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EDITORIAL OF THE DAY-27.05.2026

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1. India's Energy Strategy Needs Price Correction (TH)

GS Paper III - Indian Economy and Infrastructure

Topic - Infrastructure - Energy; Government budgeting; Mobilization of resources; Inflation.

Sub-Topic - Energy Security, Oil Marketing Companies (OMCs) Under-Recoveries, Strategic Petroleum Reserves (SPR), Fiscal Deficit Pressures, and Fuel Price Rationalization.

1. Introduction

The geopolitical crisis in West Asia has transformed the Strait of Hormuz from a traditional flashpoint into a major fault line within the global energy economy. With the maritime trade corridor experiencing continuous disruptions, energy security has become deeply tied to international geopolitics. For an economy like India, which imports the overwhelming majority of its crude oil needs, this prolonged disruption serves as a significant test. It highlights both the strength of recent diversification efforts and the fiscal limits of shielding domestic consumers indefinitely from rising international market realities.

2. Direct Shock Manifestations in Global Energy Markets

The maritime disruptions in West Asia have triggered immediate cascading effects across international supply chains -

Surging Commodity and Logistics Costs - Brent crude benchmarks have jumped sharply, while ocean freight rates and marine insurance premiums have climbed to multi-year highs.

The African Diversion Route - Maritime freight is being rerouted around the Cape of Good Hope, extending standard delivery timelines by weeks and inflating transportation expenses.

Gas Infrastructure Constraints - Global natural gas networks face strong upward pressure following infrastructure shutdowns linked to liquefied natural gas (LNG) export facilities in Qatar.

International Price Divergence - While advanced economies experienced steep fuel price increases of roughly 25% on average—pushing petrol prices above the equivalent of ₹220/litre in Germany and ₹204/litre in the UK—retail prices at Indian pumps remained stable, hovering near ₹95 per litre.

3. India's Strategic Insulation & Energy Architecture Initiatives

To mitigate this disruption, the government has used a combination of supply diversification, diplomatic agreements, and internal resource management -

Sourcing Basket Diversification - India expanded its crude procurement matrix beyond the Persian Gulf, building trade relationships with non-Gulf suppliers across Russia, the United States, West Africa, and the Atlantic basin to keep refinery throughput high.

The SPR Storage Compact - Leveraging the United Arab Emirates' (UAE) exit from the Organization of the Petroleum Exporting Countries (OPEC), India signed a strategic agreement with the UAE to store 30 million barrels of crude oil within India's Strategic Petroleum Reserve (SPR) infrastructure.

The Ujjwala Supply Response - To safeguard the massive expansion of domestic cooking gas access—which grew from 14.5 crore connections in 2014 to over 33 crores—refineries were directed to increase domestic LPG production by nearly 50% during peak crisis phases.

Essential Sector Gas Allocation - Natural gas routing was explicitly prioritized to shield critical industrial value chains. All 25 domestic fertilizer plants continued to receive approximately 70% of their gas allocations to preserve agricultural output.

Diplomatic and Naval Escorts - The state deployed naval assets to the Gulf of Oman alongside active diplomatic engagements to secure alternative shipping options.

4. Financial Pressures on Oil Marketing Companies (OMCs)

The strategy of domestic price insulation has shifted the financial burden onto public entities, creating significant fiscal vulnerabilities -

Rising Under-Recoveries - State-run Oil Marketing Companies (OMCs) are absorbing the difference by selling retail fuel below market-linked costs, generating under-recoveries.

Severe Daily Financial Drain - During peak market volatility, daily operational under-recovery losses for OMCs reached estimated ranges of ₹700 crore to ₹800 crore per day.

Fiscal Defense Measures - The government reduced domestic excise duties and imposed temporary export restrictions on refined fuels to preserve inventory within the domestic market.

The Subsidy Strain - While politically prudent over short horizons, subcontinental energy subsidies of this scale weaken the balance sheets of public energy firms, strain state finances, and distort pricing signals that encourage conservation.

5. Deconstructing the Macro-Economic Adjustment Opportunity

The context in early 2026 provides a workable window for a calibrated, structural price correction -

Moderate Domestic Inflation Baseline - Consumer Price Index (CPI) inflation remained stable between 3.2% and 3.5% through the first four months of 2026. This moderate inflation profile creates the economic room needed for partial price rationalization without risking runaway retail inflation.

The Limits of Incomplete Revisions - The government initially implemented piecemeal increases that raised petroleum prices cumulatively by about 7%. However, this piecemeal approach has proven insufficient to match global crude trends or meaningfully reduce the daily losses of OMCs.

The Policy Alternative (One-Time Price Alignment) - Moving away from frequent market price revisions—which cause budgeting uncertainty for households and businesses—the situation supports a one-time retail price increase of at least 13% on petroleum products, including petrol, diesel, and aviation turbine fuel (ATF). This structural correction would directly eliminate OMC losses, settle market uncertainty, and stabilize state finances until global energy markets find a new equilibrium.

Source - https -//www.thehindu.com/opinion/lead/indias-energy-strategy-needs-price-correction/article71026084.ece

Question

Administered insulation of domestic fuel prices during global energy crises shields consumers from immediate inflationary shocks but creates structural imbalances across public finance and energy markets. Discuss this statement in the context of India's current vulnerabilities to energy

chokepoints, and evaluate the feasibility of transitioning to a structural price correction." (250 Words, 15 Marks)

1. Introduction

Geopolitical tensions in the Strait of Hormuz have disrupted global energy trade, driving up freight rates, insurance premiums, and Brent crude prices. While advanced economies have let retail prices rise with the market, India has utilized strategic state intervention, supply diversification, and financial absorption to maintain retail fuel prices near ₹95/litre. This insulation protects consumers in the short term but transfers significant financial stress onto state-run entities.

2. The Double-Edged Impact of Domestic Fuel Price Insulation

Short-Term Inflation Protection - By keeping retail fuel stable, the government prevents immediate supply-chain shocks from raising domestic costs. This helped keep Consumer Price Index (CPI) inflation at a moderate 3.2% to 3.5% in early 2026, protecting consumer purchasing power.

Severe Under-Recoveries for OMCs - To absorb global price spikes, state-run Oil Marketing Companies (OMCs) have sold fuel below market-linked costs. This has resulted in under-recovery losses of ₹700 crore to ₹800 crore per day during peak volatility, weakening corporate balance sheets and limiting capital for energy infrastructure.

Fiscal Deficit Risks - Sustaining subsidies of this scale strains public finances and forces trade-offs with capital expenditure. Furthermore, shielding consumers removes the pricing signals that encourage energy conservation and fuel efficiency.

3. Evaluating the Feasibility of a Structural Price Correction

Transitioning toward a market-linked pricing model is supported by current economic indicators, but requires careful execution -

The Macroeconomic Window - The prevailing low inflation environment (3.2%–3.5%) creates the fiscal room for a calibrated pass-through of global energy costs without triggering runaway domestic inflation.

Limitations of Piecemeal Adjustment - Recent incremental increases of roughly 7% have proved insufficient to close the under-recovery gap for OMCs. Additionally, frequent, small adjustments create ongoing uncertainty for household and corporate budgets.

The Case for a Structured One-Time Hike - To restore balance, a one-time retail price correction of at least 13% across petrol, diesel, and aviation turbine fuel (ATF) is a practical alternative. While politically sensitive, a single adjustment would immediately eliminate daily OMC losses, clear up consumer uncertainty, and preserve the fiscal space needed to manage long-term energy volatility.

Conclusion

India's tactical management of the West Asian energy crisis has successfully prevented domestic supply panics. However, long-term resilience requires a shift toward economic realism. By combining structural supply diversification—such as the 30-million-barrel SPR agreement with the UAE—with a measured pass-through of global costs, India can protect its public finances and ensure sustainable energy security in an unstable geopolitical environment.

Source - https -//www.thehindu.com/opinion/lead/indias-energy-strategy-needs-price-correction/article71026084.ece

2. Delhi's Dust Pollution Needs Science, Not Seasonal Optics (IE)

GS Paper III - Environment, Ecology, and Disaster Management

Topic - Environmental pollution and degradation; Conservation; Science and Technology- developments and their applications in everyday life.

Sub-Topic - Air Quality Governance, Transboundary Airshed Dynamics, Particulate Matter (PM) Dispersion, and Super El Niño Meteorological Shocks.

1. Introduction

Dust pollution has emerged as a major, year-round public health hazard in Delhi. While public and political discussions usually treat air quality as a local, city-specific issue, a scientific assessment reveals that atmospheric pollution must be managed across an integrated airshed rather than arbitrary city boundaries. The author highlights a governance paradox - administrative focus and mitigation efforts, like intensive water sprinkling, peak during the calm winter months when natural dust lifting is actually lowest. In contrast, summer dust storms—driven by regional climate patterns and intense heating—receive far less systematic policy response.

2. The Scientific Typology of Dust Pollution

To design evidence-based solutions, dust pollution must be categorized into three distinct types, each behaving differently across seasons -

Natural Dust - This type depends directly on broader landscape characteristics, soil conditions, land use, and regional vegetation cover. It is highly vulnerable to wind-driven lifting when surface temperatures rise.

Re-Suspended Dust - Generated from paved and unpaved roads as vehicles move over them. This source is worsened by high traffic volumes, faster vehicle speeds, and poor road maintenance. During winter, calm winds limit natural dispersion, while continuous vehicle movement keeps these particles suspended in the breathing zone.

Construction Dust - Produced when prescribed safety norms are ignored during building and demolition activities. Although it contributes the least among the three categories, it often receives the closest administrative attention through regulatory enforcement like the Graded Response Action Plan (GRAP) guidelines.

3. The 2026 Climate Multiplier - The Super El Niño Shock

The extreme severity of Delhi's summer dust crisis in 2026 is directly linked to large-scale, climate-amplified meteorological anomalies -

The Super El Niño Factor - The Indian subcontinent has entered a disruptive phase of Super El Niño conditions, driven by pronounced warming in the Pacific Ocean.

Intense Regional Heating - This climate pattern has triggered extreme heating across South Asia, placing several Indian cities among the hottest locations globally.

Desiccation of the Indo-Gangetic Plain - Intense heat has dried out surface moisture across the entire Indo-Gangetic Plain, leaving topsoil loose, dry, and highly vulnerable to wind-driven lifting.

The Multi-Corridor Dust Trap - While severe summer dust storms are traditionally limited to western India and the Thar desert, the 2026 weather pattern has lifted dust across the entire Indo-Gangetic stretch. High-velocity transport winds and strong summer winds (*loo*) carry this dust from both the Indo-Gangetic basin and adjoining desert areas, trapping Delhi within multiple regional dust corridors.

4. Deconstructing Seasonal Policy Misalignments

The text criticizes the current ad-hoc, seasonal approach to urban environmental planning -

Winter Optics vs. Summer Science - Public discussions and mitigation measures, such as water-sprinkling, regularly intensify during the winter to reduce visible smog. However, because winter features lower wind speeds and minimal natural dust lifting, this deployment is scientifically misaligned.

The Summer Blind Spot - In reality, active dust suppression via water sprinkling is far more critical during the dry, windy summer months, when natural dust suspension is at its highest.

The Limitation of Clean Transport - While transitioning to Electric Vehicles (EVs) helps lower tailpipe fossil-fuel emissions, it cannot eliminate re-suspended road dust. Addressing this source requires structural transport management and regular road infrastructure maintenance.

5. Science-Based Structural Solutions

To manage the changing geography of air pollution, policymakers must transition from temporary fixes to science-based, long-term interventions -

Evidence-Led Airshed Governance - Designing environmental policies around the science of pollution sources and the meteorological factors that influence them across the wider airshed region.

Advanced Source-Sweeping Technologies - Expanding the use of Mechanical Road Sweeping Machines (MRSMs) while developing integrated systems that combine efficient mechanical sweeping with targeted, optimized water-sprinkling to suppress dust at the source.

Sustained Transport Management - Implementing proactive traffic flow measures and regular road surface repairs to reduce the mechanical friction that triggers re-suspended road dust.

Balanced Construction Enforcement - Maintaining strict enforcement of green covering rules at construction sites, while ensuring these measures do not overshadow larger sources like natural and road dust.

Ecological Soil Stabilization - Significantly expanding urban green cover and restoring local water bodies to increase surface moisture and stabilize loose soil profiles against wind-driven lifting.

Source - https -//indianexpress.com/article/opinion/columns/delhi-dust-pollution-science-optics-climate-change-10708919/

Question

"Managing urban air quality through local administrative boundaries fails to address the transboundary and climate-linked nature of particulate pollution. Elucidate this statement in the context of regional airshed dynamics, and suggest a scientifically validated framework for dust mitigation in the Indo-Gangetic Plain." (250 Words, 15 Marks)

1. Introduction

Delhi's persistent air quality crisis highlights the limitations of using city-specific, administrative boundaries to manage environmental pollution. Air pollution is fundamentally a regional airshed problem. Its behaviour is shaped by interconnected landscape features, shifting wind patterns, and large-scale climate variables that extend far beyond any single municipal jurisdiction.

2. Regional Airshed Dynamics and Climate Interdependence

The limitations of localized, city-boundary interventions become particularly evident when evaluating natural and re-suspended dust pollution -

The Transboundary Corridor - Under severe meteorological conditions—such as the Super El Niño phase of 2026—extreme regional heating dries out surface moisture across the entire Indo-Gangetic Plain. High-velocity transport winds and summer winds lift this dry, loose topsoil on a large scale, carrying it from western desert regions and the broader agricultural basin directly into urban centers. Consequently, city-level restrictions fail because the pollution is driven by transboundary corridors.

Seasonal Misalignment of Policy - Current policies often focus on temporary winter responses to manage visible smog. However, winter features lower wind speeds and minimal natural dust lifting. Conversely, dust suspension naturally peaks during the dry, windy summer months, making active suppression measures far more critical during the warmer season.

The Resuspension Paradox - Local solutions like transitioning to Electric Vehicles (EVs) help lower tailpipe emissions, but they cannot eliminate re-suspended road dust, which is continually kicked up by traffic volume and poor road maintenance.

3. A Scientifically Validated Framework for Mitigation

Transitioning to an effective, long-term framework requires a shift toward science-based regional strategy -

Establishing Inter-State Airshed Authorities - Moving past localized city management to create unified regional air quality boards that coordinate land cover and forestry policies across the entire Indo-Gangetic Plain.

Deploying Advanced Dual-Action Infrastructure - Upgrading municipal fleets with Mechanical Road Sweeping Machines (MRSMs) that combine mechanical sweeping with targeted water-sprinkling to suppress fine particles directly at the source.

Ecological Soil Stabilization - Launching widespread regional afforestation initiatives, expanding urban green belts, and restoring local wetlands to increase surface moisture and lock vulnerable topsoil in place.

Proactive Traffic and Road Design - Maintaining smooth traffic flows, enforcing strict speed limits, and ensuring regular road surface repairs to minimize the mechanical friction that triggers re-suspended dust.

Conclusion

As climate change intensifies weather extremes, relying on short-term seasonal responses will no longer suffice. Protecting urban health requires aligning environmental policy with regional climate science. By shifting from localized, city-boundary interventions to coordinated, airshed-level solutions, India can address the root causes of particulate pollution and build lasting climate resilience along its frontier regions.

Source - **https -//indianexpress.com/article/opinion/columns/delhi-dust-pollution-science-optics-climate-change-10708919/**

3. China–West Economic Interdependence - Understanding the Reality (BL)

GENERAL STUDIES PAPER - GENERAL STUDIES PAPER II – INTERNATIONAL RELATIONS

TOPIC - RISE OF CHINA AND GLOBAL POWER TRANSITION

SUB-TOPIC - INTERNATIONAL ECONOMIC INTERDEPENDENCE

Introduction

China's rise as the world's second-largest economy has transformed global economic and geopolitical dynamics. However, despite its growing economic strength, China remains deeply integrated with Western markets, technology networks, capital flows, and consumer demand. This highlights the continuing importance of economic interdependence in the contemporary global order.

1. China's Dependence on Western Markets

Export-Led Growth Model

1. China's economic expansion has been driven largely by manufacturing exports.

2. The United States and the European Union remain major destinations for Chinese goods.
3. Export earnings continue to contribute significantly to China's industrial growth.

Dependence on External Demand

1. Western consumer markets absorb a substantial share of Chinese production.
2. A slowdown in developed economies can directly affect Chinese exports and employment.
3. Domestic consumption alone has not yet fully replaced export demand.

2. Dependence on Western Technology

Advanced Semiconductor Ecosystem

1. China still relies on foreign suppliers for advanced semiconductor equipment and chip technologies.
2. Restrictions imposed by developed countries have highlighted technological vulnerabilities.

Innovation Networks

1. Global research ecosystems remain concentrated in advanced economies.
2. Access to technology, patents, and high-end industrial machinery remains important for Chinese industries.

3. Structural Strengths of the West

Financial Dominance

1. The US dollar remains the world's primary reserve currency.
2. Western financial institutions continue to influence global capital flows.

Innovation Leadership

1. The United States and Europe host leading universities, research institutions, and technology firms.
2. Advanced economies retain advantages in cutting-edge research and innovation.

Consumer Power

1. Developed economies continue to possess high purchasing power and large consumer markets.
2. This sustains demand for global exports, including those from China.

4. Internal Challenges Facing China

Demographic Transition

1. Ageing population and declining birth rates are reducing workforce growth.
2. Rising dependency ratios may increase fiscal burdens.

Real Estate Slowdown

1. Property sector weaknesses have affected investment and economic confidence.
2. Local government finances have also come under pressure.

Rising Debt Levels

1. Corporate and local government debt remain significant concerns.
2. Excessive leverage can constrain long-term growth.

5. Why the West Also Needs China

Manufacturing Hub

1. China remains a critical node in global supply chains.
2. Many industries depend on Chinese manufacturing capacity.

Strategic Minerals and Components

1. China dominates processing of several critical minerals.
2. Global industries rely on Chinese intermediate goods and components.

Cost Competitiveness

1. Large-scale production and efficient infrastructure provide cost advantages.

2. Sudden disengagement would increase costs globally.

6. Limits of Economic Decoupling

Deep Interdependence

1. Trade, investment, and technology link China and Western economies.
2. Complete separation would impose costs on both sides.

Supply Chain Risks

1. Abrupt decoupling can disrupt manufacturing networks.
2. Businesses increasingly prefer diversification rather than complete disengagement.

7. Implications for India

Opportunities

China+1 Strategy

1. Global firms are diversifying supply chains beyond China.
2. India can attract manufacturing investments.

Strategic Partnerships

1. India can strengthen economic ties with the US, EU, Japan, and other advanced economies.

Technology Development

1. Investments in semiconductors, electronics, and innovation ecosystems can enhance competitiveness.

Challenges

Competition from China

1. China's manufacturing ecosystem remains highly efficient.
2. India must improve infrastructure and ease of doing business.

Technology Gap

1. Greater investment in research and development is required.

Way Forward

Strengthen Domestic Manufacturing

1. Expand Production Linked Incentive (PLI) schemes.
2. Develop globally competitive industrial clusters.

Invest in Innovation

1. Increase spending on R&D and emerging technologies.
2. Promote collaboration between academia and industry.

Enhance Supply Chain Resilience

1. Diversify sources of critical imports.
2. Build strategic reserves of key materials.

Deepen Economic Diplomacy

1. Leverage FTAs and strategic partnerships.
2. Integrate with global value chains.

Conclusion

The global economy is not witnessing a complete replacement of the West by China, but rather a complex pattern of economic interdependence. While China's influence continues to grow, its prosperity remains closely linked to Western markets, technology, and capital. The future global order is likely to be shaped by competition as well as cooperation among major economic powers.

Source – https -//www.thehindubusinessline.com/opinion/its-china-that-needs-the-west-not-the-reverse/article71022140.ece

Question

"China's economic rise has been built on deep integration with Western markets and technology." Critically examine the extent to which China remains dependent on the West despite its emergence as a global power. (250 words)

Introduction

China's rise as the world's second-largest economy has transformed global economic and geopolitical dynamics. However, despite its growing influence, China continues to remain interconnected with Western markets, technology, and finance.

Body

Areas of dependence

1. Export-oriented growth model relies heavily on US and EU markets.
2. Dependence on advanced semiconductor technologies and equipment.
3. Significant role of foreign investment in China's industrialization.
4. Integration with global financial and trading systems.

Areas of growing self-reliance

1. Strong domestic manufacturing ecosystem.
2. Leadership in several green technologies and EV sectors.
3. Expanding domestic consumer market.
4. Dominance in rare earth processing and strategic supply chains.

Limitations of the dependence argument

1. China has diversified trade partners.
2. Technological capabilities are improving rapidly.
3. Belt and Road Initiative expands China's economic influence.

Conclusion

China remains dependent on Western demand, technology, and capital in important sectors, but it is simultaneously building indigenous capabilities and alternative networks. The future is likely to witness strategic competition alongside continued economic interdependence rather than complete separation.

Source – https -//www.thehindubusinessline.com/opinion/its-china-that-needs-the-west-not-the-reverse/article71022140.ece

4. AI Adoption in School Education - The Need for Social Architects (MT)

General Studies Paper II – Governance and Social Justice

Topic - Artificial Intelligence (AI) and Emerging Technologies

Sub-Topic – Ethical Issues in Artificial Intelligence

Introduction

Artificial Intelligence (AI) is increasingly transforming education by offering personalised learning, automated assessments, and improved access to knowledge. However, successful AI integration in classrooms depends not only on technology but also on thoughtful educational design, teacher empowerment, and human-centred implementation. The future of learning will be shaped by how effectively societies balance technology with pedagogy.

1. Growing Role of AI in Education

Personalised Learning

1. AI can adapt lessons according to individual learning needs and pace.
2. Students receive customised learning pathways based on strengths and weaknesses.
3. Helps address diverse learning requirements within classrooms.

Enhanced Learning Support

1. AI-powered tutors provide instant feedback and guidance.
2. Learning resources become more accessible and interactive.
3. Supports continuous learning beyond traditional classroom hours.

Administrative Efficiency

1. Automates routine tasks such as grading and attendance management.
2. Reduces administrative burden on teachers.
3. Allows educators to focus more on teaching and mentoring.

2. Importance of Human-Centred AI Integration

Technology Cannot Replace Teachers

1. Teachers provide emotional support, mentorship, and moral guidance.
2. Human interaction remains essential for holistic development.
3. AI should function as an assistive tool rather than a substitute for educators.

Preserving Critical Thinking

1. Education aims to develop reasoning, creativity, and problem-solving skills.
2. Excessive dependence on AI may weaken independent thinking.
3. Students must learn how to evaluate and question AI-generated outputs.

Social and Emotional Learning

1. Collaboration, empathy, communication, and ethical reasoning cannot be fully automated.
2. Human teachers play a central role in nurturing these competencies.

3. Need for "Social Architects" in Education

Designing Human-AI Interaction

1. Educational experts must determine how AI is integrated into learning processes.
2. Technology should align with pedagogical objectives rather than dictate them.

Context-Sensitive Implementation

1. AI solutions must reflect local languages, cultures, and learning environments.
2. Educational policies should account for socio-economic diversity.

Building Trust and Acceptance

1. Teachers, parents, and students need confidence in AI systems.
2. Transparent and accountable AI use is essential for widespread adoption.

4. Challenges in AI Adoption

Digital Divide

1. Unequal access to devices, internet connectivity, and digital infrastructure.
2. Risk of widening educational inequalities.

Teacher Preparedness

1. Many educators lack training in AI-enabled teaching methods.
2. Limited digital literacy may hinder effective implementation.

Data Privacy and Security

1. Student data requires strong protection mechanisms.
2. Concerns over surveillance and misuse of educational data.

Algorithmic Bias

1. AI systems may reflect biases present in training data.
2. Can affect fairness in assessments and learning recommendations.

5. Implications for India

Opportunity to Improve Learning Outcomes

1. AI can support foundational literacy and numeracy.
2. Useful for addressing teacher shortages and learning gaps.

Supporting Multilingual Education

1. AI tools can facilitate content delivery in multiple Indian languages.
2. Enhances inclusivity and accessibility.

Strengthening Educational Equity

1. Digital public infrastructure can democratise access to quality education.
2. AI can help reach remote and underserved regions.

6. Ethical Considerations

Responsible AI Use

1. AI deployment should follow principles of transparency, fairness, and accountability.
2. Human oversight must remain central to decision-making.

Avoiding Over-Reliance

1. Students should learn with AI, not become dependent on it.
2. Education should continue to emphasise creativity and independent reasoning.

Way Forward

Teacher Capacity Building

1. Introduce large-scale AI literacy and training programmes for educators.
2. Equip teachers to effectively integrate AI into classroom instruction.

Develop Inclusive AI Tools

1. Create AI solutions tailored to local contexts and languages.
2. Ensure accessibility for diverse socio-economic groups.

Strengthen Digital Infrastructure

1. Expand internet connectivity and device availability.
2. Improve digital infrastructure in rural and remote areas.

Establish Ethical Frameworks

1. Develop clear guidelines on data protection, privacy, and responsible AI use.
2. Ensure transparency in educational AI systems.

Promote Human-AI Collaboration

1. Use AI to augment teaching rather than replace educators.
2. Encourage balanced integration of technology and pedagogy.

Conclusion

AI has immense potential to transform education, but technology alone cannot improve learning outcomes. Effective implementation requires thoughtful educational design, empowered teachers, ethical

safeguards, and inclusive policies. A human-centred approach to AI adoption can help create a more equitable, effective, and future-ready education system.

Source - https -//www.livemint.com/opinion/online-views/india-teachers-social-architects-ai-adoption-classrooms-artificial-intelligence-schools-education-11779652050293.html

Question

Artificial Intelligence has the potential to transform education, but its success depends on human-centred implementation rather than technological adoption alone. Discuss. (250 Words)

Introduction

Artificial Intelligence is emerging as a transformative force in education through personalised learning, automated assessment, and improved access to knowledge. However, meaningful educational outcomes depend on integrating AI within a human-centred pedagogical framework.

Benefits of AI in Education

Improved Learning Outcomes

1. Personalised learning pathways based on student needs.
2. Instant feedback and adaptive assessments.

Enhanced Accessibility

1. Supports multilingual education.
2. Extends quality learning resources to remote areas.

Administrative Efficiency

1. Reduces teacher workload through automation of routine tasks.

Challenges

Digital Divide

1. Unequal access to digital infrastructure and devices.

Teacher Readiness

1. Limited AI literacy among educators.

Ethical Concerns

1. Data privacy risks and algorithmic bias.

Risk of Overdependence

1. Excessive reliance on AI may undermine critical thinking and creativity.

Measures Required

1. Invest in teacher training and digital literacy.
2. Develop inclusive and locally relevant AI tools.
3. Establish strong ethical and regulatory frameworks.
4. Promote AI as a complement rather than a replacement for teachers.

Conclusion

The future of education lies in effective collaboration between human educators and intelligent technologies. A balanced, inclusive, and ethical approach to AI adoption can enhance learning outcomes while preserving the essential human dimensions of education.

Source - https -//www.livemint.com/opinion/online-views/india-teachers-social-architects-ai-adoption-classrooms-artificial-intelligence-schools-education-11779652050293.html