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## Preparation Meets Precision

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# DAILY CURRENT AFFAIRS DATED 25.01.2026

## GS Paper II: Current Affairs

## 1. Malaria Elimination in India: Targets, Strategy and Challenges

### a. Malaria: Basic Understanding

Malaria is a vector-borne infectious disease caused by *Plasmodium* parasites and transmitted to humans through the bite of an infected female *Anopheles* mosquito. After entering the human body, the parasite initially multiplies in the liver and subsequently infects red blood cells, leading to fever, chills, anaemia, and in severe cases, organ failure and death.

India continues to face a malaria burden due to its tropical climate, large at-risk population, and the presence of parasite species that complicate elimination efforts. Two species are particularly important:

**Plasmodium falciparum**

- Associated with severe disease and higher mortality
- Responsible for most malaria-related deaths

**Plasmodium vivax**

- Causes recurrent infections due to dormant liver stages (*hypnozoites*)
- Makes elimination difficult even when transmission appears controlled
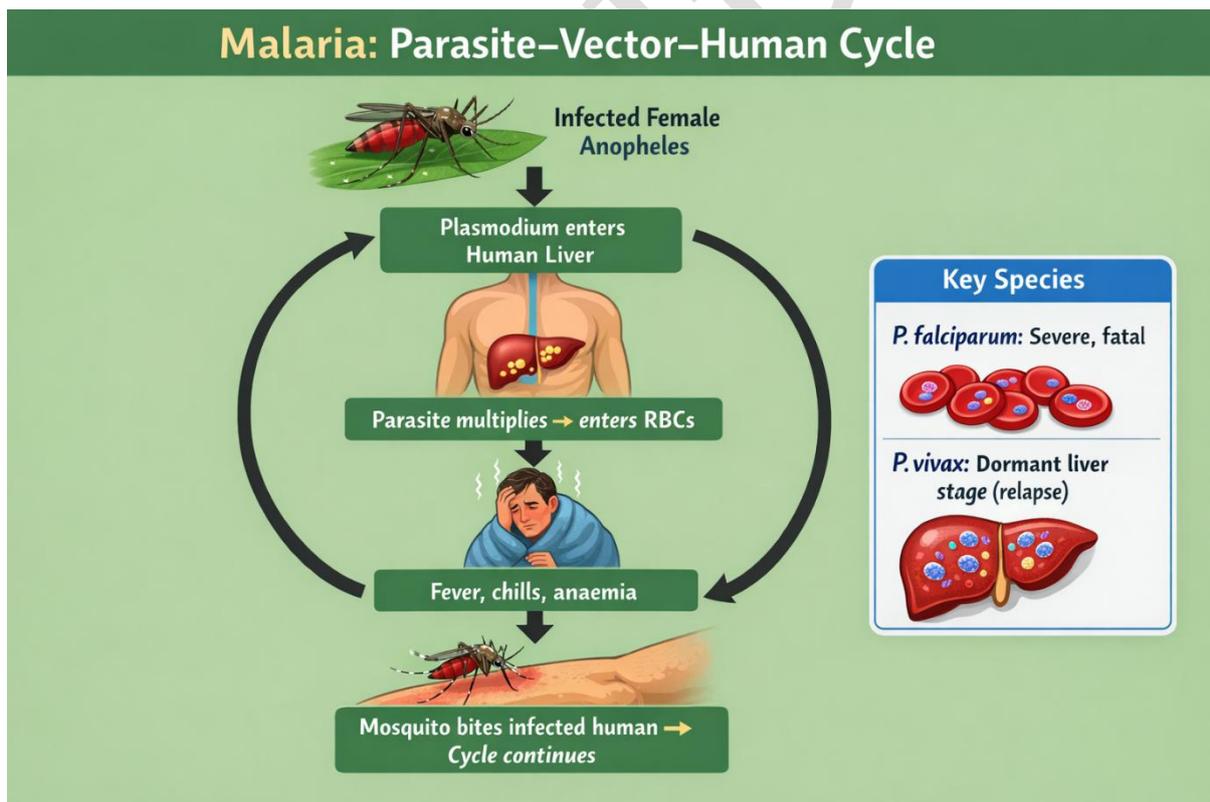


### b. Meaning of Malaria Elimination

The World Health Organization defines malaria elimination as the interruption of local transmission of all malaria parasites nationwide for at least three consecutive years, supported by a surveillance system capable of detecting and preventing re-establishment.

Elimination does not mean the disappearance of mosquitoes. Instead, it implies:

- Zero indigenous transmission
- Only imported cases, which are promptly detected and contained

This distinction is crucial, as it explains why elimination demands continuous surveillance and response, even after case numbers fall dramatically.

### c. India's Malaria Elimination Goal

India has adopted a time-bound elimination approach. The stated goals are:

- Zero indigenous malaria cases by 2027 (intermediate milestone)
- Nationwide malaria elimination by 2030

This strategy allows time for consolidation of gains and prevention of re-establishment. The commitment aligns India with global elimination goals and reflects a shift from disease control to disease elimination.

### d. National Framework for Malaria Elimination (2016–2030)

The National Framework for Malaria Elimination (NFME) provides the strategic vision for achieving elimination by 2030. It adopts a phased and stratified approach, recognising the uneven distribution of malaria across India.

Key features include:

- District-level stratification based on Annual Parasite Incidence (API)
- Targeted interventions rather than a uniform national strategy
- Emphasis on prevention of re-introduction in eliminated areas

Core pillars of the framework are:

- Early diagnosis and complete treatment
- Surveillance as a core intervention
- Integrated vector management
- Sustained vigilance in low- and zero-transmission areas

### e. National Strategic Plan for Malaria Elimination (2023–2027)

The National Strategic Plan (NSP) translates the NFME's objectives into district- and community-level action, particularly during the critical pre-elimination phase.

Its key priorities are:

- Universal access to reliable diagnostics
- Prompt, complete treatment of every confirmed case
- Case-based surveillance with rapid response
- Monitoring of drug and insecticide resistance
- Strengthening routine health systems rather than campaign-based approaches

The plan ensures that elimination efforts remain sustainable and resilient.

### f. Measuring Transmission: Annual Parasite Incidence

Annual Parasite Incidence (API) is defined as the number of confirmed malaria cases per 1,000 population at risk per year. It is the primary metric for planning and evaluation.

Based on API, districts are classified into:

- High-transmission districts
- Low-transmission districts
- Elimination-phase districts (API < 1)
- Prevention-of-re-establishment districts (zero indigenous cases)

This stratification enables efficient allocation of resources.

### g. Progress Achieved by India

India has achieved significant reductions in malaria burden:

- Nearly 80% decline in cases between 2015 and 2023
- Continued decline reported through 2024
- Exit from WHO's High Burden to High Impact (HBHI) group

At the subnational level:

- Over 160 districts across 23 States/UTs report zero indigenous cases
- Most States and UTs now record API below one
- High transmission is confined to limited, ecologically vulnerable districts

### h. Urban Malaria: A Distinct Challenge

Urban malaria differs fundamentally from rural transmission due to:

- Rapid urbanisation
- Construction sites and poor drainage
- Water storage practices
- Large migrant populations

Urban malaria often originates from clean water collections in buildings and construction zones rather than stagnant surface water. Therefore, elimination requires:

- Strong municipal governance
- Urban planning interventions
- Community participation

### i. Operational Strategy: Testing, Treating and Tracking

Malaria elimination is driven by the testing–treating–tracking approach:

**Testing**

- Universal access to RDTs and microscopy
- Active and passive case detection

**Treating**

- Species-specific treatment protocols
- Complete 14-day radical cure for *P. vivax*

**Tracking**

- Case-based surveillance
- Monitoring migrant populations
- Rapid containment of secondary transmission

Surveillance thus becomes an active intervention, not merely data collection.

### j. Key Challenges in the Final Phase

Major challenges include:

**Migration and imported cases**

- Risk of re-introduction into eliminated areas

**Drug resistance**

- Global concerns over artemisinin efficacy
- Need for continuous resistance monitoring

**Surveillance gaps**

- Underreporting from private sector
- Weak urban surveillance
- Delays in data flow

These factors can obscure the true transmission picture.

### k. Global Assessment and External Validation

The World Malaria Report 2025 recognises India's major contribution to global malaria reduction. However, it also highlights:

- Persistent *Plasmodium vivax* transmission
- Need for sharper subnational focus
- Importance of cross-border coordination

The report stresses that surveillance quality, rather than case numbers alone, will determine final success.

### l. Can India Eliminate Malaria by 2030?

India's malaria elimination goal is technically and operationally achievable due to:

- Strong policy frameworks
- Political commitment
- Improved diagnostics and treatment

However, success depends on:

- Sustained focus during the final phase
- Effective urban malaria control
- Migration management
- Robust surveillance systems

### Conclusion

India has decisively transitioned from malaria control to the final stage of elimination. The remaining challenge lies not in ambition but in execution and vigilance. Precision targeting of high-risk areas, prevention of re-introduction, and sustained surveillance will be decisive. If momentum is maintained, malaria elimination by 2030 can become one of India's most significant public health achievements.

## GS Paper II: International Relations

## 2. Pax Silica and the Emerging 'Silicon Curtain'

### a. The Changing Foundations of Global Power

In the twentieth century, global power was largely determined by control over oil, steel, and physical manufacturing capacity. Industrial production and access to energy resources shaped geopolitical influence, military strength, and economic dominance.

In the twenty-first century, this foundation has shifted decisively. Power now increasingly flows from control over semiconductors, computing capacity, artificial intelligence, and critical minerals. These technologies underpin almost every strategic sector, including defence systems, space technologies, digital governance, financial infrastructure, and advanced manufacturing.

Among these, semiconductors have emerged as the *invisible infrastructure of modern power*. They are embedded in AI systems, precision weapons, telecommunications networks, automobiles, and consumer electronics. Consequently, semiconductor supply chains are no longer merely commercial in nature; they have become a central concern of national security and strategic autonomy.



Pax Silica: A Technology-Anchored Global Order
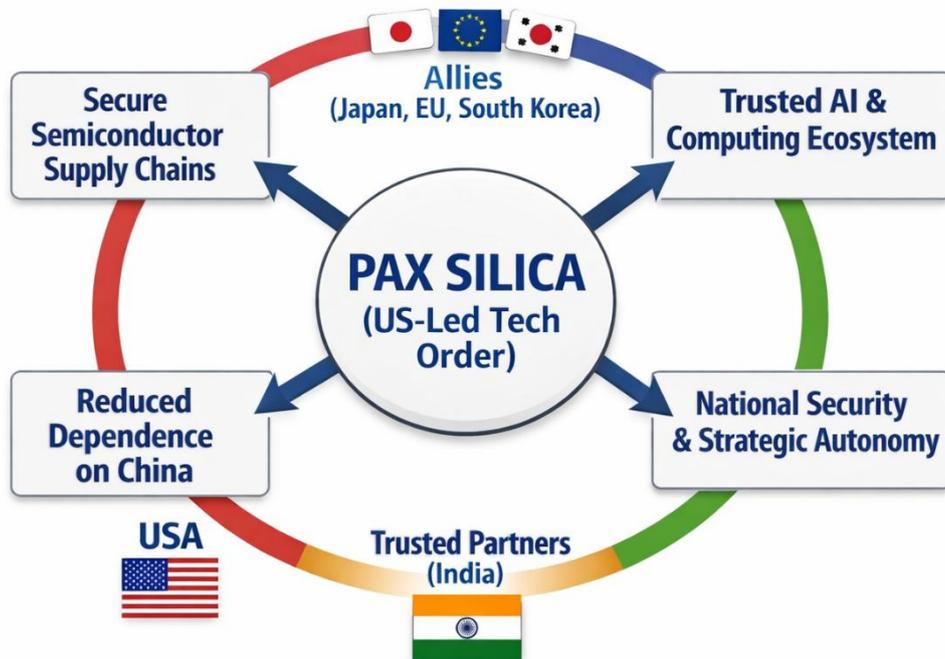
### b. Understanding Pax Silica

Pax Silica refers to a United States–led attempt to reorganise the global semiconductor and artificial intelligence ecosystem around a group of politically aligned and technologically trusted countries.

The term combines *Pax* (order or stability) with *Silica* (silicon, the base material of computer chips). Just as earlier global orders rested on control over land, sea, or energy, Pax Silica seeks to anchor global stability in technological leadership and secure supply chains.

At its core, Pax Silica aims to:

- Reduce strategic dependence on China
- Secure access to advanced chips for defence and governance
- Build resilience in critical technology supply chains

### c. The Idea of the 'Silicon Curtain'

The "Silicon Curtain" draws an analogy with the Cold War's Iron Curtain. It denotes a growing technological and economic separation between:

- A U.S.-led technology and innovation bloc
- A China-centred manufacturing and technology ecosystem

Unlike the Cold War, this divide is not primarily ideological. It is techno-strategic in nature. Control over technology standards, supply chains, data governance, and innovation ecosystems increasingly defines geopolitical alignment.

In this emerging order, access to advanced chips and computing power can shape national power as decisively as military alliances once did.

### d. How the Global Semiconductor System Earlier Functioned

For decades, the semiconductor industry operated through deeply globalised and interdependent supply chains:

- Chip design dominated by the United States
- Manufacturing equipment supplied largely by Europe
- Fabrication concentrated in East Asia
- Assembly and testing often located in China
- Raw materials sourced globally

This system was driven by efficiency, cost minimisation, speed, and competitive advantage. Geopolitical considerations played only a marginal role, and markets were assumed to be the primary regulators of outcomes.

### e. Why This Model Is Now Being Reconsidered

Several developments exposed the fragility of hyper-globalised semiconductor supply chains:

- China's rapid progress in advanced manufacturing
- COVID-19–induced supply chain disruptions
- The strategic importance of AI for defence, surveillance, and governance

Together, these factors triggered a fundamental shift. The United States and its partners moved away from open and efficiency-driven supply chains towards secure and trusted supply chains.

Semiconductors came to be viewed not just as commercial goods, but as strategic assets essential for national security.

### f. What Pax Silica Seeks to Achieve

Pax Silica aims to create a coordinated, secure, and resilient technology ecosystem. Its key elements include:

- Alignment of semiconductor design, manufacturing, and logistics
- Secure sourcing of critical minerals
- Collaboration in artificial intelligence and advanced computing
- Integration with U.S. technology security regulations

Importantly, Pax Silica does not seek total technological decoupling from China. Instead, it focuses on strategic rebalancing, insulating critical technologies from coercion while allowing selective economic engagement.

### g. How Pax Silica Differs from Earlier Globalisation

Pax Silica represents a structural break from past economic thinking:

- Efficiency is replaced by security and trust as the guiding principle
- Supply chains are shaped by political alignment
- Geopolitics becomes central to technology markets

China, once deeply integrated into global semiconductor networks, is now being strategically constrained, especially in access to advanced chipmaking tools and high-end AI hardware.

### h. India's Strategic Significance in the New Order

India holds a distinctive position in the emerging technology landscape due to:

- A large pool of engineering and AI talent
- Strength in software and chip design
- A vast domestic market
- A data-rich democratic ecosystem

India is particularly well suited for:

- Labour-intensive chip design
- AI development
- Integrated design-to-delivery technology pipelines

Even without large-scale advanced fabrication, these strengths make India a natural partner in trusted technology ecosystems.

### i. The Indian Paradox: Alignment without Entrapment

India faces a delicate balancing challenge:

- Deeper cooperation with U.S.-led technology frameworks offers access to capital, markets, and advanced ecosystems
- Simultaneously, India seeks to preserve economic engagement with China and strategic autonomy

This approach reflects pragmatic foreign policy, not contradiction. India aims to gain from emerging coalitions without being locked into rigid bloc politics.

### j. Why India Matters for Pax Silica

India's participation is vital for the success of Pax Silica:

- Without India, the coalition risks becoming a small, high-cost elite bloc
- With India, it gains scale, demographic depth, and long-term sustainability

India also provides legitimacy beyond traditional Western alliances, transforming Pax Silica into a broader and more inclusive global framework.

### k. Risks and Limitations of the Silicon Curtain

The Silicon Curtain poses global challenges:

- Fragmentation of innovation ecosystems
- Higher technology costs
- Slower diffusion of innovation

For India, specific risks include:

- Pressure to align too rigidly
- Economic retaliation
- New forms of technological dependence

Managing these risks requires calibrated diplomacy and strategic foresight.


### l. Implications for the Global Order

Pax Silica prompts a fundamental question:
Can innovation thrive within strategic fortresses, or does it require openness and cross-border collaboration?

While security concerns are real, excessive fragmentation may undermine the very foundations of technological progress, which historically depended on exchange, competition, and shared knowledge.

### Conclusion

Pax Silica marks a new phase of techno-geopolitics, where semiconductors, data, and artificial intelligence shape global power as decisively as territory once did. For India, the challenge lies in leveraging its talent advantage, securing strategic partnerships, and retaining economic flexibility without becoming trapped in rigid technology blocs.

The future global order will ultimately hinge on whether the Silicon Curtain evolves into a bridge of trust or hardens into a wall of division.

# 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.