Pax Silica – Importance for India

Mains: *GS-II – International Relations & GS-III – Economy*

Why in News?

Despite the North-South divide, semiconductors and AI are shifting global power, making Rare Earth Elements (REEs) supply chains crucial, in response, the U.S.-led Pax Silica Summit (2025) seeks to secure these technologies and build resilient systems for peace and prosperity.

What is Pax Silica Summit?

- **Pax Silica Summit** – It was ***convened by the U.S.***, held in Washington D.C on December 12, 2025.
- **Purpose –** To secure the supply chain of critical minerals and build advanced manufacturing and logistics capabilities critical to new frontier technologies such as semiconductors and AI.
- **Meaning –** 'Pax' in Latin means 'peace' and 'Silica' is a key compound used in chip manufacturing — taken together they suggest that the supply chain for new technologies should promote peace and prosperity.
- **Pax Silica Declaration** – This initiative seeks to reduce coercive dependencies, secure global tech/AI supply chains, and build trusted digital infrastructure.
- **Major participants** – Its membership is evolving – with U.S., Japan, Australia, The Netherlands, South Korea, Singapore, Israel, United Kingdom, Qatar and the United Arab Emirates (India was not invited to the inaugural meeting).
- **Other participants as observers** – Canada, the European Union, the Organisation for Economic Co-operation and Development (OECD), and Taiwan.

India is not a member *of Pax Silica initiative.*

To know more about Rare earth elements (REEs), click here

How has China's dominance in REEs & its influence in global supply chains and geopolitics?

- **China's Dominance in REEs –** There are concerns that China has emerged as a principal supplier of REEs and acquired the capability to shape the global flow of these resources.
- **Lack of Inclusivity** – Beijing has also not demonstrated a willingness to create REE

supply chains that are sensitive to the development needs of emerging economies such as India.

- **Resource Weaponisation –** In recent years, China has restricted the flow of critical resources to achieve its desired political and economic ends.
    - **Example (2025)** – In response to U.S. tariffs, China suspended REE exports to U.S. & others.

Why is it matters for India?

- **Supply Chain Vulnerability** – India experienced disruptions to the import of rare-earth magnets from China, negatively impacting the country's automobile and electronics industries.
- **China's condition –** India regained access to rare-earth magnets only after its companies accepted China's strict licensing rules, requiring assurances that imports would not be used for defence or dual-use applications.
- **Lessons from the Pandemic** – The pandemic demonstrated the limitations of supply chains that are heavily reliant on a single country.
- **India's existing initiatives** – India already participates in the Supply Chain Resilience Initiative (2021) and the Quad Critical Minerals Initiative (2025).

What are the major strengths India would bring to Pax Silica?

- **Strong Collaboration History** – Indian and American firms have a history of healthy collaboration in the technology domain and healthy track record of joint ventures and R&D collaborations.

- **Digital Infrastructure & AI Market** – India has a strong digital infrastructure, and its AI market is growing rapidly, with many enterprises adopting AI solutions.
- **Policy Initiatives –** India's AI and semiconductor ecosystems are well behind those of Pax Silica countries however, it has launched AI and Semiconductor Missions with substantial financial allocations in recent years.
- **Private & Foreign Investments** – Indian private firms like the Tatas and U.S. chip manufacturers such as Micron have invested in semiconductors, while India is also witnessing a steady rise in newly funded AI startups.
- **Collaboration** – India is collaborating with Japan, Singapore, and Israel to strengthen supply chains and set up fabrication plants.
- **Human Capital Advantage** – India is sending a large number of educated young people to pursue advanced degrees in the U.S.
- If U.S. visa rules remain, many engineers will return to India, providing India with a large, highly trained human resource pool to power AI and semiconductor industries.

What are the challenges India must navigate?

- **Status as a Developing Country** – The member countries of the Pax Silica are U.S. allies and high-income countries.
- If India decides to join the Pax Silica, it will be the first developing country to do so, creates an expectation gap with high-income member states.
- **Strategic Autonomy** – India will also be the *first non-ally (but a strategic partner) of*

the U.S. to join this initiative, India must ensure that its strategic autonomy is not diluted through its participation in the Pax Silica.

- **Nascent Ecosystems** – As a developing country, India has relatively young semiconductor and AI ecosystems compared with those of other Pax Silica countries, with the risk of being overshadowed by advanced economies.
- **Policy Divergence –** India will seek to protect its semiconductor and AI ecosystems by granting domestic firms preferential treatment through subsidies, government procurement, and calibrated import regulations.
- There will be a potential friction with U.S. trade preferences and unclear responses from other Pax Silica members.

What lies ahead?

- **China's Current Position** – At the moment, China is a leading player in the REE supply chain and has already instituted export control regulations to preserve its dominant position.
- **Pax Silica's Potential Role –** Over time, two REE supply chains will dominate the global economy, namely that of China's and Pax Silica's.
- **India's Likely Orientation** – China's dominance and restrictive REE policies may push India towards Pax Silica, but strained U.S. ties mean India will tread cautiously, seeking clarity before deeper engagement.

References

The Hindu | The importance of Pax Silica for India

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