



Mains Marathon
Compilation

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Examine the role of technology in both facilitating and preventing cheating in examinations. How can India move towards a more fool-proof and innovative examination system?

The recent constable recruitment paper leak in UP highlights clear proof of loopholes in the examination system, but they also created widespread frustration among the youth who worked relentlessly for the exam.

Role of technology in both facilitating and preventing cheating

- **Tools for Communication:** Social media and messaging apps allow for cooperative cheating during online tests as well as real-time communication with outside sources for answers.
- **Access to Information:** Technology provides students with easy access to vast amounts of information through the internet, which can aid in cheating by allowing them to look up answers during exams.
- **Secure Examination Platforms:** Dedicated platforms can restrict access to external websites and applications while conducting exams, reducing the possibilities of information retrieval or communication with external sources.
- **Biometric Authentication:** Fingerprint or iris scans can ensure the authorized individual is taking the exam, preventing impersonation.
- **Plagiarism Detection Software:** Technology can be used to detect plagiarism in assignments and essays by comparing them to a vast database of existing content.

Moving towards a fool-proof and innovative examination system

- **Multi-pronged Approach:** Combining traditional invigilation with technological solutions like online proctoring and secure platforms, while fostering a culture of academic integrity, can deter cheating attempts.
- **Continuous Upgradation:** Regularly updating and improving the technological infrastructure used in exams, staying ahead of potential loopholes exploited by cheaters.
- **Promoting Open-Book and Skill-Based Assessments:** Shifting the focus towards open-book exams or assessments that test application and critical thinking skills rather than rote memorization, reducing the incentive to cheat for mere marks.
- **Promoting Ethical Values:** Integrating ethical education into the curriculum, emphasizing the importance of honesty and integrity in academic pursuits.
- **Promote Digital Literacy:** Educating students about the ethical use of technology and the consequences of cheating can help foster a culture of academic integrity.

Conclusion

The Public Examinations Prevention of Unfair Means Act is a remarkable step by the Central Government to protect the interests of the student community who give their life and soul for the preparation of public examinations. The need of the hour is that state governments adopt this model Bill to ensure the integrity of their public examination systems.

Discuss the challenges in ensuring consumer safety in the marketing of alternative medicines in India. How effective is the current legal and regulatory environment in protecting consumers from misleading advertisements?

Introduction: Give a brief context to the introduction

Body: Challenges in ensuring consumer safety and effectiveness of current laws

Conclusion: Way forward

The Supreme Court recently cautioned Patanjali Ayurveda, a company co-founded by yoga guru Ramdev and dealing in herbal products, against making “false” and “misleading” claims in advertisements about its medicines as a cure for several diseases. India faces considerable challenges in safeguarding consumer

safety when it comes to the marketing of alternative medicines, mainly those from traditional systems such as Ayurveda, Siddha, and Unani.

Challenges in Ensuring Consumer Safety

- **Misleading Advertisements:** Alternative medicines are often promoted with exaggerated claims about their effectiveness and lack of side effects, preying on consumer vulnerabilities.
- **Lack of Standardization:** The production and quality control of many alternative medicines may not meet rigorous scientific standards. This inconsistency can lead to variable efficacy and potential safety issues due to contamination or adulteration.
- **Insufficient Scientific Evidence:** The efficacy of many alternative therapies may not be backed by robust clinical trials or peer-reviewed studies, leading to dubious marketing claims.
- **Self-Medication:** Easy availability encourages consumers to self-medicate without appropriate medical supervision. This can lead to delayed diagnosis of serious conditions, incorrect dosages, or potential interactions with conventional medicines.
- **Limited Oversight:** The regulatory landscape for alternative medicines may have loopholes, allowing some manufacturers to evade stringent quality checks or make unsubstantiated claims in their advertisements.

Effectiveness of the Current Legal and Regulatory Environment

- **The Drugs and Magic Remedies (Objectionable Advertisements) Act of 1954:** This act aims to curb misleading advertisements of drugs and "magic remedies" that promise unrealistic cures.
- **The Drugs and Cosmetics Act of 1940:** Regulates the manufacture, sale, and distribution of traditional medicines, setting standards for quality and labeling requirements.
- **Enforcement Gaps:** Despite existing laws, the enforcement and monitoring of misleading advertisements in the alternative medicine sector remains weak.
- **Ambiguities in Regulations:** Certain categories of products may fall into regulatory gray areas, leaving room for ambiguous marketing practices.
- **Lack of Consumer Awareness:** Many consumers lack the necessary awareness and critical thinking skills to distinguish between credible information and misleading advertisements and claims.
- **Regulatory Bodies:** Agencies like the Ayurvedic, Siddha, and Unani Drugs Technical Advisory Board (ASUDTAB), Central Council for Research in Ayurvedic Sciences (CCRAS) & Ministry of AYUSH play a role in research, standardization, and regulation of alternative medicines.

Conclusion

Strengthening the legal and regulatory framework, enhancing enforcement mechanisms, and promoting greater transparency and accountability in marketing practices are crucial steps towards safeguarding consumer interests in this sector.

Critically analyze the evolution of India's foreign policy towards Palestine and Israel since independence. Discuss how India's position has changed in the context of recent developments in West Asia and its implications for India's diplomatic relations in the region.

Introduction: Give a brief context to the question

Body: Evolution of foreign policy and recent development and implications for India

Conclusion: Way forward

India's foreign policy towards Palestine and Israel since independence has undergone significant evolution, influenced by various geopolitical factors, domestic considerations, and changing global dynamics.

Evolution of Foreign Policy

- **Early Years (1947-1967):** Post-independence, India sided with Arab nations in supporting Palestinian self-determination, recognizing the PLO as the legitimate representative. No diplomatic ties with Israel due to sympathy for the Palestinian cause.
- **Shift in the 1990s:** Pragmatic reasons drove India to establish diplomatic relations with Israel in 1992, focusing on defense and technology sectors, indicating a more balanced approach to the conflict.
- **Balancing Act (1990s-2010s):** India maintained ties with both Israel and Palestine, leaning towards Palestine in international forums. Advocated for a two-state solution to ensure Israel's security and a viable Palestinian state.
- **Growing Engagement with Israel (2010s):** Bilateral relations with Israel expanded significantly, especially in defense, agriculture, technology, and counter-terrorism. Despite this, India reiterated support for the Palestinian cause and endorsed a negotiated settlement for a sovereign Palestinian state.

Recent developments and their implications

- **Strengthening Ties with Israel:** India has significantly increased its economic and military cooperation with Israel. This pragmatic approach prioritizes national security and economic development.
- **Muted Criticism:** Public statements on the Israeli-Palestinian conflict have become more muted, reflecting a cautious approach to not alienate either side.
- **Impact on Regional Relations:** This shift has caused some strain on Arab states, who see India as less supportive of the Palestinian cause. However, India maintains good relations with most Arab countries through historical ties and economic partnerships.
- **Global Standing:** India's nuanced approach to the Israel-Palestine conflict allows it to maintain relevance and influence in international forums, such as the United Nations, where it advocates for a peaceful resolution to the conflict. India's stance also reflects its broader foreign policy principles of non-alignment and support for multilateralism.

Conclusion

India's evolving foreign policy reflects its changing priorities in a complex geopolitical landscape. While strategic considerations have led to a closer relationship with Israel, India still maintains its support for a two-state solution. The success of India's balancing act will depend on its ability to manage its relationships with both sides effectively.

Evaluate the implications of the Supreme Court of India's recent acquittals of death row prisoners and its attempt to reform death penalty sentencing. How does it reflect on the state of judicial process and sentencing in India?

Introduction: Give brief context to the introduction

Body: Implications of recent acquittals and attempt to reform the death penalty

Conclusion: Way forward

The Supreme Court's recent acquittals of death row prisoners and its push to reform death penalty sentencing raise significant points about the Indian justice system. In an unprecedented trend, the Supreme Court of India acquitted nearly 55% of the death row prisoners (six prisoners) in the cases it heard in 2023.

Implications of Recent Acquittals and Attempts to Reform Death Penalty

- **Justice Served:** These acquittals highlight potential flaws in the lower judiciary system. Lapses in police investigations, unreliable witnesses, and fabricated evidence suggest a need for stricter scrutiny at lower court levels.
- **Right to Life Upheld:** The acquittals demonstrate the Court's commitment to due process and preventing irreversible mistakes. It underscores the importance of a fair trial before taking a life.
- **Erosion of Public Confidence:** The fact that several individuals spent years on death row before exoneration can erode public trust in the justice system's efficiency and fairness.

- **Addressing Shortcomings:** The Court's initiative to reform death penalty sentencing reflects an acknowledgment of potential issues in capital punishment cases. It opens a dialogue on ensuring the death penalty is reserved for the "rarest of rare" cases.
- **Standardization and Transparency:** Reforms could introduce stricter guidelines for awarding the death penalty, ensuring consistency and reducing arbitrariness. More transparency in the process would also be beneficial.

Reflection on the Judicial Process

- **Uneven Application:** The acquittals expose the potential for inconsistencies in the application of law across different levels of the judiciary. This calls for measures to improve training and accountability in lower courts.
- **Access to Quality Legal Representation:** The acquittals might be partly linked to inadequate legal representation, especially for those without resources. Ensuring access to fair legal aid is crucial.

Conclusion

Finally, the recent acquittals of death row prisoners and attempts to reform death penalty sentencing by the Supreme Court of India reflect a commitment to upholding human rights, ensuring fairness in the judicial process, and addressing systemic flaws in the criminal justice system. While these developments signal progress, continued efforts are needed to strengthen the rule of law, promote judicial accountability, and safeguard the rights of all individuals in India. It is also imperative that courts follow directions set in Manoj vs The State Of Madhya Pradesh & consider valuable insights to reform sentencing through data from Project 39A's 2023 annual statistics on the death penalty.

Evaluate the strategic importance of railway connectivity in fostering regional growth and economic integration among the BBIN countries (Bangladesh, Bhutan, India, and Nepal). Discuss the challenges and opportunities presented by the current infrastructure projects and institutional frameworks in achieving seamless regional connectivity.

Introduction: Contextual introduction

Body: Highlight the importance of rail connectivity with the challenges and opportunities involved

Conclusion: Way forward

Railway connectivity plays a crucial role in propelling regional growth and economic integration within the BBIN nations (Bangladesh, Bhutan, India, and Nepal).

Strategic Importance of Rail Connectivity

- **Decreased Trade Costs:** Competitive cross-border trade among BBIN countries is facilitated by efficient railways, which reduce the cost of transportation for bulk products. This draws in foreign investment, opens up new markets, and boosts production.
- **Improved Supply Chains:** Reliable and quick freight transportation is made possible by seamless rail networks, which facilitates better supply chains and increased manufacturing efficiency throughout the area.
- **Industrial Development:** Enhanced connection creates opportunities for the establishment of local production centres, drawing businesses that can pool resources across national boundaries.
- **Tourism Boost:** Facilitating passenger transit on railroads increases tourism, which in turn generates income and encourages cross-cultural interactions within BBIN.

Challenges

- **Infrastructure Deficits:** The BBIN region's current railway system is beset by issues like antiquated technology, inadequate capacity, and poor connectivity to important economic hubs.

- **Border Crossing Delays:** Protracted customs processes and delays at border crossings impede the efficient movement of goods and people across borders. To overcome this obstacle, regulations and practices must be harmonized.
- **Funding Restrictions:** It is still very difficult to finance major infrastructure projects. Project delays or failures can be caused by a lack of public funding and private investors' hesitation because of perceived risks.

Opportunities

- **Initiatives for Regional Cooperation:** The Trans-Asian Railway Network and the BBIN MVA (Motor Vehicles Agreement) are two examples of initiatives that offer frameworks for improving regional cooperation and railway connection. Improving these programs can open up a lot of doors for economic integration.
- **Public-Private Partnerships (PPPs):** PPPs provide a means of bringing in private sector capital and experience for the construction of railroad infrastructure. Governments can encourage private investment by enacting laws and regulations that are advantageous.
- **Multilateral Funding and Support:** For railway projects in the BBIN region, multilateral organizations like the World Bank and the Asian Development Bank (ADB) can offer both financial support and technical know-how. Working together with these organizations can assist in overcoming capacity and financial issues.

Conclusion

Investing in railway connectivity within BBIN is a strategic move for boosting regional economic integration and shared prosperity.

Discuss the impact of the energy sector projections by major oil companies on the global efforts towards achieving net-zero carbon emissions. How do these projections potentially affect the pace of the clean energy transition? [250 Words]

Introduction: Give a brief context to the question

Body: Impact of energy sector projections and their effect on clean energy transition

Conclusion: Way forward

Major oil firms' estimates about the energy industry have a big impact on how the world is trying to get to net-zero carbon emissions and how quickly the clean energy transition is happening. Forecasts of future energy production, demand, and consumption trends are frequently included in these projections, along with investments in different energy sources.

Impact of these projections on efforts towards net-zero carbon emissions

- **Investment Choices:** When it comes to new energy projects, oil corporations make investment choices based on estimates. The shift to renewable energy sources may be slowed significantly if these estimates give infrastructure expansion and the extraction of fossil fuels precedence over clean energy options.
- **Policy Advocacy:** Lobbying and policy advocacy are frequent activities for large oil businesses. Their forecasts have the power to affect the choices made by decision-makers over energy-related laws, rules, and subsidies. It could impede efforts to reach net-zero carbon emissions if these corporations support policies that promote fossil fuels.
- **Market Dynamics:** The prices of fossil fuels and renewable energy technologies are impacted by projections in the energy sector. Investment in renewable energy sources and research in clean energy technology may be discouraged if forecasts point to a continuous reliance on fossil fuels.
- **Consumer Perception:** The predictions made by large oil firms have an impact on how the general public views energy trends. The public may become less enthusiastic about renewable energy and climate action if these estimates minimize the significance of clean energy and highlight the continuous dominance of fossil fuels.

Potential influence of these projections

- **Undermining Urgency:** These projections often continue to anticipate significant demand for fossil fuels for many years to come, which could downplay the urgency of the climate crisis and hinder aggressive investment in clean energy solutions. By presenting a business-as-usual scenario, they may mislead policymakers and the public, delaying the implementation of stricter regulations and carbon pricing mechanisms needed for a rapid transition.
- **Missed investment opportunities:** Persisting emphasis on fossil fuels may cause oil companies to overlook investment opportunities in essential clean energy technologies required for achieving net zero. This could delay the advancement and adoption of renewables, energy storage, and carbon capture, impeding our journey toward sustainability.

Conclusion

The International Energy Agency (IEA) has calculated that the oil demand must fall by at least 75 percent from its current level for the world to meet its net zero target.

Examine the policy measures and technological innovations required for India to overcome the dependency on imports for critical minerals essential for clean energy technologies.

Introduction: Give a brief context to the question

Body: Highlight policy measures and technological innovations to overcome dependency on imports

Conclusion: Way forward

India's clean energy ambitions are heavily reliant on critical minerals like lithium, cobalt, and rare earth elements. However, the country currently faces a high import dependency on these resources.

Policy measures to overcome dependency on imports

- **Domestic Exploration and Mining:** Encouraging domestic exploration and mining of critical minerals through policy incentives and regulatory reforms can enhance self-sufficiency. This includes streamlining permit processes, providing financial incentives, and promoting research and development in mining technologies.
- **Diversification of Sources:** India should focus on diversifying its sources of critical minerals by engaging in strategic partnerships with countries possessing abundant reserves. This reduces reliance on a single source and minimizes supply chain disruptions.
- **Policy support:** Two important steps have been taken by the government in the past year on the subject of critical minerals. The first was to identify a list of 30 critical minerals & the second was to amend the existing mining laws to allow private sector participation in the auction of 20 blocks of critical minerals/rare earths. India has signed an agreement with Australia to jointly explore lithium and cobalt assets in Australia.

Technological Innovations to overcome dependency on imports

- **Research and Development (R&D) Expenditure:** Investing more in R&D for alternative materials and technologies can aid in the quest for crucial mineral replacements. To lessen dependency on finite resources, this entails investigating novel materials, procedures, and recycling techniques.
- **Technological Innovation:** The efficiency and sustainability of mineral production can be increased by creating novel extraction, processing, and refining technologies. This includes cutting-edge methods that can extract minerals from waste materials and lower-grade ores, like hydrometallurgy, solvent extraction, and bioleaching.
- **Recycling and Circular Economy:** Promoting recycling and the development of a circular economy for critical minerals can reduce the demand for new extraction and imports. Innovative technologies and policies should incentivize the collection, recycling, and reuse of minerals from end-of-life products and waste streams.

Conclusion

By implementing a combination of these policy measures and technological innovations, India can become more self-sufficient in critical minerals and ensure the long-term sustainability of its clean energy transition.

Analyze the socio-economic and structural barriers that hinder undertrials' ability to comply with bail conditions in India. Suggest measures that the legal system could implement to make bail more accessible to underprivileged sections of society, thus preventing unnecessary undertrial incarceration.

Introduction: Give a brief contextual introduction

Body: Highlight socio-economic barriers that hinder bail conditions and measures to improve them.

Conclusion: Way forward

Recently, the Chief Justice of India D.Y. Chandrachud said that there is a growing reluctance on the part of trial judges to grant bail and that jail, and not bail, was becoming the rule. Over 75% of India's prison population is undertrial while overcrowding in Indian prisons stands at 118%. These stark realities are often cited to represent the scale of the crisis in India's criminal justice system. The Supreme Court of India recently acknowledged, in *Satender Kumar Antil vs CBI*, the ineffectiveness of India's bail system and its contribution to this crisis.

Socio-economic & structural barriers

- **Financial Constraints:** Bail amounts can be substantial, especially for minor offenses. Underprivileged individuals often lack the resources to meet these financial requirements or find suitable sureties.
- **Loss of Livelihood:** Pretrial detention can lead to job loss, making it even harder to arrange bail or support dependents upon release.
- **Social Stigma and Discrimination:** Social stigma, caste-based discrimination, and systemic biases often marginalize underprivileged individuals, making it harder for them to secure bail or receive fair treatment within the legal system.
- **Inefficient Legal Aid:** Many undertrials lack access to competent legal representation. Informing them of their bail rights and navigating the complex procedures can be challenging without proper legal guidance.
- **Overcrowded Prisons:** Overcrowding can create a backlog in processing bail applications, leading to unnecessary detention.

Measures for a More Equitable Bail System

- **Free Legal Aid Provision:** Guarantee that impoverished people can obtain free legal aid services, such as representation at bail hearings and help in comprehending bail requirements.
- **Bail Reform:** Examine and rework bail policies to make them more fair and suited to the socioeconomic circumstances of the poor.
- **Strengthening Legal Aid:** Improve legal aid programs to make sure that those awaiting trial are aware of their rights regarding bail and are given support when submitting applications. This can entail raising the scope of legal aid initiatives and educating attorneys on bail processes.
- **Judicial Education:** Plan frequent educational events for judges regarding socioeconomic conditions and substitute means of release such as electronic tracking or personal bonds.
- **Community Bail Programs:** Create community bail programs in which social welfare or non-profit organizations contribute money toward the cost of bail. This can assist disadvantaged people in obtaining their release.

Conclusion

By addressing these barriers, India's legal system can move towards a more equitable bail system. This would not only reduce unnecessary pretrial detention but also ensure that individuals are not penalized

for their poverty. It would also contribute to decongesting prisons and improve access to justice for all sections of society.

Discuss the need for legal reforms to address the issue of political defections in India. How do such defections impact the stability and integrity of democratic institutions, and what measures should be taken to prevent them?

Introduction: Give a brief context to the question

Body: Highlight the need for legal reforms and measures to reform defection law

Conclusion: Way forward

In India, political defection has long been a controversial topic that threatens the integrity and stability of democratic institutions. Legislators' habit of switching parties for partisanship or personal benefit has a big impact on how well democracies work.

Need for legal reforms to address the issue

- **Representative democracy:** The representational democracy premise is compromised by political defections. As a result, the relationship between voters and their elected representatives is weakened and the election process loses legitimacy.
- **Political instability:** Political instability can result from defections because they can upset the balance of power in legislatures. This not only interferes with the government but also takes focus and funds away from dealing with the nation's most urgent problems.
- **Opportunistic Politics:** A culture of opportunism and horse-trading, when lawmakers are encouraged to transfer parties in exchange for financial or political benefits, is fostered by political defections. The democratic principles of responsibility, openness, and ideological consistency in government are compromised by this.

Measures to prevent defections

- **Time-bound decision:** Endless delays by the Speaker have led the Supreme Court to declare in its Manipur judgment that three months is the ideal time limit for Speakers to decide disqualification petitions.
- **Internal party democracy:** Promoting internal party democracy and accountability mechanisms within political parties to address grievances and prevent the marginalization of dissenting voices, which often leads to defections.
- **Strengthening institutions:** Building robust and independent institutions, such as the Election Commission and judiciary, to oversee electoral processes and adjudicate disputes related to defections impartially.
- **Anti-defection laws:** Strengthening and strictly enforcing anti-defection laws to disqualify legislators who defect from their original parties. These laws should include provisions for disqualification not only from membership but also from holding public office for a certain period.
- **Reports of different committees:** Various commissions, including the National Commission to Review the Working of the Constitution (NCRWC), have recommended that the decision to disqualify a member should rest with the President (for MPs) or the Governor (for MLAs), acting on the advice of the Election Commission.

Conclusion

Advocating for a direct approach to address political defections, several proposals suggest abolishing the 10th Schedule and enacting a law mandating resignations and re-elections for party-switching legislators. It also proposes barring such individuals from holding ministerial positions without re-election. Additionally, it advocates for selecting Speakers before elections through a consensus among parties to enhance their credibility and independence.

Analyze the role of policy-making in addressing socio-economic disparities in India. With reference to a recent government initiative, evaluate its effectiveness in promoting inclusive growth.

Introduction: Give a brief context to the question

Body: Highlight the role of policy-making in addressing disparities in India & evaluate its effectiveness

Conclusion: Way forward

To reduce inequality and promote inclusive growth, policy-making is essential in tackling socioeconomic gaps in India. It does this by developing strategies and putting these measures into action. The eagerly awaited fact sheet of the Household Consumption Expenditure Survey (HCES) 2022-23 was released recently by the National Sample Survey Office (NSSO) of the Ministry of Statistics and Programme Implementation.

Role of policy-making in addressing socio-economic disparities

- **Redistribution:** Progressive taxation, social safety nets, and targeted subsidies can transfer resources from the wealthy to the poor, reducing the gap.
- **Equality of Opportunity:** Investments in quality education, healthcare, and skilling programs create a level playing field, allowing individuals from disadvantaged backgrounds to compete effectively.
- **Empowerment:** Policies promoting women's rights, affirmative action for marginalized groups, and decentralization can empower historically excluded sections of society.

Effectiveness of HCES 2022-2023 in promoting inclusive growth

- **Information on household data:** HCES captures household spending patterns in India, including demographic details, to construct CPI weighting diagrams for tracking retail inflation. It determines the relative significance of goods and services based on their shares in household consumption.
- **Capturing diverse consumption trends:** HCES tries to accurately capture the diverse consumption patterns of households. The robust sampling design, coupled with the incorporation of new items and innovative survey techniques, reflects a dedication to staying attuned to the dynamics of a rapidly changing official statistics domain.
- **Urban-Rural Gap:** HCES provides valuable insight into income levels both at rural and urban levels. There is a noticeable decline in the percentage share of expenditure on food items (especially cereals), accompanied by an increase in the share of spending on fresh fruits and processed foods. There is a surge in non-food expenditures' share, particularly on durable goods, indicating an improved standard of living and a growing preference for lifestyle enhancements.

Conclusion

The Household Consumption Expenditure Survey 2022-23 is a testament to India's commitment to a resilient statistical system embracing both tradition and innovation & collective endeavor of the Indian Statistical Service officers, the Subordinate Statistical Service officers, and the entire staff, that stands as a beacon of reliability, a valuable tool for shaping the trajectory of New India's economic policies.

Evaluate the significance of the National Credit Framework (NCrF) in enhancing educational flexibility and inclusivity in India. Discuss the potential impact on student mobility across various educational institutions and programmes.

Introduction: What is NCrF?

Body: Highlight the significance & impact of NCrF on the Indian education system.

Conclusion: Way forward

NCrF has been developed to enable the integration of academic and vocational domains to ensure flexibility and mobility between the two. It aims to formulate a unified credit accumulation and transfer for general and vocational studies, and from school to higher education.

Significance of NCrF

- **Enhanced Flexibility:** The NCF allows students to accumulate credits for courses completed, regardless of the institution or program they are enrolled in. This flexibility enables learners to design their educational pathway according to their interests, career goals, and personal circumstances.
- **Greater Inclusivity:** It opens up opportunities for individuals from different backgrounds and age groups to access higher education and skills development, thereby reducing barriers to entry and fostering lifelong learning.
- **Quality Assurance:** The NCF creates standards for evaluating and accrediting schools and programs, guaranteeing that high standards are upheld throughout the education industry. By facilitating easy transferability between institutions and enhancing the credibility of credits earned, this quality assurance mechanism promotes transparency and trust in the educational system.
- **Empowerment of Learners:** By placing students at the center of the learning process and empowering them to take ownership of their educational journey, the NCF fosters a culture of self-directed learning and personal development. It encourages students to explore diverse academic opportunities, engage in continuous learning, and acquire transferable skills that are essential for success in the dynamic global landscape.

Impact on Student Mobility

- **Inter-institutional transfer:** Students can potentially transfer accumulated credits between institutions offering similar programs, facilitating movement without starting afresh.
- **Intra-institutional mobility:** NCrF encourages students to explore different courses within the same institution, allowing for a broader and more interdisciplinary learning experience.
- **Inter-program mobility:** Students can potentially move between academic and vocational programs, depending on their evolving interests and career goals.

Conclusion

If the National Credit Framework is implemented well, it can promote inclusivity, flexibility, and student mobility, which could bring about a revolution in the Indian education system. NCrF can enable people to pursue their educational objectives and contribute to a more dynamic and inclusive learning ecosystem by eliminating inflexible boundaries and recognizing diverse learning pathways.

Analyze the link between early-life undernutrition and the later-life prevalence of diabetes and obesity in India, as highlighted by the Global Burden of Disease study. Discuss the significance of investing in the health of adolescent girls and young women in combating this double burden.

Introduction: Give a brief contextual introduction.

Body: Highlight the link between undernutrition & diabetes and the significance of investing in the health of girls.

Conclusion: Way forward

Global Burden of Disease study in The Lancet focuses on the simultaneous double burden of undernutrition and obesity worldwide highlighting the link between early life undernutrition and the later life prevalence of diabetes and obesity in India.

Link between undernutrition & prevalence of diabetes

- **Early Life Undernutrition and Later Health Risks:** Research has indicated that people who suffer from undernutrition in their early years of life—such as during infancy and childhood—are more likely to develop metabolic diseases like diabetes and obesity in later life. This phenomenon, which is sometimes called the "developmental origins of health and disease," implies that poor

nutrition during periods of critical development may cause physiological adaptations that make people more susceptible to chronic illnesses as adults.

- **Diabetes and Obesity Prevalence in India:** Undernutrition and rising rates of overweight, obesity, and related non-communicable diseases like diabetes are coexisting in India, which is currently experiencing a dual burden of malnutrition. The Global Burden of Disease study draws attention to the startlingly high frequency of these illnesses, especially in susceptible groups like women and children from low-income families.

Significance of investing in the health of girls

- **Empowerment and Education:** Investing in teenage girls and young women's health entails more than just making dietary changes. It entails addressing sociocultural issues that can impair their capacity to make decisions that are in line with their health and well-being, such as gender inequality, restricted access to education, and a lack of autonomy over their own decisions. The development and well-being of communities can be positively impacted by empowering girls and women via education, career training, and access to healthcare resources.
- **Intergenerational Effects:** The cycle of undernutrition and chronic disease transmission between generations can be broken by improving the nutritional status of adolescent girls and young women. Pregnancy-related malnutrition in the mother can raise the risk of unfavourable birth outcomes, like low birth weight and intrauterine growth restriction, which can later put the offspring at risk for metabolic disorders. Future generations' mother and child health outcomes will be enhanced by reducing the likelihood of these unfavourable outcomes by maintaining optimal nutrition during adolescence and the early stages of adulthood.
- **Improved Health Outcomes:** Investing in adolescent girls and young women's health can lead to a healthier adult population with a lower prevalence of diabetes, obesity, and associated complications. This translates to a reduced economic burden on healthcare systems.

Conclusion

Addressing the link between early-life undernutrition and the later-life prevalence of diabetes and obesity in India requires a comprehensive approach that prioritizes the health and well-being of adolescent girls and young women.

Analyze the potential challenges and opportunities that the Indian financial system faces in balancing the phase-down of fossil-fuel consumption with the demand for green investments. Propose strategies to ensure a smooth transition to sustainable energy sources.

Introduction: Give a contextual introduction

Body: Highlight challenges, opportunities & strategies for a smooth transition to green energy.

Conclusion: Way forward

The Indian financial system especially RBI faces both challenges and opportunities in balancing the phase-down of fossil-fuel consumption with the demand for green investments.

Challenges

- **Stranded Assets:** Investments in existing fossil fuel infrastructure risk becoming obsolete as the world shifts towards renewables. This could lead to financial instability for banks and other lenders who hold these assets.
- **Risk Perception:** Green projects, especially novel ones, might be perceived as riskier by financial institutions due to unfamiliarity or lack of established track records. This could lead to a funding gap for clean energy initiatives.
- **Policy Uncertainty:** The pace and extent of India's transition will depend on evolving government policies. Inconsistent or unclear policies can discourage long-term investments in green technologies.

Opportunities

- **Growing demand for green investments:** There is increasing awareness among investors and consumers about the importance of sustainability and environmental responsibility. This creates opportunities for financial institutions to develop and offer innovative green financial products.
- **Government initiatives:** The Indian government has launched several initiatives to promote renewable energy, including subsidies, tax incentives, and renewable purchase obligations. These policies can stimulate investment in green energy projects.
- **International collaborations:** India can leverage international partnerships and collaborations to access funding and expertise for green energy projects. Initiatives like the International Solar Alliance and bilateral agreements with other countries can facilitate technology transfer and investment.

Strategies for a Smooth Transition

- **Promoting Innovation:** Government and private initiatives can support research and development in clean energy technologies to bring down costs and improve efficiency.
- **Fostering Green Literacy:** Educating financial institutions, businesses, and the public about the benefits and opportunities associated with green investments is crucial for wider participation.
- **Phased Approach:** A well-defined roadmap with clear milestones for fossil fuel phase-out and green energy adoption can provide certainty for investors and businesses.

Conclusion

India's financial system can be crucial in facilitating a seamless transition to a sustainable energy future by tackling the obstacles and seizing opportunities. The government, financial institutions, corporations, and civil society will all need to work together to accomplish this.

Propose measures to enhance gender diversity and ensure equal opportunities for women in the justice delivery system. Discuss how these measures could contribute to more equitable and just outcomes for all genders.

Introduction: Give a brief context to the question

Body: Highlight measures to ensure gender diversity & ensure equal opportunities and impact on equal and just outcomes.

Conclusion: Way forward

The latest India Justice Report (IJR) points out that the gender gap remains wide in each of the subsystems that make up the justice delivery system — police, judiciary, prisons, legal aid, and human rights commissions. Institutions tasked with the delivery of justice are particularly obligated to demonstrate their commitment to diversity, including gender diversity.

Enhancing Gender Diversity & Ensuring Equal Opportunities

- **Targeted Recruitment:** Implement affirmative action policies at all levels of the justice system, including judges, lawyers, law enforcement, and court staff. Partner with universities and law schools to encourage women to pursue legal careers.
- **Work-Life Balance Initiatives:** Offer flexible work arrangements, childcare support, and parental leave policies that cater to both men and women. This allows women to manage family responsibilities without hindering career advancement.
- **Establishing strong anti-harassment policies:** These include transparent reporting procedures and severe disciplinary measures for violators. Establish a respectful and safe workplace for people of all genders.

- **Gender-Sensitive Training:** Provide instruction on gender bias in laws and legal procedures to judges, attorneys, and law enforcement officials. Training on topics like sexual assault, domestic abuse, and unfair practices is part of this.

Impact on Equitable and Just Outcomes

- **Diverse Perspectives:** Including women in decision-making roles brings a wider range of perspectives and experiences to the table, leading to more well-rounded judgments that consider the impact on all genders.
- **Improved Access to Justice:** Women may feel more comfortable seeking legal recourse if they see female representation in the justice system, particularly in cases of gender-based violence.
- **Reduced Bias:** Addressing unconscious bias ensures that legal decisions are based on merit rather than gender stereotypes.
- **Enhanced Public Trust:** A justice system that reflects the diversity of society fosters greater public trust and confidence in its fairness and effectiveness.

Conclusion

By making sure that the legal system is impartial, inclusive, and sensitive to the varied needs and experiences of women, these actions can help to achieve more just and equitable results for all genders. The justice system can improve its legitimacy, efficacy, and credibility by encouraging gender diversity and equal opportunities, which will ultimately advance the rule of law and everyone's human rights.

Evaluate the effectiveness of implementing a health tax on high-fat, sugar, and salt (HFSS) foods in combating non-communicable diseases.

Introduction: Define HFSS foods

Body: Highlight the effectiveness of health tax on HFSS foods

Conclusion: Way forward

The Ministry of Women and Child Development defines HFSS foods as any food or drink, packaged or not, that is high in energy (calories), high in fat (saturated fatty acids), high in salt, low in dietary fibre, and low in proteins, vitamins, phytochemicals, minerals, and other nutrients. Regular or excessive consumption of these foods is known to have detrimental effects on health.

Effectiveness of Health Tax on HFSS Foods in India for NCDs

- **Reduced consumption:** Taxing HFSS foods may result in lower consumption, particularly among price-conscious people. Research has indicated that tax-related price hikes can impact consumer behaviour by encouraging them to make healthier choices and eat fewer unhealthy goods.
- **Better Eating Practices:** By limiting the intake of HFSS foods, people are more likely to choose fruits, vegetables, and whole grains as healthy substitutes. This change in eating patterns may help to lower the prevalence of NCDs and improve overall health outcomes.
- **Revenue Generation:** Public health programs like nutrition education, healthy food subsidies, or increased access to healthcare services can be funded using the money raised by HFSS levies. This may help initiatives aimed at managing and preventing NCDs even more.

Challenges in implementation

- **Impact on Low-Income Groups:** Affordable, nutritious alternatives may be limited in India, potentially disproportionately affecting low-income families who rely on processed foods.
- **Tax Design and Implementation:** The tax structure needs careful design to avoid loopholes and ensure effectiveness. Clear definitions of HFSS and differentiated tax rates based on nutritional content could be helpful.

- **Administrative Challenges:** Effective implementation requires strong enforcement mechanisms to prevent tax evasion.

Conclusion

Nutrition literacy should aim to educate consumers about adopting healthier eating habits and making lifestyle modifications. Introducing front-of-pack food labeling would increase consumer awareness regarding the nutritional composition of processed foods, highlighting those with high levels of salt, fat, or sugar. The NITI Aayog has recommended implementing a 20-30% health tax, in addition to GST, on high-fat, sugar, and salt (HFSS) foods. Enhancing the allocation of vegetables in government Anganwadi and school noon meal schemes would play a crucial role in promoting healthier eating practices and enhancing nutrition. Furthermore, expanding the variety of foods available through the Public Distribution System (PDS) would contribute significantly to ensuring nutrition security.

Discuss the significance of initiatives like 'Solar Mamas' in promoting sustainable energy access and reducing gender disparities.

Introduction: Define "Solar Mamas".

Body: Significance of "Solar Mamas" in energy access & reducing gender disparity.

Conclusion: Way forward

'Solar Mamas' refers to a program or initiative that provides training and empowerment opportunities to women in rural and underserved communities, particularly in developing countries, in the field of solar energy. These programs typically offer women hands-on training in installing, operating, and maintaining solar panels and related equipment.

Significance of "Solar Mamas" in access to energy

- **Intending to Uplift Underserved Communities:** Solar Mamas teaches rural women, frequently without a formal education, the skills necessary to become solar engineers. This gives people the ability to set up and manage solar lighting systems in their villages, supplying dependable, clean electricity to places that conventional grids might not be able to.
- **Renewable Energy Adoption:** Solar Mamas encourages the use of renewable energy sources by offering local labour for solar projects. As a result, there is less reliance on fossil fuels, and the environment is cleaner. Initiatives such as the Women at the Forefront program and the Energy Transitions Innovation Challenge (ENTICE) provide a forum for individuals, especially women, to embark on entrepreneurial ventures and drive collective action for sustainable energy practices.
- **Community Ownership and Maintenance:** Empowering local women via training helps communities feel more like their own. These ladies end up being solar energy advocates, guaranteeing the installations' long-term viability.

Significance of "Solar Mamas" in Reducing Gender Disparities

- **Economic Empowerment:** Solar Mamas gives women access to technical training and job opportunities, which boosts their income and helps them become financially independent. Their standing in the family and community is strengthened by this. A recent report conducted by Powering Livelihoods has indicated that more than 71% of the early adopters of clean technology livelihood appliances in India, totaling over 16,000, are women.
- **Breaking Stereotypes:** By providing women with technical skills that are typically associated with men, the program questions established gender roles. This opens up employment opportunities in STEM for upcoming generations.
- **Leadership and Role Modelling:** By serving as examples for other women and girls, Solar Mamas encourages them to seek careers in teaching and leadership. Communities experience a cascade of empowerment as a result.

Conclusion

The gender disparity is fuelled by disparities in educational access, restricted opportunities for women to acquire technical skills and training, and inequitable company policies, among other contributing factors. To overcome these obstacles, women's place in the energy industry must be viewed differently, and subnational, national, and international energy policy must work together to mainstream gender issues. In addition to increasing access to clean energy, governments, non-state actors, international institutions, and philanthropic organizations must play a crucial role in creating a supportive environment, coming up with ground-breaking ideas, and offering revolutionary platforms that will enable women to meaningfully participate in the shift to sustainable energy.

Discuss the potential benefits and drawbacks of introducing AYUSH subjects into the MBBS curriculum. What alternative measures could be implemented to promote mutual understanding and cooperation between practitioners of AYUSH and modern medicine?

Introduction: Contextual Introduction

Body: Highlight the benefits, and drawbacks of introducing AYUSH subjects into MBBS

Conclusion: Way forward

Practitioners of modern medicine are increasingly encouraged to embrace collaboration with traditional or alternative medicine systems, advocating for the adoption of an integrated approach to healthcare for the betterment of patients on a broader scale.

Potential Benefits of Introducing AYUSH Subjects into MBBS Curriculum

- **Holistic Healthcare:** AYUSH systems prioritize holistic healthcare, taking into account not just physical health but also mental, emotional, and spiritual well-being. Medical students can gain a deeper grasp of health and healing by including AYUSH themes in their curriculum.
- **Complementary Therapies:** AYUSH therapies frequently enhance the effects of contemporary medical procedures. MBBS students can benefit from additional tools and perspectives that AYUSH studies can offer to improve patient care, particularly in chronic illnesses where traditional therapies may not be effective.
- **Preventive Healthcare:** AYUSH places a strong emphasis on using dietary adjustments, lifestyle adjustments, and natural therapies as preventive healthcare strategies. MBBS students can be better prepared to advocate for preventive healthcare practices by taking AYUSH courses.

Potential Drawbacks

- **Curriculum Burden:** MBBS is a rigorous program already. The addition of AYUSH courses can overburden students and jeopardize their understanding of fundamental medicine.
- **Efficacy Concerns:** There is disagreement over the scientific foundation of many AYUSH practices regarding claims of effective cure for diabetes or cancer by AYUSH proponents without adequate evidence to support it.
- **Problems with Standardization:** AYUSH systems are not all the same. To guarantee quality and safety throughout integration, certain rules are necessary. The technical challenge is that AYUSH is a heterogenous group and each of these therapeutic disciplines must be dealt with separately and would need a different decision.

Alternative Measures for Collaboration

- **Multidisciplinary workshops and seminars:** Promote the sharing of knowledge between professionals in contemporary medicine and AYUSH practitioners.
- **Co-location of facilities:** By sharing resources, doctors with different backgrounds can interact and benefit from one another's knowledge.

- **Campaigns for public awareness:** Inform the people about the benefits and drawbacks of both contemporary medicine and AYUSH to encourage wise decision-making.

Conclusion

There should be better evidence of AYUSH treatments and the need to weed out ineffective treatments in AYUSH. This should be followed by a good regulatory framework that establishes rules/guidelines for collaboration, communication, and referral between practitioners of different modalities, ensuring coordinated and safe care for patients with a clear articulation of accountability.

Discuss the implications of having no limits on political parties' expenditure during elections. How does it affect the electoral competitiveness and democratic ethos in India?

Introduction: Give a brief context to the question

Body: Implications of no limit on expenditure & effect on electoral competitiveness.

Conclusion: Way forward

The recent trend over the last two decades where both Central and State governments spend a lot on advertisements before elections to the Lok Sabha and State Legislative Assemblies is deeply disturbing. In India, there are no limits on the expenditure of political parties during elections while the election expenditure limit for candidates is ₹95 lakh per Lok Sabha constituency in larger States and ₹75 lakh in smaller States.

Implications of no limit on expenditure

- **Unfair Playing Field:** Rich political parties or candidates can control the election process by outspending their rivals due to unlimited spending. As a result, there is an unequal playing field, giving larger or wealthier parties a clear edge over smaller or less well-off ones. As such, it subverts the electoral ideals of equal opportunity and fair competition.
- **Influence of Money Power:** Unrestricted spending allows money power to have an excessive amount of influence over politics. To influence voters, political parties or candidates with significant financial means may use strategies like extravagant advertising campaigns, giving presents or favors to supporters, or even blatant bribery. This undercuts the idea of free and fair elections and jeopardizes the integrity of the democratic process.

Affect on electoral competitiveness and democratic ethos

- **Corruption and Cronyism:** Unrestricted spending fosters cronyism and corruption in the political system. Rich contributors or special interest organizations that contribute money in exchange for favors or concessions on policy might make political parties subservient to them. The public's confidence in the democratic process is damaged as a result, undermining the independence and integrity of political decision-making.
- **Erosion of Democratic Values:** The democratic principles of accountability, openness, and representation are compromised by the lack of spending caps. People may grow weary of politics and believe that it is more and more influenced by special interests than by the desires of the people. The cornerstone of democracy is weakened by this deterioration of democratic values, which can also cause citizens to become cynical and indifferent.

Conclusion

Political parties should pay heed to Supreme Court guidelines for the regulation of government advertisements & recent verdict which has struck down the electoral bonds scheme that will remove opacity in legal donations. Finally, consensus is needed among all the political parties regarding norms of such state funding advocated by Indrajit Gupta Committee (1998) and the Law Commission report (1999). The proposed electoral reforms like a ceiling on expenditure by parties, party's 'financial assistance' to its

candidate should also be within the limits of election expenditure prescribed for a candidate & government advertisements should be banned six months before any general election should be implemented at earliest for creating a level playing field and ensuring free and fair elections.

Discuss the socio-economic impact of the Forest Rights Act on tribal communities with a focus on the 'Phani Yerava' tribe in Karnataka's Western Ghats. Evaluate the effectiveness of the Act in addressing the traditional rights and contemporary challenges faced by these communities.

Introduction: Give a brief description of FRA 2006.

Body: Highlight socio-economic impact on tribals and its effectiveness and challenges.

Conclusion: Way forward

The Forest Rights Act (FRA) of 2006 was enacted to address historical injustices and secure the rights of forest-dwelling communities, including tribal communities, over forest land and resources. The socio-economic impact of the FRA on tribal communities, particularly the 'Phani Yerava' tribe in Karnataka's Western Ghats, is significant, but its effectiveness in addressing traditional rights and contemporary challenges varies.

Socio-economic impact of FRA on tribals

- **Land Rights:** Traditional forest areas farmed by tribes such as the Phani Yerava are granted ownership rights (individual or community) by FRA. Enhancing the security of tenure has the potential to result in improved land management and increased investment in agriculture.
- **Cultural Preservation:** The Act helps to preserve the traditional knowledge, cultural customs, and socioeconomic systems of the Phani Yerava tribe by giving them legal status and authority over these territories.
- **Sustainable livelihood:** FRA has enabled tribal communities to engage in sustainable livelihood practices like collecting minor forest produce along with fuelwood and honey, the other minor forest produce they collect includes dhoopa (*Vateria indica*)/incense, and shekakai (soap pod).

Effectiveness in Addressing Traditional Rights and Contemporary Challenges

- **Weakness of Act:** Slow implementation, lack of awareness, and potential elite capture limit the Act's effectiveness. Market access for Non-Timber Forest Produce and capacity building for sustainable resource management also need attention.
- **Capacity building:** Initiatives to improve capacity are necessary for the FRA to be implemented effectively so that tribal groups are aware of their rights and responsibilities. Many tribal communities, including the Phani Yerava tribe, face challenges in obtaining recognition of their rights due to complex procedures and administrative delays.
- **Conflict with Conservation Policies:** The FRA seeks to strike a balance between conservation goals and the rights of communities that live near forests. Tensions arise between tribal people and conservation authorities, though, when the application of conservation policies—such as protected areas and wildlife sanctuaries—confers with the rights given by the FRA.

Conclusion

NGOs & government officials working in the area should engage with leaders of some local tribal communities to frame a policy that deals with contemporary challenges faced by tribes. The government should take steps to tackle issues of alcohol abuse and reduce the exploitation of tribals by middlemen in selling minor forest produce which is in the best interest of the tribals.

Critically examine the evolving criteria used by successive Finance Commissions for horizontal distribution of resources among states, highlighting its impact on southern states of India.

Introduction: Give a brief description of the Finance Commission

Body: Explain the evolution of criteria used by FC & impact on southern states in India

Conclusion: Way forward

The Finance Commission is a constitutional body established under Art 280 of the Indian constitution. The Finance Commission of India plays a vital role in ensuring equitable distribution of central tax resources among states. The criteria used for horizontal distribution (allocation among states) have evolved significantly, impacting southern states in both positive and negative ways.

Evolution of Criteria

- **Early Commissions (Pre-1990s):** These heavily relied on population (90% weightage) with minimal adjustments. This favored states with larger populations, often in the north and east, while southern states with better population control received a lower share.
- **Shift towards Equity (Post-1990s):** Recognizing the limitations of pure population-based allocation, weightage to factors like income distance, disparity, and fiscal needs were introduced. This aimed to bridge the gap between richer and poorer states, potentially benefiting some southern states with lower per capita income.
- **Recent Trends:** Commissions continue to refine the criteria. The 15th Finance Commission (2021-26) included demographic performance (rewarding population control) and weightage to forest cover (potentially benefiting some southern states). However, the overall share of central taxes devolved to states has stagnated.

Impact on Southern states in India

- **Early Disadvantage:** Southern states with better population control initially received a smaller share of resources due to the dominance of population criteria. Reports of 12 FC & 15 FC show that in the case of the southern States, there has been a steady fall in their share, from 19.785% to 15.800%.
- **Partial Correction:** The shift towards income distance and fiscal needs has offered some southern states a larger share of central tax devolution.
- **Remaining Concerns:** The weightage for income distance and other factors like forest cover might not fully compensate for the historical disadvantage. Additionally, the recent stagnation in the overall devolution of central taxes limits the potential benefits. The main reason for the loss of the southern States is the income distance criterion as the loss to the southern States due to the distance criterion amounted to 8.055% points, although the overall loss was much less at 3.985% points.

Conclusion

The Sixteenth Finance Commission can consider reducing income distance weight currently 45% while correspondingly raising the weights attached to other criteria. The Finance Commission can reduce the weight of this criterion by 5% to 10% points. Also, cesses and surcharges may be subjected to some upper limit by the Sixteenth Finance Commission. Finally, the Commission should play its role of "***balancing the wheel of fiscal federalism***" to address the concerns of the states.

Analyze the significance of creating state-of-the-art sports infrastructure and nurturing talent at the grassroots level for achieving excellence in sports. Illustrate with examples from the recent developments under the Khelo India initiative.

Introduction: Contextual Introduction

Body: Highlight the significance of creating sports infrastructure in India

Conclusion: Way forward

Khelo India Programme was introduced by the Ministry of Sports and Youth Affairs to revive sports culture in India at the grassroots level. The objective of the program is to build a strong framework for all sports played in our country and establish India as a great sporting nation.

Significance of creating state of art sports infrastructure

- **Access to High-Quality Infrastructure:** Athletes can train efficiently and perform at a high level because of modern sports infrastructure. World-class sports complexes and training facilities, such as the Dr. Karni Singh Shooting Range in New Delhi and the Khelo India University Games Complex in Bhubaneswar, Odisha, have been built as a result of the Khelo India program. More than 300 sports infrastructure projects have been approved in 34 States/UT at a cost of more than ₹3,000 crore.
- **Promotion of Indigenous Sports:** The goal of the Khelo India initiative is to raise awareness of indigenous sports in each Indian district. Yogasana, Gatka, Mallakhamba, Silambam, Kalaripayattu & Thang-Ta are a few of them.
- **Capacity building of states:** Recently Khelo India Youth Games in Chennai, Ladakh hosted the Khelo India Winter Games, & University Games were held across seven north-eastern States is aimed at spreading the good word on sports and boosting capacity-building in all the States to stage sporting events of importance.
- **Women Participation:** With a commitment to gender equality in sports, the Khelo India initiative has achieved near parity in male and female athlete participation across its games. The Asmita Khelo India Women's League has seen over 63,000 female athletes competing in 520 events across 21 sports.
- **Nurturing Future Talent:** Investing in grassroots talent is crucial for identifying and nurturing future champions. Through youth development programs, talent identification schemes, and school sports leagues, nations can uncover young athletes with potential and offer them the support needed to thrive. The Khelo India School Games, part of the Khelo India initiative, provides a platform for budding athletes to display their skills and gain government recognition and assistance.

Conclusion

The Khelo India initiative stands as a central pillar of Prime Minister Narendra Modi's vision for a vibrant nation. With 65% of the population below the age of 35, India is a youthful country, and sports serves as a unifying force, fostering cohesion among its diverse populace.

Critically examine the role of cultural and religious institutions in shaping the urban development strategy of India. Reflect on the implications of prioritizing religious cities for urban development.

Introduction: Give a brief context to the introduction

Body: Highlight the role of such institutions in urban development and the implications of prioritizing them for urban development.

Conclusion: Way forward

The inauguration of two very important institutions, i.e., the new Parliament building, which is a political institution, and the Ram Temple, a religious institution, has raised the role of such institutions in shaping

urban development strategy. Cultural and religious institutions have undeniably played a significant role in shaping the urban landscape of India throughout history.

Role of Such institutions in urban development

- **Centres of cultural heritage:** Cultural and religious institutions serve as hubs for community unity, heritage conservation, and identity shaping. They enrich India's cultural fabric, drawing tourism and boosting urban economies. Moreover, they offer vital social services like education and healthcare, easing the burden on public resources.
- **Elements of Modernism:** Indian cities integrate modernism not just in architecture but also in culture, literature, and human behavior. Influential figures like Le Corbusier and Habib Rahman emphasized modern technology and mass production for affordable, high-quality goods. Additionally, modern towns prioritize spaces for theater, culture, art, and recreation, shaping the essence of contemporary urban life.
- **Historical Significance:** Many Indian cities have grown around places of worship, such as temples, mosques, and gurudwaras. These institutions have been centers of pilgrimage, attracting devotees and fostering the development of supporting infrastructure like markets and pilgrim accommodations.

Implications of Prioritizing Religious Cities for Urban Development

- **Socio-economic inequalities:** Favoring religious cities for urban development can worsen socio-economic inequalities by directing resources to certain regions, neglecting marginalized groups elsewhere. This may widen disparities in access to essential services, infrastructure, and opportunities.
- **Sustainable development:** Furthermore, an exclusive focus on religious tourism could narrow urban economies and impede sustainable development initiatives. Relying heavily on tourism makes cities susceptible to fluctuations, disasters, and geopolitical tensions, risking economic instability.
- **Constitutional Values:** Religious institutions' influence on urban planning and governance may hinder progressive policies and secular principles, possibly undermining democratic, constitutional values and social unity. Conflicts may arise when religious interests clash with broader developmental objectives, particularly regarding land use, conservation, or cultural heritage.

Conclusion

Cultural and religious institutions are woven into the fabric of Indian cities. While acknowledging their historical influence, modern urban development strategies must move beyond a solely religious focus. A well-rounded approach that embraces inclusivity, heritage preservation, and sustainable development will ensure vibrant and prosperous Indian cities in the future.

Examine the role of teacher-student interaction in improving the educational environment. How can training and support for teachers be improved to foster a more inclusive and interactive classroom experience?

Introduction: Give a brief contextual introduction

Body: Highlight the role of teacher-student in improving the educational environment & strategies to improve teacher training.

Conclusion: Way forward

Teacher-student interaction plays a crucial role in shaping the educational environment and enhancing learning outcomes. It fosters a positive and supportive atmosphere where students feel valued, motivated, and engaged in their learning.

Examination of the Role of Teacher-Student Interaction in Improving the Educational Environment

- **Building Relationships:** The interaction between teachers and students forms the foundation of a positive educational environment. Establishing strong relationships based on trust and respect fosters a supportive atmosphere where students feel valued and motivated to learn.
- **Effective Communication:** Clear and effective communication between teachers and students is essential for facilitating learning that can provide personalized support and guidance, enhancing understanding and clarity of academic concepts.
- **Social and Emotional Development:** Teachers model empathy and create a safe space for students to express themselves and form positive relationships.
- **Academic Success:** Strong teacher-student relationships correlate with improved academic performance and higher achievement levels.
- **Motivation and Engagement:** Positive interactions inspire students to set goals, persevere, and take ownership of their learning.

Strategies to Improve Training and Support for Teachers

- **Continuous Professional Development:** Offering ongoing training opportunities is crucial for enhancing teachers' abilities to cultivate positive teacher-student interactions that focus on effective communication, classroom management, and culturally responsive teaching techniques.
- **Social-Emotional Learning (SEL) Training:** Integrating SEL training into professional development equips educators with tools to support students' social and emotional well-being.
- **Peer Collaboration and Mentoring:** Implementing peer collaboration and mentoring initiatives allows teachers to learn from each other and share effective strategies. Pairing experienced educators with newer teachers fosters a culture of support and growth.
- **Inclusive Teaching Practices:** Training teachers in inclusive methods ensures they can meet the diverse needs of all students. This involves implementing strategies for differentiated instruction, Universal Design for Learning (UDL), and culturally responsive teaching.
- **Feedback and Reflection:** Encouraging teachers to reflect on their practice and seek feedback from colleagues and students helps them identify areas for improvement. Utilizing tools such as peer observations and student surveys facilitates ongoing growth and development.

Conclusion

Improving student engagement is vital for better learning outcomes. By incorporating structured lessons, fostering strong teacher-student relationships, and encouraging student autonomy, classrooms can become more engaging environments. Shifting focus from the Right to Education to the Right to Learning in India is essential to address persistent challenges highlighted by ASER reports.

Evaluate the significance of the Prototype Fast Breeder Reactor (PFBR) at Kalpakkam in India's nuclear energy program. How does this step reflect India's strategic move towards utilizing its thorium reserves?

Introduction: Contextual introduction

Body: Highlight the significance of PFBR for nuclear energy program

Conclusion: Way forward

The crucial second phase of India's three-stage nuclear program received a significant boost as the country's first indigenous Fast Breeder Reactor (FBR) at Kalpakkam, Tamil Nadu, began the process of 'core loading'. This involves placing nuclear fuel assemblies into the reactor's core.

Significance of PFBR for the Nuclear Energy Program

- **Technological Advancement:** The PFBR signifies a significant stride in India's nuclear technology. As a breeder reactor, it generates more fuel (plutonium-239) than it consumes (uranium-238), enhancing fuel resource efficiency.
- **Energy Self-Sufficiency:** With limited uranium reserves but ample thorium resources, India relies on breeder reactors like the PFBR to utilize thorium as a fuel source. This strategic move toward energy independence harnesses India's abundant indigenous thorium reserves.
- **Thorium Integration:** The PFBR marks a significant step in India's strategy to incorporate thorium into its nuclear fuel cycle. With abundant thorium resources, this move offers a sustainable, long-term energy solution. Breeder reactors like the PFBR produce plutonium-239 from uranium-238, facilitating the transition to thorium-based reactors.
- **Technology Showcase:** Serving as a technology demonstrator, the PFBR showcases India's aspirations for thorium-based reactors. It provides valuable insights for future reactor designs and operations, laying the groundwork for the widespread adoption of thorium-based nuclear power in India.

Strategic move for Thorium

- **Thorium Wealth:** India boasts vast thorium reserves globally, yet conventional reactors cannot directly utilize them. The PFBR technology enables India to tap into this extensive domestic resource for forthcoming nuclear power generation.
- **Decreased Dependence on External Fuel:** Through effective thorium utilization, India can diminish its reliance on imported uranium for nuclear fuel, enhancing energy security and self-sufficiency.
- **Sustainable Energy Solution:** With thorium being abundantly available compared to uranium, it presents a sustainable, long-lasting fuel option for India's expanding energy demands.

Conclusion

The India-US civil nuclear deal has facilitated uranium imports, expediting India's nuclear program alongside the ongoing PHWR initiative. The Department of Atomic Energy (DAE) targets generating 22,400 MWe from nuclear power plants by 2032, approving the construction of 10 new PHWRs in a 'fleet mode' approach, aiming for completion within five years per plant. Overall, the PFBR at Kalpakkam is a significant milestone for India's nuclear energy program. It demonstrates progress towards self-sufficiency in fuel resources and paves the way for a future powered by abundant domestic thorium reserves.

Discuss the societal implications of breeding ferocious dogs within urban communities. Examine how these practices affect human-animal relationships and public safety, proposing measures to mitigate negative impacts.

Introduction: Give a brief context to the question

Body: Highlight the implications of ferocious dogs on society and measures to mitigate the impact.

Conclusion: Way forward

The Department of Animal Husbandry and Dairying recently issued a letter to states where it requested local bodies to not issue any licenses or permits for the sale and breeding of dogs it considers to be 'ferocious' and 'dangerous for human life'.

Societal implications of breeding ferocious dogs

- **Public Safety:** Ferocious dogs present a significant risk to public safety, particularly in densely populated urban areas where interactions with humans are common. Their aggressive tendencies towards strangers can result in biting incidents or attacks, causing injuries or even fatalities.

- **Human-Animal conflict:** Breeding ferocious dogs exacerbates the conflict between humans and animals. It perpetuates a cycle of fear and mistrust between the two, leading to negative interactions and potential harm to both humans and animals.
- **Animal Welfare:** Breeding ferocious dogs for aggression often entails unethical treatment, including neglect, abuse, and mistreatment. These dogs endure harsh training and substandard living conditions, causing both physical and psychological harm.
- **Spread of Rabies:** Unvaccinated, aggressive dogs contribute to the spread of rabies, a deadly disease in India.

Measures to mitigate these impacts

- **Promote Responsible Dog Ownership:** Educational campaigns can encourage responsible pet ownership, including proper training, socialization, and licensing of dogs.
- **Sterilization and Vaccination Programs:** Mass sterilization and vaccination drives can help control the population of stray dogs and prevent the spread of rabies.
- **Promoting Indigenous Breeds:** Encouraging the adoption of well-adapted Indian breeds Tibetan Spaniel, Lhasa Apso, and Tibetan terrier can create a safer and more culturally relevant human-animal dynamic in cities.
- **Animal Shelters and Rehabilitation:** Well-funded animal shelters can provide care for strays and abandoned dogs, while rehabilitation programs can help potentially dangerous dogs become suitable companions in controlled environments.
- **Community Dog Patrols:** Training programs can create community dog patrols with well-socialized canines, fostering a sense of security and promoting the positive aspects of human-animal relationships.

Conclusion

Implementing these measures can pave the way for a future where urban communities in India enjoy a safe and mutually beneficial relationship with dogs. Prioritizing responsible pet ownership, enforcing breed regulations, and fostering a culture of reverence for all animals are vital steps toward achieving a harmonious coexistence.

Examine the role of artificial intelligence in enhancing governance and public service delivery. Discuss the ethical considerations and potential risks involved in integrating AI into government functions.

Introduction: Give a contextual introduction

Body: Highlight role of AI in governance and service delivery and what risks are associated with it?

Conclusion: Way forward

European Parliament passed the Artificial Intelligence Act (AI Act, 2024) which is a remarkable law & among the first set of comprehensive regulations to govern AI. It is also the first regulatory regime that recognizes and appreciates different levels of AI, and their varied kinds of utility and potential harms. AI has the potential to significantly enhance governance and public service delivery by streamlining processes, improving decision-making, and increasing efficiency.

Role of AI in governance & public service delivery

- **Predictive Analytics:** AI can forecast future events or trends based on historical data, enabling proactive interventions in areas such as healthcare, crime prevention, and disaster management. By anticipating needs and risks, governments can better plan and allocate resources to address emerging challenges.
- **Fraud Detection:** AI algorithms can detect anomalies in financial transactions, helping to identify and prevent fraud in social welfare programs and tax collection.

- **Enhanced Citizen Engagement:** AI technologies like chatbots and virtual assistants can improve citizen engagement by providing personalized assistance, answering queries, and facilitating access to government services. This enhances the overall citizen experience and fosters greater transparency and accountability.
- **Data-Driven Decision Making:** AI can analyze vast amounts of data to identify patterns and trends, allowing policymakers to make informed decisions based on evidence rather than intuition.

Ethical considerations & Potential risks

- **Algorithmic Bias:** AI algorithms can perpetuate existing biases in society if trained on biased data. This could lead to unfair treatment of certain demographics when applying for benefits or receiving services.
- **Privacy Issues:** The use of AI in government raises concerns about data privacy and security. Citizens' personal information needs robust safeguards to prevent misuse.
- **Accountability and Transparency:** When AI makes decisions that negatively impact citizens, it's crucial to understand how the decision was reached and hold someone accountable for the outcome.
- **Job Displacement:** Automation through AI could lead to job losses in public service sectors. Governments need to develop retraining programs to equip workers with new skills.
- **Algorithmic Warfare:** AI could be misused for surveillance or manipulation, impacting democratic processes and civil liberties.

Conclusion

Through diligent examination of ethical implications and potential risks, AI can emerge as a potent instrument for bolstering governance and improving public service delivery, fostering a society that is more efficient, citizen-focused, and fair.

Evaluate the impact of Artificial Intelligence, especially Generative AI, on electoral processes in democratic nations. Discuss the potential benefits and threats posed by AI to the integrity of elections, and suggest measures to mitigate its negative impacts.

Introduction: Contextual Introduction

Body: Highlight the impact of AI on the electoral process, its benefits, threats associated with it, and measures to mitigate its impact.

Conclusion: Way forward

The rapid advancement of Artificial Intelligence (AI), particularly Generative AI (GAI), poses both opportunities and threats to electoral processes in democratic nations. Here's an evaluation of its impact, potential benefits, threats, and measures to mitigate negative impacts:

Positive Impact:

- AI can enhance efficiency in voter registration, voter authentication, and ballot counting processes, leading to faster and more accurate results.
- Predictive analytics powered by AI can help political parties and candidates better understand voter sentiments and preferences, allowing them to tailor their campaigns effectively.

Negative Impact:

- AI-generated disinformation and deep fake content can manipulate public opinion, spread false narratives, and undermine the integrity of elections.
- Malicious actors can exploit AI algorithms to micro-target specific voter groups with tailored propaganda, leading to polarization and division within society.

Potential Benefits of AI:

- **Enhanced Efficiency:** AI can streamline various aspects of the electoral process, including voter registration, candidate profiling, and result tabulation, leading to quicker and more transparent elections.
- **Improved Voter Engagement:** AI-powered chatbots and virtual assistants can engage with voters, providing them with relevant information about candidates, issues, and voting procedures, thereby increasing voter participation.

Threats Posed by AI:

- **Disinformation Campaigns:** AI-generated deep fakes and fake news can manipulate public opinion, spread false narratives, and undermine trust in democratic institutions.
- **Vulnerability to Manipulation:** AI algorithms may be susceptible to bias, manipulation, or hacking, potentially leading to electoral fraud or manipulation of election outcomes.

Mitigation Measures:

- **Regulation and Oversight:** Implementing regulations to govern the use of AI in electoral processes, including transparency requirements for political advertising and measures to combat disinformation.
- **Cybersecurity Measures:** Strengthening cybersecurity protocols to safeguard electoral infrastructure from hacking attempts, data breaches, and other cyber threats.
- **Public Awareness and Education:** Promoting media literacy and critical thinking skills to help voters discern fact from fiction and resist manipulation by AI-generated content.
- **Algorithmic Transparency:** Ensuring transparency and accountability in AI algorithms used for electoral purposes, including auditing and independent oversight mechanisms.

Conclusion

Apart from elections, India's digital advancement necessitates a cautious approach towards AI, acknowledging its unproven nature and potential for disruption, especially with AGI. While India's leadership in digital innovations offers opportunities, the risks associated with AGI demand careful consideration.

Discuss how India's approach towards Nepal under the current geopolitical circumstances can ensure a balanced and mutually beneficial relationship.

Introduction: Contextual Introduction

Body: What should be India's approach towards Nepal in the current situation?

Conclusion: Way forward

India's relationship with Nepal, a landlocked country nestled between India and China, is crucial for its national security and regional influence. However, recent years have seen some strain that necessitates India's approach towards Nepal should aim to foster a balanced and mutually beneficial relationship.

- **Respect Nepal's Sovereignty:** India must acknowledge Nepal's status as a sovereign nation and respect its territorial integrity. Any interference or attempts to undermine Nepal's sovereignty can strain bilateral relations. India should refrain from interfering in Nepal's internal affairs and instead focus on building trust and cooperation.
- **Enhance Economic Cooperation:** Economic cooperation forms the backbone of bilateral relations. India should focus on enhancing trade and investment ties with Nepal, promoting economic development and prosperity in both countries. This could involve facilitating cross-border trade, investment, and infrastructure development projects that benefit both nations.

- **Cultural and People-to-People Exchanges:** Strengthening cultural and people-to-people ties can foster greater understanding and goodwill between India and Nepal. Promoting tourism, educational exchanges, and cultural events can help build bridges between the two countries and promote mutual appreciation of each other's heritage and traditions.
- **Addressing Border Issues Amicably:** India and Nepal share a long and porous border, which can sometimes lead to border disputes and tensions. Both countries must address these issues through diplomatic channels in a spirit of cooperation and goodwill. Respecting existing agreements and mechanisms for border management can help prevent escalations and maintain peace along the border.
- **Cooperation on Regional and Global Issues:** India and Nepal can collaborate on regional and global issues of mutual interest, such as climate change, disaster management, and regional security. By working together in multilateral forums like SAARC and BIMSTEC, both countries can contribute to regional stability and prosperity.
- **Dialogue and Diplomacy:** Open and regular dialogue between the leadership of India and Nepal is essential for building trust and resolving any differences that may arise. Diplomatic channels should remain open for constructive engagement and negotiation, ensuring that any issues are addressed through peaceful means.

Conclusion

By embracing a collaborative approach that emphasizes mutual benefit and acknowledges Nepal's autonomy, India can forge a more robust and equitable relationship with its neighbor. Such an approach would not only advance their respective national interests but also foster regional stability and prosperity.

Consider the key features of TEPA, including investment targets, trade in goods, and services liberalization, and its strategic implications for India's economic growth and employment generation.

Introduction: Describe TEPA.

Body: Highlight features and implications of TEPA

Conclusion: Way forward

The India-EFTA Trade and Economic Partnership Agreement (TEPA) is a comprehensive agreement that covers trade in goods, trade in services, investment, intellectual property rights, competition, government procurement, trade facilitation, trade remedies, dispute settlement, and other areas of mutual interest with the EFTA (European Free Trade Association) countries — Switzerland, Norway, Iceland and Liechtenstein.

Key Features

- **Investment:** TEPA aims to attract \$100 billion in investments from EFTA nations to India over 15 years, with the goal of generating one million jobs. Additionally, the agreement permits India to retract tariff concessions if the specified investment objectives are not achieved, motivating EFTA countries to contribute to India's economic development.
- **Trade in Goods:** The agreement grants EFTA nations tariff concessions, improving their access to India's market. India will phase out tariffs on many goods over 7 to 10 years, benefiting EFTA exports like seafood, fruits, coffee, oils, processed foods, smartphones, medical equipment, textiles, and machinery.
- **Trade in Services:** Liberalization of services trade facilitates greater mobility of skilled professionals between India and EFTA countries. Indian service providers, particularly in sectors like yoga instruction, traditional medicine, and highly skilled professions, gain access to new markets in EFTA countries, fostering cross-border collaborations and knowledge exchange.
- **IPR:** TEPA includes provisions on Intellectual Property Rights (IPR) to address concerns raised by EFTA countries about India's patent regime. Compliance with these provisions could provide more

certainty and protection for innovators and investors, promoting technology transfer and innovation-driven growth.

- **Sustainable Development:** The agreement also features a chapter on Trade and Sustainable Development (TSD), which commits to environmental protection and labor standards. These provisions aim to promote sustainability while requiring India to comply with international environmental and labor agreements.

Strategic Implications

- **Potential for Growth:** Increased FDI, improved infrastructure, and technology transfer can boost economic growth.
- **Job Creation:** New investments and a more competitive service sector can generate jobs.
- **Challenges:** Lowering trade barriers and opening service sectors can lead to job losses in some industries.
- **Government's Role:** Policies for skill development, retraining programs, and promoting domestic industries can help address these challenges.

Conclusion

India's successful FTA conclusion with developed nations like Switzerland and Norway signals its dedication to trade liberalization amid global protectionism.

Critically analyze the effectiveness of existing regional frameworks in addressing the strategic and economic challenges in the Indian Ocean region. Propose a roadmap for the formation of a new 'Indian Ocean Cooperation Organisation'.

Introduction: Give a brief description of IOR

Body: Analyse effectiveness of regional frameworks addressing issues of IOR

Conclusion: Way forward

The Indian Ocean Region (IOR) comprises of the Indian Ocean and the countries bordering it- Australia, India, Indonesia, Bangladesh, Maldives, Sri Lanka, Myanmar) and four island states (Mauritius, Seychelles, Comoros, and Madagascar.) IOR faces a complex web of strategic and economic challenges. Piracy, maritime security threats, unregulated fishing, and climate change all demand regional cooperation.

Effectiveness of existing regional frameworks

- **Fragmentation:** Because of overlapping memberships and purposes, existing frameworks are fragmented. For instance, several nations have memberships in both BIMSTEC and IORA, which results in minimal coordination and duplication of effort.
- **Restricted Scope:** Although current frameworks cover some areas of regional cooperation, they frequently don't offer full solutions for new problems including threats to maritime security, the effects of climate change, and economic inequality.
- **Implementation Challenges:** Despite the existence of declarations and agreements, resource limitations, ineffective bureaucracy, and political disputes among member states are obstacles to the implementation of projects within regional frameworks.
- **External Influence:** With their growing involvement in the Indian Ocean region, foreign powers—including significant international players like China—have an impact on the dynamics within pre-existing frameworks and occasionally threaten regional autonomy.

Roadmap for the formation of a new 'Indian Ocean Cooperation Organisation'

- **Flexible Structure:** To address particular possibilities and problems in the area, IOCO should have a flexible structure that permits regular working groups, task forces, and consultations.

- **Sustainable Financing:** In order to support its programs and operations, IOCO should investigate sustainable financing options such as donations from member states, foreign donors, and public-private partnerships.
- **Objectives:** IOCO should have clear objectives focused on promoting peace, stability, and sustainable development in the Indian Ocean region. It should prioritize addressing maritime security threats, enhancing economic cooperation, and fostering people-to-people exchanges.
- **Comprehensive Approach:** IOCO should adopt a comprehensive approach to address a wide range of issues including maritime security, environmental protection, disaster management, trade facilitation, and connectivity.
- **Inclusivity:** IOCO should strive for inclusivity by involving all Indian Ocean littoral states, as well as key stakeholders such as international organizations, non-governmental organizations, and private sector entities.

Conclusion

A new IOOC, built on inclusivity, shared vision, and strong implementation mechanisms, has the potential to effectively address the strategic and economic challenges of the Indian Ocean Region.

Discuss the role of hydropower cooperation in the economic development of Bhutan and its impact on India-Bhutan relations. How can the lessons learned from this cooperation be applied to India's relationships with other neighboring countries?

Introduction: Brief contextual introduction

Body: Highlight the role of hydropower in the economic development of Bhutan & lessons learned from this cooperation.

Conclusion: Way forward

Hydropower cooperation between India and Bhutan has played a pivotal role in the economic development of Bhutan and has significantly strengthened the bilateral relations between the two nations.

Role of hydropower cooperation in the economic development of Bhutan

- **Economic development of Bhutan:** Hydropower projects have been the cornerstone of Bhutan's economic growth, providing a steady stream of revenue through the sale of electricity to India. This revenue has been crucial for Bhutan's development initiatives, helping the country graduate out of the Least Developed Country status. The success of these projects has contributed to Bhutan's overall economic prosperity and stability.
- **Strengthened India-Bhutan Relations:** The hydropower cooperation has fostered a strong and enduring partnership between India and Bhutan. Both countries have recognized the importance of this collaboration in achieving their respective development goals. The trust and cooperation established through hydropower projects have paved the way for deeper diplomatic ties and strategic cooperation in other sectors.
- **Model for Regional Cooperation:** The India-Bhutan hydropower cooperation serves as a positive example of successful regional cooperation in South Asia. It demonstrates how neighboring countries can work together for mutual benefit, leveraging each other's strengths and resources to promote economic growth and development.

Lessons learned from the India-Bhutan hydropower cooperation:

- **Mutual Respect and Trust:** India-Bhutan cooperation underscores the importance of mutual respect and trust in fostering successful partnerships. India should extend similar respect and trust to its other neighboring countries, acknowledging their sovereignty and priorities.
- **Shared Development Goals:** Both India and Bhutan have aligned their development goals through hydropower cooperation. India should work towards identifying common development

objectives with other neighboring countries and explore avenues for collaboration to achieve them.

- **Sustainable Development:** The focus on sustainability in hydropower projects highlights the importance of environmentally responsible development. India can prioritize sustainable development practices in its collaborations with other neighboring countries, ensuring that projects benefit the environment and local communities.
- **Strategic Diplomacy:** Hydropower cooperation has been a cornerstone of India-Bhutan diplomacy. India can leverage similar strategic diplomacy approaches in its relationships with other neighboring countries, emphasizing cooperation, dialogue, and mutual benefit.

Conclusion

Successful execution of Gelephu Mindfulness City in Bhutan has the potential to develop infrastructure in parts of eastern India like West Bengal and Assam which augurs well for the continued growth and development of India-Bhutan ties prioritizing India's Neighbourhood First policy approach.

Assess the impact of climate change on urban water security, using Bengaluru's water crisis as a case study. Discuss the strategies that urban areas can adopt to build resilience against such climate-induced challenges.

Introduction: Contextual Introduction

Body: Highlight the impact of climate change on water security & measures to deal with challenges.

Conclusion: Way forward

The water crisis in Bengaluru is escalating, resulting in considerable shortages across different regions. Reports indicate that drought has impacted 223 out of the 236 talukas in Karnataka, encompassing Mandya and Mysuru districts, which serve as the primary sources of water for Bengaluru.

Impact of climate change on urban water security

- **Unpredictable Rainfall Patterns:** Rainwater harvesting and reservoirs play a major role in Bengaluru's water supply. However, due to climate change, rainfall patterns have become more erratic, with extended dry spells interspersed with periods of intense rainfall. Planning is difficult and water management is disrupted by this unpredictability.
- **Groundwater Depletion:** Bengaluru's over-exploitation of its groundwater resources is a result of the city's quick urbanization and population expansion. This problem is made worse by climate change, which changes groundwater levels and recharge patterns, increasing reliance on non-sustainable water sources.
- **Rising Temperatures:** As evaporation rates quicken, reservoirs and other surface water bodies have less water available. Heatwaves exacerbate this problem, making water scarcity worse when demand is high.

Strategies that urban centers can adopt to deal with the issue

- **Diversification of Water Sources:** To become less dependent on surface and groundwater alone, urban regions like Bengaluru need to diversify their water sources. This entails looking into solutions including desalination, rainfall collection, and wastewater recycling.
- **Water Conservation and Demand Management:** One way to lessen the strain on the water resources that are now available is to put water conservation measures into place and encourage businesses, industries, and households to utilize water efficiently.
- **Infrastructure Investment:** Improving urban water security requires making infrastructure investments for water distribution, treatment, and storage.
- **Climate-Resilient Urban Planning:** Reducing the negative effects of climate change on water security requires integrating climate resilience into urban planning procedures.

Conclusion

Through promoting inclusive participation from all stakeholders and enacting robust policies that prioritize long-term sustainability over immediate benefits, Bengaluru can chart a path toward a future where every Indian can access safe and dependable groundwater.

Critically analyze the concept of disease elimination versus eradication with reference to the Indian context.

Introduction: Give a brief context to the introduction

Body: Difference between elimination and disease eradication

Conclusion: Way forward

India has a rich history of tackling infectious diseases. The latest report by the Carter Center shows that guinea worm disease was close to eradication. This would be the second disease after smallpox to be eradicated and the first one with no known medicines or vaccines.

Eradication vs. Elimination

- **Definition:** Disease elimination targets achieving zero transmission within a defined geographic area, marking a significant milestone in public health efforts. Disease eradication entails permanently ceasing the transmission of a pathogen globally, representing the ultimate goal of public health.
- **Diseases:** In the Indian context, disease elimination has been achieved for diseases such as polio and maternal and neonatal tetanus. In the Indian context, efforts towards disease eradication have primarily focused on diseases such as malaria, tuberculosis, and, more recently, COVID-19.
- **Factors:** Surveillance systems must be strengthened to detect and respond to any resurgence of the disease post-elimination. Achieving elimination nationwide may be challenging within the declared time frame for certain diseases, but feasible for others in specific regions. The feasibility of eradicating certain diseases nationwide may vary depending on factors such as disease prevalence, geographic distribution, and healthcare infrastructure.

Key Considerations in the Indian Context:

- **Vast Population and Diverse Geography:** India's sheer size and varied landscapes pose challenges in achieving uniform program reach. Localized pockets of high prevalence can persist even with national elimination. (e.g., Leprosy in Bihar and Chhattisgarh)
- **Socioeconomic Disparities:** Unequal access to healthcare, sanitation, and clean water disproportionately affects vulnerable communities, hindering elimination efforts.
- **Cross-Border Movement:** Open borders with neighboring countries can lead to the reintroduction of eliminated diseases. (e.g., Malaria).

Conclusion

Ending the epidemics of malaria, tuberculosis, and Neglected Tropical Diseases by 2030 is one of the Sustainable Development Goals set by the United Nations. Disease elimination and eradication represent complementary strategies in India's public health agenda, each requiring careful planning, resource allocation, and multisectoral collaboration. While elimination targets zero transmission within defined regions, eradication aims for global cessation of disease transmission. Success in these endeavors hinges on strong surveillance systems, political commitment, and coordinated efforts at regional and national levels.

Examine the role of Non-Personal Data (NPD) in enhancing governance and public service delivery in India.

Introduction: Contextual Introduction

Body: Role of NPD in governance and public service delivery

Conclusion: Way forward

The rapid digitization of government operations is paralleled by the accumulation of larger quantities of citizen data. This data typically falls into two categories: Personal Data, which contains identifying information about individuals, and Non-Personal Data (NPD), which excludes personal identifiers. NPD stands out as the predominant type of citizen data collected by the government, presenting opportunities to function as a 'public good'.

Benefits of NPD for Governance and Public Service Delivery

- **Evidence-Based Policymaking:** NPD serves as a foundational element for evidence-based policymaking in various sectors such as healthcare, education, urban planning, and agriculture. This allows them to formulate targeted policies and interventions that address specific needs and challenges effectively.
- **Resource Optimization:** Identifying areas with high demand for specific services (healthcare, education) allows for better resource allocation.
- **Transparency and Accountability:** Publicly available anonymized datasets can enhance transparency in government spending and program effectiveness.
- **Supporting Innovation and Economic Growth:** NPD serves as a valuable resource for fostering innovation and driving economic growth. By facilitating access to anonymized data from various sectors, governments can incentivize entrepreneurs, researchers, and startups to develop new products, services, and solutions that address societal challenges and create economic opportunities.
- **Ensuring Privacy and Data Security:** While leveraging NPD for governance and public service delivery, it's essential to prioritize privacy and data security. Building public trust in data handling practices is crucial for ensuring the responsible use of NPD for societal benefit.
- **Improved Targeting:** Social welfare programs can be better targeted towards eligible beneficiaries using anonymized socio-economic data.
- **Predictive Maintenance:** Analyzing sensor data from infrastructure (power grids, water supply) can predict maintenance needs and prevent disruptions.
- **Personalized Services:** Public services can be tailored to specific needs based on anonymized demographic or geographic data. (e.g., Educational resources targeted towards regional skill gaps).

Conclusion

India has enormous potential to enhance public service delivery and governance by utilizing NPD. To fully realize this promise, though, a few key issues must be resolved, including data security, governance, and quality control. India can usher in a new era of data-driven decision-making for the good of its people by overcoming these obstacles.

Evaluate the significance of international cooperation in water diplomacy for fostering regional stability and peace. Illustrate with examples the historical and contemporary relevance of water as a resource in international relations.

Introduction: Contextual Introduction

Body: Significance of water diplomacy and relevance of water as a resource.

Conclusion: Way forward

Under the **'World Water Assessment Programme UNESCO'** released the 2024 edition of the flagship United Nations World Water Development Report, "**Water for Prosperity and Peace**" as a part of UN-Water on

the occasion of World Water Day, on March 22, with the theme "***Leveraging water for peace***" highlighting the significance of international cooperation in water diplomacy.

Significance of water diplomacy in regional stability and peace

- **Scarcity Feeds Conflict:** Since freshwater is a limited resource, rivalry for it can quickly turn into hostilities between nations, particularly those that share aquifers or rivers. Conflict is avoided by international cooperation, which guarantees equitable and sustainable water distribution.
- **Common Problems, Common Solutions:** Water-related problems, such as pollution, flooding, and droughts, have no national boundaries. All stakeholders gain from cooperative efforts in flood management, infrastructure development, and water quality monitoring since they foster a sense of shared responsibility.
- **Building Trust Through Cooperation:** Water diplomacy encourages communication and mutual respect among countries. Collaborating on water management fosters cooperation and communication, which improves the climate for settling other political disputes.

Historical Examples

- A potential confrontation between India and Pakistan was avoided by the World Bank-brokered Indus Waters Treaty (1960), which outlined the rights of water sharing for the Indus River system.
- Ethiopia, Egypt, and Sudan have been at odds over the Grand Ethiopian Renaissance Dam (GERD) on the Nile River. The goal of ongoing international negotiations is to create a cooperative framework for dam operation and water sharing.

Contemporary Relevance

- The Mekong River Commission, established by riparian countries in Southeast Asia, promotes joint water management, mitigating floods and droughts while ensuring sustainable development for all members.
- The Middle East, a water-scarce region, is increasingly turning to water diplomacy initiatives like the Blue Peace Middle East, which utilizes water cooperation as a tool for regional peacebuilding.

Conclusion

The global community requires an advanced model of cross-border water governance, which advocates for fair and efficient allocation of water resources among nations that share them. While significant strides have been made over the ages in promoting peace, the looming threat of freshwater scarcity poses a grave risk to our collective welfare and stability. This imperative is particularly vital in the context of the 2030 Agenda and the attainment of Sustainable Development Goals (SDGs).

Examine the potential of Small Modular Reactors (SMR) and other technological advancements in nuclear power for reducing carbon emissions. Discuss how these technologies can contribute to the destigmatization of nuclear energy.

Introduction: Contextual Introduction

Body: Highlight the potential of SMR & how such technologies can help in the destigmatization of nuclear energy.

Conclusion: Way forward

As per the International Atomic Energy Agency (IAEA), SMRs are advanced nuclear reactors with a power generation capacity ranging from less than 30 MWe to 300 MWe. Conventional Nuclear power plants have generally suffered from time and cost overruns. As an alternative, several countries are developing small modular reactors (SMRs) to complement conventional Nuclear power plants.

Potential of SMR in nuclear power for reducing carbon emissions

- **Reduced Carbon Footprint:** Like traditional nuclear reactors, SMRs generate electricity through nuclear fission, a process that doesn't emit greenhouse gases during operation.
- **Scalability and Flexibility:** SMRs are smaller and more modular than conventional reactors. This allows for deployment in areas with lower energy demands and facilitates a gradual shift towards nuclear power.
- **Enhanced Safety Features:** Many SMR designs incorporate inherent safety features, minimizing the risk of accidents and meltdowns.
- **Flexibility:** SMRs can be integrated with Renewable Energy to fulfill the need for flexibility, producing energy services, and low-carbon co-products. These can include electricity, hydrogen, synthetic fuels, hot process gases, or steam. When coupled with variable energy sources SMRs can mitigate fluctuations on a daily and seasonal basis.

How can SMR contribute to the destigmatization of nuclear energy?

- **Refueling interval:** Standard plants require refueling every one to two years, however SMR-based power plants may only need to do so every three to seven years. Some SMRs have an operating life expectancy of thirty years without refilling.
- **Safety features:** Extensive use of passive safety features in SMR designs, which rely on the laws of physics to shut down and cool the reactor under abnormal circumstances, provide inherent safety. In most cases, these technologies don't need a power supply and can handle accidents without the assistance of a person or a computer.
- **Economical:** SMRs require a low capital outlay and/or a phased capital expenditure. They have the adaptability to allow co-generation, supply heat for desalination and manufacturing, etc.
- **Compact design:** Compared to big reactors and renewable energy sources, SMRs require less area for operations. Parts of outdated or closed fossil fuel-based power facilities are expected to be repurposed by SMRs.

Conclusion

SMR may complement large-size reactors to increase the nuclear share in the energy mix and achieve Net Zero Emissions goals. The UN Climate Change Conference (COP28), held in Dubai (UAE) in December 2023, underscored the crucial role of nuclear energy in achieving climate objectives & highlighted the necessity of tripling nuclear energy capacity by 2050 to address climate challenges effectively.

Analyze the significance of promoting cycling in urban planning to achieve sustainable transportation and social equity.

Introduction: Contextual Introduction

Body: Significance of promoting cycling for sustainable transformation & Social Equity

Conclusion: Way forward

In India, viewing cycling solely through the lens of transportation overlooks its profound significance as a catalyst for social justice, distinguishing it from the predominant discourse in the West, which largely revolves around decarbonizing transport. Cycling in India holds transformative potential, transcending mere transportation concerns to deeply impact people's lives in multifaceted ways.

Sustainable Transformation

- **Reduced Traffic Congestion:** The number of cars on the road is declining as more people choose to ride bicycles. Everyone's travel times are shortened as a result of the improved traffic flow.
- **Reduced Emissions:** Bicycles have no emissions, in contrast to cars, which produce noise and air pollution. The result is a better and cleaner urban environment.
- **Space Efficiency:** When it comes to space, bicycles are far more efficient than cars. This liberates significant space for parks, pedestrian areas, or infrastructure related to public transportation.

- **Benefits for Public Health:** Cycling is a great way to increase cardiovascular health, lower your risk of developing chronic illnesses like diabetes and obesity, and enhance your mental health.

Social Equity

- **High enrolment in schools:** Data collected on the implementation of bicycle distribution schemes (BDS) in Bihar, Karnataka shows that the BDS is associated with the enrolment of girls in class nine and girls appearing for secondary school certification exams.
- **Increased Women Participation in Work:** Data collected from Bengaluru shows that more women attended the workplace when they were given a bicycle, along with some training in comparison to those who did not afford a bicycle.
- **Accessibility:** Cycling provides a relatively inexpensive and independent mode of transportation. This makes it accessible to a wider range of people, including those who cannot afford cars or rely on public transport with limited reach.
- **Community Building:** Cycling infrastructure like dedicated lanes and bike paths can create safer and more pleasant spaces for people to connect and explore their city.

Conclusion

It is recommended that state governments consider implementing BDS schemes and broaden their application to include urban areas. Cities should allocate resources toward developing dedicated cycling infrastructure such as cycle lanes, safe parking facilities, and repair centres. The widespread adoption of BDS schemes across various states in India reflects the significant demand for cycling.

Evaluate the significance of black carbon emissions on environmental health and climate change, with a focus on India's challenges and strategies in reducing emissions from the residential sector.

Introduction: Contextual Introduction

Body: Impact of black carbon on health, climate change & challenges & strategies to deal with it.

Conclusion: Way forward

Black carbon or BC, emitted during incomplete combustion of biomass and fossil fuels, contributes to global warming and health risks. Exposure to black carbon is linked to heart disease, birth complications, and premature death. In India, the majority of black carbon emissions come from burning biomass in traditional cookstoves. According to a 2016 study, the residential sector contributes 47% of India's total black carbon emissions. Industries contribute a further 22%, diesel vehicles 17%, open burning 12%, and other sources 2%.

Environmental Health Impacts

- **Air pollution:** One of the main causes of air pollution is black carbon, which can cause cardiovascular illnesses, respiratory issues, and even early mortality. India has some of the world's most polluted cities, and part of the problem is Black Carbon emissions.
- **Reduced Visibility:** Elevated levels of black carbon can cause a major reduction in visibility, which can have an adverse effect on both general quality of life and transportation safety.

Impact on Climate Change

- **Heating of the Atmosphere:** Black carbon warms the atmosphere by absorbing solar energy, hastening global warming. Even though it doesn't last as long as CO₂, it has a big immediate impact.
- **Melting of Glaciers:** The deposition of BC on snow and glaciers lowers their reflectivity, or albedo, which speeds up melting. Sea levels are increasing as a result of this, endangering water supplies. A key worry is the effect on the Himalayas, which provide India with a vital supply of water.

Challenges for India's Residential Sector

- **Burning biomass:** In India, burning solid fuels for cooking and heating, such as firewood and manure, is a major source of BC, especially in rural areas.
- **Brick Kilns:** Due to incomplete coal combustion, traditional brick kilns are one of the main sources of BC emissions.
- **Lack of Knowledge:** Adoption of cleaner techniques may be impeded by a lack of knowledge regarding the health and environmental effects of BC emissions.

Strategies for Reducing Black Carbon Emissions

- **Promoting Cleaner Cooking Solutions:** Shifting towards cleaner burning LPG stoves and biogas plants can significantly reduce BC emissions from households. Eg. Pradhan Mantri Ujjwala Yojana (PMUY) provides free liquefied petroleum gas (LPG) connections to households below the poverty line. Encouraging local production of coal-bed methane (CBM) gas by composting biomass at the village level, can ensure every rural household access to clean cooking fuel.
- **Public Awareness Campaigns:** Educating the public about the health and environmental consequences of BC and promoting cleaner alternatives is essential.
- **Promoting Cleaner Energy Sources:** Encouraging the use of renewable energy sources like solar power for domestic needs can significantly reduce reliance on solid fuels.

Conclusion

There is urgent need to prioritise black carbon reduction through initiatives such as the PMUY scheme that 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.

Evaluate the impact of construction sector growth on urban sustainability in India. Discuss the significance of adopting energy-efficient and sustainable building materials in mitigating environmental degradation. (250 words, 15 marks)

Introduction: Give a brief context to the question

Body: Impact of construction sector on climate and significance of energy-efficient solutions

Conclusion: Way forward

India is currently experiencing an unparalleled construction surge, erecting more than 300,000 housing units each year. While this growth presents economic prospects and enhances living conditions, it also presents substantial environmental hurdles. The building sector, a significant energy consumer, is responsible for more than 33% of India's electricity consumption, exacerbating environmental degradation and climate change.

Impact of the sector on urban sustainability in India

- **Degradation of the environment:** Construction uses a lot of resources, which results in deforestation, dust and debris contamination of the air and water, and a rise in CO₂ emissions. Construction-related rapid urbanization causes habitat loss, changes in land use, and greater strain on natural resources and infrastructure.
- **Waste generation:** Waste from construction and demolition overwhelms landfills and puts pressure on waste management systems.
- **Increase Carbon Emissions:** Conventional construction practices often rely on energy-intensive materials like cement and steel, contributing to significant carbon emissions during the production and construction phases.

Significance of adopting Sustainable solutions

- **Energy efficient Materials:** Utilizing recycled steel, fly ash bricks and prefabricated elements reduces energy consumption during production and construction. However, sustainability concerns of materials like Autoclaved Aerated Concrete (AAC) blocks, red bricks, fly ash, and monolithic concrete (Mivan) when tested show AAC blocks offer a better balance between embodied energy and construction time than red bricks and monolithic concrete.
- **Green building practices:** Integrating solar panels, rainwater harvesting, and energy-efficient appliances in buildings minimizes their environmental footprint. Initiatives like the Eco-Niwas Samhita (ENS) and the Residential Energy Conservation Building Code are steps in the right direction.
- **Reduce reliance on Conventional resources:** Utilizing renewable energy sources like solar panels and incorporating green roofs and rainwater harvesting systems can further enhance the sustainability of buildings and reduce reliance on non-renewable resources.

Conclusion

In conclusion, achieving sustainable construction presents formidable obstacles, yet it remains indispensable for fostering a more environmentally friendly future. Through the reimagination of construction design and methodologies, the development of cutting-edge walling materials, and the promotion of a sustainability ethos, we have the potential to construct resilient, energy-efficient buildings that harmonize with environmental objectives and greatly enhance the well-being of communities at large.

In the light of recent events, analyze the implications of using humanitarian aid as a political tool in conflict zones.

Introduction: Contextual Introduction

Body: Implications of using humanitarian aid as a political tool in conflict zones

Conclusion: Way forward

The recent example of humanitarian aid being used as a political tool in the ongoing conflict between Hamas & Israel shows that geopolitics trumps humanitarian concerns even at the cost of starving millions in the conflict zones. This stopping of humanitarian aid is a serious violation of international law which requires careful deliberation among international organizations and nation-states.

Positive Implications of using humanitarian aid as political tool

- **Leverage for Peace:** Aid can incentivize warring parties to negotiate for access to affected populations, creating opportunities for peace talks. Eg, Ethiopia
- **Promoting Democracy:** Conditional aid tied to human rights improvements or democratic reforms can nudge governments towards better practices. Eg, Afghanistan

Negative Implications of using humanitarian aid as political tool

- **Human Suffering:** Reduction or cessation of humanitarian aid results in increased human suffering, including hunger, malnutrition, lack of access to medical care, and displacement. Vulnerable populations, including women, children, and the elderly, bear the brunt of these consequences.
- **Healthcare Crisis:** Humanitarian aid often supports healthcare infrastructure, including hospitals, clinics, and medical supplies. Cutting aid can lead to the collapse of healthcare systems, resulting in preventable deaths due to untreated illnesses, injuries, and lack of access to essential medications.
- **Food Insecurity:** Many individuals and families in conflict zones rely on humanitarian assistance for access to food. Cutting aid exacerbates food insecurity, leading to starvation and malnutrition, particularly among children.

- **Displacement and Migration:** Reduced aid may force people to flee their homes in search of safety, exacerbating the refugee crisis. This can lead to overcrowded refugee camps, strained resources in host countries, and increased risk of exploitation and violence for displaced populations.
- **Human Rights Violations:** Cutting humanitarian aid can contribute to human rights violations, including violations of the right to food, healthcare, and shelter. It may also lead to the denial of basic services and exacerbate existing inequalities and injustices within these conflict-affected populations.
- **Destabilization:** Lack of humanitarian aid can further destabilize conflict-affected regions, fueling resentment, radicalization, and extremism. It may also contribute to social unrest, conflict escalation, and prolonged instability, with broader regional and global implications.

Conclusion

It is essential for the international community to uphold its humanitarian obligations and provide sustained support to those most in need, regardless of political considerations.

Critically examine the objectives and key features of the WHO Pandemic Agreement. Discuss the potential challenges and benefits of establishing a global framework for pandemic preparedness and response, with a focus on equity and access to medical products.

Introduction: Contextual Introduction

Body: Highlight objectives, features, challenges & benefits arising from the agreement.

Conclusion: Way forward

The World Health Organization (WHO) is spearheading efforts to establish the world's first Pandemic Agreement.

Objectives and Key Features:

- **Strengthened Preparedness:** The agreement aims to improve national, regional, and global capacities for disease surveillance, early warning systems, and rapid response mechanisms.
- **Collaborative Research & Development:** Encouraging collaboration on research and development of vaccines, diagnostics, and therapeutics is a key focus.
- **Equitable Access:** The agreement seeks to ensure fair and equitable access to medical countermeasures (vaccines, treatments, etc.) for all countries, regardless of income level.
- **Improved Financing:** A crucial aspect is establishing sustainable financing mechanisms to support pandemic preparedness and response activities.

Potential Benefits:

- **Enhanced Global Response:** A unified framework can lead to faster and more coordinated responses to future pandemics, potentially mitigating their impact.
- **Investment in Preparedness:** The agreement can encourage countries to invest in robust public health infrastructure, leading to better overall health security.
- **Focus on Equity:** By emphasizing equitable access, the agreement can help ensure that developing countries are not left behind in future pandemics.

Challenges:

- **National Sovereignty:** Balancing global cooperation with national sovereignty could be a challenge. Countries may be hesitant to cede control over pandemic response measures.

- **Resource Allocation:** Ensuring equitable funding for preparedness efforts across all nations, especially low- and middle-income ones, will be crucial.
- **Intellectual Property Rights:** Balancing innovation with access is a complex issue. The agreement needs to address intellectual property concerns to facilitate technology transfer and affordable production of medical products.
- **Enforcement Mechanisms:** The effectiveness of the agreement will depend on strong enforcement mechanisms to ensure compliance from member states.
- **Vaccine Nationalism:** The agreement should discourage countries from stockpiling vaccines and other resources during emergencies.

Conclusion

The WHO Pandemic Agreement holds promise in enhancing worldwide readiness and responsiveness to forthcoming pandemics. Nonetheless, overcoming obstacles such as national sovereignty, resource distribution, and intellectual property rights will be pivotal for its effectiveness. Central to achieving a genuinely comprehensive and efficient pandemic response is the imperative of ensuring equitable access to medical products.

Analyze the implications of internet shutdowns in India on the right to freedom of expression and information, particularly in the context of global internet freedom trends. Suggest measures to balance national security concerns with the protection of digital rights.

Introduction: Give a brief context to the question

Body: Implications of internet shutdown and measures to deal with it.

Conclusion: Way forward

India has emerged as a global leader in internet shutdowns, raising concerns about its impact on freedom of expression and information. India has consistently topped the global list of countries imposing internet bans, with approximately 60% of all recorded blackouts worldwide.

Implications of Shutdowns on freedom of expression & information

- **Restricting Free Speech:** When people's access to the internet is blocked, it becomes harder for them to freely express themselves online, which muffles oppositional voices and prevents political dialogue.
- **Impact on Media and Journalism:** For information gathering, communication, and news distribution, journalists mainly rely on the Internet. Shutdowns undermine press freedom by interfering with their capacity to report on events and educate the public.
- **Economic Consequences:** Shutdowns affect digital services, e-commerce, and internet businesses, impeding socioeconomic progress and having an effect on economic activity.
- **Social Isolation:** When people's access to vital services, online groups, and communication with loved ones is impeded, it is a result of internet shutdowns that cause social connectedness to break down.

Balancing Security and Rights:

- **Stricter Regulations:** Implement clear and transparent guidelines for internet shutdowns, allowing them only under exceptional circumstances and with judicial oversight.
- **Targeted Shutdowns:** Instead of blanket blackouts, consider more targeted interventions like blocking specific websites or apps linked to incitement of violence.
- **Alternative Measures:** Explore less disruptive alternatives to manage unrest, such as blocking access to specific locations or communication tools for a limited duration.

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- **Transparency and Accountability:** Authorities should publicly disclose reasons for shutdowns and their effectiveness. Independent bodies can review decisions to ensure accountability.
- **Promoting Digital Literacy:** Educate citizens about responsible online behaviour and empower them to critically evaluate information.
- **Investment in Infrastructure:** Invest in robust internet infrastructure and cybersecurity measures to mitigate security risks while preserving online freedoms.
- **Dialogue and Collaboration:** Foster dialogue between government authorities, civil society organizations, and technology companies to develop collaborative solutions that balance national security imperatives with respect for human rights.

Conclusion

Government should pay heed to the orders of SC in *Anuradha Bhasin v. Union of India* case, & try to balance national security concerns with the protection of digital rights that requires a multi-stakeholder approach, encompassing legal reforms, transparency, and investment in infrastructure to uphold democratic principles in the digital age.