RIS Discussion Paper # 364

Deepening Value Chains: Strategies for FTAs and ASEAN–India GVC Integration in an Era of Overlapping Trade Architectures

Rahul Sen and Sadhana Srivastava

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RIS-DP # 364

November 2026

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Deepening Value Chains: Strategies for FTAs and ASEAN–India GVC Integration in an Era of Overlapping Trade Architectures

Rahul Sen* and Sadhana Srivastava**

Abstract: More than a decade after the ASEAN-India Trade in Goods Agreement (AITIGA), global value chain (GVC) integration with India and ASEAN member countries remains below its potential. This paper examines ASEAN-India GVC linkages since 2019, evaluating how overlapping trade architectures, including the Regional Comprehensive Economic Partnership (RCEP), the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), the Indo-Pacific Economic Framework for Prosperity (IPEF) and ASEAN's Digital Economy Framework Agreement (DEFA), shapes India's strategic options amidst increasing geo-political uncertainities. Drawing on value-added trade data, GVC participation indices and case studies of electronics, pharmaceuticals, automotive, textiles and digital services, it highlights growing Indian forward-linkage strengths, particularly through Singapore, and identifies opportunities in manufacturing, services and digital trade. It recommends a sequenced roadmap: an ambitious AITIGA 2.0, calibrated RCEP re-engagement, CPTPP-compatible regulatory alignment, a DEFA-complementary digital trade strategy, and domestic competitiveness reforms, in order to deepen regional economic integration.

1. Introduction

The density of bilateral economic relations between ASEAN and India have intensified in its strength and dimensions[1] since 1991, with India launching its Look East policy (LEP) and subsequently, the Act East Policy (AEP) in 2014.[2] Having progressed from dialogue partners to summit-level partners and, in 2012, strategic partners, ASEAN and

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India have gained further momentum over the past decade through two important bilateral agreements. These include the ASEAN India Trade in Goods Agreement (AITIGA) that has been in effect since 2010, and more recently, the ASEAN-India Trade in Services and Investment Agreements (AITSIA) that has been in force since July 2015.[3]

Despite more than three decades of institutionalised dialogue and fifteen years of trade liberalisation under the AITIGA, the bilateral economic relationship over the past five years have grown modestly, with bilateral trade growing from US$ 110 billion to 128 billion since 2021-2022. India's exports to ASEAN reached US$ 38.4 billion in FY 2025–26 while its imports from the same was US$ 90 billion, a deficit of nearly US$ 51.6 billion[4]. This represents a structural asymmetry in this important bilateral trade relationship that has widened, since AITIGA entered into force in 2010.

As modern international trade becomes increasingly fragmented across global value chains (GVCs),[5] with countries participating in specific stages of production, free trade agreements (FTAs) have taken on greater importance in deepening GVC trade. Zhang et al. (2021) find that the depth of an FTA matters: its core clauses have a positive effect on GVC trade. Their study also shows that differences in development levels among FTA members, and in the structure of the agreements themselves, can produce asymmetric and heterogeneous effects on GVC exports. In particular, WTO-X clauses, which address behind-the-border measures, tend to have a stronger impact on members' GVC exports.

Empirically, Asia's rapid GVC expansion since 2000 correlates strongly with the proliferation of FTAs/PTAs. ADB (2025) noted that the number of intraAsian PTAs rose from 4 in 1990 to 77 in 2023, driven partly by the need for higher policy coordination required by GVCs. These agreements reduce trade costs, harmonize rules of origin, liberalize services, and facilitate investment, enabling firms to fragment production across borders and embed ASEAN economies into wider East Asian production networks.

In the Indian context, Mohanty (2024) tracking GVC structure across India's 15 major trade agreements over 2000 and 2023, revealed that FTA partners have performed only marginally better than non-FTA partners in terms of GVC participation, technology-intensive trade, and market access for small and medium enterprises. This therefore raises fundamental questions about the design adequacy of India's existing trade architecture with ASEAN especially with respect to its impact on facilitating GVC and supply chain led trade.

The above challenge is compounded by the profound transformation of the regional trade architecture since 2019 in Asia. Three developments have reshaped the trade architecture landscape in which ASEAN–India economic relations have evolved. First, the Regional Comprehensive Economic Partnership (RCEP), which India chose to opt out from in November 2019, entered into force in January 2022, creating the world's largest trade bloc encompassing 15 member states and accounting for approximately 30 per cent of global GDP and world population. Second, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) has deepened and expanded, welcoming the UK in 2024, consolidating a high-standards agreement covering digital trade, services, investment, and competition policy. Third, ASEAN has advanced negotiations on the Digital Economy Framework Agreement (DEFA), projected to be the world's first region-wide binding agreement on digital economy governance, with ASEAN's digital economy forecast to reach US$ 2 trillion by 2030.

The cumulative effect of these developments requires a strategic assessment for India. As its regional partners deepen mutual commitments through RCEP, CPTPP, and DEFA, India risks operating from outside an increasingly integrated regional production architecture. The strategic stakes are not merely economic. NITI Aayog, has more recently acknowledged that India has not captured this opportunity to the extent possible a candid admission that domestic policy distortions, tariff structures, and negotiating postures have constrained the country's GVC ascent.[6]

This strategic reckoning has been accelerated by a broader transformation of the global trading environment. The rising trade tensions involving US and China, the COVID-19 pandemic's exposure of concentrated supply chain dependencies, escalating US tariff actions in 2025 that raised import duties on India to 50 per cent in 2025 (but later deemed illegal in US courts in 2026, and the effective marginalisation of the WTO's dispute settlement function have collectively elevated supply chain resilience to the top of both corporate and governmental agendas.[7]

In this environment, FTAs have acquired a strategic function that extends well beyond conventional trade liberalisation: they serve as risk mitigation instruments, providing firms and governments with the predictable, rules-based market access that unilateral tariff volatility cannot offer. India has responded accordingly. Having approached FTAs with notable caution for much of the preceding decade, New Delhi has since 2022 concluded agreements with the UAE, Australia, EFTA, the UK, Oman, and New Zealand. This strategic move signals a fundamental reorientation, with FTAs increasingly deployed as instruments of geopolitical confidence-building, supply chain diversification, and strategic influence in a fragmenting world order (Bhowmick, 2025).[8]

The cumulative result of this FTA proliferation produces a configuration that demands explicit analytical attention. By end 2025, India has concluded preferential trade agreements with all fifteen RCEP member states except China, creating a "RCEP minus China" architecture. This network encompasses AITIGA covering all 10 ASEAN members, bilateral comprehensive economic partnership agreements with Japan and South Korea, the Economic Cooperation and Trade Agreement with Australia, and the recently signed New Zealand FTA in April 2026. With India's share of total trade with its eight post-2020 FTA partners rising from 22.4 per cent in FY2020–21 to 28.7 per cent in FY2024–25, and growing more rapidly than India's total exports, the early aggregate signals are encouraging (Sharma, 2026).[9]

Against the above backdrop, this paper examines the evolution and deepening of value chain networks between ASEAN and India since 2019, assessing sectoral complementarities and India's participation in regional and global value chains under the existing FTA framework. It provides a strategic evaluation of how overlapping trade architectures, such as RCEP, CPTPP, and DEFA, influence ASEAN–India value chain integration, before identifying policy options for India and the challenges and opportunities they present. The analysis is grounded in value-added trade data, GVC participation indices, and sector-specific case studies across electronics, pharmaceuticals, automotive, textiles, and digital services (ERIA, 2024).

The paper proceeds as follows. Section 2 establishes the analytical framework linking FTA design to GVC participation, drawing on value-added trade theory and the distinction between deep and shallow integration. Section 3 provides a brief data analysis and overview of ASEAN–India GVC trade since 2019, including country-level analysis of where integration has strengthened and where it has stagnated. Section 4 maps the overlapping trade architecture and India's strategic position within it, with focused treatment of RCEP, CPTPP, IPEF, and DEFA. Section 5 presents sector-specific case studies. Section 6 diagnoses structural bottlenecks—regulatory, infrastructural, and political economy constraints. Section 7 proposes policy options and strategic recommendations and concludes the chapter.

2. Analytical Framework: FTAs, GVCs, and the Trade Architecture

Can FTAs old and new, bilateral and regional serve as architecture for deeper GVC integration, and what does this mean for India's current trade architecture? The foundational GVC framework, developed by Koopman, Wang, and Wei (2014) and refined by Borin and Mancini (2019), disaggregates gross exports into domestic value added absorbed abroad, re-exported value added, and double-counted terms, distinguishing pure GVC trade from conventional trade in final goods.

Two modes of participation matter for the ASEAN–India relationship. Forward participation occurs when a country exports inputs incorporated into another country's exports (upstream positioning). Backward participation occurs when a country uses imported inputs in its own export production (downstream positioning).

India's GVC profile compared to that of ASEAN, has been predominantly forward oriented, with its participation rate at 16.3 per cent compared to 13.9 per cent for ASEAN as of 2024. While its backward participation rose from roughly 8 per cent to 17 per cent of gross exports between the early 2000s to 2024, it remains well below ASEAN levels (around 30 per cent), where economies are deeply embedded in production networks centred on China and, increasingly, intra-ASEAN chains (Banga, 2022[10], Tewari and Veeramani, 2016). Critically, greater backward participation generates higher gross exports, domestic value added, and employment than domestic-content or forward-only strategies. Veeramani and Dhir (2022) analysing 112 Indian sectors confirmed that restrictions on imported intermediates directly cost India's GVC competitiveness, at the cost for protecting domestic producers.

Prakash (2024) offered the most comprehensive bilateral assessment. It found that India is gaining ground, adding more value while reducing reliance on foreign inputs, driven by sustained FDI. ASEAN remains more deeply integrated overall but heavily dependent on China, particularly for imports. India has steadily improved its position, albeit unevenly across sectors[11]. There is greater evidence of progress in global service value chains, especially in the information and communication technology (ICT) sector, where India has created more than 7 per cent of global value added, only behind China in emerging markets.

2.1 From Shallow to Deep Integration: The FTA Design Spectrum

Not all FTAs drive GVC integration equally. Shallow/deep distinction is the core lens for understanding AITIGA's limitations (Lawrence, 2000). Shallow agreements remove border barriers (tariffs, quotas) but

leave behind-the-border policies those shaping investment, production costs, and market access intact. Deep agreements address the regulatory, services, investment, and IP frameworks that determine whether firms can profitably fragment production across borders. Baldwin (2013) framed this historically: the first unbundling separated consumption from production via falling transport costs; the second unbundling underpins the GVC revolution, which separated production into tasks coordinated via ICT, requiring deep regulatory convergence that shallow agreements were never built for.

Along this spectrum, CPTPP represents Asia's deepest integration architecture, with binding commitments on services, investment, IP, procurement, competition, SOEs, labour, and digital trade (including a permanent ban on e-transmission customs duties and strong data-flow protections). RCEP sits in the middle: broader membership, lower tariff liberalisation, no labour/environment chapters, and e-commerce provisions exempted from dispute settlement. AITIGA, governing ASEAN–India goods trade, sits at the shallow end goods-only, with no services, investment, or digital trade chapters, reflecting a design that predates both the GVC revolution and digital services as a coordination mechanism.

2.2 Rules of Origin as GVC Enablers or Inhibitors

Rules of origin (ROOs) are the primary mechanism through which FTA design enables or inhibits GVC integration. Restrictive ROOs requiring high domestic/bilateral content discourage sourcing from the most competitive global suppliers; permissive ROOs with broad cumulation enable optimal regional sourcing while preserving preferential access.

The proliferation of overlapping Asian FTAs has produced Bhagwati's "spaghetti bowl"—the Asian "noodle bowl". Each ASEAN+1 agreement carries distinct ROOs and certification requirements (Basu Das et al., 2016). ADB (2011) found only 22 per cent of exporters in Japan, Korea, Singapore, and Thailand used preferential arrangements at all—reflecting compliance costs that, for SMEs, can exceed the value of tariff preferences.

RCEP's key contribution is a partial fix: a common RoO platform across fifteen economies, with ~40 per cent regional value content thresholds and self-certification, permits cumulation across the bloc, letting a Vietnamese manufacturer source from China, Japan, or Malaysia and still qualify for duty-free access. As India has opted out of this agreement, the implications are that Indian inputs don't qualify for the RoO cumulation; an ASEAN manufacturer using Indian components must separately satisfy AITIGA rules while managing RCEP requirements for RCEP markets, leading to additional costs of compliance[12].

2.3 GVC Governance Frameworks and Their FTA Implications

Gereffi and Fernandez-Stark's governance framework distinguishes buyer-driven from producer-driven chains, and five governance types from market-governed to hierarchical (Gereffi and Fernandez-Stark, 2019). In buyer-driven chains (apparel, electronics assembly), ROOs, standards harmonisation, and tariff-free component access are the key levers. In producer-driven chains (automotive, aerospace, semiconductors), investment protection, IP commitments, and supply-chain digitalisation matter as much as tariffs.

A third category, digital value chains, is where AITIGA's gaps are most acute. Park et al. (2021) attributed much of RCEP's projected income gains to regulatory convergence rather than tariff liberalisation itself. ASEAN's DEFA negotiations, covering cross-border data flows, digital payments, e-invoicing, and digital identity, represent the region's most advanced GVC-enabling architecture. The Asia Foundation (2024) assessment of digital trade notes that CPTPP's digital trade text has become the de facto regional standard, making AITIGA's absence of digital provisions increasingly anachronistic.[13]

The framework yields a clear proposition: an FTA's capacity to deepen GVC integration depends on four dimensions—services/investment provisions, facilitative ROOs, digital trade provisions, and regulatory harmonisation. AITIGA scores poorly across all four.

2.4 Geopolitical Disruption and the New Strategic Logic of FTAs

A final dimension, growing since 2018, is geopolitical transformation. Hyper-globalisation has given way to "slowbalisation" (European Commission, 2024[14]); exhausted gains from China's manufacturing integration, GFC fallout, rising protectionism, and pandemic-exposed supply chain fragility. This has produced measurable structural change. Gopinath et al. (2024) analysis found roughly 12 per cent declines in trade flows and 20 per cent in FDI flows between geopolitically distant blocs since the Russia–Ukraine war, through "connector" countries—several ASEAN members, India, Turkey, are gaining importance without necessarily reducing strategic dependence. UNCTAD (2025) identified 2025 as the century's highest point of trade policy uncertainty, with US tariff actions threatening to slow global growth to 2.3 per cent[15].

FTAs are now evaluated less as efficiency instruments than as tools for supply chain resilience, geopolitical alignment, and investment attraction. WTO (2026)[16] analysis confirms that countries with deep trade agreement networks attract more supply-chain investment.

Three implications follow: FTA depth matters as much as FTA count, given India's shallow-to-medium "RCEP minus China" network; the noodle bowl actively constrains India–ASEAN GVC integration, a problem RCEP membership would substantially ease; and the geopolitical conjuncture is both threat and opportunity; diversification away from China-centric chains creates demand India could capture, but only with deeper GVC-enabling institutional architecture.

3. Evolution of ASEAN–India GVC Trade Since 2019: A Data Overview

3.1 Aggregate Trade Flows: Expansion Without Integration

ASEAN–India trade since 2019 while showing aggregate expansion, has been accompanied by asymmetries. As observed in Table 1 bilateral trade expanded from US$ 86.9 billion in FY2019–20 to US$ 128.4

Table 1. ASEAN–India Bilateral Trade Flows, FY2019–20 to FY2025–26

	Exports (US$ billion)	Imports (US$ billion)	Total Trade (US$ billion)	Trade Balance (US$ billion)	Share of ASEAN in India's exports (%)	Share of ASEAN in India's imports (%)
2019-2020	31.5	55.4	86.9	-23.82	10.1	11.7
2020-2021	31.5	47.4	78.9	-15.94	10.8	12.0
2021-2022	42.3	68.1	110.4	-25.8	10.0	11.1
2022-2023	44.0	87.6	131.6	-43.6	9.8	12.2
2023-2024	41.2	79.7	120.9	-38.5	9.4	11.7
2024-2025	39.0	84.2	123.1	-45.2	8.9	11.7
2025-2026	38.4	90.0	128.4	-51.6	8.7	11.6

Source: Government of India (2026), Ministry of Commerce and Industry TRADESTAT database https://tradestat.commerce.gov.in/

billion in FY2025–26, at a CAGR of about 8.1 per cent. However, this trade expansion has been accompanied by a trade deficit widening from US$ 23.8 billion to US$ 51.6 billion over the same period, meaning that for every additional dollar of trade generated, approximately US$ 1.5 accrued to ASEAN as surplus. ASEAN's share of India's export basket, at 8.7 per cent in FY2026, has declined since 2019.The COVID-19 shock during FY2020–21 caused a sharp decline, with total trade fell declined to US$ 78.9 billion, followed by a strong recovery to US$ 110 billion in FY2021–22, as regional supply chains were partially re-routed and India's strong rebound in pharmaceutical exports and commodities drove growth.

The composition of trade flows in Tables 2 and 3 by top 10 products of exports and imports reveals the asymmetry further. India's top ten exports to ASEAN consist of fuels, machinery, meat, ships and boats, organic chemicals, and vehicles which collectively account for nearly 62 per cent of its total exports to the region, a concentration that reflects shallow diversification. On the import side, ASEAN's exports to India are dominated by fuels, electronics, vegetable oils, machinery, and iron and steel, reflecting ASEAN's role as a supplier of both commodities and manufactured intermediates to the Indian economy[17]. While there's evidence of GVC linkages through exports and imports in three HS 2 category manufacturing exports (27, 84 and 85), the value of imports from ASEAN are far higher in these categories than that of exports to that region, largely contributing to the increasing bilateral trade deficit.

3.2 GVC Participation: What the Value-Added Data Reveals

Gross trade statistics obscure more than they reveal about GVC integration. The appropriate lens is value-added decomposition, which evaluates how much of each country's exports consist of domestically generated value, foreign inputs, and what share of domestic output is embedded in other countries' export supply chains. Figures 1 and 2 summarise the shares of GVC related value-added exports for both India and ASEAN. This separates out the component of exports of both countries that are not related with direct consumption.

Table 2: Top 10 Exports of India to ASEAN: 2025-26

HS Code	Commodity	2025-2026 (US$ million)	Growth (%)	Share in Total Exports to ASEAN (%)
27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes.	6.61	-25.03	17.2
84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof.	4.72	3.80	12.3
02	Meat and edible meat offal.	2.10	20.37	5.5
29	Organic chemicals	1.75	-16.36	4.6
89	Ships, boats and floating structures.	1.70	-21.34	4.4
87	Vehicles other than railway or tramway rolling stock, and parts and accessories thereof.	1.55	-4.33	4.0
85	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers,and parts.	1.55	14.45	4.0
71	Natural or cultured pearls,precious or semiprecious stones,pre.Metals,clad with pre.Metal and artcls thereof;imit. Jewlry;coin.	1.46	12.78	3.8
30	Pharmaceutical products	1.42	9.14	3.7
76	Aluminium and articles thereof.	1.15	41.19	3.0
	Total	38.42	-1.40	62.5

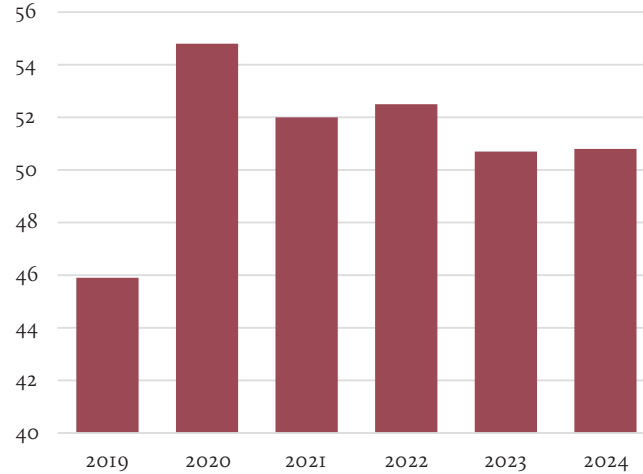
Source: Government of India (2026), Ministry of Commerce and Industry TRADESTAT database https://tradestat.commerce.gov.in/

Table 3: Top 10 Imports of India from ASEAN: 2025-26

HS Code	Commodity	2025-2026 (US$ million)	Growth (%)	Share in Total Imports from ASEAN (%)
85	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers,and parts.	16.0	21.36	17.8
27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes.	10.6	-16.67	11.8
84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof.	10.1	15.98	11.3
15	Animal or vegetable fats and oils and their cleavage products; pre. Edible fats; animal or vegetable waxex.	9.5	14.61	10.6
71	Natural or cultured pearls,precious or semiprecious stones,pre. Metals,clad with pre.Metal and artcls thereof;imit.Jewlry;coin.	6.2	18.95	6.9
39	Plastic and articles thereof.	4.1	7.69	4.5
72	Iron and steel	3.7	-5.02	4.1
29	Organic chemicals	3.3	-8.22	3.7
90	Optical, photographic cinematographic measuring, checking precision, medical or surgical inst. And apparatus parts and accessories thereof;	2.2	7.38	2.4
38	Miscellaneous chemical products.	2.0	5.99	2.2
	Total	90.0	6.91	75.3

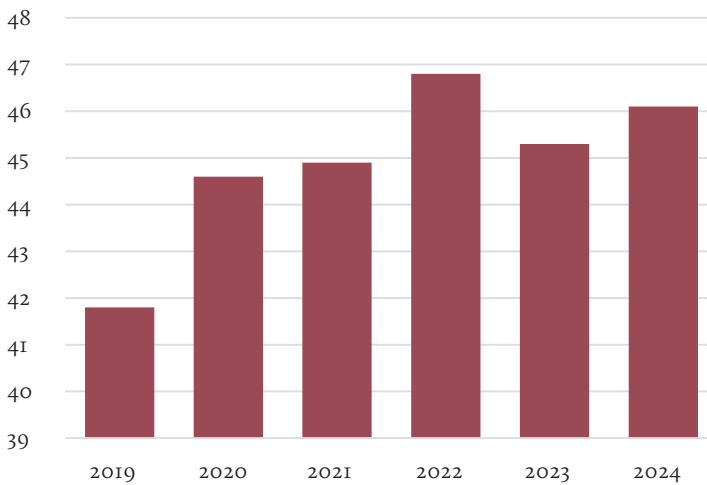
Source: Government of India (2026), Ministry of Commerce and Industry TRADESTAT database https://tradestat.commerce.gov.in/

Figure 1: Share of India's GVC-Related Value-Added Exports to ASEAN



Source: UNESCAP (2026)

Figure 2: Share of ASEAN's GVC-Related Value-Added Exports to India



Source: UNESCAP (2026)

Compared to 46 per cent in 2019, 50.8 per cent of India's gross exports to ASEAN was attributable to GVCs in 2024 (Figure 1). More than half of this (28.2 per cent) was accounted for by India's DVA embedded in ASEAN's re-exports of intermediate exports to third economies (or forward linkages), followed by 12.5 per cent that reflected FVA embedded in India's gross exports to ASEAN (backward linkages). 8.9 per cent were the Double-counted Value due to repeated border crossings, while 1.2 per cent was India's DVA embedded in South-East Asia's re-exports of intermediate exports back to India (returned domestic value added). This confirms that over 2019-2024, India's GVC related exports to ASEAN have increased its share, and it has been largely dominated by forward linkages.

Compared to 42 per cent in 2019, 46.1 per cent of ASEAN's gross exports to India was attributable to GVCs in 2024. About 11.8 per cent was accounted for by ASEAN's DVA embedded in India's re-exports of intermediate exports to third economies (forward linkages). 28.5 per cent reflected FVA embedded in ASEAN's gross exports to India (backward linkages). Here, 5.7 per cent were the Double-counted Value due to repeated border crossings. Therefore, in contrast to India, ASEAN's GVC related exports to India were dominated by backward linkages.

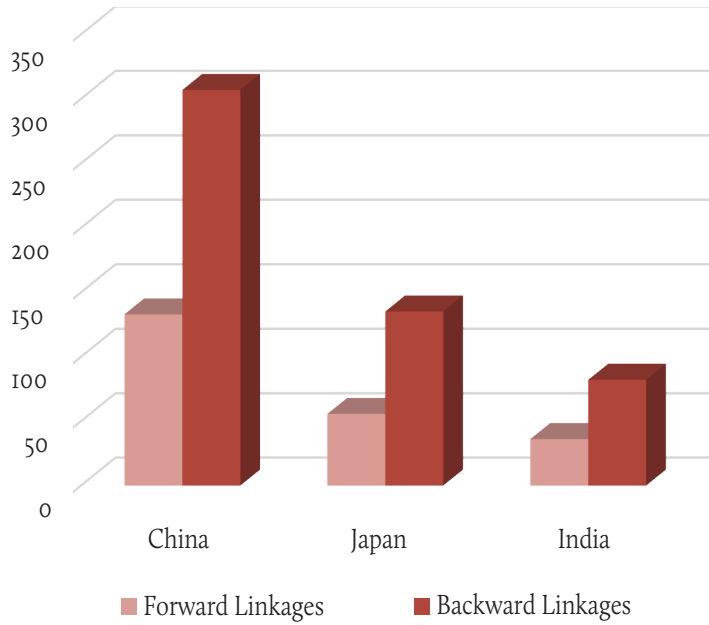
Table 4: GVC Participation (as per cent of Gross Exports)

	Forward Linkages		Backward Linkages	
	India	**ASEAN**	**India**	**ASEAN**
2019	14.4	13.6	15.1	27.8
2020	16.7	13.5	13.8	28.9
2021	15.9	13.6	16.8	30.9
2022	15.0	13.6	18.4	30.9
2023	16.5	13.8	16.5	29.3
2024	16.3	13.9	17.0	29.6

Source: UNESCAP (2026)

Table 4 compares the forward and backward GVC participation rates for both ASEAN and India over 2019-2024. India's forward participation as a share of its gross exports increased from 14.4 per cent to 16.3 per cent over this period, while its backward participation, also increased marginally to about 17 per cent. Compared with ASEAN, India's backward GVC participation has been lower by around 12 per cent over the entire period, suggestive of the fact that ASEAN sources a significant amount of imported intermediate inputs in its exports compared to India. Figure 3 shows that ASEAN's value-added trade involving backward linkages with India was worth US$ 82.3 billion, a quarter of that of its strongest GVC linked trading partner, China. A similar trend is also observed in case of forward linkages.

Figure 3: GVC Linkages of ASEAN with Its Major Trading Partners



Source: UNESCAP (2026)

How have ASEAN and India contributed to each other's export production in terms of forward linkages over 2019-2024? India's contribution to export production in ASEAN-6 was greater than that of ASEAN-6 in India and nearly doubled in value over 2019-2024 to 18.6 billion (13.6 per cent of the total). In contrast, ASEAN's contribution to export production in India as of 2024 was 11.1 billion (3.6 per cent of the total) (Table 5). This confirms that India's forward linkages in terms of its inputs being used by ASEAN-6 in their global exports was stronger. The data also shows that even through the ASEAN-India FTA was in force during this period, did not lead to a strong expansion in bilateral forward linkages in terms of GVC trade. Figure 4 shows the individual country contributions, which shows that India's forward linkage led GVC trade as of 2024 was primarily driven by Singapore, with a value of US$ 9.5 billion (51.1 per cent), followed by Thailand with a value of US$ 3.2 billion (17.2 per cent) and Vietnam (value US$ 2.2 billion (11.8 per cent).

How have ASEAN and India contributed to each other's foreign value added (FVA) and use of imported intermediate inputs in terms

Table 5: Contribution in GVC to Export Production for Third Parties (%)

Year	ASEAN's contribution to export production in India (FL)		Year	India's contribution to export production in ASEAN-6 (FL)	
	(US$ bn)	Share (%)		(US$ bn)	Share (%)
2019	7.3	3.3	2019	8.96	11.6
2020	5.2	2.6	2020	15.35	18.3
2021	8.2	3.4	2021	13.03	12.1
2022	14.4	5.0	2022	16.36	13.9
2023	10.7	3.8	2023	17.8	13.7
2024	11.1	3.6	2024	18.6	13.6

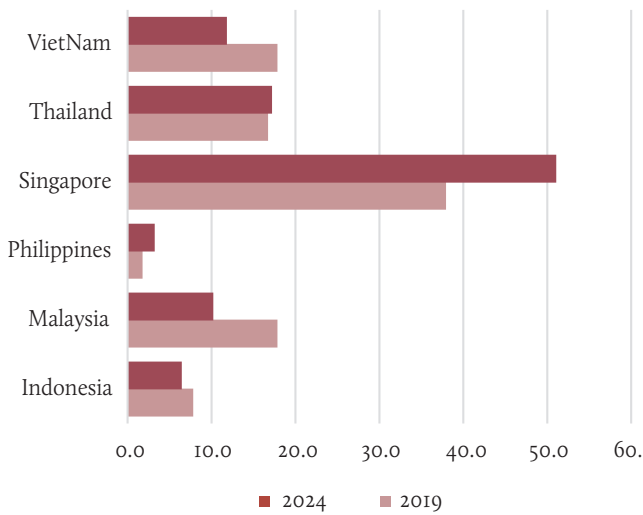
Source: UNESCAP (2026)

Table 6: Contribution in GVC in terms of Foreign Value-Added (%)

Year	ASEAN's contribution to FVA in India		Year	India's contribution to FVA in ASEAN-6	
	(US$ bn)	Share of ASEAN-6 in India's FVA (%)		(US$ bn)	Share of India in ASEAN FVA (%)
2019	6.1	8.2	2019	8.8	2.0
2020	4.4	7.0	2020	13.6	3.3
2021	6.9	6.4	2021	12.9	2.4
2022	11.4	8.4	2022	16.2	2.6
2023	8.6	7.3	2023	16.6	2.9
2024	9.1	7.0	2024	17.5	2.8

Source: UNESCAP (2026)

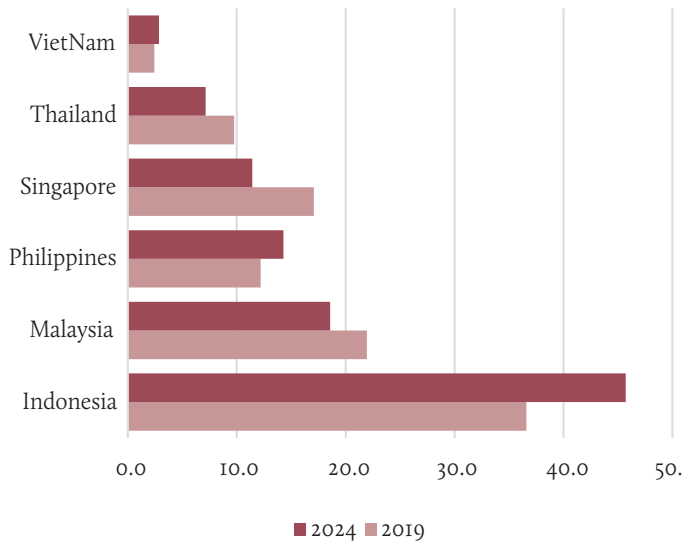
Figure 4: Share of Individual Countries in India's Contribution to Export Production in ASEAN-6 (%)



Source: Compiled by authors from UNESCAP (2026)

of backward linkages over 2019-2024? India's contribution to FVA in ASEAN-6 was also higher than that of ASEAN-6 in India and nearly doubled in value over 2019-2024 to 17.5 billion, although it was only 2.8 per cent of the total. In contrast, ASEAN's contribution to FVA in India as of 2024 was 9.1 billion (7 per cent of the total). This confirms that India's backward linkages in terms of its inputs being used by ASEAN-6 in their global exports was also stronger. Although ASEAN-India FTA was in force during this period, it led to a moderate expansion in backward linkages in favour of India's contribution to ASEAN's GVC trade. Figure 5 shows the individual country contributions, which shows that India's backward linkage led GVC trade as of 2024 was primarily driven by Indonesia, with a value of US$4.2 billion (45.7 per cent), followed by Singapore with a value of US$ 1.7 billion (18.6 per cent) and Thailand (value US$ 1.3 billion (11.4 per cent).

Figure 5: Share of Individual Countries in Their Contribution to India's FVA (%)



Source: Compiled by authors from UNESCAP (2026)

3.3 Sector-Level Analysis: GVC Positioning of India and ASEAN

Sector 1: Electronics and Semiconductors: Assembly Integration Without Component Depth

India's electronics sector, one of the top products in its bilateral trade with ASEAN (Tables 2 and 3) has been on a rising export trajectory since 2019. Total electronics exports grew from approximately US$ 11 billion in FY2019–20 to US$ 29.1 billion in FY2023–24 and a record US$ 38.6 billion in FY2024–25, with smartphone exports growing 45 per cent year-on-year driven by Apple and Samsung's PLI-backed expansions. In the April–November 2024 period, electronics exports surged 27.4 per cent, moving the sector from sixth to third place in India's export rankings. However, this growth masks a structural GVC limitation. ASEAN's electronics ecosystems[18], is deeply integrated with each other and with East Asia, including RCEP members, whose key feature is common rules of origin. India's electronics sector, by contrast, remains predominantly an assembler of final devices, sourcing semiconductors, displays, passive components, and camera modules from ASEAN members who are themselves operating within the RCEP architecture. India's semiconductor consumption is projected at US$ 70 billion by 2026, almost entirely import-dependent, while its own chip fabrication capacity remains in early stages.

Sector 2: Pharmaceuticals — India's Strongest Forward GVC Linkage, Undermined by Upstream Dependency

Pharmaceuticals represent India's one of the stronger forward GVC integration sectors with ASEAN. India's total pharmaceutical exports grew from US$ 19.1 billion in FY2018–19 to US$ 27.9 billion in FY2023–24, a 46 per cent increase, with India's share of global generic drug supply stable at 20 per cent. The ASEAN pharmaceutical market, valued at US$ 43.9 billion in 2023 and projected at US$ 65.6 billion by 2028 at an 11 per cent CAGR, provides a natural destination for Indian APIs and generic formulations, both driven by cost competitiveness

and by post-pandemic shifts in procurement policy toward source diversification.

However, India also imports approximately US$ 4.5 billion in APIs and bulk drugs annually, of which approximately 70 per cent originates from China. India's forward GVC participation in pharmaceuticals is therefore partially constructed on backward dependency on China for key starting materials and intermediates; a vulnerability exposed sharply during the COVID-19 pandemic and one that warrants a bilateral India–ASEAN API supply chain diversification strategy. This would require India's FTAs to focus on regulatory harmonisation, intellectual property, and standards convergence in pharmaceuticals.

Sector 3: Automotive — A Five-Fold Rise in Parts Trade, but GVC Opportunities in EV Market

The automotive sector presents the starkest illustration of GVC potential constrained by FTA design in the India-ASEAN context. ASEAN produces approximately 4 million vehicles annually, centred on Thailand's hub (over US$ 18.4 billion in domestic auto parts demand annually), Indonesia's growing OEM base, and Malaysia's components sector. Japan accounts for 49 per cent of Thailand's auto parts imports, China 24.9 per cent and Germany 7.5 per cent. India does not register among major suppliers. Yet at the aggregate level, ASEAN's imports of parts and components from India in the vehicles, aircraft and vessels sector experienced a nearly five-fold increase between 2011 and 2022. However, a significant portion of India's "machinery" and "vehicle" exports consist of capital goods and components that feed into ASEAN's assembly industries, rather than finished consumer goods competing in ASEAN markets.

The strategic opportunity lies in the EV transition. Indonesia's Hyundai–LG battery plant (online 2024) and Thailand's EV incentive package are restructuring ASEAN's automotive GVC. India's PLI scheme for Advanced Chemistry Cell batteries, its growing domestic EV market, and its nascent critical minerals partnership with Indonesia

create a potential new entry point. The FTA structure therefore requires provisions that attract supply chain investment, skills development, and EV-specific content rules.

Sector 4: Textiles and Garments — India as Upstream Supplier in Vietnam's Export Machine

The India–Vietnam textile GVC is another potential area where FTAs can promote GVC linkages. Vietnam is one of the world's largest garment exporters, with textile and apparel exports reaching approximately US$ 44 billion annually. Critically, more than 64 per cent of Vietnam's apparel exports in 2022 contained foreign-made content, primarily yarns and fabrics sourced from India, China, and South Korea. India is a major beneficiary of this structure, with Indian cotton yarn, woven fabrics, and dye chemicals supplying Vietnam's spinning mills and garment factories. India's yarn exports to Vietnam grew from US$ 118 million in 2022 to US$ 151 million in 2023 and US$ 173 million in 2024, a 47 per cent increase over two years, attributing part of this growth to AITIGA's tariff reductions on yarn.

However, there remains a structural risk. Between 2015 and 2022, Chinese value-added content in Vietnam's apparel exports rose by 6 percentage points, reflecting China's deliberate expansion of its presence in ASEAN garment supply chains through FDI, Belt and Road investment in Vietnamese spinning mills, and RCEP's liberal textile rules of origin[19]. India's decision to opt out of RCEP does not prevent Indian yarn from being used in Vietnamese factories, but it does mean that Indian exporters do compete against RCEP-origin suppliers without the advantage of common standards and origin certification.

Sector 5: Digital Services — Singapore as GVC Infrastructure Anchor

Singapore constitutes a distinct category within the ASEAN–India GVC landscape, as it functions not as a production partner but as a financial, digital, and logistics intermediary connecting Indian firms to regional GVCs. Cumulative FDI from Singapore into India reached

US$ 174.9 billion between April 2000 and December 2024, accounting for approximately 24 per cent of India's total FDI inflows and making Singapore India's single largest foreign investor. Singapore was also India's top source of FDI equity in FY2023–24. This capital, flowing primarily into services, computer software, hardware, and trading, enabled India's IT sector to participate in ASEAN's digital economy as a service supplier rather than a manufacturing GVC participant.

India's GVC integration with ASEAN is predominantly driven by this forward integration through Singapore's financial and services ecosystem as observed in the previous section. The February 2023 UPI–PayNow linkage, the world's first real-time cross-border payment system connection, is the most concrete digital GVC infrastructure outcome of the AITIGA-plus CECA framework involving Singapore. India's IT services GVC is substantial. India now creates 7 per cent of global value added in the ICT sector, second only to China among emerging markets. However, this forward GVC participation remains structurally mediated through Singapore and is vulnerable to regulatory divergence as ASEAN advances DEFA and India develops its own data governance framework under the Digital Personal Data Protection Act 2023.

In spite of these evolving sectoral GVC opportunities, ERIA (2024) analysis observes that ASEAN remains heavily dependent on China, confirmed through Figure 4. The implication for India's GVC strategy is that deepening ASEAN–India integration requires more than preferential tariffs on bilateral trade. It requires a deliberate strategy to position India as the upstream alternative supplier of inputs that ASEAN currently sources from China. In pharmaceuticals, this means building API capacity and regulatory equivalence; in textiles, developing cotton processing and yarn quality; in electronics, developing semiconductor packaging and testing capacity that complements Malaysia's and Vietnam's assembly operations. Technology exports constituted 52.3 per cent of ASEAN's total exports compared to India's 29.7 per cent in 2022, this is the gap in technology intensity that presents the structural challenge AITIGA has not addressed and that deeper GVC-enabling agreements must target.

4. The Overlapping Trade Architecture: Mapping India's Strategic Position

Amidst the overlapping trade architecture for India that encompasses, AITIGA, RECP, CPTPP, IPEF and DEFA, which ones have deep integration provisions across Indo-Pacific that can facilitate GVC linkages? Appendix Table A1 maps these deep integration provisions across AITIGA (2010), RCEP (2022), CPTPP (2018; expanded 2024), IPEF (2022), and ASEAN DEFA (under negotiation) against their relevance to GVC facilitation. The comparison focuses on behind-the-border and regulatory provisions that determine whether an FTA generates production-sharing and value chain integration, not merely trade in final goods. India's status is shown in the final data row.

At the outset, AITIGA's design reflects the trade policy orthodoxy of the early 2000s, as it is a goods-only agreement, with no services chapter, no investment chapter, no digital trade provisions, and rules of origin that have proved both complex and susceptible to circumvention by third-country goods, routed through ASEAN to access the Indian market at preferential rates. In September 2022, both sides tasked the AITIGA Joint Committee to undertake a comprehensive review, establishing eight sub-committees covering market access, rules of origin, standards and technical regulations, customs procedures and trade facilitation, sanitary and phytosanitary measures, trade remedies, and legal and institutional provisions.

First, a critical observation in Table A1 is that even an ambitious AITIGA 2.0 will remain a goods agreement, as the review's agreed scope does not include services, investment, or digital trade provisions. This will structurally limit AITIGA's ceiling as a GVC-enabling instrument.

Second, as Table A1 confirms, RCEP substantially exceeds AITIGA on every GVC-relevant dimension. These include a unified rules of origin framework with full diagonal cumulation across fifteen economies; an investment chapter with performance requirement prohibitions; a services chapter covering approximately 65 per cent of sectors; and an

e-commerce chapter, even if the latter is weak in terms of legally binding provisions (Lee, 2026) explicitly excluded from dispute settlement at entry into force. India's absence from all these provisions is a structural GVC disadvantage that can compound over time as RCEP's architecture deepens.

The above implies that an Indian component exporter supplying a Vietnamese assembler must comply with AITIGA's rules of origin, while a South Korean supplier operating under RCEP uses the same rulebook as every other RCEP member in the supply chain. This creates a compliance asymmetry, invisible in tariff schedules but commercially significant for multinational sourcing decisions, creating a potential structural cost India might pay for its RCEP absence, especially in the context of GVC linkages between India and ASEAN.

The Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) represents the current regulatory frontier of FTA design in the region. Table A1's comparison makes the depth differential unambiguous. This is so as the CPTPP achieves approximately 99 per cent tariff elimination (versus RCEP's 92 per cent and AITIGA's 75 per cent); it includes binding investor-state dispute settlement that RCEP explicitly excludes; it imposes mandatory commercial-considerations disciplines on state-owned enterprises for which RCEP has no dedicated chapter; and its e-commerce chapter , covering free cross-border data flows, prohibition on data localisation, source code protection, and consumer protection. These provisions are fully subject to dispute settlement, unlike RCEP's. CPTPP further includes entire chapters on labour rights and the environment, which RCEP omits entirely. With twelve members as of 2024, including seven Indo-Pacific economies such as Australia, Japan, New Zealand, Singapore, Malaysia, Vietnam, Brunei, plus the United Kingdom, Canada, Chile, Mexico, and Peru, CPTPP also constitutes a geopolitically attractive network, that aligns with India's broader strategic positioning.

However, a CPTPP accession is not a near-term realistic option for India. CPTPP's mandatory prohibition on data localisation conflicts

with India's Digital Personal Data Protection Act 2023; its negative list approach to services liberalisation demands regulatory preparedness India has not yet achieved; and its SOE disciplines and ISDS provisions are not aligned India's current policy framework. However, the strategic value of CPTPP for India lies not exclusively in membership but in a possible alignment. This could involve progressively converging India's data governance, competition policy, investment rules, and IP framework with CPTPP standards preserves future accession optionality, building the regulatory credibility that attracts GVC-linked FDI, and reducing the compliance divergence costs that Indian firms face in CPTPP-member markets. This is the "regulatory stepping-stone" strategy that India can consider in deepening its GVC linkages through FTAs.

Finally, India's engagement with the remaining two architectures reflects a consistent strategic pattern: participation where commitments are non-binding or supply chain-focused; abstention where binding trade rules are involved. In IPEF, India has joined the Supply Chain Resilience Pillar[20] , while abstaining from Pillar 1 (Trade). This is a pragmatic choice that extracts supply chain resilience benefits without accepting the labour, environmental, digital, and agricultural binding commitments of the Trade Pillar. In DEFA, India is not a negotiating party. As DEFA is expected to establish binding rules on cross-border data flows, digital payments interoperability, and e-commerce that will govern ASEAN's US$ 2 trillion digital economy by 2030, India's absence carries direct commercial implications for the thousands of Indian IT firms embedded in ASEAN's digital service supply chains.

The summary analysis of the deep FTA provisions in Table A1 confirms that India's operates within the shallowest of the five frameworks examined, participates partially in a non-binding forum, and remains external to the three architectures most consequential for GVC facilitation. The depth-of-integration gradient, CPTPP at the regulatory frontier, RCEP as a broad but shallower middle ground, AITIGA as a minimalist goods agreement, provides the institutional landscape that India's firms navigate currently. As this gradient steepens over the coming

decade, with RCEP deepening its e-commerce chapter and potentially adding ISDS, and DEFA creating new digital GVC infrastructure from which India is currently excluded, the ability of India's FTAs in ASEAN to deepen GVC linkages will increasingly become more challenging.

The above analysis implies that India's strategic challenge in terms of creating an FTA architecture with ASEAN that aligns with GVC linkages, cannot be resolved by any single policy choice. Completing an ambitious AITIGA review remains necessary but insufficient. Re-engaging with RCEP, considering CPTPP regulatory alignment, and DEFA-adjacent digital agreements are important to improve India's position within a framework whose ceiling is structurally below the level at which its ASEAN partners operate. The next section examines the sector-level and structural bottlenecks that constrain India's ability to move up this gradient.

5. ASEAN's Digital Economy Framework Agreement (DEFA): Implications for India

5.1 DEFA: An Overview

On 29 May 2026, at the Second Meeting of the 57th ASEAN Senior Economic Officials Meeting in Manila, ASEAN member states formally concluded negotiations on the ASEAN Digital Economy Framework Agreement. The agreement is targeted for formal signing at the 49th ASEAN Summit in November 2026, under the Philippines' ASEAN chairmanship. For the purposes of this chapter, DEFA's conclusion, effectively simultaneous with the chapter's preparation, represents the most significant development in ASEAN's digital trade architecture since the bloc's formation, and one whose implications for India's GVC strategy are immediate and substantial.

DEFA is, by design and in substance, a genuinely novel form of trade agreement. Unlike the digital provisions embedded in broader trade frameworks such as RCEP's Chapter 12 (excluded from dispute settlement at entry into force) or CPTPP's Chapter 14 (comprehensive

but confined to goods and services trade), DEFA is a dedicated regional framework focused exclusively on digital economy governance, the world's first of its kind at regional scale. It covers digital trade and cross-border e-commerce, data governance and privacy, digital identity systems and electronic authentication, electronic payments and fintech, online safety and cybersecurity, competition policy in digital markets, emerging technology governance including artificial intelligence, and digital talent mobility. The agreement builds on and consolidates existing ASEAN digital initiatives, including the ASEAN Single Window, cross-border digital payment connectivity, the ASEAN Unique Business Identification Number, providing them for the first time with a unified, binding legal architecture.

5.2 The Economic Stakes: ASEAN's Digital Economy and Why It Matters for India

The scale of the opportunity that DEFA addresses, and from which India is currently excluded, is of economic significance. ASEAN's digital economy was valued at approximately US$ 300 billion in 2024, projected to reach US$ 1 trillion by 2030 on current growth trends; DEFA's successful implementation could potentially double this to US$ 2 trillion. Indonesia, the region's largest digital economy, alone is projected to triple its digital economy to US$ 360 billion by 2030 with e-commerce contributing US$ 150 billion. The digital economy's share of GDP has already reached 23.4 per cent in Malaysia, 18.6 per cent in Singapore, and 18.3 per cent in Vietnam. Power demand for ASEAN's data centres is forecast to quadruple from 2.6 GW to 10.7 GW between 2025 and 2035 as hyperscalers including Amazon Web Services, Google, and Microsoft commit multi-billion-dollar investments across the region.

DEFA's practical economic value is equally concrete. Divergent digital regulations currently cost ASEAN businesses US$ 15–20 billion annually in compliance overhead. DEFA's unified digital customs system and interoperable e-invoicing are projected to cut cross-border transaction costs by 30 per cent, enabling the 71 million ASEAN SMEs, 70 per

cent of which currently lack resources to navigate conflicting national digital rules, to compete across the region. Binding DEFA commitments could attract an additional US$ 30–50 billion in annual FDI by signalling regulatory stability and aligning regional policies with global digital trade norms. These are not hypothetical gains; they constitute the architecture of a US$ 2 trillion digital market that will be governed by rules India did not participate in drafting and from which India's firms will operate as external participants.

5.3 What DEFA Contains and What It Means for India: Domain-Level Analysis

Table 7 maps DEFA's concluded domains against India's current digital trade exposure in each. The analysis draws on the ASEAN Senior Economic Officials' May 2026 statement, the BCG/ASEAN DEFA study, the Tech For Good Institute's structural analysis, and techUK's post-conclusion assessment.

As observed in Table 7, two structural contradictions are immediately apparent. First, India's Digital Personal Data Protection Act 2023, whose implementation rules were finally notified in November 2025 after two years of delay, establishes a data governance framework that diverges from DEFA's anticipated mutual recognition regime on at least two dimensions: data localisation provisions and the treatment of cross-border data flows. Where DEFA bans 'unnecessary' data localisation and establishes a regional mutual recognition regime modelled on the EU's adequacy mechanism, India's framework includes localisation requirements for sensitive personal data and grants government access powers that are unlikely to qualify for adequacy status under ASEAN's criteria. Indian IT exporters managing data flows to and from ASEAN clients will face a compliance architecture shaped by DEFA rules they had no part in negotiating. Second, India's UPI-based payments expansion[21], while technically sophisticated and operationally impressive, is proceeding through a bilateral architecture that cannot match the systemic coherence of DEFA's interoperable payments framework[22]. India's

Table 7: DEFA's Concluded Domains and India's Strategic Exposure (as on June 2026)

DEFA Domain	Key Provisions (concluded May 2026)	India Exposure / Strategic Implication
Digital Trade & E-Commerce	Ban on import duties on electronic transmissions; paperless trade facilitation; ASEAN Single Window integration; unified digital customs procedures.	India excluded from duty-free digital transmission disciplines; Indian SaaS and digital goods exporters face compliance asymmetry vs. RCEP-origin competitors.
Cross-Border Data Flows	Trusted data flow framework; ban on 'unnecessary' data localisation (not absolute prohibition); mutual recognition of national data protection frameworks modelled on EU adequacy mechanism.	India's DPDP Act 2023 (rules notified November 2025) includes data localisation provisions that may diverge from DEFA's mutual recognition regime, creating compliance friction for Indian IT exporters.
Digital Payments & Fintech	Interoperable digital payments infrastructure; enhanced connectivity among ASEAN fast payment systems; consumer protection in digital financial services.	UPI bilateral linkages (Singapore, Thailand/PromptPay under Project Nexus) are DEFA-adjacent but outside the binding framework. DEFA could create a coherent regional payments zone from which India's bilateral approach is structurally excluded.
Digital Identity & Authentication	Mutually recognisable and interoperable digital identity framework; electronic authentication standards across ASEAN.	India's Aadhaar-based digital identity stack is one of the world's most advanced but lacks formal mutual recognition with ASEAN. DEFA's identity framework creates a regional standard India may need to align with for e-commerce and service exports.

Table 7 Continued...

Table 7 Continued...

DEFA Domain	Key Provisions (concluded May 2026)	India Exposure / Strategic Implication
Cybersecurity	ASEAN-wide cybersecurity cooperation; consistent standards; strengthened CERT coordination; protections against online fraud and scams.	Indian IT firms operating in ASEAN will face DEFA-aligned cybersecurity standards; compliance costs will rise for those operating under divergent national frameworks.
Artificial Intelligence	Governance framework for AI deployment; safe and trusted AI standards across ASEAN digital markets.	India's emerging AI governance framework (draft National AI Policy 2025) diverges from ASEAN's DEFA-based AI standards, potentially creating market access barriers for Indian AI service exporters to ASEAN.
Competition Policy	Transparent environment for business competition and consumer choice; anti-monopoly principles in digital markets.	Indian digital platforms entering ASEAN markets will need to comply with DEFA-based competition rules, adding regulatory layers beyond AITIGA's goods-only framework.

Sources: Compiled by authors from ASEAN SEOM Statement (May 2026); BCG (2023); Khanna (2026)

bilateral linkages, however well-designed, will be DEFA-adjacent rather than DEFA-integrated, operating alongside the regional architecture rather than within it. The risk is not exclusion from individual bilateral payment flows but structural marginalisation from the systemic payments infrastructure that will underpin ASEAN's digital GVC ecosystem.

5.4 Strategic Options for India: From Observer to Partner

DEFA's conclusion significantly narrows India's available strategic options in the digital domain. Three pathways in the current context merit consideration, each calibrated to India's current domestic digital governance framework and political economy constraints. The first and most immediately actionable is to accelerate bilateral Digital Economy Agreements with Singapore and Malaysia. Singapore has concluded DEAs with Australia, Chile, South Korea, and the United Kingdom, each providing a binding digital trade framework that goes substantially beyond RCEP's e-commerce chapter. An India–Singapore DEA, building on the foundation of CECA and the UPI–PayNow precedent, would create a high-standard bilateral digital framework whose provisions could progressively be extended to other ASEAN members, functioning as a DEFA-compatible bridge rather than a parallel architecture.

The second pathway is to align India's Digital Personal Data Protection Act's implementation rules with DEFA's mutual recognition framework. This does not require India to abandon data sovereignty principles: DEFA itself bans only 'unnecessary' data localisation, preserving national security carve-outs. Calibrating India's implementation of the DPDP Act to minimise unnecessary divergence from DEFA's data governance baseline would substantially reduce the compliance friction facing Indian IT exporters in ASEAN markets without requiring legislative revision.

The third pathway is to formalise India's engagement with DEFA as an accession-eligible or observer partner, building on India's status as ASEAN's dialogue partner. ASEAN's practice with ATIGA and ACIA allows for external participation mechanisms; a comparable mechanism

for DEFA would give India a structured channel to shape implementation without full membership obligations.

DEFA's conclusion in May 2026 constitutes a strategic inflection point in ASEAN–India digital relations. With DEFA's signing anticipated for November 2026, alongside the ASEAN Trade in Goods Agreement Upgrade and ASEAN–China FTA 3.0, the institutional architecture within which India's ASEAN relationships operate will shift in a single multilateral moment, as ASEAN will have a binding goods framework (ATIGA upgraded), a binding digital framework (DEFA), and a deepened arrangement with China (ACFTA 3.0), while its framework with India (AITIGA, under review) remains a goods-only instrument from 2010, although a separate services and investment agreement has been in force. The distance between the architecture India operates within and the architecture its ASEAN partners are deepening will widen sharply in November 2026 unless India moves decisively to close it through the strategic options identified above. The structure and scope of digital engagement between India and ASEAN remains 'relatively underexplored in the policy literature'[23], and is a gap that India's negotiators must urgently close in practice.

6. Bottlenecks, Regulatory Challenges, and Structural Constraints

The preceding sections have established that ASEAN–India GVC integration has grown but remains shallow; that the overlapping trade architecture disadvantages India structurally; and that DEFA's conclusion creates a new and urgent digital frontier. This section examines why, identifying the specific bottlenecks, regulatory failures, and structural constraints that have prevented the full potential of the ASEAN–India economic relationship from being realised, and that will constrain the policy options examined in Section 7.

Table 8 provides a consolidated severity assessment; summarizing it into a severity-ranked matrix for GVC integration between India and ASEAN. The analysis reveals that the four 'critical' constraints, rules

of origin misuse, persistent NTBs, low FTA utilisation, and the inverted duty structure, are mutually reinforcing. The inverted duty structure that increases effective rate of protection, depresses domestic manufacturing capability, which reduces the value-added content available to meet rules of origin thresholds, which in turn lowers FTA utilisation, and limits pressure to remove NTBs.

For India's SME exporters, who account for approximately 40 per cent of India's total exports but operate with fragmented supply chains, limited documentation infrastructure, and common use of imported inputs that complicate origin certification, the compliance barriers to FTA utilisation are disproportionate. The implication for GVC linkages is direct. Low FTA utilisation rates mean that even a successfully renegotiated AITIGA, with improved tariff schedules and tighter rules of origin, will fail to generate GVC integration unless accompanied by a parallel programme of trade facilitation, self-certification of origin, digitised certificates, simplified product-specific rules, and dedicated FTA implementation support for SMEs. These provisions are now increasingly observed in India's new age bilateral FTAs, including the one recently concluded with New Zealand.

The 'high' severity constraints, logistics costs, PLI design tension, digital regulatory divergence, and political economy resistance, share a common characteristic: they are amenable to domestic policy reform without requiring India to make FTA concessions that carry political risk. Reducing logistics costs through GatiShakti, redesigning PLI schemes with explicit GVC conditionality, calibrating DPDP Act implementation toward DEFA compatibility, and building MSME-adjustment support mechanisms are all domestic actions that would improve India's GVC competitiveness regardless of the outcome of any external negotiation. This is a key policy insight. India's GVC integration problem is substantially a domestic competitiveness problem. Fixing the domestic constraints is therefore an essential pre-condition to better FTA design, not a complement.

Table 8: Bottlenecks and Structural Constraints in ASEAN–India GVC Integration: Severity Assessment

Constraint Category	Key Evidence / Data	Policy Implication	Severity
Rules of Origin misuse & circumvention	China-origin goods routed via ASEAN exploit AITIGA preferential rates; import growth from ASEAN post-2010 outpaced export growth 2:1; India's global imports from ASEAN grew 120 per cent (2010–21) vs. 63 per cent overall	Tighter product-specific ROOs and enhanced verification essential; RCEP's common ROO framework reduces this risk for members but India remains outside	Critical
Non-tariff barriers (NTBs)	NTB incidence highest for India's exports to Indonesia, Philippines, Malaysia, Thailand; SPS and TBT measures dominate; standards vary significantly across ASEAN (e.g. peanuts, basmati rice pesticide limits); Indian pharma and auto face quotas and import regulations	MRAs on standards and certifications urgently needed; country-specific NTB monitoring desks and joint FTA committee redressal mechanisms required	Critical
Low FTA utilisation rates	India's FTA utilisation rate: 5–25 per cent; global average for developed economies: 70–80 per cent; complex ROOs, documentation burdens, and marginal tariff benefits below 10 per cent deter SME use	Self-certification of origin, digitisation of certificates, rationalised product-specific rules; FTAs are ineffective without utilisation architecture	Critical

Table 8 Continued...

Table 8 Continued...

Constraint Category	Key Evidence / Data	Policy Implication	Severity
Logistics & infrastructure costs	India's logistics cost: 7.97 per cent of GDP (FY2024–25 government estimate); Vietnam and Thailand operate port-led industrial clusters at substantially lower effective cost per unit; IMT Trilateral Highway incomplete	PM Gati Shakti NMP addresses this partially; land-based connectivity to mainland ASEAN remains the critical missing link for GVC integration	High
Inverted duty structure	Importing finished goods cheaper than importing components under AITIGA; affects ferro alloys, aluminium, copper pipes, textile staple fibres, chemical preparations; manufacturing's share of GDP fell from 15.4 per cent (2020) to 14.3 per cent (2023)	Tariff rationalisation essential; inverted duties simultaneously create the deficit anxiety that blocked RCEP and the manufacturing weakness that limits GVC participation	Critical
Atmanirbhar Bharat / PLI design tension	PLI target: raise manufacturing's share of GDP to 25 per cent by 2025 — not achieved (14.3 per cent in 2023); PLI successful in mobiles and pharma but delivered assembly operations rather than deep GVC integration in textiles, solar cells, auto components	PLI schemes need explicit GVC-linkage conditionality: incentivise integration into ASEAN supply chains, not just domestic production volume	High

Table 8 Continued...

Table 8 Continued...

Constraint Category	Key Evidence / Data	Policy Implication	Severity
Digital regulatory divergence (DPDP Act vs. DEFA)	India's DPDP Act (2023; rules notified Nov 2025) includes data localisation and access provisions diverging from DEFA's 'unnecessary localisation' ban and mutual recognition regime; NPCI 30 per cent market-share cap on foreign payment providers (on hold till Dec 2026)	DPDP Act implementation rules must be calibrated to minimise divergence from DEFA; NPCI cap extension is a recurring signal of digital market access friction	High
Political economy: MSMEs and agriculture	MSMEs: 40 per cent of India's exports; politically vocal opponents of import liberalisation; Dairy/agriculture: core constituency reason for RCEP withdrawal; 2025 AITIGA negotiations saw India exclude agriculture from liberalisation scope	Sectoral safeguards, adjustment assistance, and phased liberalisation with transition periods required to build domestic political coalitions for deeper integration	High
Weak GVC data infrastructure	India lacks firm-level GVC participation data comparable to OECD TiVA at sectoral granularity; negotiating teams lack real-time intelligence on where Indian firms are embedded in ASEAN supply chains	Investment in GVC data infrastructure (firm surveys, TiVA-comparable input-output tables at state level) is a precondition for evidence-based FTA negotiation	Moderate
Negotiating capacity & speed	AITIGA review: 10 JC meetings across 3 years (2023–2025) with conclusion outstanding; India-UK FTA: 14 rounds over 3 years; compare Vietnam's EVFTA: concluded in 18 months	India's Ministry of Commerce needs dedicated trade negotiating capacity — experienced trade lawyers, economists, and GVC analysts — beyond the current generalist cadre	Moderate

Sources: Compiled by authors from GTRI (2023); ORF (2024, 2025); ERIA (2024)

7. Policy Options and Strategic Recommendations

The analysis across the preceding sections confirms that India's relationship with ASEAN is one of expanding trade but contracting strategic leverage in terms of connectivity with GVCs, with only three ASEAN members (Singapore, Indonesia and Thailand) increasing their GVC linkages with India since 2019. This section attempts to provide a set of policy recommendations, structured as a differentiated and sequenced strategy rather than a single policy choice. The recommendations are ordered by the combination of urgency and feasibility, and each is grounded explicitly in the analytical findings of the preceding sections.

7.1. Recommendation 1: Complete an Ambitious AITIGA 2.0 — India's Most Immediately Actionable Step

The AITIGA review, with its tenth Joint Committee meeting completed in August 2025 and seven sub-committees actively engaging, represents the most immediately actionable policy lever available to India. A genuinely ambitious AITIGA 2.0 must go significantly beyond improving tariff schedules and tightening rules of origin, to address the structural gaps that Table A1 shows. Three additions are essential to transform AITIGA 2.0 from a goods agreement into a GVC-enabling instrument.

First, a digital trade chapter, even on a provisional or best-efforts basis pending conclusion of the full review, would address the single most consequential design gap in AITIGA's current architecture. Given DEFA's conclusion, ASEAN negotiators now have a common digital governance template to work from; India should propose aligning AITIGA's digital provisions with DEFA's baseline rather than negotiating from first principles.

Second, a binding non-tariff barrier redressal mechanism, with time-bound resolution procedures and a joint monitoring function, is essential to address the systematic NTBs constraint identified in Table 8. Third, product-specific rules of origin modelled on RCEP's framework, would simultaneously prevent Chinese goods circumvention and reduce

the compliance divergence cost that currently disadvantages Indian component exporters relative to RCEP-member competitors.

7.2. Recommendation 2: A Calibrated RCEP Re-engagement Strategy

The political economy obstacle, RCEP re-entry perceived as a China FTA, can be managed through careful strategic framing and concrete safeguard design. India should approach re-engagement not as accepting the 2019 agreement but as negotiating "RCEP Plus Services": making a services chapter, addressing India's long-standing demand for services mobility and professional recognition, a precondition for re-entry, thereby transforming RCEP from a goods-focused deficit risk into a services-opportunities-plus-goods agreement. Sector exclusions for dairy, paddy, and sensitive agriculture, phased tariff reduction schedules with automatic safeguard triggers for critical industries, and China-specific rules of origin in sensitive sectors can be negotiated within the RCEP framework. Critically, the strategic reframing matters: RCEP re-engagement should be presented domestically as a vehicle for capturing the China Plus One supply chain shifts, a narrative that resonates with both the manufacturing community and the strategic community.

7.3. Recommendation 3: CPTPP-Compatible Regulatory Alignment — The Stepping-Stone Strategy

Full CPTPP accession is not a near-term realistic policy option, but regulatory alignment with CPTPP standards is both achievable and strategically valuable independent of accession. The analytical case is grounded in three observations from the preceding sections. First, India already has bilateral FTAs with Australia, Japan, Singapore and now New Zealand, all CPTPP members. Extracting CPTPP-comparable commitments in digital trade, investment, and services from these agreements upgrades their effective depth without formal CPTPP accession. Cambodia's CPTPP accession process (application filed December 2025) demonstrates that developing economies with significant regulatory gaps can use CPTPP accession as a structured reform programme rather than simply a market access exercise.

The stepping-stone strategy has four domestic components. The Finance Bill 2025's removal of seven customs tariff categories and EV/mobile manufacturing duty exemptions is directionally consistent with CPTPP-compatible tariff reform and should be extended systematically. The announced revision of India's 2015 Model BIT provides an opportunity to adopt investor-friendly provisions that approach CPTPP's investment chapter standards while preserving regulatory safeguards. The DPDP Rules 2025, if implemented with minimal unnecessary data localisation, can be calibrated toward CPTPP's data flow provisions. And India's competition law framework, strengthened by the Competition (Amendment) Act 2023, provides a foundation for the SOE and competition chapter alignment that CPTPP requires.

7.4. Recommendation 4: A DEFA-Adjacent Digital Strategy

DEFA's conclusion makes a proactive India digital strategy with ASEAN urgently necessary. The Lowy Institute (2026) analysis of the multiplying digital trade rules in the Indo-Pacific makes the strategic logic clear: the region no longer has a single digital order but "multiple sets of rules operating in parallel." India's optimal strategy is to use bilateral Digital Economy Agreements to establish compatibility with the highest common denominator of these rules — CPTPP Chapter 14 and DEFA — rather than defaulting to the lowest, RCEP's e-commerce chapter whose dispute settlement inapplicability makes it the weakest enforceable digital framework in the region.

The India–Singapore Digital Economy Agreement is the most immediately actionable instrument. Singapore's established DEA template — built on CPTPP digital standards and already applied with Australia, Chile, South Korea, and the UK — provides India with a negotiating starting point, and the UPI–PayNow precedent demonstrates both the technical feasibility and political willingness of the bilateral relationship to pioneer digital GVC infrastructure. An India–Singapore DEA should cover cross-border data flows and a mutual recognition arrangement for data protection frameworks (the critical step toward

DEFA compatibility); digital payments interoperability building on UPI–PayNow; digital identity mutual recognition (Aadhaar-to-SingPass); electronic invoicing and paperless trade; and cybersecurity cooperation. This agreement, once concluded, should be extended bilaterally to Malaysia and Vietnam, progressively building a network of DEFA-compatible bilateral digital agreements. India should simultaneously seek formal observer status in DEFA's implementation governance structure, leveraging its ASEAN dialogue partner status to gain a structured voice in DEFA's evolving standards without full membership obligations.

7.5. Recommendation 5: Domestic Competitiveness as the Precondition for All External Strategies

The Four external recommendations above will generate limited GVC gains unless they are accompanied by a systematic domestic reform programme that addresses the binding constraints identified in Table 8. Four domestic interventions are critical.

First, PLI schemes must be redesigned with explicit GVC-linkage conditionality: incentives should be conditional not merely on domestic production volume but on demonstrated integration into ASEAN supply chains, measured by intermediate goods exports, backward linkage with ASEAN component suppliers, and participation in regional certification frameworks. PLI schemes that incentivise assembly for the domestic market without GVC integration perpetuate the Atmanirbhar paradox[24].

Second, India's FTA utilisation infrastructure requires dedicated institutional investment. A national FTA Utilisation Support Programme modelled on Vietnam's EVFTA utilisation architecture, providing self-certification of origin, digitised certificates, SME advisory services, and firm-level GVC mapping tools. Vietnam's EVFTA utilisation rate above 60 per cent demonstrates what systematic utilisation support can achieve, compared to India's 25 per cent rate.

Third, physical connectivity to mainland ASEAN through the IMT Trilateral Highway, the Kaladan Multimodal project, and the associated

Northeast industrial corridor development, should be treated as a GVC infrastructure priority rather than a development assistance project, with dedicated project completion timelines and contingency planning for Myanmar's political instability.

Fourth, India needs to invest substantially in GVC data infrastructure: firm-level GVC participation surveys, TiVA-comparable input–output tables at the state level, and a dedicated GVC intelligence function within the Ministry of Commerce to provide trade negotiators with real-time data on where Indian firms are embedded in ASEAN supply chains and where the most commercially significant opportunities lie.

Table 9 summarises the above recommenda-tions in a sequenced strategic roadmap. The sequencing is deliberate: Recommendations 1 (AITIGA 2.0) and 4 (DEFA-adjacent digital strategy) are near-term because they operate within existing bilateral frameworks where political will is established and implementation infrastructure exists. Recommendations 2 (RCEP re-engagement) and 3 (CPTPP regulatory alignment) are medium-term because they require either multilateral negotiation or domestic regulatory reform that takes time to build. Recommendation 5 (domestic competitiveness) is both immediate and ongoing because it is the precondition for realising gains from all external strategies.

The overarching strategic logic that unifies the five recommendations is what this chapter terms the "simultaneous reform imperative." Each recommendation reinforces the others: completing AITIGA 2.0 with RCEP-modelled rules of origin reduces the ROO compliance gap that RCEP re-engagement would fully close; CPTPP regulatory alignment creates the domestic framework that makes both RCEP re-engagement less threatening and DEFA compatibility more achievable; a DEFA-adjacent digital strategy builds the digital GVC infrastructure that makes India's IT and services sector less vulnerable to DEFA's architecture and more attractive to ASEAN digital investment; and domestic competitiveness reforms provide the manufacturing depth that makes

Table 9: Strategic Roadmap: India–ASEAN GVC Integration Policy Recommendations (2026–2030)

Recommendation	Priority Actions	Timeframe	Key Domestic Prerequisite	Primary References
R1: Complete Ambitious AITIGA 2.0	Conclude ROO reform with product-specific rules; digital trade chapter (provisional); MRAs on pharma/auto standards; binding NTB redressal; expanded agricultural access; services investment trigger clause	Near-term 2026–27	Tariff rationalisation to address inverted duty structure; digitise certificates of origin; self-certification rollout for SMEs	ASEAN Secretariat (2025); GTRI (2023); ICRIER WP165; ADB ROO Assessment (2023)
R2: Calibrated RCEP Re-engagement	Seek observer status initially; negotiate sector exclusions for dairy/ agriculture with phased review; push for services chapter as condition of re-entry; utilise Japan–Singapore fast-track provision; frame as 'RCEP Plus Services'	Medium-term 2027–29	Domestic consensus-building; safeguard mechanism design; MSME adjustment support fund; address China-routing via strict ROOs in re-entry terms	Das (2023); Petri & Plummer PIIE WP20-9; Outlook Business (2025); ADB ROO Assessment (2023); ORF (2025)
R3: CPTPP Regulatory Alignment (Stepping-Stone Strategy)	Progressive alignment of data governance (DPDP Act calibration), competition law, BIT revision, and IP framework with CPTPP standards; leverage bilateral FTAs with AU, JP, SG (all CPTPP members) to extract CPTPP-comparable digital commitments	Medium-term 2026–30	DPDP Rules recalibration; revised Model BIT (2025 Budget commitment); SEBI/RBI regulatory convergence; remove NPCI 30 per cent FPS cap permanently	CRS IF12078 (2023); Asia Foundation (2024); UKTPO (2026); CSIS (2026); India Briefing (2026)

Table 9 Continued...

Table 9 Continued...

Recommendation	Priority Actions	Timeframe	Key Domestic Prerequisite	Primary References
R4: DEFA-Adjacent Digital Strategy	Negotiate bilateral DEA with Singapore (building on CECA/UPI-PayNow); pursue DEA with Malaysia; align DPDP Rules with DEFA mutual recognition regime; formalise India–ASEAN observer/dialogue status in DEFA implementation; scale Project Nexus	Near-term 2026–27	DPDP Rules calibration toward DEFA adequacy standards; Government data-sharing access provisions reviewed; Aadhaar interoperability framework for ASEAN	ASEAN/BCG DEFA Study (2023); Lee et al. (2025); LKYSPP (2026); Asia Foundation (2024); Lowy Institute (2026)
R5: Domestic Competitiveness Prerequisites	Redesign PLI with explicit GVC-linkage conditionality; complete GatiShakti NMP priority corridors; FTA utilisation programme for SMEs; GVC data infrastructure investment; accelerate IMT Highway completion; dedicate trade negotiating capacity	Immediate & Ongoing	Finance Bill 2025 tariff reforms as starting point; National Manufacturing Mission 2.0 integration; MSME adjustment support scheme	ERIA (2024); Federal (2025); Atlantic Council (2020); Policy Circle (2026); World Bank WDR 2020

Sources: Author's compilation based on ERIA (2024); Crivelli et al. (2023); BCG (2023); Petri & Plummer (2020); Das (2023); GTRI (2023); CRS (2021, 2023); Lee et al. (2025); Khanna (2026); World Bank WDR 2020; ORF (2025).

all external agreements commercially consequential rather than merely institutionally present.

In conclusion, India's trade strategy to date has been to treat these as sequential choices, to seek domestic reform before external engagement, or to engage externally while deferring domestic reform. The evidence from Section 3's GVC data, Section 5's DEFA analysis, and Section 6's constraint diagnosis in Table 8 collectively demonstrates that this sequencing has generated fifteen years of trade expansion without GVC deepening.

The simultaneity of reform, external engagement and domestic competitiveness reform pursued in parallel, mutually reinforcing each other, is an observable pattern of every successful GVC integration story in Asia, from Korea's POSCO-anchored steel GVC to Vietnam's Samsung-led electronics transformation. India's GVC trajectory with ASEAN will be determined by whether it can sustain this simultaneity learning lessons from its Southeast Asian neighbours.

Endnotes

1 See, Sen, et al (2004).

2 The AEP has given a new direction to further strengthening the bilateral economic relations between India and ASEAN. The AEP has a broader economic and geo-strategic engagement vision involving the wider Indo-Pacific region, that comprises countries bordering the Indian and Pacific oceans, thereby including ASEAN (Sen, 2022).

3 These agreements have established measures for ensuring transparency, protection, domestic regulations, mutual recognition, market access, and dispute settlement pertaining to bilateral trade and investment flows (Sen, 2022)

4 Ministry of Commerce and Industry, "Export Import Data Bank: Region-wise Exports and Imports," Accessed 10 July 2026.

5 The World Bank's World Development Report (2020) defines GVC trade as "involving at least two border crossings" which is a fundamental shift in how production is organised globally. Rather than exporting finished products, GVC participants export tasks: the design of a component, its fabrication, its assembly, its quality certification, or its distribution. This "fragmentation of production" across national borders, coordinated by lead firms through investment, technology

transfer, and contractual relationships, is the defining organisational feature of the contemporary global economy. GVC participation is measured through value-added decomposition of gross exports, a methodology that separates domestic value added from foreign value added embodied in a country's exports.

6 See https://timesofindia.indiatimes.com/business/india-business/india-should-be-part-of-rcep-cptpp-niti-ceo/articleshow/115064454.cms

7 UNCTAD's Global Trade Update of January 2026 noted that nearly two-thirds of global trade now takes place within value chains being actively reshaped by geopolitical tensions, industrial policy, and new technologies, with frequent policy shifts increasing uncertainty and discouraging long-term investment

8 See India's Trade Recalibrations in the Age of Uncertainty – The Diplomat

9 See https://www.indiastat.com/Socio-Economic-Voices/India-Ink-FTAs-Strong-Bilateral-Trade-Trajectories

10 See https://www.ids.ac.uk/opinions/opportunities-risks-and-realities-of-indias-participation-in-global-value-chains/

11 The study shows that in the intervening period between 2009 and 2024 (the respective years of the signing and review of AITIGA), India has improved its GVC participation in several industries, such as chemicals, pharmaceuticals, machinery, and automobile parts and engines. However, India has lagged other ASEAN emerging markets such as Malaysia and Viet Nam when it comes to attracting manufacturing FDI inflows.

12 It is evident that AITIGA may have created final-goods trade while diverting GVC-relevant intermediate trade. India's widening trade deficit with ASEAN reflects import growth, but evidence of welfare-improving specialisation versus trade diversion via relaxed ROOs is mixed. Several Indian sectors allege AITIGA's electronics and chemicals ROOs have been exploited by third country (notably Chinese) manufacturers routing goods through ASEAN. a concern driving the ongoing AITIGA review.

13 See, Asia foundation (2024).

14 See, https://economy-finance.ec.europa.eu/economic-forecast-and-surveys/economic-forecasts/autumn-2024-economic-forecast-gradual-rebound-adverse-environment/global-trade-outlook-and-resilience-global-value-chains_en

15 See, https://news.un.org/en/story/2025/04/1162306

16 Refer, WTO (2026) Global Trade Outlook and Statistics.

17 Refer, TRADESTAT Database

18 These would include examples such as Malaysia's semiconductor packaging and testing for Intel and Infineon, Vietnam accounting for approximately 30% of Samsung's global smartphone production, and the Philippines and Thailand contributing to assembly and testing capacity in electronics.

19 As an example, RCEP's garment RoO requires only a tariff-heading shift at the two-digit HS level, so that even garments sewn from non-RCEP yarns qualify for duty-free treatment within the region.

20 These include an Early Warning System, Crisis Response Network, and Investment Accelerator for resilient supply chains, and the Clean Economy and Fair Economy Pillars

21 By October 2025, UPI was processing a record 20.7 billion monthly transactions worth approximately INR 27.28 lakh crore domestically, while NPCI International was actively pursuing bilateral linkages with Indonesia, Thailand, and Malaysia, described by its officials as 'high-traffic countries' for UPI expansion. Project Nexus, the BIS-led initiative to interlink fast payment systems across India, Malaysia, the Philippines, Singapore, and Thailand, provides a multilateral dimension to this effort, targeting operational connectivity by 2026.

22 As BIS (2024) analysis of cross-border payments confirms, each bilateral payment system link requires separate negotiation of technical standards, business processes, regulatory frameworks, and consumer protection rules. As the number of participating jurisdictions increases, the number of bilateral links required rises exponentially. DEFA's digital payments framework addresses precisely this scalability problem by creating a single, unified regional architecture for payments interoperability across ten economies simultaneously — an architecture that, once in force, will govern the payments infrastructure underlying ASEAN's USD 2 trillion digital economy. India's bilateral linkages, however well-designed, will be DEFA-adjacent rather than DEFA-integrated: operating alongside the regional architecture rather than within it. The risk is not exclusion from individual bilateral payment flows but structural marginalisation from the systemic payments infrastructure that will underpin ASEAN's digital GVC ecosystem

23 See, Khanna (2026).

24 This refers to the Atmanirbhar Bharat policy, the self-reliance framework launched in May 2020, that has two distinct interpretations that pull in opposite directions. The first, frames self-reliance as export competitiveness: building Indian firms that are strong enough to compete globally, using GVC participation as the mechanism. The second, reflected in tariff escalation, import substitution measures, and the political economy of PLI scheme design, frames self-reliance as import reduction: keeping foreign goods out of the Indian market. The former is GVC-compatible; the latter is fundamentally at odds with GVC participation, which involves both imports of inputs and exports of outputs.

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Appendix: Deep Integration Provisions Across Indo-Pacific Trade Architectures A GVC Facilitation Comparison

Table A1: Deep Integration Provisions — AITIGA, RCEP, CPTPP, IPEF, and ASEAN DEFA: GVC Relevance Assessment

Deep Integration Provision (GVC Relevance)	AITIGA (2010)	RCEP (2022)	CPTPP (2018/UK 2024)	IPEF (2022)	ASEAN DEFA (in negotiation)
I. GOODS TRADE & RULES OF ORIGIN					
Tariff elimination scope	✓ ~75 per cent lines	✓ ~92 per cent lines	✓ ~99 per cent lines	✗ Not in Trade Pillar	N/A
Common/unified Rules of Origin	✗ AITIGA-specific only	✓ Single unified ROO framework	✓ Full product-specific ROOs	✗ Not applicable	N/A
Cumulation across bloc members	✗ Bilateral only	✓ Full diagonal cumulation	✓ Full diagonal cumulation	✗ Not applicable	N/A
Customs procedures & trade facilitation	◑ Basic provisions	✓ WTO TFA-plus	✓ Comprehensive chapter	✓ Supply chain pillar	N/A
Sanitary & phytosanitary (SPS)	◑Under review	✓ Chapter included	✓ Binding chapter	◑ Agri pillar (limited)	N/A
II. INVESTMENT					
Investment protection (NT, MFN, FET)	✗ Separate agreement *2015; limited*	✓ Chapter 10 *full standards*	✓ Chapter 9 *comprehensive*	◑ Facilitation only	N/A
Investor-State Dispute Settlement (ISDS)	✗ Not included	✗ Excluded; under review	✓ Chapter 9B; binding	✗ Not applicable	N/A

Appendix Table A1 Continued...

Appendix Table A1 Continued...

Prohibition on performance requirements	✗ Not included	✓ Article 10.9	✓ Article 9.10	✗ Not covered	N/A
National treatment (pre-establishment)	✗ Post-establishment only	◑ Positive list; hybrid	✓ Negative list; broader	✗ Not included	N/A
III. SERVICES TRADE					
Services liberalisation chapter	✗ Separate agreement *2015; shallow*	✓ Chapter 8 *~65 per cent sectors open*	✓ Chapters 10-11 *negative list*	✗ Not in Trade Pillar	N/A
Financial services	✗ Not covered	✓ Chapter included	✓ Dedicated chapter *ISDS applicable*	✗ Not applicable	◑ Payments inter-operability
Mode 4 (movement of natural persons)	◑ Limited; professionals	◑ Chapter 12; incremental	✓ Chapter 12; broader	✗ Not included	N/A
Mutual recognition of standards	◑ Under review SC-STRACAP	◑ Best-efforts basis	✓ Binding MRA provisions	✗ Not applicable	◑ Under negotiation
IV. DIGITAL TRADE & DATA GOVERNANCE					
E-commerce / digital trade chapter	✗ No provisions	✓ Chapter 12 *no duties on transmissions*	✓ Chapter 14 *comprehensive; binding*	◑ Digital pillar *non-binding*	✓ Core focus of DEFA
Cross-border data flows	✗ Not covered	◑ Permitted *broad exceptions*	✓ Free flows *narrow exceptions*	◑ Framework principles	✓ Binding data-flow rules

Appendix Table A1 Continued...

Appendix Table A1 Continued...

Prohibition on data localisation	✗ Not covered	◑ Permitted with carve-outs *security/public policy*	✓ Binding prohibition *Art. 14.13*	✗ Not binding	✓ Expected binding rule
Source code protection	✗ Not covered	✗ Not covered	✓ Art. 14.17: binding	✗ Not included	◑ Under negotiation
Dispute settlement: digital chapter	✗ Not applicable	✗ Excluded from DS *at entry into force*	✓ Full DS applicable	✗ Not binding	✓ Anticipated binding
Digital payments interoperability	✗ Not covered	✗ Not covered	✗ Not covered	◑ IPEF fintech principles	✓ Core DEFA objective
V. REGULATORY DEPTH & GOVERNANCE					
Intellectual property (beyond TRIPS)	✗ Not included	✓ Chapter 11 *TRIPS-plus*	✓ Chapter 18 *comprehensive*	✗ Not applicable	◑ IP for digital goods
Competition policy	✗ Not included	✓ Chapter 13 *competition law obligation*	✓ Chapter 16 *binding; private rights*	✗ Not applicable	✗ Not included
State-owned enterprise disciplines	✗ Not included	✗ No dedicated chapter	✓ Chapter 17 *commercial considerations*	✗ Not applicable	✗ Not included

Appendix Table A1 Continued...

Appendix Table A1 Continued...

Government procurement	✗ Not included	◑ Transparency only	✓ Chapter 15 *GPA-like; binding*	✗ Not applicable	✗ Not included
Labour rights standards	✗ Not included	✗ Best-efforts only	✓ Chapter 19 *binding*	◑ Labour pillar *principles*	✗ Not included
Environmental chapter	✗ Not included	✗ No chapter	✓ Chapter 20 *binding*	✓ Clean economy pillar	✗ Not included
Overall dispute settlement coverage	◑ Goods chapters only	◑ Goods; digital excluded	✓ Comprehensive *all chapters*	✗ Non-binding framework	✓ Anticipated binding
India's Status / Access	Party (review ongoing; 10 JC meetings to Aug 2025)	Non-member (withdrew Nov 2019; RCEP minus China strategy)	Non-member (CPTPP alignment possible; accession remote near-term)	Member (not in Trade Pillar; in Supply Chain pillar)	Non-signatory (partner in ASEAN; bilateral DEA strategy needed)

✓ Full provision **◑ Partial / limited provision** **✗ Not covered / absent** *N/A = Not applicable to this agreement*

Sources: Author's compilation from Crivelli et al. (2023); CRS (2021, 2023); Asia Foundation (2024); BCG (2023); World Bank (2020).

About the Authors



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Acknowledgements

Authors are grateful for the comments and suggestions received from reviewers for finalising the Discussion Paper. Thanks are also due to the publication team at RIS comprising Mr. Sachin Singhal and Mr. Sanjeev Karna for arranging the production of this Discussion Paper. Views are authors' own. Usual disclaimers apply.

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