannot block advertisements.

3) **Conflict between App stores and businesses**-App stores are imposing an app tax in the range of 15 to 30%. This is strongly resisted by businesses as they do not want to share revenue with the app store. Despite being fined by Competition Commission of India; Google has brought back rehashed version of the **app tax** calling it User Choice Billing and started removing apps of certain businesses from the Play Store.

The immersive experience of apps is neither beneficial for users nor for businesses. In the end, it will be beneficial only for **Apple and Google** who control the **app stores**.

Subject: Disaster Management

Topic- -Disaster and disaster management.

Factors continuing the water crisis in South India: Compounding crises

News: The article discusses the severe water shortage in South India, mentioning that the reservoirs are low on water and the situation could worsen.

What is the current water situation in South India?

South India's reservoirs are at 23% capacity, significantly lower than the 10-year average.

The water situation is deteriorating, with this year's levels 9% below the rolling decadal average.

Previous similar water crisis occurred in 2017.

The year 2023 was the warmest on record, exacerbating water scarcity.

What are the factors continuing the water crisis in South India?

Monsoon Influence: Erratic monsoon patterns, partly due to one of the strongest El Niño events on record, contribute to the water scarcity.

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Climate Change: 2023 was recorded as the warmest year, with predictions of 2024 being even hotter, impacting water availability.

Election Impact: The general election means increased outdoor activity, potentially raising water usage.

Past Lessons Ignored: Despite previous crises, there's a noticeable lack of effective policy implementation and preparation.

Other Contributing Factors: Issues like unplanned urbanization, excessive groundwater extraction, and low water reuse efficiency worsen the situation.

How does climate change intensify this crisis?

Climate change increases the likelihood of simultaneous crises, such as droughts coinciding with disease outbreaks.

These intensified conditions disproportionately affect low- and middle-income countries like India. The situation worsens socio-economic conditions, especially among marginalized groups, who are most vulnerable to these climate-induced crises.