



## Message from Vice Chairperson

Research is the cornerstone of transformative policy-making. At NITI Aayog, we promote a culture of evidence-based analysis and innovation to address India's complex socio-economic challenges. Rigorous research enables us to identify opportunities, evaluate solutions, and drive sustainable development. We encourage collaboration between policymakers, academia, and industry to create actionable insights that can improve lives. Let us remain committed to cultivating data-driven strategies, promoting interdisciplinary studies, and harnessing emerging technologies to shape India's future. Together, we can turn aspirations into achievements through the power of informed decision-making.



## From the desk of CEO

NITI Aayog was established in 2015 to function as the premier public policy think tank of the Government of India, aimed to promote inclusive growth and cooperative federalism. Envisioned to be a knowledge and innovation hub, NITI has established itself as a centre for quality research making significant contribution in the national discourse on development policy making.

Research remains the foundation of NITI Aayog enabling informed policymaking and sustainable development. In an ever-evolving global landscape, it is imperative that we approach challenges with innovative, evidence-based solutions that are rooted in rigorous research and analysis.

At NITI Aayog, we strive to foster a culture of inquiry and collaboration, recognising that robust research is essential to identify opportunities, address systemic challenges, and unlock India's vast potential. Whether it pertains to enhancing governance, advancing technology, combating climate change, or promoting social equity, data-driven insights empower us to craft strategies that are impactful and inclusive.

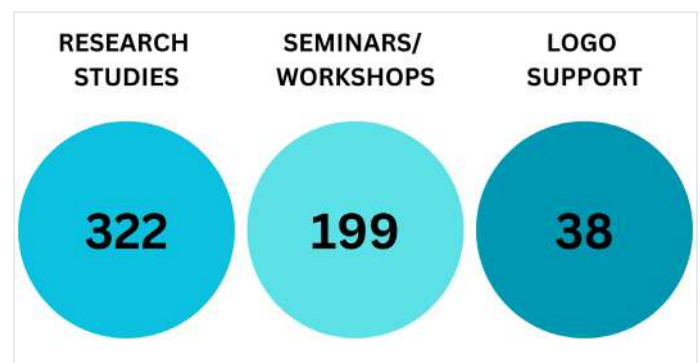
It gives me immense pleasure to announce the launch of NITISंधान, a quarterly newsletter designed to inform about the transformative research work happening at NITI Aayog. This newsletter reflects our commitment to transparency, knowledge sharing, and collaboration. We look forward to your feedback and contribution to make NITISंधान a valuable resource for everyone.

## About Research and Networking (R&N) Division





To further strengthen and streamline the research work being facilitated and undertaken by NITI Aayog, a separate Research and Networking (R&N) Division was formed in 2024. The R&N Division will oversee the development of a robust pipeline of research studies, evolve a multi-pronged dissemination strategy and foster a networking mechanism amongst relevant stakeholders from the policy research ecosystem.

**Ms. Anna Roy (Programme Director, Research and Networking Division, NITI Aayog)**  
E-mail at [pdresearch-niti@gov.in](mailto:pdresearch-niti@gov.in)

## Figures at a glance



## Research publications last quarter

-  SAFE Accommodation: Worker Housing for Manufacturing Growth
-  A Report on Trade Watch (Quarterly)
-  Report on Enhancing Domestic Coking Coal Availability to Reduce the Import of Coking Coal
-  Analysis of Historical Ambient Air Quality Data along with Emission from coal-based Thermal Power Plants for Developing a Decision Support System



Scan this QR to access NITI Aayog publications

## Citations in Media

- ANI, December 19, 2024: India needs 25 million beds for workers in manufacturing sector in 10 years: NITI Aayog
- Mint, December 19, 2024: Build workers' homes closer to factories to make manufacturing more productive and competitive: Niti Aayog
- Business Standard, January 13, 2025: Private mines, CIL drive record coal output of 988 mt in 2024: Govt
- Indian Express, December 5, 2024: India had 'limited success' in capturing 'China Plus One' opportunity: NITI Aayog
- Deccan Herald, December 4, 2024: Trump's tariff plan on China may boost India's exports: NITI CEO
- The Hindu, December 4, 2024: NITI Aayog expects India to benefit from Trump's proposed tariffs on China, Mexico, Canada

# Voice of our Researchers

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Given the diverse nature of the services sector in India, NITI Aayog's Working Paper - 'Identifying Potential Service Sub-Sectors: Insights from GVA, Exports, and Employment Data,' presents an approach to holistically examine services from various dimensions, including contribution to gross value-added (GVA), employment, and exports.

Services have rapidly emerged as the cornerstone of the global economy, and this trend is especially prominent in developing countries including India. In 2022, services contributed a massive 67-70% to global GD, totaling about USD 67 trillion. It also accounted for 50% of the global workforce, with high-income countries seeing even greater participation. This growth trajectory is expected to continue, with services likely to reach USD 100 trillion by 2047. In India, the services sector is already a dominant force, contributing more than 50% to the country's Gross Value Added (GVA), worth approximately USD 1.4 trillion in 2022-23. By 2047, services are projected to make up 56% of India's GVA, with an estimated value of USD 15-16 trillion. About 32% of India's workforce is engaged in the services sector. The country's contribution to global services exports has grown significantly to 4.3% in 2023, from 2% in 2005, making India the seventh largest services exporter. It is also the largest recipient of FDI inflows, emphasising the sector's critical role in India's ongoing economic transformation.

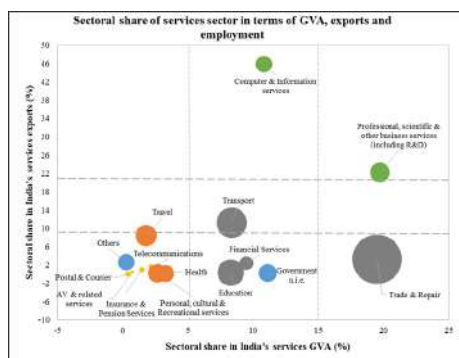
But as promising as these statistics are, there is a growing debate about whether the services sector can create jobs at the same scale as manufacturing, particularly for low-skilled workers. Services are inherently heterogeneous in nature, ranging from highly skilled professional services to lower-skilled sectors such as personal services. Accordingly, there are questions as to whether it can absorb surplus labour from agriculture or provide widespread employment opportunities for lower-skilled workers. There is a valid concern that services may not be able to deliver both productivity growth and job creation simultaneously. However, the declining share of manufacturing in global employment indicates that this sector alone will not suffice to meet the need for new jobs in developing countries. Moreover, advanced economies are increasingly implementing new technologies and retaining more production domestically. Necessitating a strategy which combines both services and manufacturing as a growth driver.

For India, this means that while services will continue to play a central role in the country's economic transformation, the path to job creation requires a more nuanced approach. Given the diverse nature of the services sector in India, NITI Aayog's Working Paper - 'Identifying Potential Service Sub-Sectors: Insights from GVA, Exports, and Employment Data,' presents an approach to holistically examine services from various dimensions, including contribution to gross value-added (GVA), employment, and exports. This approach has led to defining services in India into 15 sub-sectors. Understanding these sub-sectors and their unique dynamics is essential for crafting targeted policies that can harness the full potential of services.

The identified sub-sectors vary significantly in terms of some excelling in exports, others in GVA contributions, and some in job creation. No single subsector embodies all these factors equally, making it essential to analyze the sector through a disaggregated lens, focusing on the interplay between GVA, employment, and exports. The figure below provides a detailed breakdown of the performance of key services sub-sectors in 2022-23, showcasing how these dimensions intersect and contribute to the broader economic landscape.

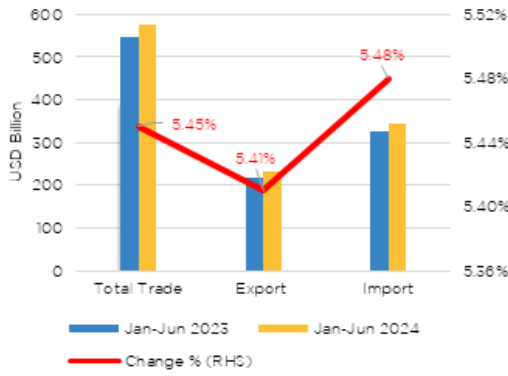
A multifaceted strategy is essential to sustain and grow India's services sector. In areas where India already excels, the focus should be on sustaining leadership through innovation, research and development (R&D), and workforce upskilling. Reducing regulatory burdens will be critical to maintaining global competitiveness. For high-potential sectors, such as Transport, Telecommunications, and Trade & Repair, emphasis should be on accelerating growth through digital infrastructure, smart logistics, and 5G technologies. Additionally, fostering public-private partnerships and improving the ease of doing business will help propel these sectors forward. However, not all sectors are performing at their full potential. For Health and Travel, transformative strategies are needed. India can position itself as a global leader in medical tourism and telemedicine, while also focusing on high-value tourism to attract international visitors. For Insurance and Audio-Visual Services, prioritizing digital solutions, content localization, and product customization will be crucial to tap into global markets.

The road ahead for India's services sector is paved with challenges and opportunities. To unlock the full potential of this sector, India must streamline its regulatory framework, invest in technology, and foster innovation across all sub-sectors. While services alone may not be able to replicate manufacturing's job-creating capacity, they will remain central to India's economic transformation—provided we adopt a targeted, strategic approach to harness their full potential.



Defend (Sustain global sectoral presence & enhance market growth)	Accelerate (Stimulate sectors to outpace global growth)	Transform (Boost productivity, innovation, and global reach)	Untapped (Increase market share, ensure efficiency & sustainability)
<b>Computer &amp; Information Services</b> (Focus areas: R&D, Innovation, Upskilling, Global Partnerships)	<b>Transport</b> (Focus areas: Smart Logistics, Infrastructure, Regional Expansion)	<b>Travel</b> (Focus areas: Premium Tourism, Digital Platforms, Sustainability)	<b>Insurance &amp; Pension Services</b> (Focus areas: Digital Insurance, Customized Products)
<b>Professional, Scientific &amp; Business Services</b> (Focus areas: R&D, Consulting, Engineering, Global Market Access)	<b>Trade &amp; Repair</b> (Focus areas: E-commerce, Automation, Export Market Development)	<b>Health</b> (Focus areas: Telemedicine, Medical Tourism, Health-Tech Innovation)	<b>Audio-Visual &amp; Related Services</b> (Focus areas: Niche Content, Global Platforms, Localization)
	<b>Education</b> (Focus areas: Online education, International expansion)	<b>Personal, cultural &amp; recreational services</b> (Focus areas: Wellness tourism, digital content, smart)	<b>Telecommunications</b> (Focus areas: 5G, Smart Cities, Infrastructure Export)
	<b>Financial Services</b> (Focus areas: Fintech, digital services, global market access)		<b>Postal &amp; Courier</b> (Focus areas: Digitization, efficiency, integration)

## Trade Watch: Quarterly Insights into India's Evolving Trade Landscape



Source: Department of Commerce, MoC&I, GOI

Trade Watch Quarterly provides a snapshot of India's trade performance, offering insights into trade dynamics, identifying potential growth sectors and key markets, and assessing the impact of geopolitical tensions. This publication supports NITI Aayog's mission to enhance India's global trade standing.

Vice Chairperson Suman Bery highlighted its role in data-driven policy interventions and sustainable growth, while Dr. Arvind Virmani (Member, NITI Aayog) and BVR Subrahmanyam (CEO, NITI Aayog) emphasized its importance for evidence-based policymaking, aligning with NITI Aayog's broader vision of Viksit Bharat (India@2047).



### India's Trade Performance in H1 2024

India's total trade in H1 2024 reached \$576 billion reflecting year-on-year growth of 5.45%. Exports hit a record high of \$776 billion in 2022-23, rising slightly to \$778 billion in 2023-24. The trade deficit improved to \$ (-)78.1 billion in 2023-24, compared to \$ (-)95.8 billion in 2018-19, Current account deficit reduced from 2.0% of GDP in FY22-23 to 0.7% in FY23-24, reflecting improved export competitiveness and deeper global integration.



### Sectoral Trends and Market Dynamics

Imports were dominated by mineral fuels and electrical machinery (56%), while exports, led by mineral fuels and pearls, contributed 45%. Key export markets included North America (21%) and the EU (18.61%), while Northeast Asia, GCC, and ASEAN accounted for 51% of imports. Merchandise export growth to FTA partners stood at 12%, outpacing imports at 10.29%. India's share in global services exports rose to 4.6% in 2023, with IT and business services at 74%, but its share in travel, transport, and financial services remained low, signalling a need for diversification in underperforming sectors.



### India's Global Trade Footprint

India maintains a Revealed Comparative Advantage (RCA > 1) in 43 commodities, contributing 68.2% of merchandise exports and representing 40% of global imports. In 2023, India holds an 18.53% export share in 434 niche products, though they account for just 2.9% of global imports. In contrast, India's share is only 0.26% in 4422 products, making up 68% of global imports, highlighting the need to expand into broader markets.

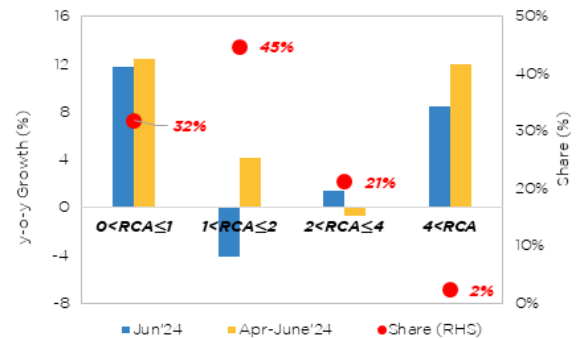


### Looking Ahead

Each edition of Trade Watch will feature a dedicated section focusing on thematic areas such as sectoral deep-dives, offering a critical analysis of its impact in shaping India's trade dynamics.



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Source: Department of Commerce, MoC&I, GOI & NITI's own calculation



## International Conference on India's Multiple Transitions: Financing a Big Investment Push

India has an ambitious target of becoming a high-income nation by 2047 which requires sustained GDP growth of 7.6% p.a. and an additional investment of 2-2.5% GDP p.a. towards achieving sustainable development goals including climate commitments. In this context, NITI Aayog in collaboration with the University of California, Berkeley, and Indira Gandhi Institute of Development Research organized an international conference titled, "India's Multiple Transitions: Financing a Big Investment Push" in Mumbai on 16th-17th December 2024. The four key sessions and major outcomes are discussed below briefly.



### Macroeconomic Management of India's Multiple Transitions

The session explored strategies to finance India's investment needs while ensuring macroeconomic stability, emphasizing the alignment of savings, fiscal policies, and current account deficit with growth and climate goals. Mobilizing endogenous savings was identified as critical. Policy credibility, both fiscal and monetary, was deemed essential for market-driven price discovery and encouraging private investment. Lessons from China's capital formation and decarbonization strategies were discussed, alongside balanced policies to manage inflation, exchange rates, and economic liberalization.

### Liberalising the Capital Account

The session explored India's path to capital account liberalization, drawing lessons from Western Europe's integration into global finance and addressing challenges posed by global economic shifts, financial innovations like Central Bank Digital Currencies, and financing vulnerabilities. Discussions highlighted the importance of forex reserves to smooth exchange rates, the need for swap agreements, and the role of macro-prudential policies in managing capital flows while mitigating risks. Balancing foreign capital attraction with export competitiveness and addressing data gaps in foreign investment mapping were emphasized.

### A modern financial architecture for a fast-growing economy

The session focused on developing a modern financial architecture for India's growth, addressing challenges like bank reliance, underdeveloped corporate bond markets, and low-yield savings. Key solutions included promoting financial literacy, diversifying financial products, and improving regulatory frameworks.

### Fiscal dimensions of a big investment push

The session focused on fiscal sustainability in India, emphasizing deficit reduction, boosting savings, and minimizing borrowing through disinvestment and pension reforms. Solutions proposed included a carbon tax with GST, flexible fiscal targets, and prioritizing health, education, and climate investments. The conference developed a forward-looking macroeconomic framework for the next decade, assessing risks and rewards to align investment finance and guide research and policymaking on key macroeconomic issues.

