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GS Paper II: Current Affairs

1. AI Impact Summit 2026 and the New Delhi Declaration on AI

a. AI Impact Summit 2026: Context and Significance

India hosted the AI Impact Summit 2026 in New Delhi, culminating in the adoption of the New Delhi Declaration on AI Impact, endorsed by 91 countries and international organisations. The summit reflects India's attempt to shape the evolving global AI governance architecture.

Unlike traditional treaties, AI governance today is emerging through "rule-shaping platforms"—summits and coalitions that build shared principles, voluntary standards, and cooperative networks without creating binding global regulators.

Importantly, the 2026 summit marked a shift from a narrow focus on frontier AI safety to a broader developmental perspective—emphasising access to compute, local languages, skilling, and infrastructure gaps, especially for the Global South.

Thus, AI is now viewed not merely as a technological frontier issue but as a developmental, economic, and geopolitical issue simultaneously.

AI Impact Summit 2026 – Emerging Global Governance Architecture

b. The New Delhi Declaration: Vision and Structure

The declaration frames AI as a global-purpose technology whose benefits must not remain concentrated in a few countries or corporations. It is voluntary and non-binding—this reduces sovereignty concerns and enables wider participation, though it limits enforceability.

Its central strength lies in integrating four objectives that often compete: innovation, safety, growth, and inclusion.

c. The Seven Pillars of Action

Democratising AI Resources

- Improving affordability and access to foundational resources such as compute power and datasets.
- Reducing technological concentration in a few advanced economies.

Economic Growth and Social Good

- Enhancing productivity and innovation.
- Promoting AI use in public-interest sectors such as health, agriculture, and education.

Secure and Trusted AI

- Developing tools, benchmarks, and best practices.
- Reducing harm, bias, and misuse while improving accountability.

AI for Science

- Accelerating scientific discovery.
- Building cross-border research collaboration.

Access for Social Empowerment

- Inclusive adoption in development sectors.
- Bridging digital and language divides.

Human Capital Development

- Skilling and reskilling initiatives.
- Workforce readiness for AI-driven economic transitions.

Resilient, Efficient and Innovative AI Systems

- Infrastructure resilience.
- Energy efficiency and sustainable compute systems.

Together, these pillars attempt to balance competitiveness with equity and innovation with inclusion.

d. Institutional Mechanisms Announced

Beyond principles, the summit proposed institutional frameworks intended to outlast the event.

Global AI Impact Commons

- A platform to scale and replicate AI use cases globally.
- Facilitates cross-country learning and reduces the implementation gap between early and late adopters.

Trusted AI Commons

- Repository of tools, benchmarks, and best practices.
- Supports secure and trustworthy AI development.

International Network of AI for Science Institutions

- Promotes collaborative AI-for-science research.
- Encourages shared scientific infrastructure and talent exchange.

These mechanisms represent soft governance—voluntary cooperation shaping norms without formal treaty obligations.

e. India's Domestic Signalling: Sovereign AI Push

The summit also served as a platform for India's domestic strategy of building "sovereign AI" capabilities.

Indigenous Model Development

- Promotion of India-based large language models.
- Strengthening local-language AI ecosystems.

Compute and Infrastructure Expansion

- Large-scale data-centre investments.
- Deployment of advanced GPUs to create high-capacity AI clusters.

The broader message is that AI competitiveness now depends on industrial capacity—power supply, chips, data centres, and financing—not merely software talent.

f. Concerns and Limitations

Voluntary Nature

- Broad endorsement does not guarantee compliance.
- Absence of enforcement mechanisms may limit impact.

Geopolitical Rivalries

- Competing standards may emerge.
- Strategic competition can hinder cooperation.

Infrastructure Concentration

- Data centres and compute may centralise power in a few firms or regions.
- Risk of widening technological inequalities.

Data Governance Risks

- Surveillance concerns.
- Bias, misuse, and privacy violations.

Domestic Capacity Constraints

- Sustained compute access required.
- Need for deep research ecosystems and talent pipelines.

These concerns highlight that declarations must be matched by institutional depth and sustained investment.

g. Way Forward for India

Strengthen Compute Access

- Expand affordable high-performance computing.
- Ensure energy efficiency and grid readiness.

Operationalise Governance

- Develop clear rules on audits, transparency, and accountability.
- Define high-risk AI use categories.

Advance Language Inclusion

- Build datasets and evaluation benchmarks for Indian and Global South languages.
- Ensure safe and inclusive deployment.

Invest in Human Capital

- Large-scale skilling and reskilling initiatives.
- Industry-aligned certification pathways.

Lead Global Coalitions

- Actively utilise Impact Commons and Trusted Commons platforms.
- Move from declaratory leadership to practical cooperation.

Conclusion

The AI Impact Summit 2026 positions India as an emerging norm-setter in the AI era. However, the real test lies in implementation—translating voluntary declarations into durable institutions, robust infrastructure, and inclusive technological transformation.

GS Paper II: International Relations

2. Pax Silica and India's Emerging Technology Strategy

a. Pax Silica: Context and Contemporary Relevance

India signed the Pax Silica Declaration on the sidelines of the AI Impact Summit in February 2026. By doing so, it joined a United States–led coalition designed to build secure and resilient supply chains in artificial intelligence (AI), semiconductors, and critical minerals.

This development must be understood in the context of a larger global shift. Earlier phases of globalisation prioritised cost efficiency—countries depended on whoever could produce goods most cheaply. Today, countries are prioritising security-driven supply chains, where resilience, trust, and strategic alignment matter more than pure efficiency.

Technology is no longer seen merely as an economic commodity. It is now treated as a strategic asset linked to national security, economic sovereignty, and geopolitical influence. Pax Silica reflects this transformation.

b. What is Pax Silica?

Pax Silica is a strategic technology partnership among "trusted nations." Its objective is to reduce coercive dependencies in high-technology supply chains and create reliable industrial alliances.

In simple terms, it aims to ensure that critical technologies—especially those dominated by China—are sourced from politically trusted and stable partners.

The initiative focuses on five interconnected layers of the technology ecosystem.

i. Critical Minerals

- Includes lithium and rare earth elements.
- Essential for electronics, batteries, defence equipment, and advanced weapon systems.

These minerals are the raw materials of the digital and green economy.

ii. Semiconductor Manufacturing

- Covers chip fabrication plants (fabs), advanced lithography, and packaging.
- Includes both design and manufacturing capabilities.

Semiconductors are the "brains" of modern electronics, powering everything from smartphones to missiles.

iii. Artificial Intelligence Stack

- Foundational AI models.
- High-performance computing and graphic processing units (GPUs).

AI systems depend heavily on advanced chips and compute infrastructure.

iv. Information and Communication Infrastructure

- Fibre-optic cables and telecom networks.
- Secure data centres.

Digital infrastructure is essential for secure data flows and cloud services.

v. Logistics and Transshipment

- Trusted ports and shipping routes.
- Secure movement of sensitive components.

Together, these layers form the backbone of the modern digital economy. Control over them translates into strategic leverage.

c. Why India Was Initially Excluded

India was not part of the original core group when Pax Silica was launched.

Several structural factors explain this.

Limited Advanced Fabrication Capacity

- India has strong software and chip design talent.
- However, it lacks high-end semiconductor fabrication and advanced lithography capability.

Chip manufacturing requires massive capital investment and technological sophistication.

Modest Critical Mineral Position

- India has limited reserves compared to countries like Australia.
- Processing capacity remains underdeveloped.

Absence of Monopoly-Edge Technologies

- The Netherlands dominates advanced lithography machines.
- East Asian economies lead in advanced chip fabrication.

India did not initially possess comparable niche dominance.

However, strategic calculations evolved.

India's large domestic market, engineering talent, Indo-Pacific geopolitical importance, and growing partnership with the United States eventually made its inclusion strategically valuable.

This inclusion now has significant implications for India's development trajectory.

d. Why Pax Silica Matters for India

India's participation is not symbolic—it intersects directly with its economic and security ambitions.

i. Securing AI Ambitions

Artificial intelligence requires uninterrupted access to advanced chips, GPUs, rare earth materials, and large data centres.

India's IndiaAI Mission and indigenous language model initiatives depend on stable hardware supply chains. Pax Silica enhances reliability of these inputs.

Without secure hardware access, AI sovereignty remains incomplete.

ii. Reducing Dependence on China

China dominates rare earth processing and plays a crucial role in semiconductor supply chains.

Any export restrictions or geopolitical tensions can create vulnerabilities. Pax Silica allows India to diversify sourcing and align with trusted suppliers.

iii. Boosting the India Semiconductor Mission

India has launched production-linked incentive schemes to attract semiconductor manufacturers.

Being part of a trusted technology bloc:

- Enhances investor confidence.
- Encourages joint ventures and technology transfer.
- Integrates India into higher-value supply chain segments.

iv. Strengthening India–United States Strategic Relations

The United States promotes "friend-shoring," meaning relocating supply chains to trusted partners.

India's participation deepens strategic cooperation in the Indo-Pacific and reinforces its geopolitical significance.

v. Advancing the Critical Minerals Strategy

India has identified key domestic minerals and entered overseas mining partnerships.

Pax Silica can:

- Facilitate secure supply agreements.
- Promote mineral processing collaboration.
- Help India move from extraction to value-added processing.

Thus, economic resilience and national security are becoming closely interconnected.

e. Concerns and Risks

Despite its advantages, Pax Silica involves certain risks.

Risk of Over-Alignment

- Excessive tilt toward a US-led bloc may complicate India's multi-alignment strategy.

Possible Chinese Response

- China may impose trade or mineral export restrictions.

Domestic Structural Constraints

- High capital requirements for chip fabrication.
- Limited R&D ecosystem compared to advanced economies.

Implementation Challenges

- Frameworks depend on political will.
- Commercial viability determines real outcomes.

Membership alone does not guarantee technological transformation.

f. Comparative Global Approaches

Understanding global models clarifies India's positioning.

China

- State-controlled, vertically integrated.
- Seeks self-sufficiency across supply chains.

United States

- Strategic decoupling from China.
- Alliance-based technology partnerships.

European Union

- Strategic autonomy.
- Balances regulation and industrial policy.

India

- Strategic multi-alignment.
- Integration into trusted supply networks while preserving flexibility.

India's model attempts balance rather than rigid bloc alignment.

g. Way Forward for India

Diplomatic inclusion must translate into domestic capability.

Accelerate Semiconductor Fabrication

- Fast-track fabrication projects.
- Develop advanced packaging and chip design clusters.

Expand Mineral Processing

- Move beyond extraction.
- Build refining and value-addition facilities.

Strengthen AI Infrastructure

- Invest in GPUs and high-performance computing.
- Support domestic AI research institutions.

Preserve Strategic Autonomy

- Maintain diversified partnerships.
- Avoid rigid alignment in great-power rivalry.

Conclusion

Pax Silica represents a new phase of global economic statecraft, where technology, security, and geopolitics are deeply intertwined.

For India, membership is not merely diplomatic symbolism. It offers an opportunity to transition from a services-dominated technology economy to an integrated participant in secure semiconductor and AI supply chains.

However, the decisive factor will be domestic capacity-building. If India strengthens fabrication infrastructure, mineral processing ecosystems, and research depth, Pax Silica can become a catalyst for technological sovereignty rather than just a strategic alignment.

In the emerging era of security-driven globalisation, resilience—not efficiency alone—will define national power.

GS Paper III: Environment

3. NGT Clearance to the Great Nicobar Project

a. Introduction: Why This Case Matters

The National Green Tribunal (NGT) has upheld the environmental clearance granted to the Holistic Development of Great Nicobar Island project. The decision attempts to balance ecological safeguards with strategic and national security considerations.

At its core, the debate is not simply about development versus environment, but about how to manage large-scale infrastructure in ecologically fragile island systems.

b. Nature and Scale of the Project

The project is being implemented by the Andaman and Nicobar Islands Integrated Development Corporation. It is envisioned as a long-term transformation of Great Nicobar Island.

Key Components

- International Container Transshipment Terminal
- International airport
- Gas and solar-based power plant
- Township and associated infrastructure

The project involves diversion of approximately 130 square kilometres of forest land, which is a substantial portion of the island.

Importantly, the development vision extends up to 2052, meaning it is not a single facility but a permanent infrastructural footprint.

Given the ecological sensitivity of island ecosystems, the scale of intervention is central to the controversy.

c. Why Did the NGT Uphold the Clearance?

The tribunal's reasoning is based primarily on procedural compliance under environmental law.

Procedural Compliance

- Statutory environmental procedures were reportedly followed.
- Required safeguards were incorporated in the clearance process.

The NGT emphasised that courts should not adopt an excessively technical reading of procedural requirements if broader compliance exists.

Environmental Assessments

- Expert reports suggested no major coral reef formation directly at the port site.
- Coral colonies, where present, could be translocated as mitigation.

Coastal Regulation

- The project layout was found not to violate prohibited Coastal Regulation Zone (CRZ) categories applicable to island territories.
- Baseline environmental data was accepted as legally adequate.

Tribal Protections

- Protections under the Forest Rights Act were acknowledged.
- The design claims to avoid displacement of tribal communities.

Overall, the NGT showed judicial deference to executive decision-making where procedural compliance appeared satisfied.

d. Why Does the Government Consider It Strategically Vital?

i. Geographic Significance

Great Nicobar lies close to the Malacca Strait, one of the world's busiest sea lanes.

- Strengthens maritime domain awareness.
- Enhances monitoring of vital trade routes.

Control and presence in this region are crucial for Indo-Pacific geopolitics.

ii. Maritime and Defence Posture

- Port and airport together enable rapid deployment.
- Improves logistics and sustained military presence.

In the context of increasing regional competition, such dual-use infrastructure strengthens deterrence.

iii. Logistics Sovereignty

India currently depends on foreign ports for significant transshipment operations.

- A domestic transshipment hub reduces logistics costs.
- Captures economic value within India.

- Reduces vulnerability to external disruptions.

Thus, the project is framed as both economic infrastructure and strategic security asset.

However, this strategic logic must be weighed against ecological sensitivity.

e. Ecological Significance of Great Nicobar

Great Nicobar is part of a globally significant biodiversity region.

It contains:

- Tropical rainforests
- Mangroves
- Coral reefs
- Nesting beaches of the leatherback turtle

Island ecosystems are fragile because:

- Land area is limited.
- Species are often endemic — found nowhere else.
- Ecological disturbance spreads quickly due to lack of buffering zones.

Large-scale forest diversion can cause habitat fragmentation. Port dredging increases sedimentation, affecting marine life. Settlement expansion may introduce invasive species.

In island systems, ecological damage often has cascading effects.

f. Major Concerns Raised by Critics

Quality of Environmental Impact Assessment (EIA)

- Critics argue that single-season data is inadequate.
- Multi-season studies better capture migratory cycles and monsoon variations.

Seismic and Disaster Risks

- The island lies in a seismically active zone.
- The 2004 tsunami severely affected the region.

Infrastructure must therefore integrate advanced disaster-resilience planning.

Coastal and Marine Impacts

- Possible effects on sand dunes and mangroves.
- Dredging may alter coastal geomorphology permanently.

Island coastlines are highly sensitive to alteration.

Tribal Rights

Great Nicobar is home to vulnerable tribal groups such as the Shompen.

Concerns relate to:

- Meaningful consultation.
- Cultural survival.
- Long-term socio-economic impact.

Displacement is not the only issue; cultural disruption is equally significant.

Cumulative Impact

The project includes port, airport, power plant, and township.

Assessing components separately may underestimate the total ecological burden.

Cumulative impact assessment is therefore crucial in mega-projects.

g. Coral Translocation: A Scientific View

Coral transplantation is technically feasible and has been attempted in India.

Potential Benefits

- Can reduce direct reef loss.
- Survival rates can be reasonable under favourable conditions.

Limitations

- Coral reefs are complex ecosystems, not just coral fragments.
- Sedimentation, warming seas, and pollution reduce survival rates.

Translocation is a mitigation measure, not a complete ecological replacement.

h. Way Forward

A sustainable approach requires integrating development and conservation.

Strengthen Environmental Assessment

- Multi-season baseline data.
- Cumulative impact frameworks.

Disaster-Resilient Planning

- Advanced seismic modelling.
- Tsunami-resilient infrastructure design.

Strict Coastal Protection

- No-go zones for mangroves and sand dunes.
- Adherence to precautionary principle.

Protect Tribal Rights

- Transparent implementation of Forest Rights Act.
- Culturally sensitive consultation processes.

Ecological Monitoring

- Long-term monitoring mechanisms.
- Publicly accessible environmental data for accountability.

Development in fragile regions must follow the hierarchy of avoid → minimise → restore → offset.

Conclusion

The Great Nicobar project represents a defining test of India's development model in ecologically fragile yet strategically vital regions.

The NGT's clearance underscores the state's emphasis on national security and infrastructure expansion. At the same time, it highlights the need for scientific rigour, tribal protection, and precautionary environmental governance.

The issue is not about choosing between environment and security. The real analytical task is to demonstrate how both can be integrated through careful planning, institutional oversight, and long-term ecological responsibility.

Reader's Note — About This Current Affairs Compilation

Dear Aspirant,

This document is part of the PrepAlpine Current Affairs Series — designed to bring clarity, structure, and precision to your daily UPSC learning.

While every effort has been made to balance depth with brevity, please keep the following in mind:

1. Orientation & Purpose

This compilation is curated primarily from the UPSC Mains perspective — with emphasis on conceptual clarity, analytical depth, and interlinkages across GS papers.

However, the PrepAlpine team is simultaneously developing a dedicated Prelims-focused Current Affairs Series, designed for:

- factual coverage
- data recall
- Prelims-style MCQs
- objective pattern analysis

This Prelims Edition will be released separately as a standalone publication.

2. Content Length

Some sections may feel shorter or longer depending on topic relevance and news density.
To fit your personal preference, you may freely resize or summarize sections using any LLM tool (ChatGPT, Gemini, Claude, etc.) at your convenience.

3. Format Flexibility

The formatting combines:

- paragraphs
- lists
- tables
- visual cues

—all optimised for retention.

If you prefer a specific style (lists → paras, paras → tables, etc.), feel free to convert using any free LLM.

4. Monthly Current Affairs Release

The complete Monthly Current Affairs Module will be released soon, optimized to a compact 100–150 pages — comprehensive yet concise, exam-ready, and revision-efficient.