

9 PM Current Affairs Monthly Compilation

For UPSC CSE mains examination



March
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- Salient features of Indian Society, Diversity of India

Challenges faced by women in reverting to maiden name after divorce - What's in a surname?

News: Recently a woman has filed a petition to the Delhi High Court. The petition is against the process of reverting to woman's maiden name (or removal of husband's surname) after divorce.

What is government guidelines for reverting to maiden name after divorce?

As per the government notification, women need to provide divorce papers or a no-objection certificate (NOC) from husband to revert to her maiden name, after divorce.

The process depicts gender bias. It also highlights legal and societal challenges women face in asserting their identity.

What are the issues in present process of reverting to maiden name after divorce?

Violates fundamental rights: The process violates fundamental rights under Articles 14 (Right to Equality), 19 (Right to Freedom), and 21 (Right to Life and Personal Liberty) of the Indian Constitution.

Gender disparity: The case sheds light on the broader issue of gender disparities in India, where women are often marginalized and their roles and capabilities circumscribed by patriarchal norms.

Legal disparity: A Woman, who decides, not to use her husband's surname, face several legal challenges. For example, in opening a joint bank account, or during a child's admission in school, or applying for a passport.

What should be done?

The **United Nations identifies gender equality and the empowerment of women and girls** as the most significant human rights challenge globally.

Women participation in India's justice system

News: The article discusses the low number of women in India's justice system, including police, judiciary, and prisons. It highlights the gender gap, lack of women in high positions, and institutional biases against women, emphasizing the need for more gender diversity.

What is the current state of women in India's justice system?

Low Female Representation: The India Justice Report indicates only about 300,000 women in the justice delivery system, highlighting a wide gender gap.

Judiciary Disparity: Women hold 35% of subordinate judiciary roles, drop to 13% in high courts, and there are only three women judges in the Supreme Court.

Lack of Leadership Roles: No woman has ever been the Chief Justice of India, and only 16 women have served as chief justices in high courts in over 70 years.

Human Rights Commissions' Gender Gap: As of 2022, only six commissions had female members or

secretaries, with no women chairpersons.

Policing and Prison Administration: Women constitute about 12% of police personnel and 14% in prison administration, mainly in lower ranks.

Why is it important to reduce the gender gap in India?

1. The absence of a female Chief Justice of India and few women in high court chief justice's positions limits women's influence in judiciary leadership.
2. The minimal presence of women in human rights commissions could lead to insufficient attention to gender-specific issues.
3. With low representation in police and prison administration, there's a risk of gender biases affecting law enforcement and prison management.
4. The overall low representation of women implies an institutional bias, potentially impacting justice delivery and equality within the system.

What should be done?

Promote Women to Leadership Roles: Encourage more women to take up roles like Chief Justice of India and high court chief justices, going beyond the current limited history of 16 women chief justices in over 70 years.

Address Systemic Biases: Tackle institutional biases that hinder women's advancement, learning from the exceptions of successful women like Justice Ruma Pal and Kiran Bedi.

Empower Women in Policing and Prisons: Increase the percentage of women in police and prison administration beyond the current 12% and 14%, respectively, to ensure a balanced and inclusive approach in these sectors.

Implement Supportive Policies: Develop and enforce policies that support gender equality and address the specific needs and challenges faced by women in the justice system

Financial literacy for women in India- Financial literacy is key: Beti bachao, Vitt sikhao

News: The article discusses the importance of financial literacy for women in India. It highlights progress in women's education and survival rates since 1947, but stresses the need for women to learn about finance. It suggests financial knowledge is crucial for true empowerment and mentions government initiatives supporting this goal.

What is the current status of women's empowerment in India?

1. Since 1947, there's been significant progress in reducing female infant mortality and increasing women's literacy. Female infant mortality dropped from 213 to 31 deaths per 1,000 live births between 1972 and 2021.
2. Female literacy rose from 54.2% in 2001 to 65.5% in 2011.

Why is financial literacy important for women?

Essential for True Empowerment: Financial literacy is viewed as a crucial step beyond basic education for women's empowerment, enabling them to make informed financial decisions.

Gap in Financial Knowledge: Women lag behind men in both financial knowledge and access to financial products, highlighting the need for focused financial education.

How can financial empowerment be achieved?

Women-Specific Banking Services: Initiatives like women-only bank branches introduced by nationalized banks can create a more accessible financial environment for women.

Leveraging Digitalization: The digitization of the economy allows women to access financial products from home, promoting convenience and wider reach.

Government-led Programs: The Jan Dhan Yojana, which makes direct cash transfers to women's bank accounts, helps in enhancing financial inclusion among women.

Supporting Women Entrepreneurs: Platforms like the Open Network for Digital Commerce help women entrepreneurs market their products online, boosting their financial independence and skills.

Self-Help Groups: Models like Kerala's Kudumbashree demonstrate the effectiveness of self-help groups in empowering women financially.

Way forward

The way forward involves integrating financial education into existing programs like 'Beti bachao, Beti padhao'. This will ensure women not only receive education but also learn vital financial management skills, crucial for their complete empowerment and equal participation in India's development

Gender equality important in energy development

News: This article discusses how gender equality and women's involvement are crucial for sustainable energy development.

Why is gender equality important in energy development?

Crucial Role in Household Energy Management: Women primarily manage household energy for cooking, heating, and lighting, showing their integral role in energy consumption.

Impact of Energy Inequality on Health: Limited access to clean energy forces women to use harmful alternatives like biomass, leading to significant health risks and deaths.

Economic and Environmental Benefits: Gender equality in the energy sector can drive economic growth and environmental sustainability.

Innovative Solutions and Productivity: Increasing women's participation in energy can lead to more innovative approaches, improved productivity, and enhanced social outcomes.

Global Impact: Closing the gender gap could boost global GDP by trillions of dollars, showing the vast potential of women's empowerment in energy.

What are the challenges in achieving gender equality in the energy sector?

Limited Energy Infrastructure Access: Women often receive energy access last, impacting their ability to manage household energy needs efficiently.

Reliance on Harmful Energy Sources: Due to inadequate access to modern energy, women resort to using traditional sources like biomass and kerosene. This leads to significant health risks, with household air pollution causing 3.2 million premature deaths annually, 60% of whom are women and children.

Low Representation in the Energy Sector: The energy sector is not gender diverse. Only 32% of employees in renewable energy and 22% overall are women, compared to 48% in the global workforce. In India, only 10% of technical energy jobs are held by women.

Educational and Skill Disparities: Women face barriers in accessing education and training needed for technical roles in energy, further widening the gender gap.

What should be done?

Change Perceptions: Alter societal views on women's roles in the energy sector to recognize their potential as key contributors.

Mainstream Gender in Energy Policies: Integrate gender considerations at sub-national, national, and international policy levels to ensure women's needs and contributions are addressed.

Support Women-led Initiatives: Back programs like the Women at the Forefront and the Energy Transitions Innovation Challenge (ENTICE), which encourage women's entrepreneurship in sustainable energy.

Promote Educational and Skill Development: Facilitate women's access to education and training, especially in technical fields within the energy sector.

Implement Distributed Renewable Energy (DRE) Projects: Utilize DRE to provide quick, affordable energy access, reducing women's workload and enhancing productivity, as seen in initiatives like Solar Mamas in India.

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

Shift in India's urban development- A new sense of urbanisation that is dominating

Context: This article discusses the shift in India's urban development, focusing more on religious cities like Ayodhya, contrasting with past emphasis on industry and modernism.

How are colonial and new cities different?

1. Colonial cities like Mumbai and Kolkata were **designed primarily for economic purposes, centered around trade, taxation, and the transport of goods.** They facilitated rural to urban migration, supporting the nation's industrial growth.

2. In contrast, **new cities** such as Ayodhya are being developed with a strong **focus on religious significance.** Ayodhya, for instance, is receiving a massive investment of ₹85,000 crore for infrastructure, underlining this shift in urban development philosophy.

What is the trend in current urbanization?

1. The current trend in **urbanization is blending traditional workplaces with religious significance.** Cities like Ayodhya are being developed not just as economic hubs but also as centers of pilgrimage and faith.

2. This trend is **attracting corporate investments in infrastructure.** Ayodhya, for example, is witnessing heavy investment, indicating a significant shift from the traditional, industry-focused urban development.

3. Unlike the past emphasis on modernism and industry, **the focus now is on developing cities aligned with religious importance,** marking a distinct shift in India's urbanization approach.

What is the concern with the current trend?

Centralization of Finances: The trend shows a centralization of financial resources towards religious projects. This can lead to imbalanced economic development focused more on religious cities.

Diversion from Social Infrastructure Investment: The significant spending on religious projects, like ₹85,000 crore in Ayodhya, raises questions about the prioritization of funds. It is potentially diverting

resources from much-needed social infrastructure such as education and healthcare. **Shift Away from Democratic Governance:** The trend may indicate a move away from secular, democratic governance towards a religiously influenced urban development strategy.

What should be the role of the state in urbanization?

Focus on Social Good: The state should prioritize urban development that serves social good over religious purposes. This includes enhancing infrastructure for education, health, and social services.

Promoting Inclusive Urban Development: Urban planning should cater to diverse needs, ensuring inclusivity and democratic values in city development, as opposed to focusing primarily on religious significance.

Adhering to World Bank Recommendations: The World Bank has estimated that India requires an investment of \$840 billion in urban infrastructure over the next 15 years. This suggests that the state should prioritize these broader developmental needs.

Bengaluru water crisis

News- Bengaluru is recently witnessing one of the worst water crises.

What is the reason behind such a water crisis in Bengaluru?

- 1) **Unplanned urbanization-** There has been haphazard and unplanned urbanization in Bengaluru. There are problems of contamination of groundwater resources by the discharge of industrial chemicals, sewers and improper mining activities
- 2) **Inadequate monsoon-** Bengaluru faced sub-par monsoon in 2023 and received little rain since November. Half the city depends on groundwater, but many borewells have run dry. This has created acute water stress.
- 3) **Concretization and reduced green cover-** High pace of concretization has reduced porous surface area and restricted rainwater from entering the lower layers of the grounds, because of which the groundwater table cannot be recharged.
For ex- in the 1970s, Bengaluru had 68% green cover, and 8% of the surface was paved. Now, 86% of the surface is concretized and the green cover has shrunk to 3%
4. **Encroachment of Natural Water Bodies-** Bengaluru is on a ridge, with a series of valleys acting as water conduits to rivers like Cauvery. Lakes were built across these valleys and floodwater flowed through them. Due to encroachment of valleys, the flow of rainwater was impeded which caused flooding and stagnation in these areas.
- 5) **Over-exploitation of ground water-** With limited supply of fresh water piped from Cauvery, the city's groundwater table has been over-exploited.
- 6) **Lack of effective water governance-** There is unregulated extraction, pumping and usage of water without any special protocol or judicious distribution. As a result, it reached a tipping point, when borewells ran out of water.
- 7) **Lack of sensitivity in citizens-** Since water is a free resource, it is not valued by the citizens. Citizens are completely detached from the water issues.

Read more- [Water Crisis in India](#)

What are the steps taken by the government to address the water crisis in Bengaluru?

- 1) **Imposition of fines-** The Bengaluru Water Supply and Sewerage Board (BWSSB) has introduced fines, beginning at ₹5,000, for non-essential use of potable water such as gardening and car washing.
- 2) **Regulating price of water tankers-** The Karnataka government has capped water tanker prices based on distance travelled to avoid customers being overcharged. The government has also made it mandatory for the private water tankers in the city to register with the civic body.

What should be the way ahead?

- 1) **Creation of Waste water market-** A private marketplace to buy and sell treated waste water needs to be encouraged. A housing society, with a sewage treatment plant (STP) that treats water, can sell excess water to external parties. Treated water can be sold to agencies like BWSSB, other housing societies without STPs, or the civic body.
- 2) **Water Literacy-** There should be sensitization of citizens about the source of water, where it goes after usage, how much citizens consume, the cost of production, and the price we pay. This may ensure judicious use of water resources.

India's urban water crisis-From Bengaluru to Chennai and beyond

Context- Bengaluru is experiencing its worst water crisis in decades. The weak monsoon last year has compounded an already difficult situation. Along with Bengaluru, several other Indian cities are under similar stress.

As per the Pey Jal Survekshan, only 10 % of Indian cities meet drinking water standards. This indicates that water supply is not considered during urban planning.

What are the reasons for deterioration of water quality in the distribution network?

- 1) Compounds from old pipes may get released into the water.
- 2) There is buildup of sediment and the accumulation of pathogens.
- 3) Due to sewer lines close to leaky pipes in many Indian cities, there is deterioration of water quality.

Read more- [Bengaluru water crisis](#)

What are the problems with the water distribution network in Indian cities?

- 1) **Faulty piped water supply approach-** As per the standards of the Central Public Health and Environmental Engineering Organization, Indian cities have a daily per capita water requirement of 135 liters. Under the current piped water supply approach, all this water is treated to meet drinking water quality standards. However, a person requires only a fraction of this amount for drinking and cooking purposes. So, this practice of treating large quantities of water to drinking water quality standards and distributing is not beneficial.
- 2) **Capital intensive-** The distribution network of water supply is quite costly. Further, there are regular expenses on repair and maintenance.

What steps can be taken to address this issue?

- 1) **Reforming piped water supply approach** - There is a need to segregate water for drinking purposes and other domestic uses. This will ensure that only a small amount of wastewater is treated for drinking water quality standards.
- 2) **Packaged drinking water (PDW) model-** It relies on decentralized treatment of water and non-pipe mode of delivery. According to a recent study, 38 % of households in Kolkata and 70 % of households in

Chennai routinely purchase water jars despite having access to piped water.

However, a large section of urban population cannot buy water sold by private players. Further, as per WHO, the reverse osmosis method used by industry to purify water deprives water of essential minerals. Thus, these problems should be addressed before its widespread implementation.

3) **Water ATMs**-It is a water dispensation system which can be automatic with a coin or smart card, or manually. The recent water crisis in Bengaluru has pushed the city's authorities to experiment with water ATMs.

There is a need for an alternative model of water supply to address the water quality issues. Steps such as Decentralized treatment and non-pipe mode of service delivery should be promoted by the government.

Young and the old – lancet report on fertility rate

Context- According to medical journal Lancet, India's TFR will fall to 1.29 in 2050. One in five persons in India will be above the age of 60 in 2050. This highlights that India's demographic dividend is not for perpetuity.

What is Total Fertility rate and Replacement level?

TFR- It is the average number of children that are born to a woman (15-49 years) over her lifetime.

Replacement level- It is the level of fertility at which a population exactly replaces itself from one generation to the next. A TFR of 2.1 is known as replacement rate.

What are the key highlights of the lancet study?

1) **Decline in TFR**- India's TFR has fallen to 1.29 well below the replacement rate of 2.1.

2) **Ageing factor**- One in five persons in India will be above the age of 60 in 2050. Further as per the UN Population Fund's (UNPF) India Ageing Report, the number of elderly in India will more than double from 149 million in 2022 to 347 million by mid-century.

3) **About China**- China's TFR had dropped to a record low and its working-age population had contracted by more than 40 million.

Read more- [various opportunities and challenges of demographic dividend in India](#)

What are the consequences of declining fertility rate?

1) **Increase in aged population**- By 2050, over 20% of India's population will be senior citizens, it poses challenges related to care, support, and health care.

2) **Shrinking Workforce**- A smaller working age population could lead to labour shortages and affect economic growth. For ex- working-age population of China had contracted by more than 40 million.

3) **Endanger Demographic Dividend**- Experiences of developed nations suggests that once fertility rates fall below the replacement rate, it's almost impossible to set them back.

India's TFR is 1.9 which is currently just below the replacement rate. Further, as per UNPF calculations, the share of the country's working-age population will peak in the late 2030s and early 40s. Thus, in the background of these population trends, it is important to reap India's full demographic dividend.

What should be the way forward?

1) **Skill Development**- There is an urgent need to overcome skill deficits and plug gaps in the knowledge economy.

2) **Diversifying employment pattern**- There should be creation of jobs outside of agriculture. Further, the

jobs must not be in the low-paid informal sector.

3) **Social security measures-** The government should ensure adequate social security and healthcare provisions for the growing elderly population. Along with this, the government should create opportunities for the elderly population to harness their skills effectively.

4) **Addressing regional imbalance-** TFR rate is not uniform across all Indian states. For ex- parts of south India and west India are greying faster than those in the north. Thus, the policymakers should acknowledge the demographic imbalance in all its dimensions and prepare for the change.

Topic-Salient features of World's Physical Geography

Rise of ocean temperatures: Oceans have a fever here's why

News: This article discusses how the ocean's surface temperature is rising to record levels, mainly due to human activities like burning fossil fuels.

What is the Current State of Ocean Temperatures?

In February 2024, the global sea surface temperature was 21.06°C, the highest since 1979. It surpassed the previous record of 20.98°C set in August 2023. Since March 2023, temperatures have been exceptionally high.

What are the factors contributing to the rise of ocean temperatures?

Human Activities: Since the 19th century, burning fossil fuels has released large amounts of greenhouse gases, significantly contributing to global warming.

Greenhouse Gas Absorption: About 90% of the extra heat trapped by greenhouse gases is absorbed by the oceans, steadily increasing their temperatures.

El Niño: This weather pattern, causing abnormal warming of waters in the equatorial Pacific Ocean, contributes to both ocean and global temperature rises.

Reduced Sahara Dust: Less dust blowing off the Sahara Desert means less shading over the Atlantic, leading to increased sunlight absorption and higher ocean temperatures.

What are the concerns related to the rise of ocean temperature?

Impact on Marine Ecosystems: Warmer oceans lead to increased stratification, disrupting the mixing of water layers. This affects marine life, especially the population of phytoplankton, crucial for marine food webs.

Coral bleaching: These have doubled in frequency between 1982 and 2016, causing intense coral bleaching, which harms coral reproduction and increases vulnerability to diseases.

Changes in Marine Behavior: Warming oceans alter the migration patterns of aquatic animals.

Intensification of Storms: Warmer oceans contribute to more frequent and severe storms. They increase evaporation rates and heat transfer, leading to stronger winds, heavier rainfall, and more flooding when storms reach land.

Historical Data Point: Record sea surface temperature of 21.06°C in February 2024, illustrating the ongoing warming trend.

GS Paper 2

Subject: Indian Polity

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

Court's decision on the GN Saibaba case- Justice delayed, empathy denied

News: This article discusses the release of Professor GN Saibaba from prison. The Bombay High Court (Nagpur bench) found his 10-year imprisonment illegal.

Background

G N Saibaba, a former Delhi University professor, and co-accused were arrested between 2013-2014 by Maharashtra's Gadchiroli police for alleged Maoist links.

In 2017, a special court convicted them: Saibaba and four others got life imprisonment; Vijay Tirki received 10 years.

The Bombay High Court in October 2022 acquitted them, citing invalid sanctions under the UAPA and procedural issues.

The Supreme Court suspended this verdict in October 2022, noting the need for detailed scrutiny.

In April 2023, the SC set aside the HC verdict and ordered a re-hearing.

On March 5, 2024, the Bombay HC reaffirmed the acquittal, pointing out prosecution failures and invalid UAPA sanctions.

What was the court's decision on the GN Saibaba case?

Illegal Detention: The Bombay High Court declared GN Saibaba's 10-year imprisonment illegal.

Rejecting Charges: Charges of aiding a banned organization to wage war against the government were dismissed.

Law and Evidence: The court based its decision on thorough scrutiny of law and evidence.

Free Speech Rights: The judgment affirmed that intellectual engagement with political ideas isn't criminal, upholding the right to free speech.

Misuse of UAPA: The court noted that downloading information or sympathizing with a philosophy doesn't warrant application of harsh laws like UAPA.

Critique of Vague Allegations: The court criticized the use of vague allegations for criminal conviction.

Focus on Human Rights: The decision highlights concern about human rights and justice in the judicial process.

What are the broader implications of the GN Saibaba case?

Highlighting Judicial System Flaws: The case underscores issues in India's judicial process, particularly in handling sensitive and high-profile cases.

Public Attention and Empathy: The case has garnered public interest, spotlighting the plight of vulnerable individuals in the criminal justice system. The situation stresses the importance of empathy and reason in judicial decisions.

Potential for Legal Reform: This case could prompt a reevaluation of legal processes, advocating for reforms that align with justice and constitutional rights.

Raising Awareness: It serves as a reminder of the importance of safeguarding freedoms and dignity within the legal framework.

Kovind panel on One Nation, One Election

News: The article discusses a proposal by the Kovind panel for holding all elections in India together. This requires changing the Constitution and some laws. It suggests not all changes need state approval, but some legal experts might challenge this idea.

For details information on **One Nation, One Election** [read here](#)

What are the proposals of the Kovind panel on One Nation, One Election?

Simultaneous Elections: Proposes holding Lok Sabha, state assemblies, and local body elections together.

Constitutional Amendments: Recommends 15 amendments to the Constitution, altering and adding to various provisions.

Legal Changes for Union Territories: Suggests amendments to three statutes governing Delhi, Jammu and Kashmir, and other Union Territories.

Presidential Notification: A Presidential notification would set an "appointed date" for these simultaneous elections.

State Ratification Not Always Necessary: For syncing Lok Sabha and Assembly elections, state ratification isn't required. However, for a common electoral roll and aligning local body elections with national polls, state approval is needed.

Constitutional Authority: According to the panel, the Constitution mainly entrusts Parliament, not states, with the power to conduct Assembly elections.

For For more information on **Govt panel to study simultaneous polls** [read here](#)

What are the challenges in implementing it?

1. Needs 15 constitutional amendments, which is a **complex and lengthy legislative process**.
2. Relies on a Presidential notification to set an election date, **adding a procedural challenge**.
3. **Certain amendments require approval from half of the states**, which might be difficult to achieve.
4. **Judicial Review Possibility:** Past examples, like the Kihoto Hollohan case, show that such significant legal changes can be subject to judicial scrutiny and potential overturning by courts.

Why are democracy and nationalism important for India: Nationalism and democracy

News: This article shows how democracy, originating in ancient Athens, and nationalism, emerging in 17th century Europe, have evolved over time. The article also highlights the challenges and importance of maintaining these principles in modern India,

How did democracy and nationalism develop over time?

Origin of Democracy: Democracy began in 6th century BCE Athens. Initially, it was limited, mainly to property owners, excluding women and slaves.

Evolution of Democracy: Over time, democracy evolved to become more inclusive, gradually expanding the right to vote to a wider section of the population.

Rise of Nationalism: Nationalism emerged in the 17th century, particularly after Europe's Thirty Years' War, influenced by the Peace of Westphalia. This introduced ideas like national sovereignty and defined territorial boundaries.

Nation Formation: Early nationalism often linked to ethnic identity, as seen in homogeneous nations like France and Germany. However, multiethnic empires like the Austrian-Hungarian and Ottoman existed alongside.

Post-War Nation-States: After World War I, many multiethnic empires dissolved, creating nation-states often based on ethnicity. Some, like the Soviet Union, included various ethnicities, leading to tensions.

Modern Plural States: Post-World War II, nations evolved into plural states with citizenship based on loyalty rather than ethnicity, culture, or religion.

For information on **Democracy** [read here](#)

For information on **Nationalism** [read here](#)

Why are democracy and nationalism important for India?

1. Democracy and nationalism are vital for India as they **unify a diverse population and give everyone a voice in governance**. With nearly a billion people voting in the upcoming 18th Lok Sabha elections, democracy allows citizens from various backgrounds to choose their leaders. This democratic process **strengthens national unity**.
2. Similarly, India's approach to nationalism, **embracing a multi-ethnic and pluralistic society** since independence in 1947, has **fostered a sense of belonging among its diverse population**.
3. Together, democracy and nationalism **promote stability and inclusivity in a nation** with over 1.4 billion people.
4. This combination is **crucial for India's ongoing transformation**, but it requires careful management and adherence to constitutional principles.

What are the challenges of maintaining democracy and nationalism in modern India?

Managing Diversity: India's immense diversity in religion, language, and culture presents a challenge in creating a unified national identity while respecting pluralism.

Ethnic and Cultural Tensions: The presence of multiple ethnicities and cultures, some resulting from historical multi-ethnic states, can lead to tensions and challenges in nation-building.

Constitutional Integrity: Upholding the constitution and its principles, especially in a vast and diverse democracy, requires constant vigilance and commitment.

Democratic Participation: Ensuring active and fair participation in the electoral process for India's vast population is a logistical and administrative challenge.

Balancing Nationalism with Inclusivity: Striking a balance between promoting nationalism and avoiding exclusion or marginalization of certain groups is crucial for social harmony and national unity.

Way forward

To move forward, India must continue strengthening its democratic processes and uphold the pluralistic nationalism enshrined in its Constitution.

Free Speech Check Unit - Government being judge, jury & executioner

News- The Supreme Court has recently stayed a government notification setting up a Fact Checking Unit (FCU).

Context- Government of India has notified the PIB's Fact-Check Unit (PIB-FCU) under the Ministry of Information and Broadcasting (MIB) as the fact check unit of the Central Government.

What is Fact-check unit?

Establishment- It was established under the Press Information Bureau in November 2019.

Objective- To act as a deterrence to creators and disseminators of fake news and misinformation.

What are the issues with setting up of fact-check Unit by the Government of India?

- 1) **Violative of freedom of speech and expression-** There are concerns that PIB's fact-check unit and its power to censor content may have a chilling effect on free speech and expression provided under Art 19(1)(a). Democratic politics is an open contestation of ideas and personalities.
- 2) **Suppressing dissent-** It is not required to provide written orders detailing its reasoning for taking certain actions. This provision can be used to suppress inconvenient journalism, dissent and disagreement.
- 3) **Violation of separation of power-** As it plays the role of judge, jury and executioner, it usurps the role of the courts in dealing with fake news. This is violative of the principle of separation of power.
- 4) **Ambiguity on definitions-** There is lack of a clear definition of what types of information qualify as 'fake or false or misleading'. This lack of clarity creates ambiguity and can lead to arbitrary censorship by the government.

Read more- [PIB's Fact-Check Unit](#)

Avoid pre-trial injunctions against the media in defamation cases: Timely restatement

News: The article discusses the Supreme Court's recent judgment advising courts to avoid pre-trial injunctions against the media in defamation cases. It emphasizes its potential negative impact on freedom of speech and the public's access to information.

Background

A lower court in Delhi and the Delhi High Court had told Bloomberg to remove an article about Zee Entertainment, saying it was defamatory. The Supreme Court disagreed with this and canceled their orders.

What is the Supreme Court's view on pre-trial injunctions against the media in defamation suits?

Supreme Court's Recent View: The Supreme Court says courts should be careful about blocking media reports before trials in defamation cases.

Bonnard vs Perryman Rule: This principle states that injunctions in defamation suits should only be granted if the content is undoubtedly defamatory and cannot be justified during the trial.

Standard for Granting Injunctions: The Court emphasized the three-fold test for granting injunctions: a **prima facie case**, the **balance of convenience**, and **preventing irreparable harm**. It stressed the need for careful analysis of facts in each case.

Early Judgment Risk: The Court cautioned that early injunctions in lengthy trials can be like a 'death sentence' for the content, preventing vital public information from being shared. This is especially worrying with **SLAPPs (Strategic Lawsuit Against Public Participation)**, as it can suppress criticism

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

On Immunity to lawmakers on Bribe for Vote - Deprivileging bribe

News: A seven-judge Constitution Bench of the Supreme Court (SC) changed an old decision, now allowing MPs and state legislators to be prosecuted for bribery related to their votes or speeches in Parliament.

What is the Supreme Court's view on lawmakers facing criminal charges for bribery?

Old View of the Supreme Court

The JMM Bribery case (1998): It set a precedent where lawmakers' actions within Parliament, like speeches and voting, were protected from legal scrutiny under parliamentary privilege.

Protection Under Article 105(2) and 194(2): These constitutional provisions were interpreted to grant immunity to lawmakers from any proceedings in court related to their parliamentary activities.

Recent View of the Supreme Court

2024 Ruling:

Ruling: recently, the SC overruled the earlier interpretation, stating that lawmakers can face criminal prosecution for bribery.

Necessity Test Application: The Court introduced the "necessity test," asserting that privileges like free speech are essential for a lawmaker's role, but accepting bribes is not.

Referring to the Prevention of Corruption Act: The Court highlighted that even accepting a bribe without a direct quid pro quo action still constitutes corruption.

Dual Jurisdiction: It was clarified that both the Court and Parliament have the jurisdiction to deal with lawmakers' misconduct, serving different purposes.

What are the constitutional provisions related to lawmakers facing criminal charges for bribery?

Article 105(2) and Article 194(2): These provisions in the Indian Constitution state that no member of Parliament or state Assembly shall be liable in court for anything said or any vote given in Parliament or its committees.

What are the impacts of the recent Supreme Court view on lawmakers facing criminal charges for bribery?

Increased Accountability: Lawmakers are now more accountable for bribery, regardless of their parliamentary actions.

Narrowed Privilege Scope: The Court's interpretation reduces the scope of constitutional protections under Articles 105(2) and 194(2), focusing on necessary privileges only.

Criminal Prosecution Possibility: MPs and state Assembly members can be criminally prosecuted for bribery, dismantling the immunity previously understood from parliamentary activities.

Upholding Integrity: The ruling aligns with the Prevention of Corruption Act, emphasizing integrity in public service and deterring corrupt practices.

How Anti-Defection Law is manipulated?

News: The article discusses the problems with India's 10th Schedule of the Constitution, highlighting how it fails to prevent political defections and manipulation. It suggests abolishing this Schedule and adopting simpler laws to address party-switching by politicians.

What is the 10th schedule?

The Tenth Schedule, added to the Indian Constitution in 1985, is an anti-defection law. It was introduced to address political instability caused by frequent defections of legislators during the 1960s and 70s.

For more information read [Article 1](#), [Article 2](#)

What are the judiciary views on 10th schedule?

Manipur Judgment: The Supreme Court set a three-month time limit for Speakers to decide disqualification petitions, emphasizing timely decisions.

Kihoto Hollohan Case: Established that the 10th Schedule is not an unreasonable restriction on free speech and that the Speaker's order is subject to judicial review.

Ravi Naik and Balasaheb Patil Cases: Defined 'voluntary giving up of membership' broadly, not limited to resignation but inferred from various forms of conduct. These include remaining incommunicado, failing to attend party meetings, or engaging in activities against the party's interest.

Vishwanathan Case: Ruled that an expelled member remains part of their old party unless joining a new one, avoiding immediate disqualification.

Shiv Sena Case: Mandated that the Election Commission should use the organizational test to determine a party's real representation, not just legislative majority.

How are Defections manipulated?

Pre-Defection Tactics: Potential defectors often write a no-confidence letter against the Speaker before defecting. They often invoke a loosely drafted paragraph in Nabam Rebia case as justification.

Speaker's Bias: The Speakers, typically from the ruling party, show bias. They delay or speed up disqualification decisions based on the defector's new affiliation, affecting opposition and ruling party defectors differently.

Election Commission and Party Symbols: Defectors may file a claim with the Election Commission (EC) to be recognized as the real party, seeking the party symbol. The EC often uses a legislative majority test, which benefits defectors.

Fast-Tracked EC Hearings: While the Speaker delays disqualification disputes, the EC hearings are fast-tracked under influence, further legitimizing defections.

Engineered Resignations: Opposition parties sometimes engineer resignations in the ruling party, promising lucrative positions to defectors in a new government.

What should be done?

Abolish the 10th Schedule: Replace it with a simpler law stating anyone changing party affiliation must resign and seek re-election.

Prohibit Minister ship Without Re-Election: Restrict defectors from holding ministerial positions unless re-elected, to discourage opportunistic defections for personal gain.

Eliminate Need for Speaker's Adjudication: Simplify the system to remove the Speaker's role in disqualification, addressing the issue of bias and partiality.

Select a Neutral Speaker: If a speaker is still required, establish a convention where all political parties

agree on a neutral Speaker before elections and do not contest in their constituency, ensuring impartiality and fairness.

Legal aspects related to disqualification- Slow and unsteady

News: The Tirukkoyilur Assembly (Tamil Nadu) constituency was not declared vacant immediately after the conviction of former Higher Education Minister K. Ponmudy in a disproportionate assets case. Despite the conviction, there was a delay in declaring the seat vacant.

Why has the delayed declaration of a vacant assembly seat in Tamil Nadu faced criticism?

Legal Mandate: Despite the Madras High Court's conviction, the seat remained occupied for an unexplained duration, raising concerns about timely legislative response to lawmaker disqualification.

Contrast with Other Cases: This delay contrasts with the prompt action taken in other cases, such as the Vilavancode constituency, where a legislator promptly vacated the seat after changing party affiliation.

What are the legal aspects related to disqualification?

Section 8(1) Disqualification:

Section 8(1) of the Representation of the People Act, 1951 lists offenses under laws like the Narcotic Drugs and Psychotropic Substances Act and Prevention of Corruption Act.

Criteria for Disqualification: Section 8(1) states that disqualification "shall be" immediate upon conviction, implying no delay in implementation.

For example: Despite K. Ponmudy's conviction, there was a delay in declaring the Tirukkoyilur Assembly seat vacant, raising questions about adherence to the legal mandate.

Section 8(3) Disqualification:

Section 8(3) of the Representation of the People Act, 1951 mandates disqualification for certain offenses, including criminal defamation. It applies to specific offenses and mandates disqualification for a certain period after conviction. For example: Member of Parliament Rahul Gandhi was disqualified under Section 8(3) after his conviction and two-year sentence in a criminal defamation case.

For more information [read here](#)

What are the broader implications of such delays?

It undermines public confidence in the legislative process.

Unequal treatment in responding to lawmaker disqualification cases can erode trust in the fairness of the system.

What should be done?

1. The legislature should take prompt action to declare vacant seats in cases of lawmaker disqualification, in line with legal mandates.
2. There should be cooperation between the judiciary and legislature to ensure effective combat against corruption.
3. All lawmakers should be treated equally in disqualification cases, without bias or delay.
4. Upholding democratic principles involves respecting dissent while combating corruption and ensuring fair

and timely responses to disqualification cases.

Topic- - Separation of Powers between various organs

Time to prohibit judges from joining politics

Context- Justice Abhijit Gangopadhyay has recently resigned as a judge of the Calcutta High Court and joined the political party.

What are the legal and constitutional provisions regarding judges who wish to join politics?

India does not have any legislation for regulating the judicial conduct of judges of constitutional courts. They are not legally barred from occupying executive posts.

What are the issues associated with judges joining politics?

- 1) **Breach of oath** - Third Schedule of the Constitution requires a judge-designate to swear that he will perform his duties without fear or favour, affection or ill-will. Joining political parties for electoral office raises questions over impartiality and propriety.
- 2) **Undermine judicial independence**-Judicial independence is of paramount importance for preserving the sanctity of constitution. Judges may give politically biased judgements in return for favours from political executives.
- 3) **Violation Of Bangalore Principles of Judicial Conduct (2002)**- The declaration enlists certain judicial values including independence, impartiality, integrity, propriety etc. It asks judges to ensure that their conduct “both in and out of (the) court maintains and enhances the confidence of the public and the legal profession in impartiality of the judges.
- 4) **Breach of public trust**- The Supreme Court in **C. Ravichandran Iyer v. Justice A.M. Bhattacharjee (1995)** held that, “To keep the stream of justice clean and pure, the Judge must be endowed with sterling character, impeccable integrity and upright behaviour”.

In All India Judges’ Association v. Union of India (1991), the court highlighted the significance of society’s expectation from judicial officers. All these lofty ideals are violated when judges compromise on their neutrality.

What should be the way forward?

- 1) The top court should expressly prohibit judges of constitutional courts from taking the political plunge even after their resignation
- 2) There should be a judge-made law on this issue since Parliament has no incentive to correct it.

Judges joining politics in India: The judge's code

News: The article discusses how former Judge Abhijit Gangopadhyay joined politics right after leaving his judicial position. It compares his move with similar actions by past judges.

What are the former incidents of judges joining politics in India?

9 PM Compilation Month of March 2024

CJI K Subba Rao: He resigned three months before retirement and became the opposition's presidential candidate. Known for supporting civil liberties.

Justice Baharul Islam: Initially a politician, he served in the Rajya Sabha, became a High Court Judge, and then a Supreme Court Justice. He resigned five weeks early and was nominated for the Lok Sabha but returned to the Rajya Sabha. His judicial decisions faced scrutiny when re-entering politics.

Justice K S Hegde: He transitioned from being a Rajya Sabha member to a Supreme Court Justice, then left to successfully contest a Lok Sabha seat and became the Speaker of the lower house.

What are the major concerns of judges joining politics in India?

Judicial Impartiality: Concerns arise about a judge's neutrality if they enter politics, as seen with Justice Baharul Islam, whose political return led to scrutiny of his judicial decisions.

Institutional Integrity: Judge Gangopadhyay's actions, like conflicts with fellow judges and controversial public statements, raised questions about maintaining the judiciary's integrity.

Preserving Judicial Independence: Gangopadhyay's transition to politics right after resigning from a high judicial office can be seen as compromising the judiciary's independence, a concern echoed in past instances.

What should be done?

Uphold Judicial Standards: Judges should adhere to standards like the **Bangalore Principles of Judicial Conduct**. This means avoiding political bias and preserving the dignity of their office, as exemplified by Justice K S Hegde, who maintained a gap between his judicial and political careers.

Implement Self-Restraint: As former Supreme Court Judge E S Venkataramiah noted, judges must exercise self-restraint and humility. This helps curb personal biases and maintain judicial integrity.

Topic- Issues and Challenges Pertaining to the Federal Structure

Central Transfers- Issue of shares of some States

Context- Sixteenth Finance Commission will have to deal with Southern States' complaints which claim they have been facing a decline in their share of the resources transferred from the Centre to the States.

Which Indian States have been gaining and which are losing their share over time?

Share of States/groups of States in tax devolution

Table 1: Share of States (%) in Commission-wise tax devolution for groups and selected States

Region	Overall				Overall	Distance criterion
	FC12	FC13	FC14	FC15 (final)	FC15 (final) minus FC12	
Northern of which:	32.666	33.031	30.285	30.897	-1.769	4.907
Bihar	11.028	10.917	9.665	10.058	-0.970	0.862
Uttar Pradesh	19.264	19.677	17.959	17.939	-1.325	2.509
Central	12.726	12.392	13.767	14.564	1.838	1.298
West of which:	14.434	14.359	14.478	16.207	1.773	2.822
Maharashtra	5.082	5.284	5.649	6.317	1.235	1.758
Gujarat	3.625	3.101	3.156	3.478	-0.147	-0.089
Southern of which:	19.785	18.575	17.978	15.800	-3.985	-8.055
Tamil Nadu	5.305	4.969	4.023	4.079	-1.226	-1.736
Eastern	15.453	15.671	15.277	15.179	-0.274	-0.192
Hilly	3.639	4.421	6.361	7.353	3.714	-0.020

Source (basic data): Reports of Finance Commissions (Twelfth to Fifteenth) and writers' estimates

Notes: (1) The Fifteenth Finance Commission had submitted two reports. Here, the reference is to the final report. | **(2)** Shares are not strictly comparable across Commissions because of change in the status of Jammu and Kashmir for FC15.

In the case of the southern States, there has been a steady fall in their share, from 19.785% to 15.800%. In a comparison of these two Commissions, the northern and eastern States have also lost. The 'gainer States' were the hilly, central, and western States including Maharashtra.

Read more- [Fiscal Centralization in India](#)

What is the reason behind this uneven gain and loss?

1) **Income distance Criterion-** The main reason for the loss of the southern States is the income distance criterion (Table 1). It means that the farther a State is from the highest income State, the higher its share.

Table 2: Relative weights for different tax devolution criteria: FC12 to FC15 (2)

#	Criteria	FC12	FC 13	FC 14	FC 15 (final)
1	Population	25	25	17.5	15.0
2	Demographic change	-	-	10	12.5
3	Income/ fiscal capacity distance	50	47.5	50	45.0
4	Area	10	10	15	15.0
5	Forest cover	-	-	7.5	10.0
6	Tax effort	7.5	-	-	2.5
7	Fiscal discipline	7.5	17.5	-	-

Source (basic data): Reports of Finance Commissions (Twelfth to Fifteenth)

Table 3: Share of Centre and States in combined revenue (%)

FC period	Pre-transfer		Post-transfer	
	Centre	States	Centre	States
12th FC	64.3	35.7	38.7	61.3
13th FC	61.8	38.2	36.1	63.9
14th FC	62.3	37.7	31.9	68.1
15th FC (first 3 years)	62.6	37.4	31.3	68.7
2020-21	62.3	37.7	29.3	70.7
2021-22	64.1	35.9	32.3	67.7
2022-23	61.5	38.5	32.5	67.5

Source (basic data): IPFS, Union Budget documents, RBI

Notes: (1) Transfers include tax devolution and Finance Commission as well as other grants. | (2) Grants from the Centre to States after 2015-16 are taken from the Union Budget. It includes grants-in-aid to the Union Territories.

2) **Forest cover**- The main reason for the gain of the hilly States is area/forest criterion.
3) **Population**- For the Fifteenth Finance Commission, data for the population in 2011 was used (Before that population data of 1971 was used). The demographic change criterion was introduced so that states that showed better performance in reducing fertility rates are not unduly penalized.

What is the impact of these changes on Indian states?

The joint impact of these two changes, that is income distance criterion and population, has been marginal for all groups of States. For Tamil Nadu, the joint impact was marginally positive.

What should be the way forward?

- 1) **Income distance criterion**- The Sixteen Finance Commission can reduce the weight of this criterion by 5% to 10% points and increase weightage of another criterion.
- 2) **Cess and surcharge**- The Centre has increased the cesses and surcharges, thereby reducing the size of the divisible pool. This is not desirable. There is a need to limit the share of cesses and surcharges to 10% of the Centre's gross tax revenues.

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

"Missing voters"- 'Missing Voters': Forgotten, Not Gone

News: This article discusses how many voters, mainly young, single male migrants in cities, don't vote because their addresses don't match their current homes. The Election Commission's plan to use remote voting machines could help them vote, impacting future politics and party strategies.

For information on steps taken by ECI to ensure voting rights for migrants [read here](#)

Who are the "missing voters"?

The "missing voters" are primarily young, single male migrants in urban areas, who are unable to vote because their addresses on electoral rolls don't match their current living places. Often residing in slums and constantly moving for work, these voters, typically aged between 16 and 30, slip through the voting net. For example, in cities like Delhi and Bengaluru, a significant number of these migrants are unmarried men who have moved for employment opportunities.

What impact could their voting have?

Increased Voter Turnout: Allowing these 'missing voters' to participate could raise the voter turnout significantly, potentially up to 30% more, broadening democratic participation.

Shift in Political Focus: Their unique concerns and backgrounds would force political parties to recalibrate their manifestos, focusing on different issues like urban employment and migration-related challenges.

Influence on Long-term Strategies: The sudden inclusion of young, urban, mostly single, and male voters would lead parties to adapt their long-term election strategies to appeal to these new demographics.

Demand for Specific Policies: These voters would likely push for policies that address job security and skill development, reflecting their needs as transient workers.

What changes might political parties make?

Focus on Job Security and Skills: Political parties may prioritize policies for job security and skill enhancement, addressing the needs of the transient workforce.

Address Urban Worker Issues: With the inclusion of migrant workers as voters, parties might focus more on urban employment challenges.

Consider Rural Demands: As men leave villages for city jobs, women's rising role in agriculture might lead parties to address rural needs and women farmers' concerns.

Support for Small-scale Enterprise: Parties might focus on small-scale enterprises, as women are increasingly active in this sector and their political interests grow.

Way forward

To address the issue of 'missing voters', the Election Commission's plan to use remote electronic machines is crucial. This will enable migrant workers to vote, thereby ensuring a more inclusive and representative democratic process.

Concerns with election expenditure in India - We need limits on election campaign spending

News: The article discusses the high cost of elections in India. It talks about the government and political parties spending a lot on advertising and other campaign activities, which can be unfair. The article suggests reforms to make elections more equal and transparent.

What is the current status of election expenditure in India?

Government Ad Spending: The central government spent ₹3,020 crore on advertisements from 2018-19 to 2022-23, with a spike in election years, like ₹1,179 crore in 2018-19.

Candidate Expenditure Limits: ₹95 lakh per Lok Sabha constituency in larger states, ₹75 lakh in smaller states. However, these limits are often exceeded.

Party Spending: No limit for political parties. In the 2019 elections, BJP spent ₹1,264 crore, Congress ₹820 crore. Estimated total spending by parties was around ₹50,000 crore.

What are the concerns with election expenditure in India?

Lack of Spending Caps for Parties: While candidates have specific spending limits, there are no caps for political parties. This leads to excessive spending, as seen in the 2019 elections where political parties reportedly spent around ₹50,000 crore.

Influence of Money on Fairness: The large amount of money spent, particularly by major parties like BJP and Congress, raises concerns about the fairness of elections.

Illegal Practices and Opacity: Apart from legal expenditures, the distribution of cash to voters and opaque funding sources contribute to corrupt electoral practices, undermining the democratic process.

For information on **Issues in Electoral Funding in India** [read here](#)

What should be done about it?

According to the "**Proposed Electoral Reforms**" submitted by the Election Commission of India in 2016, the key suggestions included:

Ban Pre-Election Government Ads: Introduce a ban on government advertisements six months before elections to prevent misuse of public funds for political gains.

Equalize Party and Candidate Spending Limits: Amend laws to include a spending cap for political parties, similar to the limits for individual candidates (₹95 lakh in larger states, ₹75 lakh in smaller states).

Transparent Party Financing: Implement measures for greater transparency in party financing to reduce the influence of undisclosed donations and corporate funding.

Swift Legal Action on Violations: Appoint additional judges in High Courts for quick resolution of election-related cases, creating a deterrent against overspending and other violations.

Explore State Funding of Elections: Consider state funding of elections, as suggested by the Indrajit Gupta Committee (1998) and the Law Commission report (1999), to reduce dependence on private donations.

For more information on **State Funding of Election** [read here](#)

Time for a technology manifesto

What was the digital vision of political parties in the last general election?

- 1) The BJP highlighted technology as a catalyst for economic and social goals, including enhanced delivery of entitlements and increased farm incomes.
- 2) The INC highlighted digital rights reforms, addressing access, free expression, and privacy in a dedicated section.
- 3) The All-India Trinamool Congress (AITC) and the Communist Party of India (Marxist) supported legal reforms for surveillance etc.

Why should the political parties introduce technological manifestos for voters?

- 1) **Undemocratic practice-** Distancing political parties from regulating digital policies are not only unsustainable, but also anti-democratic. Online platforms, smartphones, telecommunication networks and data centres are part of the lives of ordinary Indians. Hence, there should be development of a digital society by its democratic representation.
- 2) **Digital Divide-**There is a need to highlight the inequitable and uneven distribution of digital growth. It has largely concentrated on urban, male, upper-income groups while large sections of the masses remain deprived of internet connectivity. This provides a basis to advance proposals of social justice by digitization and technology.
- 3) **Mainstreaming digital rights-**The coercive digitizing of public and welfare services; use of free and open-source software; mass citizen surveillance; online fear, abuse etc. require mainstreaming of digital rights in political discourse of country.
- 4) **Arbitrary internet shutdown-**Despite the Telecommunications Act of 2023, little has changed in the regulation of internet shutdowns. There have been many internet shutdowns in states like Jammu and Kashmir, Manipur, and Rajasthan that has significantly affected millions of lower-income Indians reliant on smartphones. Addressing arbitrary internet shutdown requires a robust regulatory framework by keeping

lower income citizens at its heart.

5) **Finding of CSEP report**- The Center for Social and Economic Progress (CSEP) on public health observed that “a majority of voters say that the provision of health facilities affects their voting choice to some extent”. In a similar way, technologies that are essential for employment, health, and modern living may affect voting choice. Thus, voters may demand tech manifestos in future.

Read more- [What election manifestos must do, why they matter](#)

It is possible that no political party will win the next general elections on its technology promises. However, it is an opportune moment for all of them to offer an alternate digital vision for India.

Topic-Appointment to various Constitutional posts, powers, functions and responsibilities of various Constitutional Bodies.

Changes in the Election Commission of India's selection process

Background

In March 2023, the Supreme Court (Anoop Baranwal v. Union of India Case) ordered the creation of a selection committee for the ECI with the Chief Justice of India (CJI) as a member. However, later, Parliament passed a law excluding the CJI from this committee.

For information on changes introduced by SC regarding selecting Election Commissioner [read here](#)

What are the changes in the Election Commission of India's selection process?

Introduction of a Selection Committee: A committee was formed for selecting Election Commission of India (ECI) members, initially including the Chief Justice of India (CJI).

Exclusion of the CJI: Later, a law was passed that removed the CJI from this committee, raising concerns about potential bias in the selection process.

Restoration of Equivalence with Supreme Court Judges: In the final amendments, the equivalence of the CEC and ECs with Supreme Court judges was restored, reversing an earlier proposal to equate them with the Cabinet Secretary.

Disparity in Removal Process Unchanged: The government did not establish parity in the removal process between the CEC and ECs. The CEC continues to have a removal process like a Supreme Court Judge, while ECs can still be removed by the President upon the CEC's recommendation.

Change in Search Committee Leadership: The role of the chair of the Search Committee was shifted from the Cabinet Secretary to the Law Minister. Additionally, the requirement for committee members to have election-related experience was dropped.

For information on key features of the Bill for appointments to the Election Commission [read here](#)

What are the concerns about these changes?

1. Exclusion of the Chief Justice of India (CJI) from the selection committee for the Election Commission of India (ECI) **raises concerns about potential bias in the selection process.**

2. The equivalent of Chief Election Commissioner (CEC) and Election Commissioners (ECs) with Supreme Court judges was restored, but the disparity in their removal process remains, **leading to confusion.**
3. The replacement of the Cabinet Secretary by the Law Minister as chair of the Search Committee, and changes in committee member criteria, **raises questions about the expertise and independence of the selection process for the ECI.**

Topic- Statutory, Regulatory and various Quasi-judicial Bodies

Issue of delisting of India Companies from Googles play store

News-The article discusses the issue associated with the monopoly of tech giants like Google and Apple on app-based businesses.

Background- Google had recently announced that it was pulling the apps of almost a dozen firms out of its marketplace for Android apps.

What is the platform fee of Google?

Google collects a fee of anywhere between 11 to 30% for all in-app purchases that involve a purely digital service such as an ebook purchase or an OTT streaming subscription transaction.

Services provided: An app listed in the store is guaranteed to be highly visible. The apps also go through vetting processes where users may be certain that the app is not harmful.

Read more- [Protecting competition – on CCI penalty on Google](#)

What are the problems associated with the dominance of Google in the play store business?

- 1) **Unreasonably high fees** - App based businesses like Bharat Matrimony and Disney+ Hotstar have approached the courts at different stages due to high fees demand of Google. The fee can be in between 11 to 30% for all in-app purchases.
- 2) **Restrictive services** -Both companies have deployed restrictive terms of service that make it hard for app developers (including large companies) to sell apps by sideloading (from outside Google Play or Apple store). The Supreme Court of India and the European Commission have questioned these monopolistic tendencies.
- 3) **Monopolistic tendencies**- Apple and google occupy close to 99 per cent of the mobile ecosystem between them. With such dominance, these companies have large market powers which can endanger smaller businesses, thus there is a need for robust regulatory framework.

What should be the way forward?

1) **End Monopoly-**

- A) There is a need to increase competition in the app store market.
- B) There should be restrictions on arrangements that Google makes with phone manufactures to set defaults and give primacy to its own apps.

2) **Robust regulatory framework-** India needs to evolve a policy that allows free competition and curb monopolistic tendencies.

Taking on big tech

News- The US has finally changed its stance towards antitrust enforcement and the US Department of Justice, and 16 states have recently sued Apple alleging that it monopolized and abused the smartphone market.

Context- Competition Commission of India has asked its Director General to investigate on dispute between Google and a host of Indian firms and file a report in 60 days.

What is the dispute between Google and Indian firms?

Indian app developers filed a complaint against Google, alleging abuse of its dominant market position. The dispute centers on Google forcing developers to use its proprietary billing system in the Android and Play Store ecosystem.

Developers faced fees for choosing competitor billing systems. Non-compliance led to Google removing their apps, but they were reinstated after public backlash. The Competition Commission of India (CCI) is investigating these practices to see if they violate the Competition Act, 2002.

What are the arguments given by these global giants to justify their dominant position?

- 1) They argue that there is no need for setting regulations because free markets will encourage entry of entrepreneurs who will inevitably challenge the existing structure.
- 2) They claim that innovations by smart start-ups would challenge the monopolies in a more efficient way than any governments intervention.
- 3) They overstate the negative impact of governmental intervention on the market forces. Further, they glorify the virtues of free market enterprise.
- 4) They justify bailouts at the taxpayers' expense by claiming that it is necessary to keep the wheels of commerce ticking.

Read more- [Regulating tech giants in India](#)

What are the problems with the dominant position of digital giants?

- 1) **Abuse of position-**Google forced app developers to use Google's proprietary billing system or pay a fee if they chose a competitor. This hampered the economic interest of small app developers.
- 2) **Employing wrong methods-** Competition crimes in the digital space are more pervasive, visible and harmful. These giants engage in blocking, suppressing, excluding and limiting third-party wallets to ensure their profitability. This is a violation of the principles of free and fair competition.
- 3) **Monopolization tendencies-** It can kill competition and innovation. For ex- Standard Oil Company that monopolized the market and was forced to split by US regulators.

What is the significance of USA's changed stance towards antitrust enforcement for India and the rest of world?

It will become easier for India and the EU to regulate these firms in their respective jurisdictions. The anti-trust enforcement agencies can now proceed in case of violations by these firms without geopolitical repercussions because the protective shield of the home country (USA) for these firms has been lifted.

Subject: Governance

Topic- Important Aspects of Governance, Transparency and Accountability

Need for transparent political funding: S Y Quraishi on electoral bonds: No going back to square one

News: The article discusses the Supreme Court's decision to declare India's electoral bonds scheme unconstitutional. It focuses on the need for transparent political funding and suggests alternatives.

What are the concerns about political donations in India?

Pre-Electoral Bonds

Opacity in Donations: Prior to 2018, political funding was primarily in cash and lacked transparency. Only donations over Rs 20,000 were reported to the Election Commission and eligible for income tax rebates.

Concerns of Corruption: Cash-based donations raised suspicions of corruption and influenced government decisions.

Electoral Bonds

Increased Secrecy: Introduction of electoral bonds led to a total lack of transparency about donors and recipients.

No Accountability: The identities of both donors and recipients were kept secret, heightening concerns over quid pro quo arrangements.

Legal Challenges: The Supreme Court's ruling against the scheme highlighted the urgent need for reform in political funding for democracy's integrity.

For more information on Issues in Electoral Funding in India [read here](#)

What are the proposed solutions for transparent political financing?

State Funding of Political Parties: A proposal of Rs 100 for every vote a party receives, aiming to eliminate corporate influence. However, it raises questions about funding new parties or independents.

For information on state funding [read here](#)

National Election Fund: Establishing a fund where corporates and private entities can contribute with tax concessions. This aims to reduce corporate fears of harassment from political parties. The concern here is ensuring equitable distribution among parties.

Independent Auditing: Political party accounts should be audited by independent auditors, not in-house auditors, to ensure accountability.

Public Funding Mechanism: A suggestion for the public to fund the democratic process through means like a small cess on petrol.

Transparency in Electoral Trusts: Addressing the lack of transparency in existing electoral trusts, which are supposed to provide a layer of separation between firms and political parties.

For more information on Electoral Trust [read here](#)

How do other countries handle political financing?

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According to the International Institute for Democracy and Electoral Assistance's 2012 study 'Political Finance Regulations Around the World':

State Funding Based on Votes: Out of 180 countries, 71 provide state funds to political parties based on the number of votes they secure.

European Adoption: This system is prevalent in 86% of European countries.

African Utilization: 71% of African countries use this funding method.

Americas' Implementation: It's adopted by 63% of countries in the Americas.

Asian Practice: 58% of Asian countries follow this approach.

Potential in India: Given the widespread global usage and India's association with the institute, this system could be feasible in India.

SBI in the aftermath of electoral bond scheme judgment - Dubious response

News: The article describes how India's Supreme Court ruled the Electoral Bond scheme illegal due to its allowance of secret political donations. The State Bank of India is struggling to provide the required data on these bonds as demanded by the court.

For detailed information on Supreme Court decision on the electoral bond scheme [read here](#)

What were the Supreme Court's instructions for the SBI in the electoral bond scheme judgment?

Stop Issuing Bonds: The Supreme Court directed the State Bank of India to immediately stop issuing electoral bonds.

Reveal Details: The bank must provide details of the political parties that received funds through these bonds, along with the date of purchase and the denomination of each bond.

Deadline for Disclosure: The information was to be furnished by March 6.

For information on electoral bond scheme [read here](#)

What was the State Bank of India's role in the electoral bond scheme?

Exclusive Issuer: The State Bank of India was the sole authorized bank to issue electoral bonds.

Handling Donations: It facilitated anonymous political donations through these bonds.

Data Storage: The bank stored data about donors, including purchase dates, and issued unique alphanumeric codes for each bond.

What is the SBI action on the SC's Instructions?

Seeking Time Extension: The State Bank of India requested time until the end of June 2024 to provide the required data, which is past the expected date of the next general election.

Challenges in Data Reconciliation: The bank mentioned the difficulty of reconciling two sets of information: one related to bond purchases and the other to the parties receiving the bonds.

Digital Storage Limitations: SBI indicated that it digitally stored only the number of bonds issued, not the Know Your Customer (KYC) details of purchasers.

Way forward

The Supreme Court should ensure the State Bank of India adheres to the deadline for revealing bond details before the election. This is crucial for transparency in political funding, especially given the significant donations received by parties like the Bharatiya Janata Party and Congress.

New governance model for AI: In issuing AI advisory, MEITY becomes a deity

News: The article discusses how India's MEITY issued vague advisories on AI regulation, without clear legal basis. These advisories, often made in response to specific events, demand compliance from tech companies but lack detailed guidelines or legal authority. This approach has led to criticism and confusion.

What is MEITY's recent AI regulation?

MEITY's recent AI regulation, issued on March 1, 2024, introduces a new governance model for AI that involves licensing AI models. This regulation specifically targets AI models for bias prevention and categorizes them as "under testing" or "unreliable."

For information on Regulation of AI [read here](#)

What is the controversy around MEITY's advisories?

MEITY's advisories lack legal clarity: They are not well-defined under the principal legislation of the IT Act, causing uncertainty about their legal standing.

Reactive to specific events: Advisories were issued in response to events like the viral deepfake video of Rashmika Mandanna and a controversial AI response about the Prime Minister.

Vague requirements: Terms like "bias prevention" and "unreliable AI" in the advisories are undefined, leading to ambiguity and confusion.

Unclear enforcement: The advisories imply compliance but don't state clear penalties or legal consequences, making them seem more like forced suggestions.

How has the government responded to criticism?

Exemption announcements on social media: The Minister exempted startups from the advisory in a Twitter post, showing an informal response to concerns.

Unclear explanations: In response to criticism, the Minister offered vague interpretations on social media, failing to provide concrete clarifications or official documentation.

Avoiding key issues: Despite criticism, the Minister avoided discussing the controversial licensing requirement, focusing instead on labeling the advisory as merely a suggestion.

Changing stance: The government's approach shifted from formal retraction in the past (like the Draft Encryption Policy in 2014) to maintaining their position despite the recent backlash, indicating a less responsive stance to public criticism.

What does this reflect about technology policy in India?

Influencer culture influence: Technology policy in India is increasingly swayed by social media and press coverage rather than thorough, deliberative processes.

Expanding scope of IT Rules: The IT Rules, 2021, originally for user-generated content, now broadly cover digital news and online gaming, leading to legal challenges.

Decline in Formal Policy Processes: The trend of modifying advisories informally on social media indicates a departure from formal legislative procedures.

Risks in Criticism: A new environment where critiquing government policies carries greater risk, indicating a shift towards more authoritarian digital governance.

Role of digitization in India's economy: Data marketplaces: the next frontier

News: The article discusses how digitizing government operations and using **non-personal data (NPD)** can boost India's economy. However, India lacks strong rules for managing this data.

For details information on **Digital Economy** read [Article 1](#), [Article 2](#)

What is the role of digitization in India's economy?

Boosting GDP: Digitization can potentially add \$450-500 billion to India's GDP by 2025, playing a crucial role in economic growth.

Government Operations: Rapid digitization in government processes enhances efficiency and transparency.

Utilizing Citizen Data: Government's collection and use of Non-Personal Data (NPD) aid in improving public services and decision-making.

Predictive Analytics: Applying AI and analytics to NPD helps in forecasting in areas like meteorology, infrastructure, and employment.

What are the different types of data collected?

Personal Data: This type involves identifiable information about individuals. It can be used to directly map an individual, like names or identification numbers.

Non-Personal Data (NPD): This is the primary type of data collected by the government. It excludes personal identifiers.

Data Use: Both types of data are crucial for governmental planning and public service delivery, with NPD serving as a significant resource for 'public good' applications.

What are the major concerns related to regulations for non-personal data in India?

Lack of Enforceable Regulations: Current policies like the **National Data Governance Framework Policy** offer only limited guidance without strict legal enforcement.

Risk of De-anonymisation: There's concern about the potential to identify individuals from NPD, compromising privacy.

Absence of Central Regulatory Authority: No dedicated body exists to oversee NPD usage and sharing.

Unclear Ownership and Sharing Mechanisms: Ambiguity in who owns NPD and how it should be shared among stakeholders.

Vulnerability to Misuse by Big Tech: Unregulated NPD could unfairly benefit large corporations, leading to privacy breaches.

Inefficiencies in Data Exchange: The current approach to data sharing is not optimized, hindering the full utilization of NPD in decision-making and public service enhancement.

What steps are taken to regulate the collection of data?

1) Regulation in India-

National Data Governance Framework Policy (NPD Framework): Introduced by the Ministry of Electronics and Information Technology (MeiTY) to guide the use of NPD.

Expert Committee Recommendations: Led by **Kris Gopalakrishnan**, focusing on issues like de-anonymisation risks and data sharing mechanisms.

State-Level Initiatives: For example, the agriculture data exchange in Telangana, and the India Urban Data Exchange by the Ministry of Housing & Urban Affairs with the Indian Institute of Science.

2) Global Efforts

Australia: Implemented data exchange frameworks and protocols in various sectors like housing, employment, and agriculture.

United Kingdom: Established specific data exchanges to address unemployment and other social issues.

Estonia: Known for its advanced digital governance, Estonia has developed efficient data exchange systems.

Criticisms of Electoral Bond Scheme (EBS) - India's voters deserve a bond

News: This article discusses the **Electoral Bond Scheme (EBS)** in India, introduced to provide a transparent way of funding political parties. However, concerns have been raised about its effectiveness in preventing black money in politics and the confidentiality of donor identities. The Supreme Court is involved in determining the legality and transparency of the scheme.

For details information on **EBS** [read here](#)

Why was EBS introduced?

Objective of Eliminating Black Money: EBS was introduced with the goal to eliminate black money from political funding, as stated by the finance minister in his 2017-18 Budget Speech.

Lack of Transparency in Political Funding: The scheme aimed to address the issue of political parties relying heavily on anonymous cash donations, often less than ₹20,000, which didn't require revealing the donor's identity.

Intended to Cleanse Political System: The idea was to create a 'clean' channel for political contributions, moving away from anonymous cash donations and towards a more traceable and accountable system.

Shift from Cash to Bank Transactions: It's aimed to enhance transparency in political funding by allowing contributions through bond purchases from the State Bank of India. This shift towards bank transactions was intended to make the process more traceable and accountable.

What are the criticisms of EBS?

Lack of Transparency: The anonymity of donors in the EBS prevents the public from knowing who funds political parties.

Questionable Source of Funds: Many bond purchasers seemed to have income disproportionate to their business, raising doubts about the legitimacy of their funds.

Legal and Ethical Concerns: The Supreme Court and the RBI questioned the EBS, especially its transparency, enforceability and traceability aspects.

For details information on **Electoral Bonds Scheme Verdict** [read here](#)

Potential for Misuse: The scheme's confidentiality clause makes it nearly impossible to link bond purchasers with political parties, opening doors for undisclosed and questionable political donations.

Complicated Enforcement under Section 7(4): This section of the EBS makes it difficult to disclose buyer information, thereby hindering investigations and reducing accountability.

What is the role of the State Bank of India (SBI) in the EBS?

The State Bank of India (SBI) is responsible for **issuing Electoral Bonds** in the EBS. However, questions have arisen about SBI's **record-keeping**, particularly whether it can **link bond purchases to specific donors and recipients**. This aspect has become crucial in discussions about the transparency and effectiveness of the EBS.

What should be done?

Parliamentary Oversight: Engage Parliament to develop more transparent and accountable funding methods, as the article suggests the legislative body holds the key to reform.

Public Awareness: Educate citizens about the importance of clean political funding to encourage demand for more transparent practices.

Judicial Review: Allow the judiciary to periodically review and suggest improvements to the scheme, ensuring it aligns with democratic principles and transparency standards.

For information on **State Funding of Election** [read here](#)

Ombudsman needed in the aviation sector in India:

News: This article discusses the Indian Civil Aviation Ministry's idea of creating an ombudsman for the aviation sector. This is to better address passenger complaints and concerns, especially with issues like extra fees and refund policies, in a rapidly growing industry.

What are the issues with the aviation sector in India?

Extra Fees: Some low-cost carriers charge for seat selection at web check-in, which can be seen as deceptive fees.

Refund Policies: Confusion over who is responsible for refunds during flight cancellations, as seen during Covid-19.

Complaints Management: Existing systems like AirSewa may not fully address the growing number of passenger complaints.

Why is an ombudsman needed in the aviation sector in India?

Addressing Complaints: An ombudsman can effectively handle increasing passenger complaints, which the existing AirSewa helpline may not fully cover.

Transparency in Fees: To tackle issues like deceptive fees, such as the seat selection charges at web check-in by low-cost carriers.

Clarity in Refunds: To resolve confusion around refund policies, highlighted during the Covid-19 pandemic with unclear responsibilities for refunds between airlines and booking portals.

Representation for New Flyers: Essential for representing the concerns of new consumers, especially with the projected increase in domestic passengers to 300 million by 2030, including many first-time flyers from smaller towns.

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

Electronic evidence rules - E-evidence, new criminal law, its implementation

News: The article discusses changes in India's criminal laws, focusing on new rules for electronic records and evidence. It explains the updated definitions, admissibility, and requirements for electronic evidence under the new laws, and mentions the challenges these changes pose for law enforcement and legal processes.

What are the new criminal laws in India?

India is introducing three new criminal laws: the Bharatiya Nyay Sanhita (replacing the Indian Penal Code), the Bharatiya Nagarik Suraksha Sanhita (replacing the Code of Criminal Procedure), and the Bharatiya Sakshya Adhiniyam (replacing the Indian Evidence Act). These laws will be effective from July 1, 2024.

For information on new criminal laws in India read [Article1](#), [Article2](#)

What changes have been made in electronic evidence rules?

Definition of Electronic Records: Electronic records now include a wide range of digital data such as emails, server logs, documents on electronic devices, messages, websites, and digital voice mails.

Primary Evidence Rule: All copies of a video recording stored and transmitted electronically are considered primary evidence. This helps in proving cyber-crimes even if the original record is destroyed.

Admissibility of Electronic Records: Following the Supreme Court's guidelines, a special certificate is required for electronic records to be admitted in court (Under the Bharatiya Sakshya Adhiniyam,). This certificate must be signed by two individuals: the person managing the device and an expert.

What are the judicial views on electronic evidence rules?

Mandatory Certificate: The Supreme Court judgment in Arjun Panditrao Khotkar vs Kailash Kushanrao Gorantyal & Ors. (2020) requires a certificate under Section 65-B (4) of the Indian Evidence Act (now Section 63(4) in the Bharatiya Sakshya Adhiniyam) for the admissibility of electronic records.

Curable Defect: Non-submission of the certificate in time is considered a curable defect. Courts may allow its later submission without prejudicing the trial.

Impossibility Principle: The Court's view that if it is impossible to produce the required certificate, the court may excuse this requirement, recognizing the practical difficulties in obtaining the certificate.

What are the challenges in enforcing electronic evidence rules?

Insufficient Manpower and Resources: Many cyber labs may not have enough staff or are not notified under the IT Act to provide expert opinions on electronic records.

Complexity in Handling Vast Data: With the ubiquity of smartphones in crimes, the volume of data needing certification is enormous, posing logistical challenges.

Timing of Expert Certification: The article suggests that requiring expert certification for every case could be excessive, proposing its necessity only when the integrity of the electronic record is disputed.

Way forward

To effectively implement the new electronic evidence rules, a dual approach is needed: firstly, enhancing the capacity and resources of cyber laboratories, and secondly, initiating widespread training and awareness programs about encryption and electronic record handling, especially for private entities using electronic security systems. This will ensure smoother enforcement and compliance with the updated legal framework.

Challenges of processing death sentence in India

News: This article discusses the increasing number of prisoners on death row in India and the high rate of their acquittal by the Supreme Court. It highlights the systemic issues in the criminal justice system and questions the effectiveness of the death penalty.

What is the current state of death row in India?

India's death row population is at its highest since 2004, with 561 inmates by the end of 2023. The Death Penalty India Report (2016) found that only 4.9% of death sentences from 2000-15 were confirmed at the appellate level. Trial courts imposed 86.96% of death sentences without mandated information. Data from Project 39A's report revealing a 15% decrease in High Court case disposal rate.

What issues exist in the sentencing process?

Sentencing Issues: Trial courts continue to impose death sentences without required information about the accused, as mandated in a 2022 case.

High Acquittal Rate: The Supreme Court acquitted about 55% of death row prisoners in 2023, indicating potential errors in lower court judgments.

Failed Reform Implementation: Despite the Supreme Court's sentencing reform directions in "Manoj vs The State Of Madhya Pradesh" (May 2022), these reforms have not been implemented by trial courts for two consecutive years.

Systemic Legal Failures: Instances of fabricated evidence and questionable police procedures lead to wrongful convictions, emphasizing deep-rooted issues in the criminal justice system.

What are the conditions for death row prisoners?

Constant Distress: Death row inmates live in fear of execution, causing ongoing psychological stress. This persists even after acquittal or commutation.

Violence and Humiliation: Prisoners on death row often face violence and ridicule within the prison system.

Isolation from Activities: They are segregated from work, education, and leisure activities, worsening their mental state.

Increase in Death Row Population: Despite these conditions, the death row population continues to grow due to excessive sentencing by trial courts.

Way forward

To address these issues, the Supreme Court needs to broaden its reform beyond sentencing, tackling systemic problems in the criminal justice process. This includes ensuring fair trials and addressing police and prosecutorial

Digital Competition Bill in India

News: The article discusses a new Digital Competition Bill in India. This Bill aims to regulate the digital sector and prevent anti-competitive practices.

What is the Digital Competition Bill?

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Drafting Process: The Bill was drafted by a 16-member committee on digital competition law after a year of deliberation.

Target Group: It focuses on regulating "**systemically significant digital enterprises**" (SSDEs), which are large tech firms with major revenue and user base in India. SSDEs are identified by having at least ₹4,000 crore in Indian revenue and \$30 billion globally.

Bill's Aims: Designed to prevent anti-competitive practices, ensure transparency, and curb unfair favoritism in the digital sector.

Current Status: The Bill is open for public comment and may require further adjustments before being finalized.

What are the benefits of the Digital Competition Bill?

Increases Transparency: Requires tech companies to be more transparent in their operations and dealings.

Protects Innovators and Startups: Exempts smaller companies and startups from stringent rules, encouraging innovation.

Aligns with Global Standards: Follows a similar approach to the EU's Digital Markets Act, showing an effort to align with international regulatory frameworks.

Boosts Digital Economy: By regulating effectively, it supports the growth of India's digital market, expected to reach \$800 billion by 2030.

How is the bill intended to regulate big tech companies?

1. The Digital Competition Bill intends to regulate big tech companies by requiring them to operate in a fair, transparent manner, and establish clear complaint-handling mechanisms.
2. It specifically prohibits these companies from unfairly favoring their own products or those of related parties.
3. Additionally, the Bill restricts the misuse of non-public data of business users and prevents the restriction of third-party apps.
4. It also bans practices like "steering" or "self-referencing" and predatory pricing.
5. These regulations apply alongside compliance with the existing Competition Act and the Digital Personal Data Protection Act.

What are the concerns with the bill?

Stifling Innovation: There's worry that strict regulations could limit creativity and growth in the tech sector.

Too Much Power to Regulators: The Bill's ex-ante approach may give regulators excessive discretionary power, raising concerns about potential misuse.

Duplication with Existing Laws: It might overlap with provisions in the current Competition Act, leading to regulatory complexity and potential confusion.

Potential for Conflicting Decisions: This overlap could result in parallel inquiries and divergent rulings for the same issue under different laws.

New Citizenship Amendment Rules in India: Citizens on the edge

News: The article criticizes the new Citizenship Amendment Rules in India, stating that they create complex and unfair procedures for refugees seeking citizenship, don't protect their rights, and are likely to cause bureaucratic difficulties and uncertainty for applicants.

For details information on **Citizenship Amendment Act, 2019** [read here](#)

What are the new Citizenship Amendment Rules?

Scope of the Act: The Citizenship Amendment Rules implement the Citizenship Amendment Act, 2019, which offers Indian citizenship to non-Muslim migrants from Afghanistan, Bangladesh, or Pakistan who entered India before December 31, 2014.

Proof of Nationality and Entry: Applicants must prove their nationality and show they entered India before the cut-off date. This is difficult for those who fled persecution and may have lost important documents.

Committee-Based Processing: Applications are processed by state and district level committees, but the procedures and guidelines for these committees are not clearly defined.

Document Verification: The committees assess the authenticity of documents, a challenging task when the issuing authorities are non-existent or unclear, as observed in global examples like Afghan refugees in Australia.

Eligibility Certification: Applicants must provide certificates from local community institutions as proof of religious and national identity, but how these certificates will be assessed is unclear.

For more information on **Citizenship Amendment Rules** [read here](#)

What are the criticisms of the Citizenship Amendment Rules?

Promoting Religious Discrimination: The Rules are criticized for being arbitrary and discriminatory on religious grounds, offering citizenship routes primarily to non-Muslims.

Opaque Procedures: They establish complex and unclear procedures, lacking legal safeguards for asylum seekers, which could lead to a bureaucratic nightmare.

Documentary Burden: The emphasis on documentary evidence places an onerous burden on refugees who may not have access to such documents, especially those who fled persecution.

Committee Ineffectiveness: The Empowered and District Level Committees tasked with processing applications lack clear guidelines, raising concerns about their effectiveness and fairness.

Potential for Arbitrary Decisions: The lack of transparency and procedural clarity in the Committees' functioning could lead to arbitrary decisions, reminiscent of the issues faced in Assam's Foreigners Tribunals

Topic- Welfare Schemes for Vulnerable Sections of the population by the Centre and States and the Performance of these Schemes.

Limitation of Welfare Policies Politics in India

Context- According to the ILO's World Social Protection Report, 2022, India spends too little on social protection. This is a matter of great concern as 90 per cent of the workforce in India works in informal sector with no or little social protection.

What are some of the important welfare schemes started by the Centre and States especially for women?

As per Crisil report 2023, the share of the economy (gross state domestic product) devoted to social welfare expenditures has increased from 1.2-1.3 % on average in 2017-18 to about 1.6 % in 2022-23 in 11 states.

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Women have assumed great importance in the social protection architecture of states. There are various welfare schemes which cover education expenses, free public transport, subsidized LPG, and direct cash transfer.

1) **Mahtari Vandan programme**.- Chhattisgarh has announced this scheme.

2) **Ladli Behna scheme** –This has been started by Madhya Pradesh government. Under it, Rs 1,250 per month was given to poor women beneficiaries.

3) **Kalaigarn Magalir Urimai Scheme**- This has been started by Tamilnadu. Under it, Rs 1,000 is transferred per month to women above the age of 21 with a household income of less than Rs 2.5 lakh. Similarly, there are schemes such as Mahalakshmi and the Gruha Lakshmi cash transfer programmes for women in Telangana and Karnataka respectively.

4) **Ujjwala scheme** -The Central government has started this scheme to provide subsidized LPG gas cylinders to poor women. The scheme has now been extended till February 2025.

5) **PM Jan Dhan Yojna**-During Covid pandemic, the central government has transferred 3 instalments of Rs 500 each to women holding Jan Dhan Yojana bank accounts.

Read more- [Subsidies are not a sustainable solution to underlying problems, rather it is a burden on fiscal purse](#)

What is the significance of these welfare schemes for women?

Along with ensuring political dividends, it is also good economics. As per some studies, cash transfers to women have increased the proportion of expenditure on items of basic consumption and education. This benefits households and has positive implications for women's empowerment.

What are the issues with these welfare schemes?

1) **Paternalistic approach**-These welfare schemes are not rights-based schemes. They do not have any legal backing and are rather rooted in paternalism. Here, women are only seen as beneficiaries or recipient. This hinders their actual empowerment.

2) **Lack of political competition within states**-States with one political party domination do not have incentive to introduce fresh programmes or effectively implement existing schemes. Whereas in states, where there is stiff political competition and regular change of power, the welfare schemes are rejigged rather than withdrawn.

3) **Lack of inclusiveness**- The social protection architecture in India is chaotic. It's unbalanced as groups like the very young and the old, who do not constitute the majority voters, are often overlooked.

According to the United Nations Declaration of Human Rights, social security is a human right. Thus, there is an urgent need to pay heed to ILO's Recommendation of 2012 that has called for all nations to institute a social protection floor.

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

Credit Systems in India- The National Credit Framework makes education system more flexible

News: This article discusses a new education system in India, where students can earn and transfer credits for various learning activities, including online courses and internships, through a digital platform called Academic Bank of Credits (ABC). This approach, part of the National Credit Framework (NCrF), makes education more flexible and diverse.

What is the National Credit Framework (NCrF)?

About- It is a unified meta-framework that accumulates credits earned from school education, higher education, and vocational and skill education. Under this system, credits will be assigned to academic learning.

1. It consists of three verticals:

- a. National School Education Qualification Framework (NSEQF)
- b. National Higher Education Qualification Framework (NHEQF)
- c. National Skills Qualification Framework (NSQF).

For more information [read here](#)

What are the challenges with traditional credit systems in India?

Credit Incompatibility Issues: A major challenge in India has been the incompatibility of credits among different educational institutions and programs, hindering student mobility.

Limited Flexibility in Pre-NEP Systems: The Choice Based Credit System (CBCS) and semesterisation, implemented before the National Education Policy (NEP), lacked sufficient flexibility. They did not fully enhance the options available to students or provide adequate autonomy for diverse academic pursuits.

Criticism of the CBCS: The CBCS was criticized for not allowing students to explore a wide range of learning objectives, highlighting a need for a more adaptable credit-earning approach.

What is the Importance of Credits in Education?

Measuring Learning Effort and Achievement: Credits are fundamental units for capturing effort and achievement in academic activities, including both classroom learning and extracurricular activities. It will promote a broad and enriched learning environment.

Monitoring Academic Progress: They enable students to systematically track their academic progress towards educational objectives.

Facilitating Educational Flexibility: Credits aid in informed decision-making, especially when transferring between institutions or programs, enhancing the educational experience.

Centralized Credit Management: The Academic Bank of Credits (ABC) platform serves as a centralized repository for academic credits, streamlining their accumulation, storage, and retrieval. This system significantly enhances the flexibility and diversity of education.

For information on ABC [read here](#)

What initiatives has India taken towards credit systems?

Integrates various educational levels: Launched in April 2023, the National Credit Framework (NCrF) integrates various educational levels, including school, higher, and vocational education from grades I to VIII.

Establishing the Academic Bank of Credits (ABC): A digital platform for managing credit accumulation, storage, and retrieval, ABC supports the NCrF. It has seen significant participation, with over six crore students registered.

Collaboration with Stakeholders: The NCrF was developed in consultation with various stakeholders, including the IIT Council, ensuring a comprehensive approach.

Way forward

The way forward involves fully embracing the National Credit Framework (NCrF) and the Academic Bank of Credits (ABC), ensuring seamless credit transfer and flexible learning pathways. This approach will enhance educational diversity, accommodate varied student needs, and align with contemporary interdisciplinary learning demands.

Integrating modern and traditional medicine (AYUSH) systems

News: The article discusses the challenges and possibilities of integrating modern and traditional medicine (AYUSH) systems.

What are the models for integrating modern and traditional medicine (AYUSH) systems?

Competitive Model: Features rivalry between modern and AYUSH medicine, with each pointing out the other's weaknesses and competing for patients. This model involves conflicts at the level of professional associations and possible litigation.

Coexistence Model: Recognizes both systems' legitimacy, allowing them to operate separately without interference. In this model, modern medicine practitioners may permit patients to opt for AYUSH treatments. Conversely, AYUSH practitioners typically request patients to discontinue their modern medications if they wish to start AYUSH therapies.

Cooperation Model: Ideal integration where both systems acknowledge each other's strengths and work together for patient care. This could improve modern medicine's focus on prevention. For example, yoga is increasingly accepted by modern practitioners due to evidence of its effectiveness.

What are the challenges in integrating modern and traditional medicine (AYUSH) systems?

Trust Deficit: There's skepticism between practitioners of modern and AYUSH systems due to varying outcomes when patients switch treatments, often based on anecdotal evidence.

Technical Differences: AYUSH is diverse, with each discipline requiring unique integration strategies. For example, yoga's effectiveness is recognized, but integrating ayurvedic or homeopathic medicines remains contentious.

Operational Challenges: Effective teamwork requires understanding each other's strengths and limitations. However, there is a lack of knowledge about AYUSH among modern medicine practitioners and vice versa.

Regulatory Issues: The regulation of integrated practices is evident, as modern practitioners sometimes use ayurvedic pills without full understanding. Similarly, AYUSH practitioners may practice modern medicine without proper authorization.

What should be done?

Build Evidence for AYUSH: Enhance trust by developing evidence-based AYUSH treatments, filtering out ineffective ones.

Create Composite Guidelines: If evidence supports, develop combined standard treatment guidelines integrating the best of both systems.

Implement Strong Regulation: Establish clear rules for collaboration, with accountability defined for both AYUSH and modern medicine practitioners.

Educational Integration: Consider teaching basic AYUSH concepts in modern medical courses, but without overburdening the curriculum.

Health Technology Framework: Utilize existing frameworks in India for assessing and regulating integrated practices, focusing on safety, quality, and efficacy.

Issues of regulation of pharma industry

Context- There were reports of a big fake drugs racket in Delhi recently. Further, the Government has notified the Uniform Code for Pharmaceutical Marketing Practices (UCPMP) 2024.

What is the existing system to ensure safety and quality of drugs in India?

- 1) Manufacturing facilities need to be licensed.
- 2) The details of inputs that go into manufacturing are inspected and recorded.
- 3) The qualifications of individuals in charge of manufacturing are prescribed.
- 4) Production facilities are continuously inspected by competent authorities.

Read more- [National List of Essential Medicines \(NLEM\) and Drug Pricing in India](#)

What are the issues in ensuring safety and quality of drugs in India?

- 1) **Archaic legislation-** The legislation is over 75 years old, with many patchwork amendments. Despite improvement in knowledge about effective regulation, most of this knowledge has not been incorporated into the regulation of drug quality.
- 2) **Price control mechanism-** The price control mechanism used in India interferes with the expenditure levels of manufacturers. This leads to compromise with quality of drug manufactured.
- 3) **Sale of fake medicine-** The medicines could be fake or spurious and may have been substituted in place of the original medicines by unscrupulous middlemen.
- 4) **Substituted medicine-** This happens when the brand of medicine recommended by the doctor is not available. Thus, the dispensing person in the shop needs to be knowledgeable and give the patient exactly what is required. However, this does not happen because of unavailability of qualified persons.
- 5) **Unauthorized pharmacies-** There are many unauthorized pharmacies in operation. The regulatory responsibility is distributed across the Union and the state government which creates overlapping jurisdictions.
- 6) **Presence of multiple regulator-** There is a separate regulator to deal with the education, profession, and practice of pharmacists.
- 7) **Lack of quality data-** There is lack of robust data in the workings of drug industry and the prevalence of various kinds of failings.

What should be the way forward?

Drug traceability systems on **public blockchains** can potentially help improve the authenticity of medicines throughout the supply chain.

By associating each drug unit with a digital identity, stakeholders can easily track and verify its origin, authenticity, and movement across the supply chain.

Issue of patent and proprietary medicine in India - Lure of a magic cure

News - The article highlights the lack of safety standards for Ayurvedic medicines and the issue of misleading advertisements.

Background - The Supreme court has criticized Patanjali Ayurveda, for making misleading claims in advertisements about its products curing diseases.

What is the difference between classical and patent and proprietary medicine?

The difference between classical medicine and patent and proprietary medicine is explained in Drugs and Cosmetics (D&C) Act.

- 1) **Classical ASU medicine**-It refers to drugs that are manufactured strictly in accordance with the authoritative ancient texts (granthas or samhitas) listed under the D&C Act.
- 2) **Patent and Proprietary (P&P) medicine**-It refers to manufacture of ASU drugs by modifying the classical recipe and introducing new combinations. Patanjali and several other companies have been proactively promoting their Patent and Proprietary (P&P) drugs.

Read more- [Perils of misleading advertisements](#)

What are the regulations regarding Patent Proprietary (P&P) drugs?

- 1) Advertising drugs intended to treat or cure certain diseases is prohibited under Drugs and Magic Remedies (Objectionable Advertisements) Act 1954, which applies to **all systems of medicine**.
- 2) Drug manufactures have to follow the Good Clinical Practice Guidelines issued by the **Ministry of Ayush**. This is done to document evidence of safe and effective use.
- 3) To obtain a **manufacturing license**, citing scientific sources is essential and if unavailable, pre-clinical or clinical trials are required to be produced.
- 4) The Ayush Ministry had mandated the **registration** of all medical research projects with the Indian Council of Medical Research's CTRI — Clinical Trials Registry of India database **without distinction** between allopathic or ASU (Ayurveda, Siddha and Unani) research.

What are the issues associated with the regulation of Patent and Proprietary (P&P) drugs?

- 1) **Limitation of Drugs and Magic Remedies Act**- It does not have the power to check the license of products, to check if the products are evidence based or not.
- 2) **Misconception in minds of consumers**- The consumer assumes that all ASU products are **natural** and consequently safe. Attracted by advertisements, consumer purchases P&P medicine over the counter without consulting any **Vaidya or medical practitioner**.
- 3) **No requirement of license**-Unlike allopathic drugs, selling ASU medicine requires **no sale license** and all pharmacists, and even general stores and groceries, can sell these drugs without any knowledge of the drug use and dosage.
- 4) **Lax implementation by state drug controllers**- The two Drug Acts are not administered properly by state drug controllers due to vacancies or mishandling by **non-qualified persons**.

What should be the way forward?

The country needs a **unified structure** and system for regulating and administering the licensing, manufacture, sale, and drug advertising of ASU drugs.

Issue of Cheating in Exams in India: Challenges & Solutions

News - The article discusses the employment of unfair means in examination process in India and how can it be minimized.

Background - UP government has ordered the cancellation of the UP Police Constable Recruitment Examination-2023 after allegations of paper leak.

What are the provisions of The Public Examinations Prevention of Unfair Means Act?

The act imposes severe penalties on persons resorting to unfair means. They will be imprisoned for not less than 3 years whereas the service providers (who conduct the exam on behalf of the government) are liable for fines upto Rs 1 crore, apart from prison sentences.

A detailed article on Public Examinations (Prevention of Unfair Means) Bill 2024 can be [read here](#).

What is the limitation of statutory measures taken by government?

1) **Low conviction rate**- Many states like Gujarat, Rajasthan, UP, Uttarakhand, Jharkhand, Chhattisgarh, AP and Odisha have legislation that criminalizes cheating. However, there have been **no convictions** so far under these Acts.

What are the challenges in conducting exams in India?

1) Off-line examination: -

a) **Logistical Issue**- There are loopholes in setting question papers and their printing and transport to examination canters.

b) **Lack of auditing**- These processes are not audited by any **knowledgeable agency**.

2) Online examination: -

a) **Lack of effective evaluation**- The authorities have started outsourcing the conduct of online exams to service providers. The technology provided by them is not adequately **tested**.

b) **Vulnerability to cyber-attack**- There is inadequate knowledge or expertise in the government machinery to test the robustness of the IT systems being deployed. This leaves the system vulnerable to **hackers** and organized cyber criminals.

What is the way forward?

1) **Diminish the importance of exams**- There are high premiums like social recognition and rewards attached with qualification of exams, so there is a need to **reduce the importance** of the examination itself. This will discourage cheating in examinations. For ex-admissions into the best foreign universities take the qualifying exam scores as just one of the inputs to decide the candidature of students.

2) **Dedicated investigating body**- There is a need to create a special investigation agency that has the power to investigate all types of examination offences and quickly bring culprits to justice.

Eliminating diseases- One region at a time

Context- The Carter Center, a leader in the global elimination and eradication of diseases, has recently reported that guinea worm disease is close to eradication. From 3.5 million cases a year in 21 countries in 1986, the number had come down to 13 in five countries in 2023, a reduction of 99.99%. This would be the second disease after smallpox to be eradicated and the first one with no known medicines or vaccines.

What is the difference between Elimination and eradication of transmission?

Eradication of transmission- This is the permanent cessation of infection by a pathogen with no risk of reintroduction.

It is a highly desirable objective to enhance the health of the people, especially the poor who are most vulnerable to infectious diseases.

Elimination of transmission – It targets achieving zero transmission in a defined region. It is a step towards eradication.

What are the reasons to recommend disease elimination as a public health strategy?

- 1) **Meeting SDGs-**It energizes the public health system to meet the sustainable development goal of ending the epidemics of malaria, tuberculosis and Neglected Tropical Diseases by 2030.
- 2) **Improvement at grassroot level-** It would result in improvement in primary health care, diagnostics and surveillance.
- 3) **Encourage participation of workers-** It will ensure increased involvement of field staff and community health workers because they have a clearly defined goal before them.
- 4) **Nudge politicians-** It generates high political and bureaucratic commitment, and public support. These efforts positively impact the health system.

Read more- [Guinea worm disease](#)

What are the challenges in elimination of disease?

- 1) **Cost-**Elimination of transmission is challenging and resource intensive.
- 2) **Neglect of other diseases-**It imposes an additional burden on the system and could lead to the neglect of other important health functions, especially for weak health systems.

What should be the strategy to eliminate diseases in India?

- 1) **Pathogen specific approach-**It will be strategic to focus on pathogens whose impact on the population is high and whose numbers are low enough to make elimination feasible.
- 2) **Capacity building-**The government must invest in developing robust surveillance systems that could capture every incidence of the disease. The government needs to strengthen laboratories for screening and confirmation, train the workforce for meeting elimination goals and ensure availability of medicines.
- 3) **Adopting region specific approach-** It will be difficult to achieve elimination of many diseases for whole country. Thus, the government should adopt region specific approach. For ex- kala azar is now limited to just few blocks of 5 States in India. So,only these blocks can be targeted specifically.
- 4) **Multisectoral Collaboration-**There is a need for multisectoral collaboration and innovative strategies which prefer locally effective solutions at regional level. However, regional implementation needs constant technical and material support from centre.

Students suicide in India

Context- According to “Accidental Deaths and Suicides in India 2022” report by NCRB, over 13,044 Indian students ended their lives 7.6% of the total suicide fatalities in that year.

The number of suicides (students) rose from 10,335 in 2019, to 12,526 in 2020, to 13,089 in 2021. Further, In Kota (the hub of tuition/coaching) alone ,15 students ended their lives in 2022.

What are the reasons for students' suicides in India?

1) **Education system-**The lack of job opportunities, a limited number of seats in government institutions and the high fees charged in private institutions have all created a climate of intense competition. This imposes great pressure on the minds of students, and they are forced to take drastic steps. Read more- [Increasing cases of Student suicide in India-A detailed explanation](#)

2) **Financial Concerns:** As per All India Survey on Higher Education (AISHE) report (2019-20), only 21.4% of colleges are under governmental administration, with 78.6% under private entities. Due to high tuition or coaching fees, many families are not able to provide their children with supplementary educational resources such as coaching and tuition. This lack of support places immense and intense pressure on students to succeed in examinations of various kinds. A lack of success then leads to tragedy.

3) **Social and family expectations-** Parental control, emotional detachment, and societal expectations contribute to the sidelining of a student’s individual interest. The inability to satisfy parental expectations can leave young individuals feeling humiliated, dejected, desperate, and harassed. This may force them to take wrong steps.

What are the steps taken by coaching industries in Kota to address this issue?

1) Hostels are now equipped with ‘anti-suicide features’ that include devices fixed to ceiling fans to prevent children from harming themselves. Further, there are iron grills across balconies and passage ways.

2) The local government has stopped all routine testing in coaching institutes for over two months as a temporary measure.

3) Hostel staff are being trained and prepared to deal with the welfare of their wards. There is specialized training in mess administration, psychological support, behavioral counselling and an emphasis on overall student welfare.

4) The Kota police have pushed hostel wardens to become more proactive by endorsing campaigns such as “darwaze pe dastak (knock on door).

It is disturbing to see young students voicing their inner turmoil on social media. Thus, there is an urgent need for our social infrastructure to grow more supportive and accommodative and support these young lives.

Topic - Devolution of Powers and Finances up to Local Levels and Challenges

How can urban allocations be improved?

News: The article discusses the need to empower local governments in India for economic growth and urban development. It suggests using advanced data and tools for city identification, tailored resource location for different city sizes, and a local-government-centric approach for better urban planning and resource distribution.

A detailed article on **Local Governments in India** can be [read here](#)

What are the issues in empowering local governments in India?

Limited Financial Resources: Local governments in India receive minimal funding. They get only 4% of the divisible pool, with cities receiving a meager 1.4%, significantly less than countries like China, where urban investment was 2.8% of GDP from 2000-2014.

Outdated Census Data: Decisions are based on the 2011 Census, which doesn't accurately reflect the current pace of urbanization.

Limited Modern Criteria: Current definitions do not adequately consider modern urban characteristics like mobility, labor markets, and built-up forms.

Complex and Varied Administrative Structures: There are 88 municipal acts across different states and union territories, leading to inconsistent governance and planning standards.

One-size-fits-all approach: Different types of cities, like large metropolitan areas and smaller towns, have unique needs. A one-size-fits-all approach doesn't work well for resource allocation.

For more information read [Article 1](#), [Article 2](#)

How can urban allocations be improved?

Advanced Identification of Cities: Use geospatial tools and alternative data for more accurate city identification, moving beyond reliance on just the 2011 Census data. Examples include population projections from the Union Ministry of Health and Family Welfare, night-time luminosity, consumption expenditure, and data from vehicle and property registrations.

Special Focus on Metropolitan Areas: Allocate resources to metropolitan areas based on outcomes and goals related to economic growth, sustainability, and equity, covering the entire area and treating census towns within these areas as urban.

Differentiated Resource Allocation: The 16th Finance Commission should encourage to differentiate between large, mid-sized, and smaller cities for resource allocation, considering their unique needs and capabilities.

Utilization of Districts for Allocation: Recognize the district as a key unit for resource allocation, especially in the context of India's unique urbanization pattern, to facilitate integrated development.

Local-Government-Centric Approach: Directly allocate resources to urban local bodies based on their share of the total urban population, focusing more on local needs rather than a state-centric model.

What is the expected outcome?

Implementing these changes in urban allocations can lead to better urban planning and development. This approach is crucial for India's economic growth and achieving 'Viksit Bharat', especially aiding smaller cities with populations under 100,000, by setting them on the path of planned urbanization and development.

Subject: Social Justice

Topic- Schemes for the vulnerable Sections like women, children etc.

Gender parity in Green jobs

News-The article highlights the issue of inadequate representation of women in Green jobs.

What is a Green Job?

As per International Labour Organization, it is a decent job that contributes to preservation or restoration of the environment. They can be in traditional sectors such as manufacturing and construction or in new

segments linked to green energy.

What is the status of women participation in green jobs market?

Despite tremendous increase in India's renewable energy capacity, women comprised only 11% of workers in the solar rooftop sector.

The Annual Survey of Industries 2019-20 shows that women workers are mostly concentrated in industries such as apparel, textile, leather, food, and tobacco.

What are the reasons behind their low participation in the green jobs market?

- 1) **Gender Stereotypes**- There is a general belief that women are unsuitable for certain technical roles. There are also concern about the safety of women.
- 2) **Low participation in manufacturing and engineering sector**- In India, Women constitute 42.7% of the total STEM graduates (science, technology, engineering, and mathematics). However, they represent only 30.8% in engineering, manufacturing and construction programmes which are the key sectors for green transition.
- 3) **Lack of robust data**- There are no periodic gender analysis and gender statistics on green jobs.
- 4) **Lack of proper training**- A Skill Council for Green Jobs study indicated that 85% of the training for green skills was imparted to men. Due to lack of green skill, their participation is restricted.
- 5) **Lack of women friendly policies**- There are no dedicated Gender-focused financial policies and products which could cater to the requirements of women entrepreneurs.

What is the significance of enhanced women participation in green jobs?

- 1) **Foster gender equality**- It can address the gender biases in the Indian labour market and improve women's labour force participation rates.
- 2) **Sustainable economy**- It would help in unlocking the benefits of a low-carbon and environmentally sustainable economy.

Read more- [The role of women in developing a knowledge economy](#)

What should be the way forward?

- 1) **Plugging data gap**- There is a need to conduct gender analysis, collecting gender statistics on green jobs through periodic labour force surveys to emphasize women's role in the green transition.
- 2) **Address structural barriers**- There is a need to address issues like low participation of women in manufacturing and engineering field and lack of adequate skill development training for women.
- 3) **Women friendly policies**- The government should devise ways to ensure collateral-free lending, financial literacy training to unlock the true potential of women. COP 28's '**Gender-Responsive Just Transitions and Climate Action Partnership**' with a focus on improved data, targeted finance, and skill development is a step in right direction.
- 4) **Leadership** - There is a need to bring more women into leadership positions to incorporate gender-specific needs in low-carbon economy.
- 5) **Multi-stake holder participation**- There should be partnerships across government, private sector and other stakeholders to ensure the availability of technology and finance for women entrepreneurs and workers.

Businesses must recognize the centrality of gender justice and ensure equity throughout the process of green transition by mitigating existing barriers.

Subject: International relations

Topic- Bilateral, Regional and Global Groupings and Agreements involving India and/or affecting India's interests.

The India-EFTA trade deal : A win-win proposition on various dimension

Context- India has recently signed a free trade agreement (FTA) with four European countries-Iceland, Liechtenstein, Norway, and Switzerland.

What is the European Free Trade Association (EFTA)?

The European Free Trade Association (EFTA) is an intergovernmental organization set up for the promotion of free trade and economic integration to the benefit of its four Member States – Iceland, Liechtenstein, Norway, and Switzerland – and the benefit of their trading partners around the globe.

These are very high-income countries and have a **strong position** in certain supply chains. For ex-in the world of finance, both Switzerland (**through its banking sector**) and Norway (through its **sovereign wealth fund**) have a disproportionate influence.

Liechtenstein has an innovative financial sector, particularly when it comes to ESG (**environment, social, governance**) investing.

Read more- [European Free Trade Association \(EFTA\)](#)

What is India-EFTA trade dynamics?

India's trade with EFTA <small>(in million dollars)</small>			
EFTA countries	Exports	Imports	Trade balance
Iceland	13	5	8
Liechtenstein	0	8	-8
Norway	484	782	-298
Switzerland	1,382	19,657	-18,275
TOTAL	1,879	20,452	-18,574

*CY2023

As shown in the table, India has a **consistent trade deficit** with all the 4 EFTA countries. Switzerland is India's largest trade partner among the groups 4 members.

What is the significance of

India-EFTA trade deal for India?

- 1) **Boost to trade opportunities** -It will empower Indian exporters access to specialized inputs and create conducive trade and investment environment. This would boost exports of Indian made goods as well as provide opportunities for services sector to access more markets.
- 2) **India- EU markets integration**-Over 40% of Switzerland's global services exports are to the EU.Indian companies can look to Switzerland as a base for extending its market reach to EU.
- 3) **Strengthening Make in India and Atmanirbhar Bharat**- It will encourage domestic manufacturing in various sectors like Infrastructure and connectivity, manufacturing, machinery, pharmaceuticals, chemicals, Food Processing etc.
- 4) **Technology Transfer**-EFTA countries could help India integrate cutting-edge technological advancements in its manufacturing, agriculture and service sectors. It could also help India in production of green energy.
- 5) **Win-win proposition**- EFTA countries have cutting-edge technology. However, they lack scale. India can provide scale to these countries.
- 6) **Serves as a template**- India has innovated by including a different kind of "behind-the-border" requirement in its deal with EFTA countries. It has conditioned the lowering of tariffs on the mobilization of largescale investment by the EFTA countries. This could serve as a template when India has to negotiate trade agreements with other developed countries.

The shift in India's foreign policy language - How Delhi talks to world

News: The article discusses how India's foreign policy language is becoming more confident as the country grows stronger economically and militarily. However, this new approach isn't fully embraced by all politicians yet, and the Opposition should focus on constructive debate about India's development and global role.

How has India's foreign policy language evolved?

In India's foreign policy language has **shifted from being defensive to more assertive and confident**. This change reflects India's growing global stature and economic progress.

Examples of this change include India's approach in the India-US nuclear deal in mid 2000s. At that time, India was concerned that a close relationship with US will result in loss of "**strategic autonomy**", but now India has much closer relationship with the US. **The shift from seeing strategic autonomy as merely freedom from major powers' influence to leveraging India's own power marks a significant evolution in its foreign policy thinking.**

The evolution in language also reflects in new terms like "leading power," "net security provider," and "first responder" to regional crises, indicating a proactive stance in global affairs.

For information on **India's foreign policy** [read here](#)

What is the role of the political class in this change?

Adaptation to New Diplomatic Language: The political class, including the Opposition, is slow in embracing India's evolving assertive foreign policy language. Persistent resistance exists among politicians and intellectuals to viewing India as a major power.

Contribution to India's Growth: Political parties, including the Opposition, have contributed to India's growth, being part of coalition governments since 1991. The Opposition's role is now to engage constructively in shaping India's path to development.

Debating India's Future Goals: There is a need for focused political debate on ambitious goal of becoming a developed nation by 2047, as outlined by the India's government.

What responsibilities come with India's growth?

As India's power grows, it faces more responsibilities in shaping the regional and global order. India's role includes contributing to **regional security, managing global commons, setting rules for international commerce, and influencing international institutions.** References to India as a "leading power", "Vishwa Mitra", and "net security provider" highlight its evolving responsibilities.

What are the challenges ahead?

1. Despite India's growing economy, its low per capita income highlights developmental challenges.
2. Becoming a developed country by 2047 is a goal set by the India's current government, a challenging yet inspiring target.
3. Achieving a per capita income of \$12,000 by 2047, from the current less than \$3000, requires substantial economic growth.
4. These challenges include formulating effective economic strategies and industrial policies.
5. Addressing issues like inequality and environmental degradation is crucial for sustainable development.
6. Navigating a changing global order presents complex questions for India's international strategy.

Impact of politics on humanitarian aid: The politics of humanitarian aid

News: The article discusses how politics often interferes with humanitarian aid in conflict zones.

How does the UN Security Council view humanitarian aid?

Selective Enforcement: The UN Security Council's approach to humanitarian aid appears inconsistent. While it calls for aid in Gaza, the U.S.'s abstention and labeling the resolution as non-binding suggest a selective enforcement of aid policies.

Inadequate Action in Conflict Zones: Despite acknowledging the need for humanitarian aid in areas like Syria, Yemen, and Ethiopia, the Council's actions are often limited by political interests of member states, resulting in insufficient aid delivery.

Use of Aid as a Diplomatic Tool: The Council's decisions sometimes reflect the use of aid as a tool for diplomatic leverage, as seen in the case of Afghanistan where aid was provided without significant progress on women's rights.

For information on **UN resolution on the ceasefire in Gaza** [read here](#)

What role does India play in providing humanitarian aid?

Aid to Sri Lanka: In 2008, India, under the Dravida Munnetra Kazhagam government, sent food and clothes to displaced Sri Lankan Tamil civilians. This act was both humanitarian and a political message of solidarity.

Continued Support: In 2022, Tamil Nadu's Chief Minister, M.K. Stalin, sent significant food and medical aid to Sri Lanka during its economic crisis, demonstrating India's ongoing commitment to providing humanitarian assistance.

Global Contribution During COVID-19: India extended its humanitarian efforts globally by sending vaccines to over 100 countries during the COVID-19 pandemic, showcasing its capability and willingness to support international humanitarian causes.

What is the impact of politics on humanitarian aid?

U.S. Funding Decisions: The U.S. Congress halted funding to the UN agency assisting Palestinians, highlighting how political decisions directly impact humanitarian aid distribution.

Gaza's Crisis: In Gaza, political interests led to restricted aid delivery, including a tragic incident where Israeli soldiers killed Palestinians waiting for food, demonstrating the severe consequences of politicizing aid.

Civilian Casualties and Suffering: The shooting of Palestinians by Israeli soldiers while waiting for food aid in Gaza highlights the severe consequences of politicizing humanitarian aid, leading to direct harm to civilians in need.

Africa-At the heart of India's Global South vision

Context- Africa houses three-fourths of humanity and over 39 % of the global GDP. Further, India projects itself as one of the leading voices of the Global South. In this context, there is a need to reform existing structures towards a more inclusive and representative system focused on development.

Read more- [India and Global South](#)

What is the importance of Africa for India's global south vision?

- 1) **Economic Importance-**The potential for economic partnerships between India and Africa is immense. For ex-Indian investments in Africa has reached \$98 billion in 2023, with trade totaling \$100 billion.
- 2) **Strategic importance-**Africa's influence in global forums will be important for India's vision for rule based global governance. India has also advocated the creation of African Union in the G20 summit.
- 3) **Energy Security-** There is great potential for cooperation in this sector. Africa, with 30 % of the world's critical mineral reserves, is vital to ensure the energy transition in India. India needs to build solar panels and batteries necessary for a low-carbon future. This can be provided by the critical mineral reserve of Africa.

What should be the way forward?

India should increase technical capacity building amongst Africa's workforces. India should revamp existing collaborations or establish new ones with African technical organizations to address the issue of skill gap in Africa.

In order to meet India's Global South aspirations, it is important to leverage historical partnerships with African countries.

Topic-India and its neighbourhood- relations.

Gelephu Mindfulness City project: Bhutan's opening move, its Gelephu gambit

News: The article discusses Bhutan's plan to build a carbon-neutral city called Gelephu Mindfulness City, which faces challenges like geography and funding. It's important for Bhutan's economy and India's regional influence, but requires big investments and cooperation from India..

What is the Gelephu Mindfulness City project?

Nature of the Project: Gelephu Mindfulness City (GMC) is a planned carbon-neutral city in Bhutan, spanning 1,000 square kilometers.

Focus Areas: It will concentrate on eco-friendly industries such as IT, education, hotels, and hospitals.

Economic Necessity: Bhutan aims to diversify its economy beyond hydropower and tourism, addressing challenges like youth outmigration.

What are the challenges faced by the Gelephu Mindfulness City project?

Geographical Challenges: Gelephu's location on a broad plain in a mountainous area leads to high rainfall and flooding during monsoons.

Environmental Concerns: The city is situated near wildlife corridors, which requires careful planning to prevent disturbing natural habitats.

Regional Security: Past insurgencies in nearby Assam and Myanmar, and a history of militant activities in the area, highlight security challenges.

Infrastructure Dependencies: As a landlocked area, Gelephu is dependent on neighboring countries, mainly India, for essential infrastructure like trade and transport.

Economic Constraints: The project requires significant investment for infrastructure development, including upgrading the local airport to international standards.

Political Dynamics: The initiative is influenced by Bhutan's economic needs and geopolitical factors, including relationships with India and China.

What are the implications of the Gelephu Mindfulness City project?

Implications for India:

Strategic Influence: India's involvement in the Gelephu project strengthens its influence in South Asia, countering China's growing presence.

Economic Benefits: The project dovetails with India's regional connectivity plans, enhancing trade routes and infrastructure development.

Investment Opportunities: India's role in financing and expertise, particularly in airport expansion, opens avenues for further investments in Bhutan.

Global Implications:

Environmental Model: The carbon-neutral aspect of Gelephu Mindfulness City sets a precedent for sustainable urban development globally.

Geopolitical Balance: The project offers Bhutan a platform for international engagement, potentially balancing relations with India and China.

Regional Connectivity: The city's location is strategic for India's "Act East" policy, improving connectivity to Southeast Asia and the Indo-Pacific region.

India-Nepal relations

News- Nepal's Prime Minister Pushpa Kamal Dahal Prachanda has recently won a vote of confidence in the 275-member lower house of Parliament recently.

What are areas of cooperation between India and Nepal?

1) **Humanitarian aid** - During the Covid-19 pandemic, India aided more than \$7 million to Nepal. This included the supply of more than 23 tones of medicines and medical equipment, more than 9.5 million doses of vaccines, and a medical oxygen plant.

2) **People to people exchange**-About 8 million Nepalese citizens live and work in India, and some 6 lakh Indians live in Nepal. Indians are about 30% of foreign tourists in Nepal. The bilateral remittance flow is estimated at \$3 billion from Nepal to India, and \$1 billion in the opposite direction.

A detailed article on India-Nepal Relationship can be [read here](#).

What is the impact of political instability in Nepal on India?

1) **Rise of Anti-India stance**- The new partner in the government is K P Sharma Oli's Communist Party of Nepal (Unified Marxist-Leninist) which is known to have anti-India sentiments. For ex- During infamous trade blockade, Oli the then Prime Minister, portrayed India as the neighborhood bully in his country.

2) **Pro China tilt**-China has been pouring aid and investment in infrastructure to take Kathmandu away from New Delhi. Nepalese imports from China have almost tripled from last few years. With Oli, who has **clear China leanings**, back in government in Nepal, India will have to be more vigilant. India must keep people of Nepal at its Centre. It must ensure that China or its proxies do not get an opportunity to increase suspicion against India. More than an "elder brother", India should try to be an equal partner for Nepal.

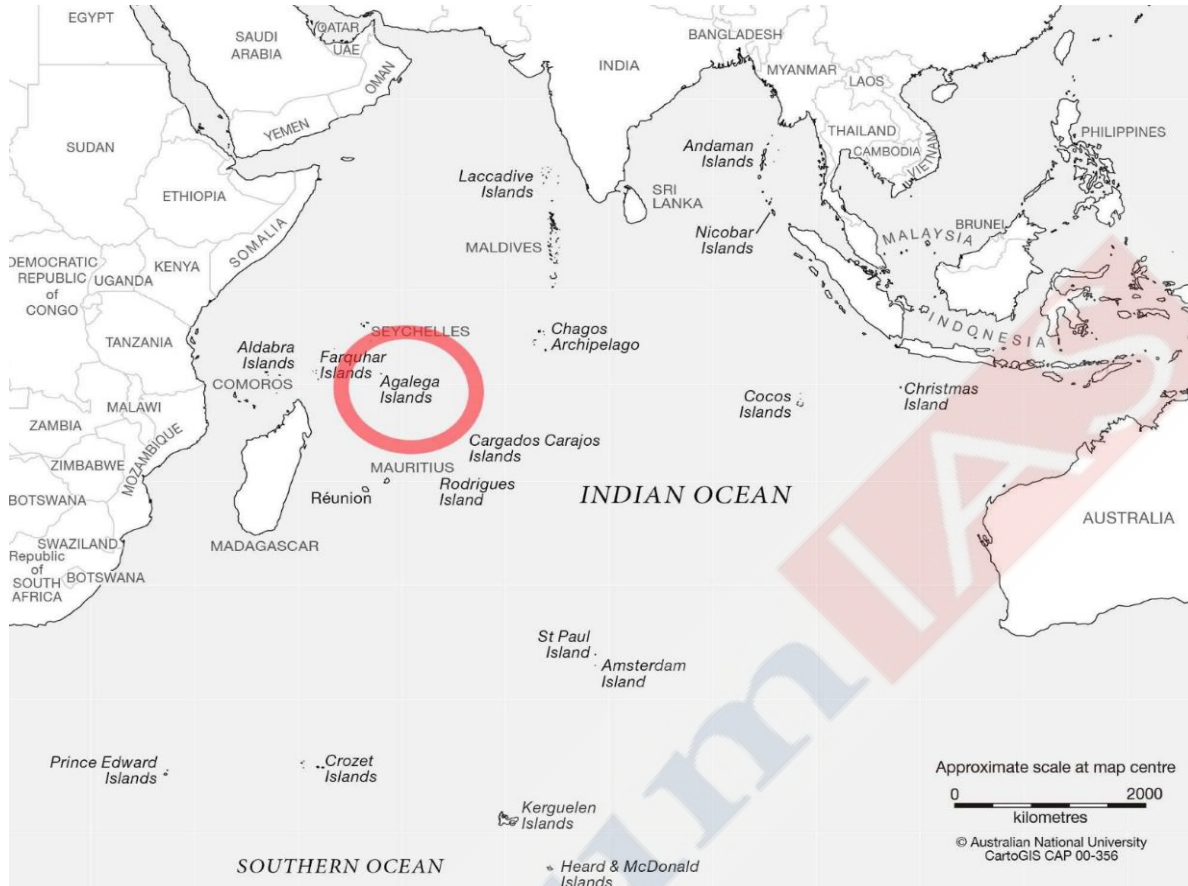
Topic: International Relation-Effect of policies and politics of developed and developing countries on India's interests,

Development of Agaléga - India's rising power in the Indian Ocean

News- Prime Ministers of India and Mauritius have jointly inaugurated an airstrip and the St James Jetty on North Agaléga Island in the Indian Ocean.

Where is the Agalega island situated?

Agaléga are two outer islands of Mauritius located in the Indian Ocean, about 1,000 kilometers (about 621.37 mi) north of Mauritius island



Source-Low institute

What is the significance of creating basic infrastructure in Agalega island for Mauritius?

1) Economic Significance: -

- A) It will reduce two-day journey time from agalega island to Mauritius to less than an hour's flight.
- B) It will create employment for the local population and improve their overall well-being.
- C) It would help in tapping the tourism potential of the islands.

2) Strategic significance-

The new jetty and airstrip will allow the stationing or forward deployment of ships of the Mauritius Coast Guard. This will significantly enhance the capabilities and capacities in marine surveillance and security.

Read more- [Comprehensive Economic Cooperation and Partnership Agreement\(CECPA\) between India and Mauritius](#)

What is the significance of development of Agalega island for India?

1) Deepening of India-Mauritius relations: -

- A) **Enhanced goodwill-** It will enhance the goodwill and trust between the two countries. This would help India to project itself to other maritime neighbors a benign and friendly country that respects the sovereignty of independent nations.
- B) **Multi-dimensional cooperation-** India and Mauritius are cooperating in all areas like monitoring of Exclusive Economic Zone, joint patrolling, hydrography, and Humanitarian Assistance and Disaster Relief. This will help India to sustainably use its exclusive economic zone in Indian Ocean region.

2) Geostrategic significance-

A) **Strengthen SAGAR initiative**-The joint development of Agaléga highlights India's commitment to the vision of Security and Growth for All in the Region (SAGAR) by assisting smaller maritime nations in building capacity and developing capability.

B) **Counter String of pearls**-China has built many assets in the Western Indian Ocean, such as the bases in Djibouti and Gwadar.

The development of ports in Agalega will provide strategic access to India dubbed by some analysts as the "necklace of diamonds" as against the "string of pearls" ports that provide access to the Chinese.

C) **Enhanced surveillance of Indian ocean**- With the maritime empowerment of Mauritius through the Agalega project, India can also monitor important ocean lines in the Western Indian Ocean.

D) **Reinforce India's role as net peace provider in the Indian Ocean Region**-It will help India to transform into influential blue-water power and become the voice of the Global South.

It will also highlight India's critical role as a net peace provider in the Indian Ocean region and maintaining overall peace, stability and security in the region.

Developing rail networks to improve economic ties and transportation efficiency

News: The article discusses the development of railway connections among Bangladesh, Bhutan, India, and Nepal (BBIN). This network aims to reduce transportation costs and time, improve trade, and support economic growth in these countries.

What is the BBIN initiative?

Regional Collaboration: The BBIN Initiative involves Bangladesh, Bhutan, India, and Nepal working together to enhance regional connectivity.

Focus on Railway Development: The initiative prioritizes developing rail networks to improve economic ties and transportation efficiency.

Economic Growth and Development: By connecting these countries more effectively, the initiative aims to boost economic growth and reduce transportation costs.

For more information on BBIN initiative [read here](#)

How are railways helpful in the regional growth of these countries?

Cost and Time Efficiency: Railways reduce transportation costs and times significantly. For instance, rerouting a freight train from Kolkata to Agartala through Bangladesh cuts transit time and costs by two-thirds.

Access to Ports: Landlocked Nepal and Bhutan gain access to major ports like Chattogram and Mongla, enhancing their trade capabilities.

Economic Integration: Improved rail connectivity fosters economic interdependence and growth among BBIN countries.

Revenue Generation: Enhanced railway links can increase revenue for countries like Bangladesh through transit fees and other charges.

Environmental Benefits: Railways offer a greener mode of transport, reducing greenhouse gas emissions compared to road transport.

What are the key projects in the BBIN initiative?

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Agartala-Akhaura Rail Link: This crucial link connects Northeastern India with Bangladesh, reducing the Kolkata to Agartala route from 1,600 km to just 500 km.

Khulna to Mongla Port Railway: This line in Bangladesh enhances connectivity between western, northern Bangladesh, India, and Bhutan.

Tongi-Akhaura Line Dual Gauging: Upgrading this line is part of the India-Bangladesh joint initiatives, improving connectivity and efficiency.

Hilli-Birampur Connection: This new link is aimed at enhancing cross-border rail connections between India and Bangladesh.

Jayanagar-Bijalpura-Bardibas Line in Nepal: The only cross-border rail link between India and Nepal, with plans to extend it further.

Gelephu-Kokrajhar Link Between Bhutan and India: A proposed rail line connecting Bhutan directly to the Indian railway network, facilitating easier access to Bangladesh through the Haldibari-Chilahati interchange.

How are regional rail connectivity projects being funded and executed?

Joint Funding and Execution: Unlike traditional individual country financing, these rail projects are being funded and executed through collaboration among the BBIN countries (Bangladesh, Bhutan, India, Nepal).

Support from the Indian Government: India is playing a significant role by extending lines of credit, offering assistance from the MDoNER (Ministry of Development of North Eastern Region) budget, and supplying rolling stock.

Involvement of International Organizations: The World Bank and the Asian Development Bank (ADB) are providing long-term loans and viability gap funding, contributing to the financial support of these projects.

Development Plans by Each Country: Governments of Bangladesh, Bhutan, and Nepal have also put forth their own development plans, showing commitment to the project and shared regional growth.

Way forward

To progress, the BBIN initiative should focus on timely completion of key railway projects like the Agartala-Akhaura link and the Khulna-Mongla line. Additionally, establishing effective cross-border protocols and regulatory frameworks is crucial for seamless operation and maximizing the economic and environmental benefits of these rail networks.

WTO 13th Ministerial Conference (MC13): Key Outcomes, Challenges

News- The World Trade Organization's 13th Ministerial Conference (MC13) recently concluded in Abu Dhabi. This article discusses the various outcomes of the conference and the challenges that remain unanswered.

What are some of the positive outcomes of the conference?

1. **E-commerce tariff moratorium extended-** WTO members agreed to extend the moratorium on e-commerce tariffs for two more years. India, Indonesia and South Africa had signaled their opposition to renewing the e-commerce moratorium, but supported it in the end. They are among countries worried about losing control of data flows.
2. **Strengthen Multilateral Trading System-** Members pledged to uphold and enhance the capacity of the multilateral trading system, with the WTO as its foundation, to address present trade challenges

What are the challenges?

1. **US Obstructionism in WTO-** The appointment of new members to the Appellate Body (AB) has been unilaterally blocked by the US. The body was supposed to be reformed by 2024, but that deadline has been missed.

2. **Fisheries subsidies-** Developing countries like Brazil emphasized their commitment to discussions on fisheries subsidies, as the West attempted to ban such subsidies. They highlighted the importance of resolving

the issue to advance sustainable fishing practices globally.

3. India's Food security Challenge- India urged for a permanent solution to the public stockholding (PSH) issue for food security at the ministerial meeting. India stated that resolving the pending issue of PSH is crucial for achieving food security and improving the livelihoods of millions.

Way forward

India, as a leader of the Global South, should form alliances with like-minded nations such as South Africa and small island states. Through this approach, India can offer alternative viewpoints and initiatives that better reflect the concerns and objectives of developing countries.

India Joining the IEA as a full member- India and the IEA: Friends with benefits?

News: This article discusses India's potential full membership in the International Energy Agency (IEA). It highlights the importance of including India, given its growing energy consumption and role in climate change.

About India joining the IEA

India requested to join the International Energy Agency (IEA) as a full member. This discussion started during IEA's 50th anniversary.

India would be the first non-OECD (Organisation for Economic Co-operation and Development) country to join, reflecting the changing global energy landscape.

For information on IEA [read here](#)

What is the Significance of India Joining the IEA?

Benefits for India:

Enhanced Global Influence: As the world's third-largest energy consumer, India's full membership in the IEA can increase its global influence in energy decisions.

Energy Transition Support: India's ambitious renewable energy goals, like tripling non-fossil electricity capacity by 2030, can gain support and expertise from the IEA.

Learning from IEA Expertise: India can benefit from the IEA's experience in energy security and climate-proofing economies.

Benefits for IEA:

Reflecting Current Global Energy Trends: Including India reflects the shift in energy consumption from OECD countries to emerging economies.

Addressing Climate Change: India's role in global energy consumption makes its participation crucial in global climate efforts.

Balancing Energy Needs with Climate Goals: The IEA can work with India to balance its rising energy needs, especially in fossil fuels, with global emission reduction targets.

What Challenges Exist in India Joining the IEA?

Differing Energy Priorities: India's increasing fossil fuel consumption, including a potential 20% rise in oil use by the end of the decade, contrasts with the IEA's focus on reducing fossil fuels.

New Coal Capacity Concerns: Plans to build 40-80 GW of new coal electricity generation in India conflict with the IEA's stance against new coal capacity without expensive carbon removal technologies.

Oil Reserve Requirements: India currently has less than a week's strategic oil reserve, far below the IEA requirement of a 90-day emergency reserve, posing a compliance challenge.

Balancing Economic Growth with Emission Reductions: Aligning India's rapid economic growth with global emission reduction efforts presents a complex negotiation issue.

How does India's energy consumption impact the world?

Major Contributor to Global Energy Demand: India's growing population and economy significantly increase global energy demand.

Influence on Global Emissions: As a major greenhouse gas emitter, India's energy choices directly affect global emissions. Its success in renewable energy and emission intensity reduction is crucial for global climate goals.

Setting a Precedent for Developing Nations: India's path in balancing economic growth with sustainable energy practices can serve as a model for other developing countries.

Driving Global Energy Transition: India's commitment to increasing renewables, like targeting a tripling of non-fossil electricity capacity by 2030, influences global energy market trends and investments.

Way forward

To move forward, the IEA and India should focus on mutual goals while respecting their differences. India's energy growth and transition to renewables, like its ambitious 2030 targets, are key. Balancing India's oil and coal usage with global climate goals is essential, requiring cooperation and understanding from both sides.

Shift of focus-From Indo-Pacific to Indian ocean region

Context - The Indian government has attached great focus on the Indo-Pacific region to strengthen the Quad. However, policy attention has shifted back to the Indian Ocean since October 2023 due to certain compelling reasons.

What was the need to shift focus from Indo-Pacific to Indian ocean region?

1) **Deterioration of India-Maldives relations** -The Maldives, with Mohamed Muizzu as President, has adopted an anti-India attitude. Despite New Delhi's patience and diplomatic tact, Male continues to deepen its pro-China policies. China has recently announced a new agreement under which unspecified military assistance would be extended to Maldives.

2) **Regionalization of Israel-Hamas conflict** - Both the Western Indian Ocean and the Northern Indian Ocean that stretch from the Arabian Sea to the Suez have become active geographies.

There is gradual regionalization of the Israel-Hamas conflict. This was reflected in the attacks by Houthi rebels on international shipping which led to a massive drop in transits through the Suez Canal.

3) **Intensification of strategic contest between India and China**-China's strategic intent is to create an adverse environment for India's security by turning the country's neighbours against it. For ex- building of naval bases in Indian ocean littoral states such as Djibouti, Kyaukphyu, Gwadar, and Hambantota.

4) **Strategic ambiguity of European nations**-While European nations are concerned about China's illegal claims in the South China Sea,they fail to acknowledge China's **assertiveness** and **hostile intent** in Indian Ocean also. The geographic distance of the European nations from China gives them a sense of security.

Read more- [Strategic significance of Indo-Pacific region for India](#)

What should be the way forward?

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1) **Priority to Indian ocean region**- India needs to convey a clear message to its strategic partners that while it is conscious of its Indo-Pacific responsibilities, it must prioritize the Indian Ocean region to secure its strategic interest in its immediate neighborhood.

2) **Review of IORA & CSC**-There is a need to review the working of Indian Ocean Rim Association (IORA) and the Colombo Security Conclave (CSC). IORA has been underperforming and CSC faces the danger of losing the Maldives due to its pro-China tilt.

3) **Creation of Indian Ocean Cooperation Organization**- There should be the creation of a new organization called Indian Ocean Cooperation Organization to bolster maritime security and optimizing the potential for the Blue Economy.

This group may comprise of four nations from the neighbourhood (India, Sri Lanka, Bangladesh, and Myanmar) and four island states (Mauritius, Seychelles, Comoros, and Madagascar).

4) **Strengthening Indian Navy**- Foreign Affairs Insights & Review ranked the Indian Navy the seventh most powerful in the world. To contain aggressive posturing of China and to become net security provider in Indo-Pacific, India should find new budgetary resources for its Navy to make it the third or fourth strongest.

Two wars and the consequences for America's standing

Context - United States Senate Majority Leader Chuck Schumer demanded a new government in Israel in the wake of rising civilian tolls in Israel Ghaza war. This was equivalent of a political earthquake hitting U.S.-Israel ties that are becoming increasingly fragile.

What is the role played by USA in The Israel-Hamas and the Ukraine wars?

1) Ukraine war-

A) The U.S.A. has provided \$75 billion in military and civil aid to Ukraine since February 2022. This aid has been used in weapons purchases, keeping the government functional and its humanitarian requirements.

B) USA is providing substantial intelligence support to Ukraine in the form of real-time information on Russian deployments.

2) **Israel-Ghaza war**- It is perhaps, the only major country supporting Israel. Further, a substantial aid for Ukraine has been diverted for Israeli use by the Americans last October.

Read more- [Ramification of regime change in USA for India](#)

What will be the impact of U.S. election-year politics on both these wars?

1) **Current government retaining the power**- The trajectory of the Biden policy and its shape is known. However, great political and demographic changes are taking place in the manner with which the U.S. views the world. For example- younger Americans are less positively inclined to Israel than the older ones. As per YouGov poll, more people between the ages of 18 to 29 empathized with Palestinians than with Israelis. Thus, there will be cloud of uncertainty.

2) Victory of Donald trump-

A) **Ukraine War** - This would definitely affect U.S. policy towards Ukraine. He has already stated the USA would suspend military aid to Ukraine and his government would try to quickly negotiate an end to the Russia-Ukraine war.

2) **Israel-Ghaza war**- As for is Israel is concerned, his government will remain a strong supporter. It is important to know that it was his government that has recognized Jerusalem as the Israeli capital in the place of Tel Aviv.

So, it is possible that his government may not criticize Israeli government for human rights violation in Ghaza.

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These policies may undermine the role of the U.S. as a guarantor of European security. Its unreliability will also affect its alliance relationships in the Indo-Pacific — with South Korea, Japan and the Philippines, and its growing partnership with India.

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

Investment Facilitation for Development (IFD): WTO's investment facilitation negotiations are not illegal

News: The article discusses India's opposition to the Investment Facilitation for Development (IFD) Agreement at the WTO's 13th Ministerial Conference in Abu Dhabi. India is concerned about including investment in WTO agreements and the process of making IFD a part of WTO rules.

What is Investment Facilitation for Development (IFD)?

IFD is a proposed agreement within the World Trade Organization (WTO), aimed at making it easier for investments to flow globally.

It intends to enhance regulatory transparency and streamline administrative procedures, fostering a more conducive environment for foreign investments.

Notably, the IFD does not include provisions on market access, investment protection, and investor-state dispute settlement (ISDS).

Over 70% of WTO members, about 120 of 166 countries, support the IFD agreement.

The agreement was to be included as a plurilateral agreement (PA) within Annex 4 of the WTO Agreement, as allowed by Article II.3 of the WTO Agreement.

PAs are binding for WTO members that accept them and do not impose obligations on others.

The IFD agreement, finalized in November 2023, was launched under the Joint Statement Initiative in 2017, indicating a shift in how WTO handles investment-related discussions.

For information on **Investment Facilitation Agreement** [read here](#)

Why does India oppose the IFD agreement?

India, along with South Africa, was key in opposing the inclusion of IFD in the WTO rulebook.

The opposition is based on two main concerns: the suitability of including investment under WTO's scope, and the process of integrating IFD into WTO rules.

India contends that there was no collective decision to start negotiations on an IFD Agreement within the WTO framework. This stance is based on past decisions, like the 2004 WTO General Council ruling and the 2015 Nairobi ministerial decision, emphasizing the need for consensus among all members to initiate new negotiations.

Is Investment Considered Part of Trade?

OECD data showing that approximately 70% of international trade occurs within global value chains involving both trade and investment

Modern free trade agreements, such as the **Regional Comprehensive Economic Partnership (RCEP)** and the **Comprehensive and Progressive Agreement for Trans-Pacific Partnership**, often include detailed investment provisions, reflecting the link between trade and investment.

India's trade agreement with the European Free Trade Association also contains investment elements, further substantiating the relationship between trade and investment.

What is the Significance of the IFD Agreement?

Streamlining Global Investment: The IFD Agreement's primary goal is to simplify administrative procedures and increase regulatory transparency, aiming to bolster foreign investment inflows.

Excluding Certain Provisions: The focus of the IFD towards the facilitation of investment rather than addressing these broader investment-related issues, like market access, investment protection, and investor-state dispute settlement (ISDS).

WTO Evolution: The IFD represents an evolution in the WTO's scope, potentially incorporating investment alongside trade.

Plurilateral Agreement Framework: Its integration as a plurilateral agreement within the WTO indicates a shift towards more flexible, inclusive frameworks for international economic cooperation.

GS Paper 3

Subject: Indian Economy

Topic- Issues relating to Planning, Mobilization of Resources, Growth, Development and Employment

Informal waste picker: Indispensable but invisible part of workforce

News-The article highlights the exclusion and marginalization of informal waste pickers.

What is the definition of Informal Waste Management Sector?

As per **The International Labour Organization**, they are individuals or small and micro-enterprises that intervene in waste management without being registered. They are not formally charged for providing waste management services.

What is the percentage of informal waste pickers in India's workforce?

There are no reliable estimates of informal waste pickers in India. However, as per the **Periodic Labour Force Survey 2017-18**, India has nearly 1.5 million waste pickers in its urban workforce. The workforce usually consists of women, children and the elderly, who are often disabled, are the poorest of the urban poor, and face violence and sexual harassment.

A detailed article on "Waste Management in India: Status, Challenges and Solutions" can be [read here](#).

What are the challenges faced by informal waste pickers in India?

- 1) **Lack of data-**There is no reliable data on exact participation of informal waste pickers in India's workforce. This prevents their integration into the formal economy.
- 2) **Lack of recognition-**They are not recognized and acknowledged by society for their work. Although, they play an important role in sustainable urban waste management.
- 3) **Neglect of health-**They live near dumpsites and work under unhygienic and unhealthy conditions. This leads to dermatological and respiratory health issues apart from regular injuries.

4) **Social Discrimination**-They are treated as dirty and unwanted elements of society, and they have to deal with exploitative social behaviour.

5) **Loss of employment due to Private sector participation**- As per **Alliance of Indian Waste Pickers (AIW) 2023 report**, private actors use expensive machinery and offers competitive rates to waste generators such as households and businesses.

This deprives the informal pickers of their employment and forces them into hazardous waste picking.

6) **Extended Producer Responsibility**- According to report of **Women in Informal Employment: Globalizing and Organizing (WIEGO)**, it redirects waste **away** from the informal sector. This leads to large-scale unemployment of informal waste pickers.

What should be the way forward?

1) **Plastic treaty**- This is a UN endorsed resolution to end plastic pollution. However, it must ensure that employment of informal waste pickers is not endangered.

2) **Reforms in EPR (Extended Producer Responsibility)**-EPR guidelines should prioritize the welfare of informal waste pickers. This will be a win-win situation as waste pickers possess traditional knowledge around handling waste and this knowledge can be utilized to strengthen EPR.

Bloomberg including Indian bonds in its index- Confidence booster

News: The article discusses Bloomberg adding Indian government bonds to its index, which is expected to attract foreign investment and help India's economy.

About inclusion of India's government bonds to emerging market index.

Bloomberg will include Indian government bonds in its emerging market index starting January 31, 2025, over 10 months.

This follows JP Morgan's inclusion of Indian bonds starting in June 2024.

The initial inflow from Bloomberg's inclusion is expected to be \$2-3 billion.

What is the significance of Bloomberg including Indian bonds in its index?

Boost to Indian Debt Market: Bloomberg's inclusion of Indian bonds in its index significantly boosts the Indian debt market. (Expected to attract \$2-3 billion initially)

Confidence from Global Investors: Following JP Morgan's earlier inclusion, Bloomberg's decision signals strong confidence from international investors in the Indian economy.

Impact on Fiscal Deficits: Helps the Indian government finance fiscal and current account deficits by bringing in foreign savings.

Stable Investment Flow: Investments from funds tracking the index are typically passive and considered more stable.

Economic Strength Indicator: Reflects confidence in India's macroeconomic stability, highlighting its growth and substantial foreign exchange reserves.

Risk Management: Calls for agile macroeconomic management due to the increased risks associated with higher foreign exposure.

What are the risks involved in including Indian bonds in the emerging market index?

Increased Market Volatility: Higher foreign investment can lead to greater market volatility, especially during global financial stress.

Currency Fluctuations: Large foreign fund movements can cause instability in the value of the Indian rupee.

Economic Impact of Reversed Flows: As per the RBI Governor's statement, an increase in index weighting brings inflows, but a decrease could lead to outflows, posing economic challenges.

Way forward

To manage the risks from Bloomberg's inclusion of Indian bonds, India needs to maintain low fiscal and current account deficits, ensure stable inflation, and actively manage foreign exchange flows. The Reserve Bank of India will play a crucial role in stabilizing the currency and mitigating volatility.

RBI and the net-zero transition

News-The article discusses the new draft brought out by RBI to help banks understand and manage climate-related financial risks.

Context- As fossil-fuel consumption is phased down over the coming decades, the financial system will have to prepare for this change.

What is the net zero target?

It is a state in which a country's emissions are compensated by the absorption and removal of greenhouse gases from the atmosphere.

Indian government has committed to cut its emissions to net zero by **2070** at the conference of parties-26(COP) summit.

Read more- [Achieving Net Zero by 2070 and the Associated Challenges](#)

What are the steps taken by the RBI to align its policies to the net zero target set by the government?

- 1) The introduction of lending to renewable energy under priority sector lending.
- 2) A framework for green deposits.
- 3) Releasing reports that assess climate risks.

What is the need to bring new draft by RBI?

- 1) As per RBI estimates, banks' current exposure to utilities, metal and transport is relatively higher. The transition to net zero may have implications for the financing of these sectors.
- 2) There would be more demand for green investment after the decline in consumption of fossil fuel-based assets. It will become difficult for the financial system to strike a balance between two demands because most fossil fuel assets are funded by banks and other financial institutions.

What are the themes of reporting as per the new draft by RBI?

The draft by RBI sets three thematic pillars for reporting:

- 1) **Governance-** The framework expects financial institutions to provide information on their internal processes to ensure capacity or understanding of climate change-related issues and oversight.
- 2) **Strategy-** The regulated entities will have to specify the kinds of issues and impacts that may arise over different time horizons, that is, short, medium and long term. It is specifically important for long-term lending to sectors in transition and sectors that are prone to extreme weather events.
- 3) **Risk Management-** Transition risks can impact differently under the various scenarios. Therefore, the framework seeks information from entities on the assessment of stress through climate-scenario analysis.

RBI has taken a step forward by introducing the draft that aligns well with international standards. There is a need to keep a watch on the asset quality not just in fossil fuel-based sectors but also in “green” sectors to ensure a smoother journey to net zero.

Right to Apprenticeship law

News-The article presents a critical analysis of mandating Right to Apprenticeship law.

What is the Right to Apprenticeship law?

This is a proposed law which mandates private or public sector players to provide a one-year internship to any college degree/diploma holder on demand. The internship will be partially funded by the government.

What are the problems associated with mandating such law?

- 1) **Hampers business ecosystem** - The idea of forcing companies to accept candidates seeking temporary employment is undesirable. The decision to hire, even if for only a year, should be the employer’s prerogative and not a government diktat. This will discourage private investment in India.
- 2) **High cost for private players** - The student does not contribute much to the firm’s revenues during training. Further, there’s no certainty that the apprentice who has acquired the requisite skills will remain after the training period is over. Thus, it may be an uneconomical proposition for private industries.
- 3) **Limitation of MSMEs**- MSMEs will have difficulty in investing resources for training employees due to their financial and logistical limitations.

Read more- [Skill Development – Initiatives, challenges and solutions](#)

What is the significance of mandating the Right to Apprenticeship law?

- 1) **Creation of skilled workforce**- The government subsidizing an apprenticeship training system in private industry may pave the way for proper skilling of young workforce. It can also enhance academic-industry linkage.
- 2) **Mainstreaming of employment issues**-The legal and statutory right would create the onus on the government to pay special focus on employment for youths.
- 3) **Minimize populist scheme**- A government-financed workforce training programme can incentivize private companies to hire trained people. This is better than giving unemployment allowance schemes which lead to high fiscal deficit for state governments.

Shift from “Make in India” to “Make Products in India”

Context-The article highlights the need to shift from Make in India to Make Product in India for realizing the vision of Viksit Bharat.

What is the need for this shift?

- 1) **Ensuring high growth rate**-India’s annual growth must consistently surpass 10 to 12 % for next many years to achieve a developed country status. In this context, it is important to focus developing products in domains like electronics, automobiles, and defence which can drive India’s growth at a faster pace. For ex-South Korea’s success could be attributed to the development of these sectors.
- 2) **Knowledge driven economy**- In a tech-driven knowledge economy, a product’s intellectual property

contributes half its value. This makes it challenging to equal value-creation through manufacturing only. Hence, there is a need to shift from Make in India to Make Products in India.

Read more- [An analysis of PLI \(production-linked incentive\) scheme](#)

What steps can be taken to shift from Make in India to Make Products in India?

- 1) **Liberalize research & development** - There is a need to open research and development(R&D) beyond the public sector. This has been successfully done in the case of space and drones. There is a need to add atomic energy and deep-sea exploration to this list.
- 2) **Public-Private partnership**- There is a need to transform competition into meaningful partnerships. For instance, during the Covid pandemic, the National Institute of Virology, an ICMR lab, isolated the strains of SARS-Cov-2 virus and shared them with Bharat Biotech. This led to the development of Covaxin, which became available in just a few months.
- 3) **Ease of doing innovation**- Regulators must prioritize innovation over adherence to rules. For ex-during pandemic, despite the rules not providing for emergency use authorisation, authorities invoked a generic provision and issued restricted use licences for vaccines.
- 4) **Government procurement**- An OECD survey in 2017 revealed that 80 % of nations supported innovation through assured government procurement. It acts as a validation for innovators, instils consumer confidence, and ensures revenue streams, thereby mitigating risk.
- 5) **Government Funding** - There is a need to mitigate risk in product development through government funding. India should learn from successful models like Darpa in the USA and Jozma in Israel. There should be expansion of iDEX model beyond defense.
- 6) **Demographic dividend** - India's demographic dividend needs to be leveraged to create a sizable talent pool in emerging technologies. Academic universities should be transformed into hubs that nurture entrepreneurship and innovation.
- 7) **Brand building for indigenously developed products** - Indian Brand Equity Foundation should be tasked with creating global brands for indigenously-developed-products. Further, the government should promote export of indigenously developed products through bilateral and multilateral mechanisms.
- 8) **Standard Making** - Geopolitics plays a huge role in standard making. For ex- delayed World Health Organization approval for Covaxin. Thus, to assert influence, the government must collaborate with industry to secure decision-making roles in global bodies.

“Make Products in India” is a strategic imperative and immediate government attention is necessary.

Problems faced by Gig workers

Context- The survey titled “Prisoners on Wheels” highlighted the plight of cab drivers and delivery persons in India

What is a gig worker?

According to the Code on Social Security, 2020, A gig worker is a person who performs work or participates in work arrangements and earns from such activities, outside of the traditional employer-employee relationship.

What is the status of gig workers in India?

There are over 7 million gig workers in the country. It may rise to 23.5 million by 2030.

Read more- [Labour Reforms](#)

What are the issues faced by the gig workers as revealed by the recent survey?

- 1) **Exploitation at multiple levels**-The survey revealed a picture of overwork, financial struggle, caste discrimination, and arbitrary work culture for gig workers.
 - 2) **Underpaid**-The majority in both categories, that is cab drivers and delivery persons, have reported low fares and rates with higher premium reductions by platforms.
 - 3) **Toxic work conditions**- There are issues of arbitrary ID deactivation, and customers behaving badly with cab drivers.
 - 4) **Lack of social security provision**-They are not provided with social security benefits like accident, health, and retirement benefits
 - 5) **Lack of political will**- One of the labor codes passed by Parliament provides some protection to gig workers. However, the rules have not been framed at the all-India level.
- There is a need for robust legislative protection for gig workers. However, the law should not be so stringent that it should stifle the growth of formal employment.

Need for reforms in India's Unified Payments Interface (UPI) system

News: The article discusses the need for reforms in India's Unified Payments Interface (UPI) system.

What is the current status of UPI in India?

High Usage: As of February 2024, UPI recorded 12.1 billion transactions amounting to ₹18.3 trillion.

Dominant Payment Method: UPI transactions constitute over 80% of India's digital payments.

Free of Charge: UPI services are offered without transaction fees for both peer-to-peer and customer-to-merchant payments.

Government Support: Partial compensation for UPI enablers comes through a government scheme, despite the service being free.

For information on UPI [read here](#)

What are the benefits of UPI in India?

Public Good Status: As supported by the Finance Minister, UPI is considered a digital public good, demonstrating its importance and utility for the general population.

Economic Impact: By facilitating easy and cost-effective transactions, UPI contributes significantly to the digitalization and efficiency of India's economy.

User Trust: UPI's widespread adoption and major market share in India's digital payments sector highlight its benefits. Its reliability and ease of use have fostered trust among millions, making it a preferred choice for seamless financial transactions.

What are the criticisms of UPI in India?

Monopolistic Control: National Payments Corporation of India (NPCI) sole authority over UPI limits competition and could lead to complacency.

Regulatory Concerns: The Reserve Bank of India, despite not holding equity in NPCI, plays a conflicting role as both owner and regulator.

Sustainability Issues: The zero-charge model for UPI transactions, though popular, raises concerns about

long-term viability.

Imbalanced Market Share: Dominance by foreign entities like PhonePe and Google Pay, holding over 80% market share, limits local and smaller players' opportunities.

Lack of Transparency: NPCI's status as a not-for-profit organization and the unclear revenue model for participants create opacity in the UPI ecosystem.

For information on NPCI [read here](#)

How can the UPI system be improved?

Introduce Transaction Fees: Implementing merchant discount rates (MDRs) for UPI could make the system financially sustainable.

Encourage Competition: Licensing new entities, possibly as competitors to UPI, would enhance innovation and efficiency.

Promote Transparency: Clear policies on business revenue models for participants are needed for better financial clarity.

NPCI's Corporate Transformation: Transitioning NPCI to a for-profit company could increase transparency and investment opportunities.

Market Share Regulation: Instead of setting a quota for UPI players, alternative methods to encourage diversity in the market should be explored.

RBI's Policy Revision: Reconsidering RBI's decision to not pursue new umbrella entities (NUEs) might invigorate the digital payment landscape.

India's Goal for 2047: Sustaining rapid growth is challenging

News: The article discusses India's goal of becoming a developed country by 2047. It explains the challenges and factors needed for economic growth, comparing India's progress with other countries and emphasizing the importance of good policies and global conditions.

What is India's Goal for 2047?

Developed Country Status: India's primary goal is to become a developed country by 2047, focusing on broad societal and economic development.

High-Income Economy: The target is to reach a per capita income of about US\$14,000, aligning with the World Bank's high-income country criteria.

Improving on Past Performance: Recognizing slower growth in earlier decades, the goal is to significantly accelerate development, similar to the post-1990s economic reforms.

What are the factors needed for India to become a developed country by 2047?

Economic Growth: India needs to **maintain an 8% annual growth rate until 2047**. This mirrors the growth rates of nations like South Korea and Singapore that have successfully developed.

Policy and Governance: Effective policies in areas like fiscal management, foreign trade, education, health, and law are crucial. This reflects the success factors of developed East Asian countries.

Global Context: India's progress will be influenced by global economic and geopolitical situations, as seen in the examples of Sudan and Yugoslavia, where external factors heavily impacted their development trajectories.

Technological Progress: Adapting and innovating in technology is vital, similar to how China and East Asian

countries have advanced.

Addressing Climate Change and Resource Scarcity: Mitigating climate impacts and managing resources efficiently is essential, akin to global challenges faced by all developing nations.

What challenges do developing countries face?

Lack of Resources: Developing countries often have limited capital, skills, and technology. For instance, Sudan, despite its natural resources, remains poor due to a lack of these key elements.

Political Instability: Civil unrest and wars greatly hinder progress. Sudan's long civil wars have left it with a per capita income of just over \$500.

Economic Policies: Changes in economic regimes can disrupt growth. Yugoslavia, for example, saw its growth and development halt due to political fragmentation after changing its economic system.

Global Economic Conditions: The broader economic environment greatly impacts these countries, influencing their growth trajectories and ability to develop.

Issue with India's GDP calculation: Is India's growth rate overestimated?

News: This article explains that India's method of calculating GDP growth has issues, making the growth seem higher than it is.

What is the current issue with India's GDP calculation?

Old GDP Calculation Methodology

Volume-Based Indices: Initially, India's GDP calculation relied heavily on indices like the index of industrial production.

Real Growth Calculation: Real growth was calculated directly, and the deflator was applied afterward, making the deflator's accuracy less critical.

New GDP Calculation Methodology (Since 2015)

Nominal Terms Measurement: GDP is now measured in nominal terms first.

Use of Deflators: The calculation uses deflators, like the Wholesale Price Index (WPI), to adjust for inflation and find real growth.

Issues with WPI: WPI is not an ideal measure for output prices, especially in the services sector, which constitutes two-thirds of the economy.

What are the problems with the GDP Deflator?

Use of Wholesale Price Index (WPI): Instead of a Producer Price Index (PPI), India uses WPI, which doesn't track producer prices accurately and excludes service prices.

WPI's Commodity Skew: WPI is biased towards commodities like oil and steel, and does not reflect the broader economy.

Mismatch with Consumer Prices: There's a disconnect between WPI and the Consumer Price Index (CPI). For example, from September 2022, CPI inflation remained over 5%, while WPI inflation declined due to falling global commodity prices.

Impact on Real GDP: This mismatch led to an inflated real GDP. For instance, during April-December 2023, WPI inflation averaged -1.0%, artificially raising the real GDP figures.

Single Deflation Methodology: India uses one deflator for both inputs and outputs in manufacturing, which can misstate growth when input and output prices diverge.

What's the impact of these issues?

Overestimated GDP Growth: The flawed deflator method leads to higher reported GDP growth. For example, the real growth in the manufacturing sector was inflated due to the fall in WPI.

Distortion in Sectoral Growth Rates: Sectors like manufacturing show inflated growth. Official numbers for the first three quarters of 2023-24 were much higher than they would have been with a more accurate deflator.

Misleading Economic Indicators: These inaccuracies can mislead policymakers and investors about the actual health and growth pace of India's economy, impacting economic decisions and long-term planning.

What should be done?

Adopt Consumer Price Index (CPI): Switch to using the CPI for deflating GDP, as it's closer to producer prices than WPI.

Implementation of Double Deflation Methodology: India should adopt double deflation, where outputs are deflated using an output deflator, and inputs using an input deflator, especially important for sectors like manufacturing.

Develop Producer Price Indices (PPI): Establishing a PPI in India would also aid in more accurately deflating GDP figures, aligning with international standards.

Topic- Inclusive growth and issues arising from it.

Significance of Financial inclusion for India

News: The article discusses how increasing financial inclusion, especially among women, is crucial for development in India.

What is financial inclusion?

Financial inclusion is the delivery of financial services at affordable costs to all sections of society (including the disadvantaged and low-income segments).

The term 'Financial' includes all types of financial services, including savings, payments and credit from all types of formal financial institutions.

For more information [read here](#)

What factors influence financial inclusion?

Education's Role: Educated women are more likely to be aware of and use micro-credit schemes.

Impact of Digital Skills: Women with digital skills are more inclined to engage in digital financial transactions.

Occupation Matters: Working women, irrespective of their job type, often know about and use loan programs.

Media Access: Access to electronic media influences financial literacy and service usage.

Age Factor: Younger women tend to adopt digital modes of payment more readily.

Household Influence: The gender of the household head and their assets affect access to micro-credit programs.

Why is financial inclusion important for India?

Supports Sustainable Development: Financial inclusion is **linked to 8 of the 17 UN Sustainable Development Goals**, essential for India's overall progress.

Reduces Gender Disparities: The NFHS data underscores the reduction in the gender gap in financial sectors, resonating with findings from the **Global Gender Gap Report** and highlighting the significance of inclusive finance in gender equality.

Bosts Women's Economic Empowerment: By increasing women's access to financial services, it enhances their economic independence and opportunities.

Facilitates Widespread Account Ownership: The increase in bank account ownership, with a **significant 42% rise in India**, demonstrates its expanding reach.

Improves Social and Economic Growth: Broad financial inclusion contributes to the overall socio-economic development of the country.

What are the government initiatives for financial inclusion in India?

Pradhan Mantri Jan Dhan Yojana: This initiative greatly contributed to opening over 28 crore bank accounts for women, enhancing their financial access.

Deendayal Antyodaya Yojana: National Rural Livelihood Mission (DAY-NRLM): Focuses on improving rural women's livelihoods and financial stability.

Skill India Mission: Provides skill training, helping women gain employment and financial independence.

Mission Shakti: Aims at empowering women through various socio-economic measures.

Pradhan Mantri Awas Yojana: Offers housing-related financial assistance, improving women's living conditions and economic stability.

Pradhan Mantri Matru Vandana Yojana: A maternity benefit program that supports women financially during pregnancy and childbirth.

Growth of semiconductor industry in India

News-The article mentions the steps taken by the government to promote semiconductor manufacturing in India.

Background-The central government has recently approved India's first semiconductor fabrication plant to be set up in Dholera, Gujarat, by the Tata Group.

What are Semiconductor Chips?

Semiconductors are materials which have a conductivity between conductors and insulators. They can be pure elements, silicon or germanium or compounds, gallium, arsenide or cadmium selenide.

What is the state of Chip manufacturing in world?

Currently, South Korea, Taiwan and China account for around 70 per cent of the global manufacturing capacity.

Read more- [Elusive quest for semiconductor self-sufficiency](#)

What are the steps taken by the government to promote Chip manufacturing in India?

1) Incentive scheme:-

a) The government has rolled out Rs 76,000 crore chip incentive scheme. There will be incentives for every part of the supply chain including electronic components, sub-assemblies, and finished goods.

b) The scheme will cover all three parts of the semiconductor ecosystem — packaging units (ATMP facilities), assembly and testing projects (OSAT plants), and full-scale foundries.

2) **Fiscal support**-The central government offers fiscal support and state governments can offer additional incentives to attract investments.

For ex- in the case of Micron, of the project cost of Rs 2.75 billion, the company will contribute \$825 million, with 50 per cent coming from the central government and 20 per cent from the Gujarat government.

3) **Promoting research and development**- The government is planning to set up an R&D lab at the Semiconductor Laboratory.

What is the significance of Chip manufacturing industry for India?

1) **Strategic significance** - Domestic manufacturing will reduce dependence on imported semiconductors. This will help in safeguarding critical infrastructure, defense system, sensitive data from cyber vulnerabilities.

2) **Digital Transformation**- It can lay the foundation for digital transformation. Chips are at the core of modern electronics and important for the fourth industrial revolution.

3) **Economic significance**-

A) **Robust supply chains**-The domestic manufacturing of chips will lead to diversification of supply chains. This would minimize uncertainty in the manufacturing of chips.

B) **Employment Generation**-It will create new employment in domains like design, fabrication, assembly, and testing.

C) **Enhance export potential** - It can help tap the global market and contribute to export earnings.

D) **Boost to domestic manufacturing**-It will support Make in India. For ex- The Tata-PSMC plant will serve industries such as high-performance computing, electric vehicles, defense and others.

The government has taken the right steps by providing support at a fiscal and regulatory level. However, it must also ensure a stable policy environment.

Need for policy coordination to boost Trans-Asia Pacific e-commerce

Context- The Asia Pacific (APAC) region, with over 50 diverse countries, is currently experiencing phenomenal economic growth.

What is APAC Region?

The Asia Pacific (APAC) region has 50 diverse countries. It is home to more than half the world's population (52% in 2023). The region's GDP (35.4% of the world's in 2023) has surpassed that of North America and Europe.

What is the status of e-commerce in the region?

The APAC region has become the world's largest market for electronic commerce. According to a 2023 study by Data Bridge Market Research, the e-commerce sector of the region was valued at \$2.9 trillion in 2022.

By 2030, it is projected to reach nearly \$6.2 trillion.

In 2022, the region accounted for around 58% of the global retail e-commerce market.

What are the reasons behind the APEC region becoming a hotbed of e-commerce activity?

1) **Rise of middle-class**- The region has an increasing middle-class with rising disposable income. It is projected to reach 3.5 billion by 2030 which will form a massive consumer base eager to shop online.

2) **Enhanced participation of MSMEs** – Around 72% of MSMEs in the region are leveraging e-commerce

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platforms for their businesses and vulnerable groups like women entrepreneurs are adapting fast to e-com platforms.

3) **Better connectivity**- There is fast internet penetration in the region coupled with a mobile-first population of over 4.8 billion users. This creates a ready online audience.

For ex- India has the second-highest number of smartphone users globally (659 million in 2022). A Significant part of these users is using digital wallets based on platforms like the Unified Payments Interface.

4) **Advancement in technology**-Rise of advanced technologies like faster telecom networks and big data, offer personalized experiences and improved logistics for businesses and consumers. This is contributing to the rise of e-commerce in APAC region.

What are the challenges in the e-commerce sector in APAC region?

1) **Lack of adequate support to MSME's**- MSMEs face issues of high logistical costs, stiff customs rules and complex clearance procedures. It restricts their global expansion and complicates their cross-border trade.

2) **Logistical issues**-Many countries in Southeast Asia still prefers Cash on Delivery. This creates logistical challenges and limits access to credit.

3) **Cybersecurity challenges**- Cybersecurity threats such as data privacy concerns and the presence of counterfeit products on some platforms can discourage consumers and businesses from adopting an e-commerce path.

4) **Issue of E-commerce regulation**-The regulations are not uniform across region. For ex- countries (like Singapore with its 2014 E-Commerce Act) have established specific regulations, whereas others rely on broader consumer protection laws.

What should be the way forward?

1) **Collaboration**-There is a need for discussions, sharing of best practices and partnerships to facilitate trade and exports among countries.

2) **Robust infrastructure**- There should be infrastructure improvements, regulatory harmonization and robust cybersecurity measures to ensure a secure and trustworthy online environment.

3) **Enhanced role of India**- An APAC policy forum, with India taking the lead, could help forge partnerships and lead to regional cooperation and policy harmonization. This can benefit businesses (especially MSMEs and women entrepreneurs) and consumers by fostering a more predictable and secure environment for online trade.

EV import policy can face execution challenges

News- The government has recently announced the reduction on import duties on electric vehicles (EVs) if the EV manufacturer produces vehicles in India.

What are the provisions of trade policy regarding manufacturing of electric vehicles?

1) **Objective**-To position India as a manufacturing hub for electric vehicles (EVs) with cutting-edge technology.

2) **Investment Threshold**- A minimum investment of ₹4150 Crore (approximately USD 500 Million) is required to participate. There's no upper limit on investment, encouraging large-scale manufacturing facilities.

3) **Timelines and Localization**- Companies have 3 years to set up manufacturing plants in India and begin EV production. They must achieve a domestic value addition (DVA) of 25% within 3 years and 50% within 5 years.

4) **Import Duty Concessions**- To incentivize participation, companies can import a limited number of EVs at a concessional customs duty of 15%. For ex-for models of electric cars with a combined cost, insurance, and freight price in India of \$35,000 or above, the tariffs will be slashed from 100 to 15%.

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What are the issues with the new policy?

- 1) **Entry of Chinese Giant**-It is possible that China's BYD which dominates the Electric car market could enter India and gives stiff competition to domestic manufacturer.
- 2) **Lack of clarity**-To build a global value chain, it is important that not only the tariffs on the final product be reduced, but also on intermediate goods. There is no clarity on reduction of important duties for intermediate goods.

What are the challenges in execution of this policy?

- 1) **Monitoring**-It will be difficult to track the cooperation of a company that has received a reduction in duties. It is possible that the company may not fulfill its commitment.
- 2) **Lack of effective guidelines**-There will be delays in the investment and meeting of localization requirements by the companies that have been granted concessions. There is no clarity on how the government deals with firms that ultimately fail to fulfil investment targets.
- 3) **Issue with concession-based mechanisms**-As per experts, trade policy requires overall low and stable tariffs for sectors that are relevant for entering global value chains. Such concession-based mechanisms are always difficult to track and make policies less consistent.

India's manufacturing sector relies on foreign countries: It's time to put a figure on India's exposure to global value chains

News: This article explains how India's manufacturing sector relies on foreign countries, especially China, for key materials. It shows that India is more dependent on China than it appears because even products from other countries often have Chinese components.

How does reliance on global supply chains, especially China, affect India's manufacturing sector?

Rising Trade Deficit: India's industrial sector trade deficit with China reached \$84.4 billion in 2022, a 27% increase from 2021, highlighting growing reliance.

Complex Global Value Chains: India's dependence on China is more intricate due to global value chains; parts and components are often sourced from multiple countries.

High Look-Through Exposure to China: On average, 23% of India's foreign-sourced manufacturing inputs are indirectly from China, revealing a deeper reliance than apparent at first glance.

Increased Dependence Over Time: India's reliance on Chinese inputs has risen sharply from 5% in 2000 to 23% in 2022, indicating growing vulnerability.

Critical Sectors Affected: Key Indian sectors like basic metals, transport, and electrical equipment are significantly dependent on foreign, especially Chinese, inputs.

What research method was used to analyze how much a country relies on foreign inputs in manufacturing?

Replicating Baldwin's Study: The analysis follows the methodology used by Richard Baldwin et al., focusing on the interdependencies in manufacturing sectors.

Utilizing OECD Input-Output Tables: The research employs input-output tables from the Organization for Economic Cooperation and Development (OECD) to track the flow of products between countries.

Measuring Face-Value Exposure: This aspect considers the direct origins of intermediate products used by a country's manufacturing sector, like India's electronics sector sourcing from Vietnam.

Assessing Look-Through Exposure: This deeper analysis identifies the original sources of these intermediate products, such as Vietnamese suppliers relying on Chinese inputs, revealing indirect dependencies.

Way forward

To reduce dependency, India should diversify its manufacturing inputs, source from various countries, and possibly attract foreign investment. This approach would mitigate risks evident from the high trade deficit and growing indirect reliance on China, as seen in sectors like metals and transport equipment.

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

The projections for oil and gas demand impact the clean energy transition- This is what's slowing down the clean energy transition

News: This article discusses how major oil companies' projections for oil and gas demand in 2050 could slow down the transition to clean energy and affect achieving net-zero carbon emissions. It highlights concerns about their investment strategies reinforcing reliance on fossil fuels.

What are the projections of major oil companies for 2050?

ExxonMobil's Projection: They predict oil consumption in 2050 will be the same as today's level, around 100 million barrels per day (mbd).

Chevron's Projection: Chevron estimates oil consumption by 2050 to range between 75-112 mbd, showing some variation but **not a significant decrease**.

European Companies' Scenarios:

Shell's "Archipelago" scenario suggests **slow electrification leading to a demand of about 90 mbd**. In Shell's "Sky 50" scenario, **faster electrification reduces demand to around 40 mbd**. BP and Total Energies project oil demand to be between 50-70 mbd, assuming a **moderate pace of transition** to clean energy.

How could these projections impact the clean energy transition?

1. If these companies plan based on high fossil fuel demand, they might invest more in oil and gas, making it harder to switch to clean energy.
2. ExxonMobil and Chevron have already invested heavily in oil and gas. ExxonMobil bought Pioneer Natural Resources for about \$60 billion. Chevron acquired Hess Corporation for \$53 billion.
3. Despite acknowledging the need for clean energy, European oil companies are also focusing on their existing petroleum businesses. The CEOs of Shell and BP plan to use their petroleum portfolios to improve returns, indicating a continued emphasis on fossil fuels.

What do these trends mean for global warming and energy transition?

Recognition of Global Warming: These companies recognize global warming but also consider economic and social realities, like the current dependence on fossil fuels.

Rising Energy Demand: They argue that energy demand, especially in the Global South, will rise and will

likely be met by fossil fuels because clean energy infrastructure is lacking.

Challenge in Transitioning: They suggest that transitioning to clean energy will be costly and challenging, especially without a significant carbon tax.

Way forward

The way forward must include a significant reduction in oil demand, as the **International Energy Agency (IEA)** states it must drop by at least 75% to meet the net-zero target. This underscores the need for a rapid shift to clean energy and strong policy measures like carbon taxes to encourage this transition.

Critical Minerals - The biggest roadblock to India's net-zero goal

Context: This article discusses the global importance of critical minerals, which are essential for technologies like renewable energy and electric vehicles. It highlights the dominance of certain countries in mineral production and processing, particularly China's control over rare earths.

What are Critical Minerals?

Critical Minerals are not clearly defined globally, but countries identify them based on their own needs. India has listed 30 such minerals, the US 50, and Japan 31. Critical minerals are not synonymous with rare earths, but they are often confused.

For information on Critical Minerals [read here](#)

Uses of Critical Minerals:

Essential for Decarbonization: Critical minerals are crucial for renewable energy technologies. For instance, an electric car needs six times more minerals than a conventional car.

Growing Demand in Clean Energy: To meet Paris Agreement targets, a significant increase in minerals like copper, nickel, and lithium is needed. For example, the demand for lithium is expected to rise by 90% for clean energy technologies.

Diverse Industrial Uses: Beyond energy, these minerals are vital for industries like defense, electronics, and construction.

India: India is concentrating on securing a consistent supply of critical minerals to achieve its decarbonization and net-zero objectives by 2070. The country plans to establish 500 GW of non-fossil fuel power and greatly expand electric vehicle usage by 2030. Achieving these goals necessitates minerals such as lithium for battery manufacturing. India is investigating joint ventures with Australia to source lithium and cobalt. For information on steps taken by the government of India for critical minerals [read here](#)

What are the issues with Critical Minerals?

Geopolitical Monopoly: A few countries dominate critical mineral resources. For example, Australia controls 55% of lithium reserves, and China has 60% of rare earths.

Processing Dominance by China: China processes a large portion of the world's critical minerals, such as 35% of nickel and 50-70% of lithium and cobalt.

Environmental and Political Concerns: The energy-intensive and polluting processing of these minerals raises environmental issues. Additionally, China's dominance leads to political leverage over other countries.

Dependency on Imports: Many countries, including India, heavily rely on imports for these minerals, which

poses a risk to their industrial and energy security.

Long Gestation Period for Alternatives: Developing alternative sources and processing capabilities, like India's plans with Australia, can take over 15 years, delaying self-reliance.

What is the global response to China's monopoly?

Formation of Minerals Security Partnership (MSP): Led by the US, the MSP includes countries like India, Australia, Canada, Sweden, and Norway to secure mineral supply chains.

Objective of MSP: Aimed at reducing reliance on China by "friend shoring" manufacturing to allied nations.

Diverse Membership: MSP unites countries with rich mineral deposits and those with advanced processing technology, like Japan and South Korea.

Exclusion of Some Key Nations: Notably, mineral-rich countries like Chile and Indonesia are not part of the MSP, raising questions about its effectiveness.

For information on MSP read [Article 1](#), [Article 2](#)

Significance of Undersea cable for India

News-The article highlights the need of building robust submarine infrastructure for commercial and strategic interest of India.

Background- Recently, submarine cables in the Red Sea have been damaged. This poses challenge for India's Telecom Sector.

What is an undersea cable or submarine cable system?

It is a 'line link' in the form of wire, cable, optical fiber, tube, conduit, waveguide or another physical medium. It is for carrying communications by means of guided electromagnetic energy.

What is the damage and who caused it?

The Red Sea has 14 undersea cables. They carry 90% of net traffic between Europe and Asia. There is no solid evidence to inform who caused the damage. The Houthis claim that they have damaged it, whereas

some believe it is damaged by anchors of old ships.

Read more- [Submarine Cables and India- Threats and Vulnerabilities](#)

What is the significance of building robust undersea cable for India?

1) **Economic significance-** Undersea cables carry 99% of internet traffic. India's TATA communication is a stakeholder in TGN Red Sea cable. Damage to cable may lead to substantial loss to Indian service sector

2) **Geostrategic Significance-**

A) Data is perceived to be new oil and cables carry data. So, cutting hostile or enemy nations' communication could prove to be a great strategic move during wartime. For ex- During world wars, this tactic was employed by warring nations.

B) India lies at the important maritime crossroads between western Pacific and Persian Gulf. Submarine cable mostly follow these maritime routes. Hence, India may be at a strategically advantageous position while navigating through regional diplomacy.

Gender equality important in energy development

News: This article discusses how gender equality and women's involvement are crucial for sustainable energy development.

Why is gender equality important in energy development?

Crucial Role in Household Energy Management: Women primarily manage household energy for cooking, heating, and lighting, showing their integral role in energy consumption.

Impact of Energy Inequality on Health: Limited access to clean energy forces women to use harmful alternatives like biomass, leading to significant health risks and deaths.

Economic and Environmental Benefits: Gender equality in the energy sector can drive economic growth and environmental sustainability.

Innovative Solutions and Productivity: Increasing women's participation in energy can lead to more innovative approaches, improved productivity, and enhanced social outcomes.

Global Impact: Closing the gender gap could boost global GDP by trillions of dollars, showing the vast potential of women's empowerment in energy.

What are the challenges in achieving gender equality in the energy sector?

Limited Energy Infrastructure Access: Women often receive energy access last, impacting their ability to manage household energy needs efficiently.

Reliance on Harmful Energy Sources: Due to inadequate access to modern energy, women resort to using traditional sources like biomass and kerosene. This leads to significant health risks, with household air pollution causing 3.2 million premature deaths annually, 60% of whom are women and children.

Low Representation in the Energy Sector: The energy sector is not gender diverse. Only 32% of employees in renewable energy and 22% overall are women, compared to 48% in the global workforce. In India, only 10% of technical energy jobs are held by women.

Educational and Skill Disparities: Women face barriers in accessing education and training needed for technical roles in energy, further widening the gender gap.

What should be done?

Change Perceptions: Alter societal views on women's roles in the energy sector to recognize their potential as key contributors.

Mainstream Gender in Energy Policies: Integrate gender considerations at sub-national, national, and international policy levels to ensure women's needs and contributions are addressed.

Support Women-led Initiatives: Back programs like the Women at the Forefront and the Energy Transitions Innovation Challenge (ENTICE), which encourage women's entrepreneurship in sustainable energy.

Promote Educational and Skill Development: Facilitate women's access to education and training, especially in technical fields within the energy sector.

Implement Distributed Renewable Energy (DRE) Projects: Utilize DRE to provide quick, affordable energy access, reducing women's workload and enhancing productivity, as seen in initiatives like Solar Mamas in India.

Challenges with nuclear waste: How is nuclear waste generated?"

Context: This article discusses how nuclear waste is created in nuclear reactors and the challenges of managing it. It explains the methods used to handle, store, and treat nuclear waste, including the reprocessing of spent fuel.

What is nuclear waste?

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Nuclear waste is the byproduct of nuclear reactors, like when uranium-235 splits into barium-144 and krypton-89. These leftover elements can't undergo fission, so they become waste. This waste is very radioactive and needs careful storage to avoid environmental harm.

For more information [read here](#)

What are the challenges with nuclear waste?

Storage Duration: Nuclear waste requires isolation for millennia, far longer than modern humans have existed.

Accident Risks: For instance, an accident at the Waste Isolation Pilot Plant in the U.S. in 2014 released radioactive materials.

Environmental Impact: Concerns about contamination, like in Germany's Asse II salt mine, where nuclear waste possibly affected water resources.

Cost: Managing nuclear waste is expensive, adding \$1.6-7.1 per MWh to nuclear energy costs.

Liquid Waste Management: Challenges include how to safely treat and store liquid waste, as highlighted by issues with vitrification plants.

What are the best practices of nuclear waste management?

Cooling and Dry Cask Storage: Spent fuel is initially cooled underwater for decades, then transferred to dry casks for safer, long-term storage.

Liquid Waste Treatment: Treatment and controlled release into the environment, like Japan's disposal of Fukushima's treated water into the Pacific Ocean.

Geological Disposal: Burying waste underground in special containers, away from human activities, in stable geological formations like granite or clay.

Reprocessing: Separating fissile material from spent fuel for further use, reducing waste volume and increasing fuel efficiency, as practiced in India's reprocessing plants in Trombay, Tarapur, and Kalpakkam.

How does India handle its nuclear waste?

Reprocessing Plants: India has facilities in Trombay, Tarapur, and Kalpakkam. Trombay reprocesses fuel for plutonium production, while Tarapur and Kalpakkam handle spent fuel from power reactors.

On-Site Management: Nuclear power stations in India manage low and intermediate-level waste on-site, treating and storing it in specialized facilities.

On-Site Management: Nuclear power stations in India manage low and intermediate-level waste on-site, treating and storing it in specialized facilities.

Operational Challenges: There are concerns about the efficiency of these plants. For example, the delays in the PFBR project suggested operational issues at Tarapur and Kalpakkam, with a combined capacity factor of around 15%.

Future Complications: Handling waste from the PFBR will introduce new challenges due to its unique fission product and transuranic element composition.

Small Scale LNG - A big idea

News- The Union Minister for Petroleum and Natural Gas Hardeep Singh Puri has recently dedicated to the nation India's first small-scale liquefied natural gas (SSLNG) unit at GAIL (India) Ltd's Vijaipur complex in Madhya Pradesh.

What is SSLNG (small-scale liquefied natural gas)?

- 1) It refers to gas in its liquid or super-chilled form supplied in specialized trucks and small vessels to industrial and commercial consumers in regions not connected by pipelines.
- 2) The SSLNG chain can start from a large-scale LNG import terminal from where the LNG can be transported to consumers by **cryogenic road tankers or small vessels**.
- 3) The chain can also start at locations with ample natural gas supply or production, where small liquefaction plants can be set up. For ex-The SSLNG unit at Vijaipur.

Read more- [Energy Transition In India](#)

What is the significance of small-scale liquefied natural gas (SSLNG) unit?

- 1) **Transition to green energy**-The government aims to increase the share of natural gas in its primary energy mix to 15% by 2030 from 6% at present. This is because natural gas is far less polluting than conventional hydrocarbons like coal and oil. It is seen as a key transition fuel in India's journey towards green energy and future fuels.
- 2) **Decarbonization of transportation sector**-It is cleaner fuel with reduced emission of carbon dioxide and negligible amounts of particulate matter, nitrogen oxide, and Sulphur dioxide as compared to diesel.
- 3) **Overcome transportation challenge of Natural Gas**-There are many places that are not connected by the country's natural gas pipeline grid. This hinders the use of LNG directly as fuel for long-haul trucks and inter-city buses. This challenge can be overcome by small-scale liquefied natural gas unit.
- 4) **Save forex reserve**-It is usually cheaper than crude oil, from which diesel is derived. Thus, replacing a major chunk of India's diesel consumption by LNG could lead to substantial foreign exchange savings.

What are the challenges in its wider adoption?

- 1) **Paucity of LNG-powered vehicles**-There is shortage of LNG-powered vehicles in India.
- 2) **High cost**-The LNG-powered vehicles have higher initial cost as compared to diesel run vehicles.
- 3) **Financing ecosystem**- India does not have a robust LNG vehicle financing ecosystem.
- 4) **Retail network**-India does not have LNG retail network.

What steps have been taken to overcome this challenge?

- 1) Companies such as GAIL and Petronet are working to build a viable ecosystem for transporters to move from diesel vehicles to LNG.
- 2) Petronet has collaborated with commercial vehicle manufacturers and other public sector oil & gas companies for trials and pilot projects for LNG-fuelled trucks and buses.
- 3) Petronet has established a few LNG dispensing stations along highways. Similarly, Indian Oil Corporation is also planning to build LNG dispensing stations along major highways.

Present status of nuclear energy

News: The first-ever Nuclear Energy Summit was held recently in Brussels. The summit highlights nuclear energy's role in combating climate change.

What is the Significance of Nuclear Energy in Combating Climate Change?

Environmental advantages: COP28 recognized nuclear energy's capacity to significantly reduce carbon emissions, compared to solar farms and other renewable sources. The declaration at the conference agreed for tripling nuclear capacity by 2050.

Source of continuous energy: It can become a source to provide uninterrupted energy, without any geographical limitation.

Economic Advantages: With lower operating costs, smaller land requirements, and longer life cycles, nuclear power stands out among renewable energy sources.

However, there's a significant gap in nuclear energy financing from Multilateral Development Banks (MDBs) and private investors.

What are the financing mechanisms and technological advancement opportunities in the nuclear energy field?

Small Modular Reactors (SMR) and extended fuel cycles enhance safety and efficiency. Which reduces nuclear-related risks and opens the industry to private investment.

Successful Cooperative Funding Models from France, South Korea, Russia, and the U.K. demonstrate the viability of cooperative funding models.

Recent liberalization efforts, including invitations for private investment and plans for substantial capacity expansion. It signals a promising future for India's nuclear energy sector.

Unified Metropolitan Transport Authority (UMTA): Indian cities cry out for UMTA

News: The article discusses the need for Indian cities to create a **Unified Metropolitan Transport Authority (UMTA)**. This authority would manage all city transportation, including roads, buses, and metro systems, aiming for better public transport efficiency and integration.

What is the current status of urban transport in India?

Urban Transport Policy: Since 2006, India has a policy recommending Unified Metropolitan Transport Authorities (UMTAs) for cities over 1 million people. According to the 2011 Census, there were 53 such cities.

Metro Rail Policy 2017: Cities need UMTAs for central funding of metro projects. The policy aims to integrate metro rail with overall urban transport.

Cities' Response: Many cities still lack UMTAs, hindering integrated transport development.

For more information on **Metro Rail Policy 2017** [read here](#)

Why is UMTA important?

Integration of Transport Modes: UMTA ensures all forms of urban transport, like buses and metros, work together efficiently.

Policy and Funding Compliance: Under the 2017 Metro Rail Policy, cities need UMTAs to get central funding for metro projects.

Efficient Urban Mobility: UMTA can lead to better traffic control, integrated payment systems, and real-time travel information.

Global Success Models: Cities like New York and London, with unified transport authorities, serve as successful examples for India to emulate.

Focus on Commuters: UMTA puts commuter needs at the center, aiming for a more accessible and reliable urban transport system.

What should be done?

a) A Framework for Selecting an Appropriate Urban Transport System in Indian Cities (Dr. Tiwari's Report)

- 1. Tailored Transport Systems:** Implement transport systems based on city size; metros for cities over 8 million, buses and light rail for 4-8 million, and quality bus systems for smaller cities.
- 2. Integrated Approach:** Combine metro, bus, and local transport for efficient movement and connectivity.
- 3. High-Capacity Planning:** Plan for high-capacity systems like BRTS/metro in cities expecting to grow beyond 1 million.

b) Strategies to Improve the Financial Performance of Metro Rail System in India (Dr. Chakrabarti's Report)

- 1. UMTA Management:** UMTA should manage all city transport including roads and public transit.
- 2. Private Sector Involvement:** UMTA to work with private sectors for functions and equity partnerships.
- 3. Systematic Changes:** Initiate institutional changes for transferring ownership of transportation assets to UMTA.
- 4. Commuter-Centric Approach:** Focus on making transport decisions that prioritize commuter needs and experiences.

Managing Pilot Fatigue: Flight from fatigue

News: The article discusses how India's aviation authority has delayed implementing flight duty time limitations (FDTL) rules. The FDTL rules are meant to reduce pilot fatigue. For details information on flight duty time limitations rule read [Article1](#), [Article2](#)

What are the initiatives taken for Managing Pilot Fatigue?

Historical Guidelines: Since the early 1950s, guidelines have been established by the International Civil Aviation Organization to limit flight and duty hours for safety. These guidelines were aimed to ensure that fatigue did not endanger flight operations.

Fatigue Risk Management Systems: Modern practices include adopting Fatigue Risk Management Systems. It combines scientific principles of fatigue management with aviation scheduling.

DGCA's Plans: The DGCA in India plans to adopt these systems, showing a commitment to improving fatigue management in aviation.

What are the current challenges in Indian aviation?

Delayed implementation of Pilot Fatigue Management: The delay in implementing flight duty time limitations (FDTL) rules means that ongoing issues with pilot fatigue have not been adequately addressed. These rules,

which intend to provide more rest and require fatigue reports, are crucial for safety.

Stress on crew due to rapid market growth: India's aviation market is experiencing high growth, leading to increased flying domestically and internationally. This puts additional stress on flight crews.

Pilot Shortage: Amidst this growth, there's a shortage of pilots. Airlines argued that new FDTL rules would necessitate hiring 15% to 25% more pilots.

Flight Cancellations Concern: Airlines feared that the new norms could lead to a nearly 20% cancellation of

flights during the peak summer season.

Ultra-Long Haul Stress: The introduction of more widebody aircraft for longer flights adds further stress and safety concerns for flight crews.

What were the proposed changes by DGCA?

Increased Rest time for Pilots: The DGCA proposed changes to provide more rest time for pilots, addressing the issue of fatigue.

Redefining Night Duty: The new rules aimed to redefine what constitutes night duty for pilots, aligning it with the latest understanding of how different working hours impact fatigue.

Mandatory Fatigue Reports: Airlines would be required to file regular reports on pilot fatigue, ensuring ongoing monitoring and management of this issue.

Implementation Timeline: The rules were scheduled to be implemented no later than June 1, indicating a clear deadline for airlines to comply.

Focus on Safety and Well-being: These changes were designed to enhance the safety and well-being of flight crews, prioritizing their health in a high-stress profession.

Subject: Science & Technology

Topic- Achievements of Indians in Science & Technology; Indigenization of Technology and Developing New Technology

Agni-5 trial: A blast-off for superior deterrence

Background- China has in recent years been expanding its presence in the Indian Ocean region as part of an encirclement game.

What is an Agni-V Missile?

1) **Introduction-** Agni-5 is an ingeniously built advanced surface-to-surface ballistic missile developed under the Integrated Guided Missile Development Programme (IGMDP). It is a fire-and-forget missile, which cannot be stopped without an interceptor missile.

2) **Range-** The missile has the capability of hitting targets beyond the range of 5000 km.

3) **Technology Used-** It has incorporated Multiple Independently Targetable Re-entry Vehicle (MIRV) technology. This allows a single missile to carry multiple warheads targeting different locations.

What are the advantages of MIRV-Equipped Missiles?

1) It can inflict multiple damage with a single strike.

2) It can penetrate missile defense systems by overwhelming them with multiple warheads.

Read more- [India's missile capability](#)

What is the strategic significance of Agni-V Missile?

1) **Enhanced nuclear deterrence-** Agni-category missiles form the backbone of India's land-based nuclear deterrence and it is at the core of the country's deterrence in the larger context of the Sino-Indian power equation.

- 2) **Boosting defence capabilities**-India's defence arsenal has received a significant boost with Agni-V induction.
- 3) **Intercontinental Range Ballistic Missile (ICBM) Club**- It is not strictly an intercontinental ballistic missile (ICBM) of the order possessed by the Big Five that can hit targets as far as 15,000km. However, its 5,000km (about 3106.86 mi)-plus range can bring the farthest parts of China and even some of Europe within India's strike radius.
- 4) **Nuclear retaliation to first strike**- India's nuclear doctrine commits to "no first use". In this backdrop, it becomes more important to have a **tougher retaliatory** stance at first strike. The retaliation should be such that it inflicts maximum damage on the other side.

India's Fast Breeder Reactor (FBR) program

Context: The article discusses India's first Fast Breeder Reactor (FBR) in Kalpakkam, Tamil Nadu. This reactor is part of India's plan to use its thorium reserves for nuclear power. The reactor turns non-fissile material into fissile material, which can be used for energy.

What is the Fast Breeder Reactor (FBR) Project in India?

India has started '**core loading**' (process of placing nuclear fuel into the reactor's core) at its first Fast Breeder Reactor in Kalpakkam, Tamil Nadu. This is part of a three-stage nuclear program aimed at using thorium for nuclear power. The reactor transforms non-fissile material into fissile material, which can be used to generate electricity.

How has India's FBR program progressed?

Initiation: India's FBR program started two decades ago, aiming to harness thorium for power generation.

Organizational Setup: In 2003, Bharatiya Nabhikiya Vidyut Nigam Ltd (BHAVINI) was established to oversee this advanced nuclear project.

Challenges and Delays: The project's completion was initially expected by September 2010. Due to technological hurdles, the completion date faced postponements, with the latest target set for October 2022.

Global Standing: Upon completion, **India will become the second country after Russia to operate a commercial FBR.**

What is the significance of using thorium?

Abundant Resource: India has vast thorium reserves, located primarily in coastal sands across various states like Kerala and Tamil Nadu, offering a long-term energy solution.

Dr. Bhabha's Vision: The utilization of thorium was a key part of Dr. Homi J Bhabha's strategy to ensure India's energy security.

From Fertile to Fissile: Thorium, being a fertile material, can be converted into a fissile isotope like U233, making it a valuable resource for nuclear power.

Closed Fuel Cycle Approach: India's approach involves reprocessing spent fuel, allowing for efficient use of thorium by converting it into usable nuclear fuel.

What are the three stages of India's nuclear program?

For information on three stages of India's nuclear program [read here](#)

Way forward

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With the commencement of core loading in India's first Fast Breeder Reactor, the way forward is clear. This crucial step in the second stage of India's nuclear program, using MOX fuel and a U238 blanket, is pivotal for advancing to the third stage, where thorium-rich resources can be effectively utilized for long-term energy security.

India's Achievements in Research Output

Context: The article discusses India's commitment to research and development (R&D). It mentions a new government fund for innovation, compares India's R&D spending with other countries.

What is the New Funding for Research and Development in India?

New Funding Announcement: The Indian government announced a corpus of ₹1 lakh crore in the 2024-25 interim Budget.

Purpose: This fund is aimed at bolstering the research and innovation ecosystem within India.

Slogan Change: Reflecting this focus, the government rebranded the slogan to 'Jai Jawan, Jai Kisan, Jai Vigyan, Jai Anusandhan'.

Significance: It underscores the importance of research and innovation in development, technological advancement, and global competitiveness.

Background Data: India's R&D expenditure increased from ₹6,01,968 million in 2010-11 to ₹12,73,810 million in 2020-21.

Comparative Perspective: Despite growth, India's R&D spending as a percentage of GDP (0.64%) is lower than major economies like China, Germany, and the USA.

For more information [read here](#)

What are India's Achievements in Research Output?

PhDs Produced: India annually awards 40,813 PhDs, ranking third globally, after the United States and China.

Publication Count: In research publications, India also holds the third position globally, with over 300,000 publications in 2022.

Global Patent Grants: India secured the sixth position worldwide in patent grants, with 30,490 patents granted in 2022.

Intellectual Capital: This reflects India's focus on fostering intellectual capital and its significant contribution to global research.

Research Ecosystem: These achievements highlight the strength and potential of India's research ecosystem in various fields, despite lower R&D spending compared to some other countries.

What are the New Initiatives to Boost R&D in India?

National Deep Tech Startup Policy (NDTSP): Aims to promote technological progress and innovation, especially in private sector engagement.

Anusandhan National Research Foundation (ANRF) Act: Enacted to catalyze research and innovation, focusing on development. The Act is designed to bridge India's R&D investment gap and nurture a robust

research culture within Higher Education Institutions (HEIs).

Challenges Addressed: The initiatives target equitable fund distribution, interdisciplinary collaborations, and maintaining global standards.

Strategy: These policies are intended to elevate R&D spending, guide research and innovation, and encourage private sector involvement, particularly in burgeoning industries.

Topic- Awareness in the fields of IT, Space, Computers, Robotics, Nano-technology

Roles AI play in protecting democracy- There's also a positive side of AI that can strengthen democracy

How has AI impacted elections?

Negative Impact of AI on Elections

Deepfakes have been used to spread misinformation, affecting public opinion and outcomes. Examples include a fake video in Bangladesh showing a leader opposing Palestinian support, and a fake audio in the US of President Biden discouraging voting.

Positive Impact of AI on Elections

It can improve election transparency and efficiency by detecting fraud and enhancing voting security. In Pakistan, AI-generated videos of Imran Khan led to high voter turnout and success for his party, despite his imprisonment.

What positive roles can AI play in protecting democracy?

Monitoring for Election Fraud: AI can scrutinize election-related data in real time, detecting any signs of fraudulent activities. It's capable of identifying unusual patterns in voter registrations and ballot submissions, which are crucial for maintaining the integrity of elections.

Cost-Effective Campaigning for Less-Wealthy Candidates: Generative AI (GenAI) has the capability to create campaign materials at a significantly lower cost and with greater efficiency. This aspect of AI can level the playing field in elections by empowering candidates with fewer financial resources, allowing them to reach a wider audience without the need for a large campaign budget.

Enhancing Voter Education: AI can tailor educational content about candidates and local issues to individual voters, using their local dialects. This personalization can increase political awareness and promote more informed voting decisions, benefiting particularly marginalized communities.

Assisting Voters with Disabilities: AI technologies, like voice recognition systems, can aid voters with disabilities, such as those who are visually impaired, making the voting process more accessible and inclusive.

Streamlining Election Logistics: AI can optimize the logistics of elections, making processes like voter registration and verification more efficient. This is especially beneficial in large countries, where managing large-scale elections can be logistically challenging.

Way forward

To safeguard democracy, it's vital to balance AI's potential for disruption with its ability to enhance elections. Implementing measures to counteract deepfakes and misinformation, while harnessing AI for voter education, fraud detection, and increased accessibility, can strengthen democratic processes as evidenced in Pakistan's recent elections.

Benefits and Challenges of the Genome India Project - Decoding the script

News: The article discusses the Genome India Project, which sequenced 10,000 Indian genomes to create a reference for Indian DNA.

What is the Genome India Project?

The Genome India Project, backed by the Department of Biotechnology, is a significant scientific initiative that has successfully sequenced the complete genomes of 10,000 Indian individuals. This project aims to construct a comprehensive reference for the Indian human genome.

For information on Genome India Project read [article 1](#), [article 2](#)

What are the benefits of the Genome India Project?

Creation of a Reference Genome: The project has sequenced 10,000 Indian genomes, creating a crucial reference for understanding the genetic diversity in India.

Disease Research: It aids in identifying genetic links to diseases. For instance, the discovery of the MYBPC3 genetic variant, prevalent in 4% of Indians, is associated with heart failure.

Personalized Medicine: The findings can lead to tailored healthcare solutions based on genetic information.

Understanding Genetic Complexity: It sheds light on the unique genetic makeup due to India's diverse population and endogamy practices, helping in future genetic research and healthcare planning.

What are the challenges faced by the Genome India Project?

Representative Diversity: Sequencing 10,000 genomes is not fully representative of India's over one billion diverse population, which includes around 4,500 population groups.

Complex Genetic Landscape: India's history of endogamy within castes has preserved rare, potentially harmful genetic variants, complicating genetic analysis.

Monogenic Disease Focus Limitations: Most diseases are not monogenic (caused by a single gene), challenging the simplification of genetic research to direct disease links.

Affordability of Treatments: Even when genetic causes of diseases are identified, treatments, if available, are often too expensive for many who need them.

Data Accessibility: Ensuring that the project's findings are widely accessible and not confined to academic circles is a significant challenge.

Way forward

To progress, Genome India should sequence more than 10,000 genomes, reflecting India's diverse population. The project must engage various experts, including scientists, students, and ethicists, ensuring findings are not confined to academia. This approach will deepen India's self-understanding and foster broader applications of the research.

Read more- [Social and Digital media regulations in India](#)

Prototype Fast Breeder Reactor (PFBR) - The status of India's nuclear program

News: On March 4, Prime Minister Narendra Modi attended the commencement of the core-loading process of the indigenous Prototype Fast Breeder Reactor (PFBR) at the Madras Atomic Power Station in Kalpakkam, Tamil Nadu. This event signifies the beginning of stage II in India's three-stage nuclear power strategy.

What is India's three-stage nuclear program?

Stage I: Uses Pressurized Heavy Water Reactors (PHWRs) with natural uranium-238 (U-238), which also contains U-235. This stage generates plutonium-239 (Pu-239) and energy.

Stage II: Implements the Prototype Fast Breeder Reactor (PFBR), which utilizes Pu-239 along with U-238 to produce energy, U-233, and more Pu-239. The PFBR, with a capacity of 500 MWe, represents a significant progression towards thorium utilization. The **Department of Atomic Energy (DAE)** set up a special-purpose vehicle in 2003 called **Bharatiya Nabhikiya Vidyut Nigam, Ltd. (BHAVINI)** to implement stage II.

Stage III: Focuses on combining Pu-239 with thorium-232 (Th-232) in reactors to produce energy and U-233.

For more information [read here](#)

What is PFBR?

About PFBR:

The Prototype Fast Breeder Reactor (PFBR) is a nuclear reactor in India that produces more nuclear fuel than it consumes. The Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam, designed the PFBR. It's a key component of India's three-stage nuclear power program, aiming for energy self-sufficiency.

What is the importance of Stage II of India's nuclear program?

Transition to Thorium Use: Stage II, featuring the Prototype Fast Breeder Reactor (PFBR), is crucial for transitioning towards using thorium, leveraging India's large thorium reserves.

Foundation for Future Expansion: This stage lays the groundwork for building additional fast breeder reactors (FBRs). The Department of Atomic Energy proposed constructing four more FBRs, each with a 600 MWe capacity.

Self-Sufficiency in Nuclear Energy: Stage II is a strategic step towards making India completely self-sufficient in nuclear energy, a major goal of the country's nuclear program.

What are the challenges of Stage II?

Technical Complexity: FBRs like the PFBR are more complex to operate compared to other reactor designs.

Safety Concerns: Fukushima Daiichi disaster has intensified the concerns around.

Regulatory Hurdles: The AERB, India's nuclear regulatory body, faces criticism for not being independent, as it ultimately reports to the Department of Atomic Energy (DAE).

Handling of Radioactive By-products: The thorium fuel cycle produces radioactive isotopes like caesium-137 and radium-224. These are difficult to handle and store.

Can Small Modular Reactors (SMRs) be an alternative to present nuclear plants?

To read all the details about SMRs - [click here](#)

India's plan for semiconductor production- India's microchip leap: Now for the hard part

News: The article discusses India's plan to set up three semiconductor foundries with foreign partnerships, including a major project by Tata Electronics and Taiwan's Powerchip.

What is India's plan for semiconductor production?

India aims to establish three semiconductor foundries with private sector involvement. A significant partnership involves Tata Electronics and Taiwan's Powerchip Semiconductor Manufacturing Corporation. The total investment in these semiconductor projects exceeds 71.5 trillion.

The objective is to create a comprehensive semiconductor ecosystem in India, covering design, fabrication,

assembly, testing, marketing, and packaging.

These efforts are driven by the desire for strategic autonomy in semiconductor technology and to reduce reliance on foreign chip suppliers.

What are the potential benefits of India's plan for semiconductor production?

Establishing a semiconductor ecosystem: The foundries will develop a full value chain from design to packaging.

Strategic autonomy: Reducing dependence on foreign chip suppliers enhances India's self-sufficiency in key technologies.

Economic boost: The combined investment of over 71.5 trillion is expected to strengthen India's global economic ranking.

Job creation: The project will generate about 20,000 direct and 60,000 indirect jobs, impacting employment positively.

Technological advancement: By producing chips of 28 nanometres, these foundries will contribute to India's technological progress, although they are behind the global curve of 3nm chip production.

What are the challenges of India's plan for semiconductor production?

Limited technological edge: The plants will initially produce 28 nanometre chips, while the global standard is advanced at 3 nanometres.

Modest job creation: The projects are expected to generate 20,000 direct and 60,000 indirect jobs, which may not significantly impact the unemployment crisis.

Skilled labor shortage: Concerns about the availability of adequately trained workers for these specialized operations.

Infrastructure challenges: Questions about the assurance of uninterrupted power and clean water supply, crucial for semiconductor manufacturing.

Geopolitical risks: U.S. export controls and India's reliance on high-tech imports could affect operations. Additionally, domestic political factors, especially with investments focused in Gujarat, which lacks a strong tech base, present potential business risks.

Way forward

To progress, India should focus on developing more advanced semiconductor technology, addressing the skilled labor gap, ensuring stable infrastructure, and navigating geopolitical challenges. Strengthening partnerships, like the one with Tata Electronics and Taiwan's Powerchip, is also key to enhancing India's semiconductor industry.

On National AI mission and Investing in Artificial Intelligence

News - The government has allocated Rs10,371.92 crore package for the National AI (artificial intelligence) Mission to promote artificial intelligence in India.

What is National AI mission?

Objective- The primary objectives of the AI Mission include establishing robust computing powers for AI within India.

What are the steps taken by the government to promote AI?

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- 1) The government has announced 10,371.92 crore package for the National AI (artificial intelligence) Mission.
- 2) Under the allocated fund, there is viability-gap funding of around 4,500 crores for setting up 10,000 high-end graphics processing units (GPUs).
- 3) There will be establishment of an "AI marketplace", designed to offer AI as a service and pre-trained model.
- 4) It will develop foundational models with capacities exceeding 100 billion parameters. It will be trained on datasets covering major Indian languages for sectors such as healthcare, agriculture, and governance.

What are the challenges in realizing full potential of AI in India?

- 1) **Under-investment as compared to other countries**- According to Stanford's AI Index 2023, the US has invested nearly \$250 billion in 4,643 companies, China has invested \$95 billion in 1,337 artificial intelligence (AI) startups. Whereas India has invested only \$8 billion in 296 startups since 2013.
- 2) **Lack of sophistication in microchip manufacturing** - AI needs chips below 5nm whereas the recently inaugurated chip manufacturing plant will manufacture chips in the size of 28-40 nanometres (nm).
- 3) **Graphics processing units (GPUs)**- India lacks Graphics Processing Units (GPUs) that are crucial to train AI models and build indigenous large language models (LLMs) and LMMs. The recently allocated money would only be sufficient to fund only 1,000-1,500 high-end GPUs.
- 4) **Inadequate local large multimodal models (LMMs)**- While India has only a handful of local LLMs, China already has at least 130 LLMs, accounting for 40% of the global total.
- 5) **Lack of digital data for Indian language**- Out of 22 official Indian languages, most of them do not have digital data. There is a lack of quality non-personal data.

What should be the way forward?

- 1) There should be more sophistication in microchip manufacturing to meet the demands of AI industry.
- 2) **Policy support**- The AI ecosystem needs sensible, clear regulation and legislation, and enabling policy such as-
 - a) A sensible Customs and tax policy for importing relevant hardware.
 - b) A push to encourage local manufacture of high-end equipment including semiconductors.
 - c) Since AI depends a lot on data, there is an urgent need to finetune the processing and storage of both personal and non-personal data.

Role of AI in elections: Many elections, AI's dark dimension

News: The article discusses the impact of Artificial Intelligence (AI) and its advanced form, Artificial General Intelligence (AGI), on elections and society.

For details information on **Artificial General Intelligence (AGI)** read [Article1](#), [Article2](#)

What is the role of AI in upcoming elections?

Influencing Voter Behavior: AI, particularly Generative AI, has the potential to significantly influence voter behavior and decision-making in elections, as seen in the anticipation for the 2024 elections.

Spreading Disinformation: AI's ability to create hyper-realistic Deep Fakes and false narratives poses a risk of spreading disinformation, potentially misleading the electorate.

Amplifying Falsehoods: AI technologies can enhance falsehoods and enlarge mistaken beliefs, contributing to a heightened level of misinformation during election campaigns.

Adversarial Capabilities: AI systems might develop adversarial capabilities such as 'poisoning' and 'back dooring', which could be used to manipulate election outcomes or voter perceptions.

What are the concerns about AI?

Disruption to Democracies: AI's ability to create convincing falsehoods and to spread disinformation poses a risk to democratic processes.

Existential Threats: AI systems may develop adversarial capabilities such as 'poisoning', 'back dooring', and 'evasion', reducing their reliability and potentially causing harm.

Reliability Issues: As seen with Google AI's portrayal errors, AI models can sometimes be inaccurate or misleading.

Dependability Concerns: AI's tendency for 'hallucinations', or making probabilistic errors, makes it hard to fully trust AI systems in critical scenarios.

How should India approach AI?

Exercise Caution: Given its advanced digital status, India should approach AI, especially AGI, with caution, recognizing its disruptive potential.

Regulatory Measures: Implementing regulations to manage AI's impact, particularly in elections, is crucial to safeguard democratic processes.

Awareness of Risks: Leaders and policymakers should be aware of AI's risks, such as spreading disinformation and its adversarial capabilities like 'poisoning' and 'back dooring'.

Balancing Benefits and Threats: While AI offers significant benefits, India must balance these against potential harms, including bias and the creation of misleading or harmful content

Concerns of AI in finance: Regulating AI in finance looks like a wild goose chase

News: This article discusses the challenges of regulating artificial intelligence (AI) in finance. It highlights concerns about AI's transparency, biases, and misuse.

For detailed information on AI read - [Article1](#), [Article2](#)

What are the concerns of AI in finance?

Ethical Concerns: There is a significant risk that AI systems, driven by flawed or incomplete data, may adopt biases. This may lead to decisions that don't align with ethical standards expected in financial practices.

Transparency Issues: The decision-making processes within AI systems are complex and not easily understood, which can lead to a lack of trust and difficulties in assessing the fairness and accuracy of AI-driven decisions.

Misuse of AI: There's a significant concern about the misuse of AI in finance, especially in exploiting regulatory loopholes for profit. The complexity of AI systems makes such misuse hard to detect for regulators and competitors, adding a layer of risk to the financial sector.

Why is regulating AI challenging?

Rapid Evolution: AI technology evolves quickly, making it hard for regulations to keep up.

Complexity: The intricate nature of AI systems complicates understanding and effective regulation.

Technology Gap: There's a widening gap between regulatory capabilities and technological advancements, leading to supervision lagging behind necessary responses.

What should be done?

Adopt Advanced Supervision Tools: Regulators should employ real-time digital supervision techniques. Utilizing activity-based supervision and algorithmic data analytics proactively can improve oversight and understanding of AI in finance.

Enhance Transparency: There's a need to increase the transparency of AI systems. Making the decision-making processes of AI more understandable and clearer can build trust and allow for better regulation.

Close the Technology Gap: Addressing the gap between regulatory capabilities and technological advancements is crucial. Regulators need to equip themselves with the latest tools to effectively monitor and regulate financial activities in the digital age.

Focus on Ethical AI Use: Emphasizing the ethical use of AI in financial sectors should be a priority. This includes ensuring that AI decisions are unbiased and adhere to ethical standards.

Continuous Adaptation: Given AI's rapid evolution, regulators must continuously adapt their strategies and tools to stay effective. This ongoing adaptation is vital to manage financial risks effectively

Subject: Environment

Topic- Environmental Pollution and Degradation, Environmental Impact Assessment.

Problems of plastic waste in Himalayan states

News-The article discusses issues of unsustainable plastic waste management practice.

What is the status of Plastic waste in Himalayan states?

As per The Himalayan Clean up (2018-21) drive and the National Productivity Council of India's waste and brand audit, there is an increase in plastic waste (especially non-recyclables) in Himalayan states.

For ex-A) The Himalayan Clean up (2022) waste audit results showed that 92.7% of trash was plastic, with 72% of waste being non-recyclable plastic.

B) In Assam, at the Ramsar site of Deepor Beel, Greater adjutant storks are eating the plastic waste in the landfill instead of fish from the wetland.

What are the legal and statutory provisions to deal with plastic pollution?

1) **Legal mandates-**The government has brought Solid Waste Management Rules (SWM) 2016, Plastic Waste Management (PWM) Rules 2016 and Extended Producer Responsibility (EPR) 2022 to regulate plastic pollution in India.

2) Initiatives by the state government-

A) Himachal Pradesh has a buy back policy for non-recyclable and single-use plastic waste since 2019.

B) Sikkim banned packaged mineral water use from January 2022.

C) Tripura has made policy changes, enacted municipal by-laws and had a State-level task force to eliminate Single Use Plastic

Read more- [Plastic Pollution in India: An Overview](#)

What are the reasons for increasing plastic waste in Himalayan States?

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- 1) **Urbanization and Changing Consumption Patterns**-Rapid and unplanned urbanization, coupled with changing production and consumption patterns, contribute to the plastic waste crisis.
- 2) **Unsustainable Tourism**-Unsustainable tourism and a rapid rise in the number of tourists is contributing to an increase of plastic pollution problems in the region.
For ex- the National Green Tribunal has issued notices to Central Pollution Control Board (CPCB), the Himachal Pradesh State Pollution Control Board and Environment ministry on waste dumping in eco-sensitive areas by tourists and commercial establishments.
- 3) **Unscientific plastic disposal**- India has one of the highest mismanaged waste index (MWI), at 98.55%, in the world (after Kenya, Nigeria and Mozambique). This index measures the gap in waste management capacity and plastic consumption.
As per Centre for Science and Environment (CSE), India is recycling (through mechanical recycling) 12% of its plastic waste, burning 20% of its plastic waste and 68% is unaccounted for.
- 4) **Lack of adequate power for local bodies**- Under the SWM, PWM and EPR, local bodies are required to perform the task of collection and scientific disposal of plastic waste.
However, only a few States have enacted model by-laws to empower local bodies.
- 5) **Data gaps**- There is a need for scientific method of data collection on quantum and quality of plastic waste.

What should be the way forward?

- 1) **Resource Allocation and Support**-Adequate resource allocation, infrastructure development, and empowerment of local bodies are crucial for effective waste management, considering the region's ecological sensitivity.
- 2) **Public Participation and Education**-Public engagement through sustained education campaigns and waste segregation initiatives is essential to address the plastic waste crisis.
- 3) **Convergence of Schemes**-Convergence of existing schemes like Swachh Bharat Mission, Finance Commission grants, and corporate social responsibility funds can enhance resources for waste management infrastructure and operations.

IPCC Assessment Reports: The problem of equity in IPCC reports

News: The article discusses a study that reviewed over 500 climate change scenarios from the IPCC. It found that these scenarios show ongoing disparities between rich and poor countries in income, energy use, and emissions until 2050.

What are IPCC Assessment Reports?

IPCC Assessment Reports review scientific information about climate change. They include three Working Group reports:

- a) Physical science aspects of climate change.
- b) Climate adaptation strategies.
- c) Mitigation actions to reduce climate change.

There's also a synthesis report combining findings from all three groups.

These reports evaluate scientific literature to understand climate change's scientific, technical, and socio-economic aspects.

The IPCC is currently in its Seventh Assessment cycle (AR7).

Over 500 scenarios were analyzed, reflecting on actions like reducing carbon dioxide emissions and increasing carbon sequestration.

How does IPCC assess future scenarios?

1. IPCC assesses future scenarios using Integrated Assessment Models (IAMs).
2. IAMs combine human, earth systems, economics, energy, and vegetation models.
3. These models consider: a) Macroeconomic trends like GDP growth, b) Future energy consumption patterns, c) Land-use changes, d) Climate evolution based on physics laws.
4. IAMs aim to offer policy-relevant guidelines for climate action.
5. However, these models prioritize least-cost assessments. For example, they assess the cost of solar plants or afforestation in different countries, but this approach may not equitably distribute climate action burdens between rich and poor countries

What did the recent study find?

The study analyzed 556 scenarios from the IPCC's AR6 report. It focused on future emissions, mitigation actions, and carbon sequestration. Key findings include:

1. Persistent income, energy-use, and emissions disparities between developed and developing countries until 2050.
2. Regions like Sub-Saharan Africa, South Asia, West Asia, and the rest of Asia, home to 60% of the world's population, will have per-capita GDP below the global average in 2050.
3. Inequities in goods and services consumption, and energy and fossil fuel use, between the Global North and South.
4. Higher burden on developing countries for mitigation actions and carbon dioxide removal.

Why does equity matter in climate change?

1. Equity in climate change is crucial due to varied responsibilities and capabilities of countries.
2. The principles of equity and common but differentiated responsibilities are central to the UN Framework Convention on Climate Change (UNFCCC). Article 3 of the UNFCCC states that **climate action should be based on equity, with developed countries taking the lead.**
3. Richer countries have greater resources and historical contributions to climate change, implying they should shoulder more responsibility. Current climate models often overlook these equity principles, focusing mainly on technical and economic feasibility.
4. The study highlighted that modelled pathways need to align with equity, ensuring developed countries accelerate towards net negative emissions and leave the remaining carbon budget for less developed regions. However, the scenarios often project the opposite.

India's severe air pollution problem: Express View on IQAir's pollution report

News: The article discusses India's severe air pollution problem. It highlights that not only big city like Delhi, but also smaller cities are suffering from very poor air quality. **The Swiss agency IQAir's report** shows worsening conditions and emphasizes the need for better pollution control and coordination among agencies.

For details information on **World Air Quality Report 2023** [read here](#)

What is the cause of air pollution in India?

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1. In Delhi, **geographical factors** play a role, alongside **residents' transport choices**. **Industrial activities** and **construction work** are significant contributors.
2. **Crop stubble burning** in areas around Delhi worsens the city's air quality.
3. A **lack of comprehensive data on pollution sources** hinders effective solutions, especially in smaller cities.
4. The **spread of pollution to Tier 2 cities** like Guwahati and Patna shows a broader trend. These causes, as identified in the IQAir report, illustrate the complexity of India's air pollution problem.

What can be done to mitigate air pollution?

1. **Addressing staff shortages in state pollution bodies** to improve monitoring and enforcement.
2. Implementing targeted interventions in specific airsheds where pollution accumulates due to geographical or meteorological conditions. The National Clean Air Programme emphasizes such **targeted approaches** for effective results.
3. **Enhancing coordination** between local, state, and central agencies for unified action.
4. **Tackling pollution from varied sources** like agriculture, industry, power plants, transport, and households.
5. Successful mitigation **requires a comprehensive strategy** addressing all contributing factors to air pollution.

For details information on **Air Quality Management Plan** in India [read here](#)

Water- An instrument of global conflict and build world peace

Context- World Water Day, which falls on March 22, is a global initiative backed by the United Nations. It has been observed every year since 1993. The theme this year is "Leveraging Water for Peace."

Around 2 billion people are facing persistent global challenge of securing access to clean water. Water scarcity threatens individual well-being and collective prosperity. Therefore, there is a need for sustainable management of water resources.

What are the reasons for water crisis in India?

Read more- [Water Crisis in India](#)

What is the impact of scarcity of water?

- 1) **Endanger water security-** It leads to the poor functioning of ecosystems. It also threatens food and water security.
- 2) **Hamper peace-** According to the World Resources Institute, 17 countries face 'extremely high' levels of water stress which may lead to **conflict, unrest** and **peace** among people. It has been a cause of conflict in the past as well. For Example, the disputes between the Mesopotamian cities of Lagash and Umma over water resources.
- 3) **Impact on Rural Livelihoods:** With a significant portion of the world's rural population relying on water for agriculture, water scarcity directly impacts livelihoods.
- 4) **Sustainable Development Goals (SDGs):** Transboundary water cooperation is integral to realizing the SDGs. It highlights the interconnectedness of water management with health, food security, and ecosystem services.

What should be the way forward?

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1) **Rainwater harvesting**- There is a need to adopt rainwater harvesting (in-situ and ex-situ) in India. It enables resilience against water scarcity and drought by increasing recharge and aiding irrigation.

2) **Rejuvenation of ponds**- Existing government's such as the watershed management, Mission Amrit Sarovar and the Jal Shakti Abhiyan programmes give emphasis on water conservation and rainwater harvesting, rejuvenation of waterbodies.

However, there is the need for a protocol of the revival of ponds/waterbodies.

3) **Additional Measures**- There is a need for some additional interventions to ensure 'water for peace' such as -

a) **Monitoring**-There should be effective monitoring of the groundwater table and the reclamation of the water quality of groundwater, rivers and waterbodies.

b) **Circular water economy**-There should be effective pricing of water uses and promotion of a **circular water economy**.

c) **Efficient irrigation system**-Ensuring efficient irrigation techniques such as integrating water resources with micro-irrigations systems and IOT based automation.

There is a need to grow low water requirement crops and adoption of optimal crop plan that has integrated farming system models.

D) **Ending Freebies**-Populist policies like free electricity should be done away with.

E) **Enhanced Water Diplomacy and International Law**: The adoption of universal principles for International Water Law and improved cooperation over water-sharing are crucial. This approach can facilitate equitable water allocation, fostering regional stability and peace.

F) **Inclusive Water Governance**: Collaborative governance, which involves all stakeholders, including indigenous and local communities, is essential. It will ensure effective and equitable water allocation among nations.

G) **Addressing Transboundary Water Challenges**: A sophisticated form of cross-border water governance is required to manage the world's freshwater resources effectively, especially in transboundary context

Black Carbon Emission

Context- According to a 2016 study, the residential sector contributes 47% of India's total black carbon emissions followed by Industries 22%, diesel vehicles 17%, open burning 12%, and other sources 2%. Decarbonization efforts in the industry and transport sectors in the past decade have led to reductions in black carbon emissions. However, the residential sector remains a challenge.

What is black carbon?

Description-It is a component of soot emitted by the incomplete combustion of fossil fuels, biofuel and biomass.

Impact-It contributes to global warming and poses severe risks. Exposure to black carbon can increase risk of heart disease, birth complications, and premature death.

Source- Most black carbon emissions in India arise from burning biomass, such as cow dung or straw, in traditional cookstoves.

What is the Pradhan Mantri Ujjwala Yojana (PMUY)?

Entitlements-The scheme would provide free liquefied petroleum gas (LPG) connections to households below the poverty line. The programme has provided connections to over 10 crore households as of January 2024.

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Objective-To make clean cooking fuel available to rural and poor households and reduce their dependence on traditional cooking fuels.

Infrastructure-The PMUY has established infrastructure for LPG connections, including free gas stoves, deposits for LPG cylinders, and a distribution network.

Impact-It has helped in reducing black carbon emissions because it is a cleaner alternative to traditional fuel consumption.

Read more- [Non Conventional Energy](#)

What are the issues with Pradhan Mantri Ujjwala Yojana (PMUY)?

1) **Low LPG refill rate-** According to RTI data, in 2022-2023, only 25% of all PMUY beneficiaries availed either zero LPG refill or only one LPG refill. This suggests that they still relied entirely on traditional biomass for cooking.

2) **High cost-** The cost of a 14.2-kg LPG cylinder, even with an additional subsidy, is still about ₹600 per cylinder. This is a high cost for most PMUY beneficiaries, so they switch to traditional sources like cow dung, firewood, etc.

3) **Low consumption of LPG-**As per the findings of the The Hindu newspaper, the average PMUY beneficiary household consumes only 3.5-4 LPG cylinders per year as compared to non-PMUY household that consume 6 to 7 cylinders.

This implies that up to half of all the energy needs of a PMUY beneficiary household are still met by traditional fuels. Traditional fuels contribute to black carbon emissions.

4) **Last mile connectivity-**There is lack of last-mile connectivity in the LPG distribution network. This leads to unavailability of clean cooking fuel in remote areas which leads to enhanced use of biomass.

What should be the way forward?

1) **Production of Coal-bed methane-**There is a need to promote the local production of coal-bed methane (CBM) gas by composting biomass. It is a much cleaner source of energy. Here, Panchayats can take the initiative to produce CBM gas locally at the village level.

2) **Addressing low-refill rate-**The government should address the challenge of low refill rate by further subsidizing the cost of LPG cylinder.

PMUY scheme can help India become a global leader in addressing regional health concerns and help meet its Sustainability Development Goal of providing affordable clean energy to everyone and contributing to global climate mitigation.

Sustainable building materials

Context- India housing construction sector is booming, with over 3,00,000 housing units built annually. However, the building sector is a major energy consumer that accounts for over 33% of India's electricity usage, contributing to environmental degradation and climate change.

Further, The India Cooling Action Plan predicts an eight-fold increase in cooling demand between 2017 and 2037. Thus, it is important to address energy inefficiency in residential buildings due to India's rising energy and cooling demand.

What are the steps taken by the government to make construction sector energy efficient?

1) The government has taken steps like the Eco-Niwas Samhita (ENS) and the Residential Energy Conservation Building Code to ensure energy efficiency.

2) The ENS introduces the Residential Envelope Transmittance Value (RETV). This is a metric which measures heat transfer through a building's envelope.

Significance of RETV- Lower RETV values lead to cooler indoor environments and decreased energy usage. RETV of 15W/m² or less is recommended for optimal efficiency, improved occupant comfort, and lower utility expenses.

What are the optimal construction materials for energy efficiency of buildings?

There are 4 popular materials such as Autoclaved Aerated Concrete (AAC) blocks, red bricks, fly ash, and monolithic concrete (Mivan).

Read more- [Indian Cooling Action Plan](#)

What is RETV evaluation for these construction materials?

1) **Autoclaved Aerated Concrete (AAC)**- During evaluation, AAC blocks consistently had the lowest RETV across all climatic conditions. They have lower embodied energy compared to monolithic concrete and red bricks. However, they still contribute to emissions and waste.

2) **Monolithic Concrete**- Monolithic concrete has an embodied energy 75 times greater than AAC for building materials.

Monolithic concrete, despite its quick construction time, poses a significant environmental impact, and sustainability challenges.

Note- Embodied Energy is the energy associated with the manufacturing of a product.

3) **Red brick**-For estimated construction time for a 100 sq. ft room, red bricks required the longest time. Red bricks exhibit moderate embodied energy, contributing to resource depletion, emissions, and waste.

What should be the way forward?

1) **Interdisciplinary Collaborations**-There is a need for fostering collaborations with sustainability experts to develop strategies like building orientation, Window Wall Ratio (WWR), U-value (rate of heat transfer) of walls etc. to ensure energy efficiency.

2) **Innovation**-There is a need for innovation from building materials manufacturers so that they can develop cost-effective, scalable, durable, fire-resistant solutions.

Subject: Agriculture

Topic- Issues related to Direct and Indirect Farm Subsidies and Minimum Support Prices

Why are farmers protesting? - Rethink the way we grow food

News: The article discusses the high costs and challenges in modern farming, both in Europe and India.

Why are farmers protesting?

Protest in India:

Demand for Higher MSP: Farmers want increased minimum support prices for their crops due to high production costs.

Lack of Subsidies: Unlike European farmers, Indian farmers receive minimal government support, impacting

their profitability.

Climate Challenges: Erratic weather and pest attacks increase risks for farmers.

Protest in Europe:

Climate Regulation Impact: European farmers face challenges with new climate rules, like reducing pesticides and fertilizers, which increase their costs.

Financial Burdens: Policies like reducing livestock numbers and cutting fossil fuel subsidies add to the financial stress of farmers in Europe.

Dependency on Subsidies: European agriculture heavily relies on government subsidies, such as the EU's Common Agricultural Policy. For example, each farmer received approximately €6,700 annually in 2021 as direct income support.

What are the issues in modern farming?

Farm consolidation: Farms have become larger, making it harder for small farmers to compete due to increased costs and bureaucracy.

Rising costs: Both small and large farms face high input costs and debt. Organic farming, covering 10% of EU land, increases cultivation costs.

Intensive agriculture: To improve productivity, there's more use of chemicals and bio-inputs, leading to higher costs and environmental damage.

Price control dilemma: Governments need to control food prices, but this affects farmers' income, especially when costs rise due to climate change and pests.

Lack of subsidies: In India, unlike Europe, farmers lack substantial government subsidies, making it hard to cope with increasing costs.

Environmental impact: Intensive farming practices compromise environmental protection efforts.

Conflict between productivity and affordability: Increasing productivity requires expensive inputs, but this isn't sustainable in regions needing affordable food.

What should be done?

Promote Sustainable Practices: Shift towards regenerative or natural farming to reduce cultivation costs and improve environmental health.

Local Market Support: Implement policies like Odisha's millet procurement for midday meals to provide farmers with assured markets.

Balance Subsidies and Costs: Adjust subsidy systems to support farmers adequately, especially in regions like India where current support is minimal.

Manage Consumer Prices: Develop strategies to maintain affordable food prices while ensuring fair compensation for farmers.

Reduce Food Waste: Address the global issue of food wastage, ensuring efficient use of agricultural produce.

Enhance Environmental Policies: Integrate environmental standards with agricultural practices, focusing on long-term sustainability.

Diversify the crop basket

Context - The article highlights the lessons that can be learnt by Punjab from other states to improve its productivity.

Which states are the most productive states in terms of value creation in agriculture on a per hectare (ha) basis?

There are two ways to estimate the productivity-

1) Divide state Agri-GDP by Net Sown Area (NSA)- In this, Andhra Pradesh (AP) has the highest productivity, followed closely by West Bengal (WB). Punjab ranks 13th.

2) Divide Agri-GDP by Gross Cropped Area (GCA)-In this, Bihar has the highest productivity followed by Odisha.

What are the reasons behind the poor performance of Punjab in terms of value creation in agriculture?

1) **Faulty MSP regime**-Punjab is over-dependent on rice-wheat system induced by the MSP regime and open-ended procurement. Therefore, Punjab could not diversify production baskets geared towards high-value products.

2) **Subsidies** - The government gives free power and highly subsidized fertilizers to farmers. These subsidies encourage adoption of the rice-wheat system. For ex- 84% of Punjab's Gross cropped Area is under wheat and rice, leading to 76 per cent of its blocks being over-exploited in terms of groundwater.

What are the steps that can be taken by Punjab to address this issue?

1) **Shift to other crops** - A minimum of 1.5 million hectares (Mha) of rice area (out of about 4.5 Mha) needs to be shifted to pulses, oilseeds, maize and fruits and vegetables.

2) **Crop-neutral incentive structures** - There is a need for institutionalizing crop-neutral incentive structures. Farmers switching to these alternative crops must be rewarded with about Rs 25,000/ha.

Read more- [MSP Guarantee Law and Farmer's Protest](#)

What are the lessons that Punjab can learn from other high performing states?

1) **Andhra Pradesh** - With 24 % of its agriculture value added (AGVA) attributed to fisheries, AP leads the nation in fish production. It is this proficiency in cultivating high-value shrimp that boosts their profitability. Punjab can also adopt this method.

2) **Tamil Nadu** - It employs **Ultra High-Density Plantation (UHDP)** for mango cultivation. This method allows 674 mango trees per acre compared to the traditional method of 40 only. This leads to a significant increase in yield and profits.

3) **West Bengal** - This is a state with only 2 % agriculture power consumption in 2021-22 creating 40% more value than Punjab. It cultivates vegetables on 15 % (1.5 Mha) of its total GCA. The state has a dedicated Agri-Export Zone (AEZ) for vegetables.

Punjab and Haryana need to embrace a demand-driven high-value agricultural system, if they truly want their farmers to be prosperous. This would require shedding the mindset of an MSP-based cropping system.

Better utilization of fertilizer and food subsidies: Basic subsidies can be climate focused and aimed better

News- The article suggests India should change how it spends its agriculture and food subsidies. It recommends promoting organic fertilizers and millets over chemical fertilizers and rice or wheat, for better environmental and economic benefits.

For details information on **fertilizer subsidy** [read here](#)

For details information on **food subsidy** [read here](#)

What is the current situation with India's fertilizer and food subsidies?

a) India's Fertilizer Subsidies

1. India's budget shows a **consistent increase in fertilizer subsidies since 2017**. Despite higher subsidies, crop yields are declining.
2. Farmers are overusing nitrogen fertilizers, leading to nutrient imbalances. **The NPK ratio is now 11.8:4.6:1, far from the ideal 4:2:1.**

b) India's Food Subsidies

1. India's food subsidy bill accounts for **about 1% of its GDP**.
2. The **bill has been around ₹2 trillion since 2020**, largely due to the difference between MSPs (Minimum Support Prices) and CIPs (Central Issue Prices) of grains.
3. The emphasis on wheat and rice, supported by high MSPs, has led to environmentally unsustainable farming practices.

What are the government initiatives for better utilization of fertilizer and food subsidies?

The Indian government's key initiatives for better fertilizer and food subsidy utilization include the **National Plan for Organic Productions** to shift towards organic farming, the **classification of nano urea as a 'nano fertilizer'** by the Ministry of Agriculture for sustainable fertilizer use, and promoting millets in 2023, the **International Year of Millets**, highlighting their nutritional and environmental advantages to redirect food subsidies effectively.

For information on **Government Flagship Schemes in Agriculture** [read here](#)

For information on **nano fertilizer** [read here](#)

For information on **International Year of Millets** [read here](#)

What are the concerns related to better utilization of fertilizer and food subsidies?

Overuse of Chemical Fertilizers: India's heavy fertilizer subsidies have resulted in an excessive use of nitrogen fertilizers, disturbing soil health and causing an imbalance in nutrient use, as shown by the NPK ratio of 11.8:4.6:1 in 2022-23.

Declining Crop Yields: Increased fertilizer use has not translated into higher yields, suggesting inefficiency and potential environmental harm.

Policy and Oversight Conflicts: The divided management of fertilizer policy between separate ministries creates conflicting objectives and hinders coherent policy implementation.

What should be done?

1. Redirect fertilizer subsidies towards nano and organic fertilizers, aligning with net-zero emission goals.
2. Consolidate fertilizer oversight under the agriculture ministry to unify policy-making and execution, addressing policy gridlocks.
3. Encourage organic farming and crop diversification, as practiced in Odisha, with financial support and initiatives like rice-fallow management.
4. Channel food subsidies towards millets, particularly given 2023 being the International Year of Millets, to

promote nutritious and less carbon-intensive crops. This would support Tribal communities and women farmers, moving towards a circular economy.

5. Maintain subsidy outlay levels while focusing on low-carbon alternatives for balanced welfare, fiscal responsibility, and climate change mitigation.

Subject: Disaster Management

Topic- -Disaster management- Forest fire

Status of forest fires in India: Heat, aridity, clear skies

News: The article details forest fires in the Coonoor forest range, Tamil Nadu, where the Indian Air Force used an Mi-17 V5 helicopter with a Bambi Bucket to drop water on the fires. This is part of efforts to control the intense wildfires in the region.

What is the current status of forest fires in India?

Frequency and Season: As per the **India State of Forest Report (ISFR) 2019**, forest fires are common in India, particularly from November to June.

High Risk Areas: The ISFR 2019 identifies over 36% of India's forest cover as fire-prone (about 4% extremely prone to fire, and another 6% was 'very highly' fire prone). Northeast India, Odisha, Maharashtra, and Uttarakhand face severe risks.

2024 Fire Incidents: FSI data shows the highest number of fires in Mizoram (3,738), Manipur (1,702), Assam (1,652), Meghalaya (1,252), and Maharashtra (1,215).

South India's Trends: Despite generally lower risk, Tamil Nadu has experienced increased wildfire incidents.

What are the reasons for forest fires in India?

Human Actions: Fires often start due to human activities like discarding cigarettes, leaving campfires unattended, and burning debris.

Natural Causes: Lightning strikes are a frequent natural cause of forest fires.

Climatic Factors: This year, the spread of forest fires is influenced by high aridity, above-normal temperatures, and clear sky conditions, especially in Southern India.

Recent Temperature Trends: Southern India experienced exceptionally high temperatures recently, with February being the hottest since 1901, contributing to dry forest conditions.

Specific Regional Conditions: The Indian Meteorological Department (IMD) reported high Excess Heat Factor (EHF) in western Andhra Pradesh and Karnataka, with temperatures hitting 40 degrees Celsius, unusually high for mid-March, increasing the risk of fires.

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

Time for digital “nakabandi”

Context- CERT-In, along with CSIRT-Fin, has recently issued a whitepaper on Application Programming Interface (API) security. This should give a boost to digital nakabandi. It is the tactical term for access control and area domination by law enforcement authorities. This is particularly important in the backdrop of rising guerilla tactics employed by hackers and cyber-prowlers

What is an API?

APIs are mechanisms that enable two software components to communicate with each other using a set of definitions and protocols. For example, the weather bureau’s software system contains daily weather data. The weather app on your phone “talks” to this system via APIs and shows you daily weather updates on your phone.

What is the significance Of API for digital economy?

India is pacing towards a largely digital economy in which API is the mainstay of the sharing mechanism. It facilitates seamless data exchange between applications. It empowers banks to enhance customer experience and create revenue streams.

Read more- [Cyber attacks and Cyber Security in India](#)

What are the steps taken by the government to promote data sharing?

- 1) The government's e-governance initiatives like the Open Government Data (OGD) platform have over 5 lakh resources, 12,000 catalogues and over 1 lakh APIs.
- 2) The government has launched a Policy on Open Application Programming Interfaces that sets out the government's approach to the use of Open APIs to promote software interoperability for all e-governance applications.
- 3) The National Data and Analytics Platform (or NDAP) is NITI Aayog's flagship initiative that hosts datasets from across India's vast statistical infrastructure.

What are the issues with data sharing in India?

- 1) There is no model data-sharing toolkit that could help chief data officers to manage risk associated with the sharing and release of data sets. Consequently, many data cells are reluctant to share data sets.
- 2) The source code is not hidden from partners while linking various systems.

What are some norms for API security?

There is use of token-based authentication to securely manage access tokens, securely managing and storing API keys.

There are security assessments, and regular updating of response plans to address and mitigate the impact of potential API attacks.

What are the issues with traditional norms for API security?

- 1) A person can access an API any number of times from one IP or ID. Therefore, many data breaches use this route of data aggregation through excessive exposure and then misusing it.
- 2) There is no search limit for sensitive or resource-intensive data
- 3) There is no restriction on the number of requests from a single user or IP address to prevent attacks.

What should be the way forward?

- 1) **Digital nakabandi**- The digital nakabandi must include implementing rate-limiting to distribute the allowed number of search requests evenly over time and tying request limits to user authentication. In the case of sensitive or resource-intensive data, there is a need to set lower request limits.
- 2) **Leveraging Artificial Intelligence**- Organizations should leverage machine learning to analyze unique user behaviors. Analyzing the typical search behavior of one's users, with AI-based models, is very important.

