

ACHIEVING REGIONAL ECONOMIC INTEGRATION IN SOUTH ASIA

EDITOR
ANAND KUMAR



Achieving Regional Economic Integration in South Asia

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Editor

Anand Kumar



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Preface

The idea of regional economic integration has been a topic of growing significance in South Asia over the last few decades. This is not surprising, given the region's shared history, cultural linkages, and geographic proximity. Despite these commonalities, however, South Asia remains one of the least integrated regions in the world. Efforts to foster closer economic ties through platforms such as the South Asian Association for Regional Cooperation (SAARC) and the South Asian Free Trade Area (SAFTA) have delivered only limited results, and the region continues to grapple with political tensions, economic disparities, and infrastructure deficits that inhibit progress.

Yet, in an increasingly interconnected world, the importance of regional integration cannot be overstated. South Asia faces several common challenges, from poverty and unemployment to climate change and infrastructure gaps. Addressing these issues requires collective action, and economic integration holds the key to unlocking shared prosperity. It is with this belief that *Achieving Regional Economic Integration in South Asia* has been conceived. This edited volume brings together contributions from leading scholars, policymakers, and experts, each offering unique insights into the barriers, opportunities, and pathways to greater economic cooperation in South Asia.

This book examines the current state of economic integration in the region, identifying the structural impediments that have hindered deeper cooperation while also exploring the tremendous potential that exists if these barriers can be overcome. It covers a broad range of topics, including trade, energy cooperation, cross-border connectivity, regional value chains, and the role of external actors. By drawing lessons from successful regional blocs such as the European Union and ASEAN, this volume provides actionable recommendations for South Asia's integration agenda.

The global context has also changed significantly in recent years. The rise of

protectionist sentiments, the challenges posed by the COVID-19 pandemic, and the growing importance of digital trade and sustainability are reshaping the dynamics of international relations and economics. In this environment, South Asia cannot afford to remain on the sidelines. Enhanced economic integration is essential not only for stimulating growth but also for ensuring that the region is resilient to future crises.

This book is the product of extensive collaboration and dialogue. I would like to express my gratitude to the contributors for their insightful chapters, which form the core of this volume. Their deep expertise and diverse perspectives have enriched the analysis and broadened our understanding of the many facets of regional economic integration.

As the world moves toward an increasingly interconnected future, it is my hope that *Achieving Regional Economic Integration in South Asia* will serve as a valuable resource for scholars, policymakers, and practitioners interested in shaping South Asia's economic trajectory. This book is not only a reflection on the region's past efforts but also a guide to its future possibilities. Achieving economic integration in South Asia is undoubtedly a complex and challenging task, but it is also an achievable and necessary one.

I hope that the ideas and discussions presented in this volume will inspire greater cooperation and dialogue among the countries of South Asia, paving the way for a more prosperous and integrated region.

October 2024
New Delhi

ANAND KUMAR
Editor

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The successful completion of *Achieving Regional Economic Integration in South Asia* would not have been possible without the support, guidance, and contributions of several individuals and institutions. I would like to take this opportunity to express my sincere gratitude to all those who played a pivotal role in bringing this volume to fruition.

First and foremost, I am deeply grateful to the leadership at the Manohar Parrikar Institute for Defence Studies and Analyses (MP-IDSA), New Delhi, for providing a stimulating intellectual environment and unwavering institutional support throughout the process. The 15th South Asia Conference, from which this edited volume emerged, was made possible due to their vision and dedication to fostering regional cooperation and dialogue.

I would also like to extend my heartfelt thanks to all the esteemed contributors to this volume. Their insightful research, thoughtful analyses, and critical perspectives have enriched the quality of this book. Their collaboration and commitment to exploring the complex and evolving dimensions of regional economic integration in South Asia were invaluable.

Special thanks are due to the organizing team of the 15th South Asia Conference, whose efforts in convening experts, scholars, and policymakers from across the region laid the foundation for the rich discussions that underpin this volume. The event's success owes much to their hard work, dedication, and professionalism.

I am also indebted to the reviewers whose constructive feedback and suggestions helped refine the chapters and sharpen the arguments presented in the book. Their meticulous attention to detail and scholarly rigor contributed significantly to enhancing the overall quality of the volume.

I would also like to acknowledge the support of my colleagues at MP-IDSA,

who assisted with the administrative tasks that were crucial to the completion of this project. Their contributions behind the scenes were essential in ensuring the timely publication of this book.

I extend my sincere gratitude to Mr. Vivek Kaushik, Associate Editor at MP-IDSA, for rigorously overseeing the development of this book. I am also deeply appreciative of Ms. Jyoti Sahni for her expert and timely copy-editing, which enhanced the manuscript significantly. A special thanks goes to Mr. Rajan Arya and the team at Pentagon Press LLP for their commitment to publishing this volume on schedule. Their professionalism and unwavering dedication to excellence have been instrumental in bringing this work to fruition.

Lastly, I extend my deepest appreciation to my family for their constant support, encouragement, and patience throughout this journey.

I hope this volume contributes meaningfully to the discourse on regional economic integration in South Asia and serves as a valuable resource for scholars, policymakers, and practitioners alike.

ANAND KUMAR

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List of Abbreviations

ADB	Asian Development Bank
ADF	Augmented Dickey–Fuller
AfCFTA	African Continental Free Trade Area
AI	Artificial Intelligence
AITIGA	ASEAN–India Trade in Goods Agreement
APEC	Asia-Pacific Economic Cooperation
APIs	Application Programming Interfaces
APRII	Asia-Pacific Regional Integration Index
APSI	Action Plan on Strategic Initiatives
APTA	Asia-Pacific Trade Agreement
APTIAD	Asia-Pacific Trade and Investment Agreement Database
ARDL	Autoregressive Distributed Lag
ASEAN	Association of Southeast Asian Nations
BBCC	Bay of Bengal Coastal Countries
BBIN	Bangladesh, Bhutan, India, Nepal (initiative)
BCIM-EC	Bangladesh–China–India–Myanmar Economic Corridor
BIMSTEC	Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation
BIRAC	Biotechnology Industry Research Assistance Council
BoB	Bay of Bengal
BRI	Belt and Road Initiative
BRICS	Brazil, Russia, India, China and South Africa
B3Ei	Bay of Bengal Blue Economy Integration
CAGR	Compound Annual Growth Rate
CAREC	Central Asia Regional Economic Cooperation
CECA	Comprehensive Economic Cooperation Agreement

CEPAs	Comprehensive Economic Partnership Agreements
CLEG	Combined List of Environmental Goods
CNED	Centre for New Economic Diplomacy
CO ₂	Carbon Dioxide
COP27	27th Conference of Parties
CPEC	China–Pakistan Economic Corridor
CPTPP	Comprehensive and Progressive Agreement for Trans-Pacific Partnership
CRP	Country Risk Premium
CSIR	Council of Scientific and Industrial Research
CUSUM	Cumulative Sum (test)
CUSUMSQ	Cumulative Sum of Squares
DEPA	Digital Economy Partnership Agreement
DFQF	Duty-Free Quota-Free
DIY	Do-It-Yourself
DOTS	Direction of Trade Statistics
DPI	Digital Public Infrastructure
DRDO	Defence Research and Development Organisation
ECA	Europe and Central Asia
ECTA	Economic Cooperation and Trade Agreement
EGA	Environmental Goods Agreement
EKC	environmental Kuznets Curve
EPAs	Economic Partnership Agreements
ESCAP	Economic and Social Commission for Asia and the Pacific
ETCA	Economic and Technology Cooperation Agreement
EU	European Union
FAO	Food and Agriculture Organization
FATF	Financial Action Task Force
FDI	Foreign Direct Investment
Fintech	Financial Technology
FIU	Financial Intelligence Unit
FPI	Foreign Portfolio Investment
FROs	Focused Research Organisations
FTAs	Free Trade Agreements

GATS	General Agreement on Trade in Services
GCCs	Global Capability Centres
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GIS	Geographical Information System
GMS	Greater Mekong Subregion
GNI	Gross National Income
GoB	Government of Bangladesh
GSDP	Gross State Domestic Product
GSL	Generalised Least Squares
GSP	Generalised System of Preferences
GSTP	Global System of Trade Preferences
GVCs	Global Value Chains
G20	Group of Twenty
HDI	Human Development Index
H-O	Heckscher–Ohlin (theorem)
HS	Harmonised System
ICAR	Indian Council of Agricultural Research
ICD	Inland Container Depot
ICMR	Indian Council of Medical Research
ICTs	Information and Communication Technologies
ICTT	International Container Transhipment Terminal
iDEX	Innovations for Defence Excellence
IEP	Institute for Economics and Peace
IEX	Indian Energy Exchange
IIMs	Indian Institutes of Management
IITs	Indian Institutes of Technology
ILFTA	Indo-Lanka Free Trade Agreement
IMEC	India–Middle East–Europe Economic Corridor
IMF	International Monetary Fund
INR	Indian Rupees
IORA	Indian Ocean Rim Association
IoT	Internet of Things
IPA	Integrated Programme of Action

IPEF	Indo-Pacific Economic Framework
IPRs	Intellectual Property Rights
IS	Islamic State
ISFTA	Indo-Sri Lanka Free Trade Agreement
IT	Information Technology
ITEC	Indian Technical and Economic Cooperation
J&K	Jammu and Kashmir
km	kilometre
KYC	Know-Your-Customer
LDCs	Least Developed Countries
LKR	Sri Lankan Rupee
LMC	Lancang–Mekong Cooperation
LOC	Line of Credit
LPG	Liberalisation, Privatisation and Globalisation
MCC	Millennium Challenge Corporation
MEA	Ministry of External Affairs
MFN	Most Favoured Nation
MGC	Mekong–Ganga Cooperation
MNCs	Multinational Corporations
MoA	Memorandum of Association
MoUs	Memorandums of Understanding
MP-IDSA	Manohar Parrikar Institute for Defence Studies and Analyses
MSMEs	Micro, Small and Medium Enterprises
MVA	[BBIN] Motor Vehicles Agreement
MW	megawatt
NAFTA	North American Free Trade Agreement
NBFIs	Non-Banking Financial Institutions
NOAA	National Oceanic and Atmospheric Administration
NTBs	Non-tariff Barriers
NTMs	Non-tariff Measures
NTNC	National Trade Negotiation Committee
OECD	Organisation for Economic Co-operation and Development
ONDC	Open Network for Digital Commerce
ORF	Observer Research Foundation

PCA	Principal Component Analysis
PEGS	Plurilateral Environmental Goods and Services
PHH	Pollution Haven Hypothesis
PII	Personal Identifiable Information
PLI	Production Linked Incentive
PM	Prime Minister
PP	Phillips–Perron
PPPs	Public–Private Partnerships
PSFTA	Pakistan–Sri Lanka Free Trade Agreement
PTA	Preferential Trade Agreement
P2E	Play2Earn
Quad	Quadrilateral Security Dialogue
RCA	Revealed Comparative Advantage
RCEP	Regional Comprehensive Economic Partnership
RTAs	Regional Trade Agreements
SAARC	South Asian Association for Regional Cooperation
SAFTA	South Asian Free Trade Area
SAGAR	Security and Growth for All in the Region
SAGQ	South Asia Growth Quadrangle
SAL	Strategic Analysis Lab
SAPTA	SAARC Preferential Trading Arrangement
SARSO	South Asian Regional Standards Organization
SASEC	South Asia Subregional Economic Cooperation
SATIS	SAARC Agreement on Trade in Services
SCO	Shanghai Cooperation Organisation
SDGs	Sustainable Development Goals
SERB	Science and Engineering Research Board
SEZs	Special Economic Zones
SLSFTA	Sri Lanka–Singapore Free Trade Agreement
SLTFTA	Sri Lanka–Thailand Free Trade Agreement
SME	Small and Medium-Sized Enterprise
SOP	Standard Operating Procedure
SPS	Sanitary and Phytosanitary Measures
SWIFT	Single Window Interface for Trade

TBTs	Technical Barriers to Trade
TDB	Technology Development Board
TFA	Trade Facilitation Agreement
TRIPs	Trade-related Aspects of Intellectual Property Rights
TRL	Technology Readiness Level
TTF	Technology Transfer Facility
UAE	United Arab Emirates
UAS	Unmanned Aerial Systems
UK	United Kingdom
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNSC	United Nations Security Council
UPI	Unified Payments Interface
US	United States
VAT	value-Added Tax
VC	Venture Capital
VLSI	Very Large-Scale Integration
V20	Vulnerable Twenty
WDI	World Development Indicators
WITS	World Integrated Trade Solution
WTO	World Trade Organization

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Introduction

The Quest for Regional Economic Integration in South Asia

South Asia, comprising Afghanistan, Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan and Sri Lanka, represents a region of immense economic potential. Collectively, the region accounts for over 1.9 billion people, making it the most populous geographical cluster after East Asia. Rich in cultural diversity, historical connections and abundant natural resources, South Asia's economic progress has the potential to be a game changer in the global economy. Yet, despite these attributes, the region remains one of the least integrated economically. The questions at the heart of this edited volume are: *why has South Asia struggled to achieve regional economic integration*; and *what can be done to change this trajectory*?

This introduction seeks to lay the foundation for the discussions that follow in subsequent chapters by providing an overarching framework for understanding the barriers to and opportunities for economic integration in South Asia. It explores the historical, political and economic context within which regional integration has unfolded, or, more accurately, has stalled, while also assessing the potential benefits that deeper economic cooperation could bring. Importantly, it underscores the significance of learning from other regions, such as the European Union (EU) and the Association of Southeast Asian Nations (ASEAN), while tailoring these lessons to the specific realities of South Asia.

The Promise of Economic Integration in South Asia

The concept of regional economic integration is rooted in the idea that geographically proximate countries can achieve greater prosperity and development by cooperating more closely on economic matters. Such cooperation may include reducing trade barriers, harmonising regulations, facilitating cross-

border investment and enhancing infrastructure and connectivity. Historically, regions that have pursued this path have reaped significant benefits, including higher economic growth, increased trade and improved standards of living for their populations.

In South Asia, the case for regional integration is particularly compelling. The region is home to a large and youthful workforce, which, if mobilised effectively, could provide a demographic dividend in the coming decades. Additionally, South Asia's growing consumer market presents lucrative opportunities for intra-regional trade. However, despite the clear economic rationale, the reality on the ground tells a different story. Intra-regional trade in South Asia accounts for less than 5 per cent of total trade, making it one of the least connected regions globally. This contrasts sharply with regions like the ASEAN, where intra-regional trade comprises nearly 25 per cent of total trade.

The question, then, is not whether South Asia should integrate economically, but rather how it can overcome the deep-seated obstacles that have historically impeded this process.

Barriers to Economic Integration

There are several significant barriers that have prevented South Asia from realising its economic integration potential. These include:

1. *Political and historical tensions:* The most significant barrier to South Asian integration is the political rivalry between India and Pakistan, which has hampered efforts to promote economic cooperation through various platforms, like the South Asian Association for Regional Cooperation (SAARC). The historical baggage of conflicts and the lack of political trust between these two key players have stymied progress on regional initiatives.
2. *Economic asymmetries:* South Asia's economic landscape is dominated by India, which accounts for over 70 per cent of the region's gross domestic product (GDP). While this provides opportunities for India to play a leading role, it also creates challenges for some other economies. Achieving a balance between economic integration and addressing concerns of unequal gains is a delicate task.
3. *Infrastructure deficits:* Poor infrastructure, particularly in terms of transportation, energy and digital connectivity, has also limited the ability

of South Asian economies to integrate. Cross-border trade is hindered by inadequate road and rail links, complicated customs procedures and weak logistics networks. Without significant investment in infrastructure, the region will struggle to capitalise on the opportunities offered by regional cooperation.

4. *Non-tariff barriers (NTBs) and regulatory differences:* Even where formal trade agreements exist, NTBs, such as differing standards, bureaucratic red tape and restrictive trade practices, inhibit smooth trade flows across borders. For example, the South Asian Free Trade Area (SAFTA) agreement, signed in 2006, has not delivered the expected results due to these impediments.
5. *Security concerns and fragile political contexts:* Beyond India and Pakistan, political instability and security concerns in other countries, like Afghanistan and Sri Lanka, have also complicated regional economic cooperation. Terrorism, cross-border insurgencies and political transitions often shift national priorities away from regionalism towards inward-looking policies.

Opportunities for Integration

Despite these challenges, there are emerging opportunities that could pave the way for greater economic integration in South Asia:

1. *Emerging regional value chains:* As global supply chains become increasingly diversified, there is potential for South Asia to develop regional value chains, particularly in sectors like textiles, pharmaceuticals and information technology. By coordinating their industrial policies, South Asian countries could specialise in different stages of production, thereby enhancing intra-regional trade.
2. *The role of digital trade:* The rise of digital economies presents new opportunities for economic cooperation, particularly in e-commerce and digital services. By creating a unified digital market and addressing regulatory barriers in this sector, South Asia can boost trade and entrepreneurship.
3. *Energy cooperation:* South Asia has significant potential for regional energy cooperation, particularly in renewable energy. Hydropower resources in Bhutan and Nepal, along with solar power initiatives in India, offer a pathway for regional energy sharing, which could contribute to

sustainable development across the region.

4. *Engagement with external actors*: External players, like China, the United States (US), Japan and the EU, are increasingly engaging with South Asia for strategic and economic reasons. These actors can serve as catalysts for regional projects in different areas, like infrastructure development, trade facilitation and capacity building. However, their involvement must be managed carefully to ensure that it complements, rather than complicates, South Asia's own integration efforts.

Learning from Other Regions

The experiences of other regional blocs provide valuable lessons for South Asia. The EU, the ASEAN and the African Continental Free Trade Area (AfCFTA), all offer examples of how countries with divergent political and economic landscapes can overcome their differences to foster economic integration. For instance, the ASEAN's model of 'open regionalism' has allowed member states to deepen economic cooperation without the rigid political structures found in the EU, offering a more flexible pathway that could be adapted to South Asia's needs.

The Way Forward

To achieve meaningful regional economic integration, South Asia must focus on a multipronged approach that addresses both economic and political challenges. A revitalised SAARC, or an alternative framework like the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), could play a crucial role in driving forward the integration agenda. Additionally, fostering greater people-to-people ties, enhancing cross-border connectivity and creating platforms for dialogue between businesses and policymakers will be essential to build trust and promote economic cooperation.

Organisation of the Book

This edited volume, *Achieving Regional Economic Integration in South Asia*, is the outcome of the 15th South Asia Conference, organised by the Manohar Parrikar Institute for Defence Studies and Analyses (MP-IDSA), New Delhi. It brings together a diverse range of perspectives from scholars, policymakers and experts to explore the current state of regional integration in South Asia, while identifying the steps needed to unlock its full potential.

The book addresses key themes, including trade liberalisation, infrastructure development, cross-border connectivity and the formation of regional value chains. It also examines the influence of political relations, security dynamics and the role of external actors in shaping the regional integration process. Notably, the volume draws lessons from other regional blocs, such as the EU and the ASEAN, to offer actionable insights for South Asia's future trajectory.

At the core of South Asia's integration efforts lies the belief that economic interdependence is a powerful catalyst for fostering peace, stability and shared prosperity. The increasing significance of global supply chains, the urgency of sustainable development and the lessons learned from the COVID-19 pandemic underscore the critical need to advance regional cooperation. The volume highlights that deeper economic integration is not just desirable but essential for addressing the region's common challenges, including poverty alleviation, unemployment and infrastructure gaps.

The book is organised into three comprehensive sections:

1. **'Geopolitical, Strategic and Cultural Dimensions of Economic Integration'**: This section explores how historical, geopolitical and cultural factors impact economic cooperation and the pursuit of integration in South Asia. It delves into the complexities of political dynamics and security concerns that shape economic engagement within the region.
2. **'Trade, Investment and Economic Opportunities'**: Focused on the opportunities for enhancing trade and investment in South Asia, this section provides detailed analyses of trade agreements, such as the SAFTA. It also addresses the potential for cooperation in certain areas, like energy, infrastructure and digital connectivity, positioning South Asia for greater economic growth and collaboration.
3. **'Sustainability, Innovation and Regional Response'**: This section addresses the region's pursuit of sustainable development and innovation-driven growth. It explores how South Asia can align with global trends and overcome challenges related to environmental sustainability, while providing a road map for future responses to regional and global economic shifts.

The chapters in this volume approach regional integration from multiple angles, examining both opportunities and obstacles. From a thorough evaluation of

trade agreements and infrastructure initiatives to discussions on external actors, such as China, the US and the EU, the book offers a comprehensive road map for fostering deeper economic ties. It ultimately seeks to provide practical solutions for achieving South Asia's integration goals, highlighting the region's potential to harness economic collaboration for long-term growth and stability.

Geopolitical, Strategic and Cultural Dimensions of Economic Integration

This section examines the influence of historical, cultural and strategic factors on economic cooperation in South Asia, highlighting both the challenges and opportunities for deeper regional integration.

In his chapter, **Shri Dammu Ravi** underscores the critical importance of regional cooperation in South Asia, especially in the aftermath of the COVID-19 pandemic, as a means to foster global stability. Despite its vast economic potential, South Asia remains one of the least integrated regions globally, hampered by geopolitical tensions, trade imbalances and connectivity barriers. Ravi advocates for revitalising regional integration by strengthening trade relations, embedding South Asia more deeply into the global value chains and transforming the SAFTA into a comprehensive regional trade agreement. By overcoming these barriers, the region can reduce its reliance on external powers and create a pathway to shared prosperity, stability and resilience. India's leadership is pivotal, particularly in areas of infrastructure development, trade facilitation and digital public infrastructure. The chapter suggests key strategies, such as enhancing intra-regional investments, improving connectivity, expanding cross-border manufacturing, fostering energy cooperation and ensuring regional food security. Additionally, Ravi proposes promoting trade settlements in local currencies to fortify economic ties within the region, envisioning a cohesive South Asia that preserves political sovereignty while achieving economic unity, contributing to both regional prosperity and global competitiveness.

Professor Achyut Wagle delves into the intricate relationship between geopolitics and economic integration in South Asia, highlighting the barriers created by political tensions and external influences. Wagle notes that South Asia remains one of the least economically integrated regions in the world, with intra-regional trade constituting only around 5 per cent of its total trade. He identifies two major geopolitical challenges: first, the persistent political tensions among the SAARC member states, which have restricted the flow of trade,

investment and knowledge across borders; and second, China's growing influence in South Asia, which has reshaped the region's economic landscape, especially in countries traditionally within India's sphere of influence. Wagle argues that existing regional frameworks, like the SAARC and the SAFTA, have been ineffective in promoting economic integration. Even alternative mechanisms, like the BIMSTEC and the Bangladesh, Bhutan, India, Nepal (BBIN) initiative, have had limited success. He also evaluates initiatives like the China–Pakistan Economic Corridor (CPEC) and the Bangladesh–China–India–Myanmar Economic Corridor (BCIM-EC), noting that while these projects have attracted attention, they have not significantly advanced regional cohesion.

Shri Tarun Vijay explores the often-overlooked role of culture as a bedrock for economic integration and cooperation in South Asia. While discussions on regional integration typically emphasise political and economic factors, Vijay argues that the shared cultural heritage of South Asian nations, rooted in common civilisational values, historical experiences and religious traditions, provides a powerful foundation for fostering trust and collaboration. The concept of cultural diplomacy is central to his chapter, emphasising that culture is not merely a soft power tool but a vital element in building cohesive regional identities. Drawing on examples from history, such as shared languages, festivals and cultural icons, Vijay illustrates the deep-rooted connections across South Asia that can enhance economic and political relationships. He highlights the Mekong–Ganga Cooperation (MGC) as a successful model of cultural diplomacy and calls for a reorientation of policy discussions to recognise cultural systems as a fundamental component of any negotiations or cooperation efforts in South Asia.

In their joint chapter, **Dr Nilanjan Ghosh and Mr Soumya Bhowmick** analyse the global shifts towards protectionism and the retreat of traditional champions of globalisation, like the US and the EU, from global value chains reliant on China. This shift, they argue, has significant implications for South Asia, particularly for India, which has the potential to emerge as a counterbalance to China in the Bay of Bengal region. The authors stress the need for India to focus on building resilient and self-reliant regional value chains and integrating the Bay of Bengal region into global supply networks to drive economic convergence. They emphasise the importance of strengthening regional connectivity within the BIMSTEC to achieve India's vision of localised globalisation and foster regional growth.

Professor Delwar Hossain examines the growing momentum of subregional economic integration within South Asia, focusing on minilateral frameworks, such as the BIMSTEC, the BBIN and the South Asia Subregional Economic Cooperation (SASEC). These frameworks have become key drivers of economic cooperation in recent years, with Bangladesh and India playing pivotal roles. Hossain argues that the transformation in Bangladesh–India relationship over the past 15 years has catalysed subregional economic growth. Various initiatives, like border haats, minor port development, coastal shipping agreements and power sector cooperation, have enhanced connectivity and trade between the two nations, setting the stage for broader regional cooperation. The deepening financial integration through digital connectivity between Bangladesh and India has the potential to create a seamless cross-border trade ecosystem, benefitting the entire subregion.

Finally, Ms **Navita Srikant** focuses on the multifaceted impact of terrorism on South Asia's economic integration efforts. Her chapter explores the economic costs of terrorism, its deterrent effect on foreign investment and its disruption of regional trade and growth. Through case studies on Kashmir and the role of emerging technologies in both exacerbating and countering terrorism, Srikant offers a detailed analysis of the challenges terrorism poses to regional cohesion. She highlights India's leading role in regional counterterrorism initiatives and proposes strategic recommendations to mitigate the threats posed by terrorism, emphasising the importance of resilience in fostering sustainable economic growth across South Asia.

Trade, Investment and Economic Opportunities

This section delves into the transformative potential of regional trade agreements, including the SAFTA, and explores investment flows, energy cooperation and the critical role of digital connectivity in shaping South Asia's future economic landscape.

Dr **Fahmida Khatun** and Ms **Afrin Mahbub** emphasise that Bangladesh and Nepal are poised to graduate from least developed country (LDC) status by 2026. While this transition signifies economic progress, it also presents challenges, particularly the loss of duty-free quota-free (DFQF) market access in both developed and developing nations. To offset the potential decline in trade opportunities, the authors advocate for the creation of robust production networks and value chains that promote intra-regional trade and business collaboration.

The BIMSTEC offers significant promise in this regard, particularly in fostering investment in key sectors. However, the authors argue that the full potential of BIMSTEC remains underutilised, with investment levels lagging behind expectations due to limited confidence in fulfilling existing agreements. In light of shifting geopolitical dynamics, it is crucial to strengthen regional alliances like the BIMSTEC, to support global development agendas and address the economic challenges facing South Asian nations post-LDC graduation.

Mr **Mathisha Arangala** highlights the fleeting opportunity for South Asia to harness India's economic ascent by creating inclusive regional supply chains. For this to happen, the region must evolve trade agreements beyond mere market access to frameworks that promote supply chain integration and resilience. Arangala notes that while NTBs and connectivity deficits continue to stifle trade, the biggest challenge lies in overcoming the region's lingering trust deficits and protectionist attitudes. Drawing parallels with East Asia, he stresses that South Asian nations must begin to see each other as opportunities rather than threats. India, as the regional powerhouse, must adopt a more generous stance towards its smaller neighbours, while these nations, in turn, should confidently engage with India to enhance economic integration.

In her analysis, Ms **Kesang Om** delves into the pivotal role of economic partnership agreements (EPAs) in reshaping South Asia's trade landscape and their broader implications for entrepreneurs. While EPAs provide expanded market access and resource availability, they also present regulatory and competitive challenges. Om calls for stronger policy support to help entrepreneurs capitalise on the opportunities EPAs present, while also managing the risks involved. Her findings underscore the need for a balanced approach that fosters entrepreneurial growth within the framework of evolving trade agreements.

Ms **Araliya Weerakoon** focuses on Sri Lanka's efforts to use free trade agreements (FTAs) as a means to drive economic recovery and growth. Given the country's recent economic struggles, Sri Lanka's strategy of strengthening trade relations with both South Asia and Southeast Asia is particularly relevant. Weerakoon finds that while Sri Lanka's trade with South Asia, especially India, has historically been dominant, expanding trade with Southeast Asia could offer new growth opportunities. To maximise the benefits of these relationships, she advocates for enhancing existing FTAs, reducing trade barriers and fostering a more open economic environment that integrates Sri Lanka more fully into both regional and global markets.

Professor **Prabir De** highlights the decline in intra-regional trade, a trend exacerbated by the COVID-19 pandemic and deteriorating relations between India and Pakistan. While traditional tariffs no longer represent the primary obstacle to trade, De points to non-tariff measures (NTMs) as significant barriers. These NTMs, designed to protect public health and environmental standards, often increase trade costs due to complex compliance requirements and extended processing times. The author asserts that reducing these costs is essential for sustaining trade growth in a global environment characterised by economic slowdowns and heightened uncertainty. Addressing these barriers through enhanced regional cooperation is critical for not only revitalising South Asian trade but also contributing to broader global development goals.

Mr **Anurag Acharya** tackles South Asia's significant infrastructure deficits, which continue to impede the region's growth and its ability to integrate into global markets. Despite being home to nearly 1.9 billion people and having a combined GDP of \$4.3 trillion, the region faces an infrastructure investment gap of almost \$200 billion. Acharya argues that while external aid plays a vital role in filling this gap, it often comes with strategic interests that complicate recipient countries' development priorities. Smaller nations must navigate these complexities while ensuring that infrastructure investments align with their long-term growth strategies. Despite these challenges, Acharya remains optimistic, citing the region's shared cultural and historical ties, along with recent political stability, as key factors that could drive greater regional integration and economic development through targeted infrastructure investments.

In summary, this section underscores the vital need for enhanced regional cooperation across trade, investment and infrastructure development. While the SAFTA and other regional agreements provide the foundation, South Asia's economic future hinges on addressing both traditional and non-traditional barriers to trade, leveraging India's rise and ensuring that smaller economies are empowered to actively participate in regional supply chains. By fostering trust, reducing NTBs and investing in critical infrastructure, the region can unlock its true economic potential, positioning itself as a competitive force in the global economy.

Sustainability, Innovation and Regional Response

This section presents a forward-looking analysis of South Asia's economic future, addressing the critical intersections of sustainable development, innovation-driven

growth and the region's response to evolving global economic trends. As South Asian nations confront the twin challenges of climate change and economic modernisation, regional cooperation and innovation emerge as key drivers of resilience and long-term prosperity.

In a comprehensive chapter, **Professor Pami Dua, Dr Deepika Goel and Dr Neha Verma** analyse the intricate relationship between trade, foreign investment and climate change, emphasising the necessity of integrating climate considerations into trade and investment policies to support sustainable development. They argue that such an approach can help developing economies, particularly in South Asia, by promoting climate-resilient growth. The authors note that while increased trade often leads to higher emissions due to the movement of goods, services and capital, it can also serve as a catalyst for climate action. By transitioning to greener production and consumption methods and liberalising trade in environmental goods and services, South Asia can mitigate environmental degradation. Furthermore, enhancing environmental regulations and standards could attract investment to clean industries, promoting the use of renewable energy and fostering climate-friendly innovation across the region.

In a joint study, **Dr Smita Miglani and Dr Pravakar Sahoo** explore the rapid economic rise of South and Southeast Asia over the past two decades, highlighting the concurrent increase in vulnerability to climate change and environmental disasters. As these regions increasingly adopt renewable energy solutions, regional cooperation becomes pivotal in building climate resilience and promoting inclusive, sustainable growth. The authors employ a generalised least squares (GLS) regression model to investigate the determinants of green goods imports across nine South and Southeast Asian countries, analysing certain variables, such as greenhouse gas (GHG) emissions, applied most-favoured nation (MFN) tariffs, currency exchange rates and GDP. Their findings reveal that while GDP positively impacts green goods imports, currency fluctuations hinder their growth, and neither GHG emissions nor tariffs significantly influence these imports. These results underscore the need for a re-evaluation of green goods classification and a deeper exploration of NTBs, providing policymakers with valuable insights into how to enhance the region's green trade and climate resilience.

Dr Anand Kumar examines the strengthening of regional integration in South Asia amid recent economic crises, particularly the COVID-19 pandemic and the Russia–Ukraine conflict. These events, which exacerbated the

vulnerabilities of South Asian economies, unexpectedly spurred increased connectivity and the easing of trade norms within the region. As countries sought to stabilise their economies, intra-regional trade grew and investments between neighbouring nations flourished. Kumar highlights how this crisis-driven cooperation may have lasting effects on regional integration, potentially setting the stage for more sustained and resilient economic partnerships. However, he notes that Pakistan remains an outlier, relying on external assistance rather than regional cooperation, which has hindered its economic recovery. In contrast, the rest of South Asia is working collectively to overcome these challenges, demonstrating the potential of crises to catalyse stronger regional ties.

In their insightful chapter, Mr **Amit Agrahari** and Mr **Harshit Kacholiya** focus on India's need to overhaul its innovation infrastructure to avoid the middle-income trap—a common challenge where countries struggle to transition to higher-value industries after initial economic growth. The authors trace India's evolution from a state-controlled research model to a more liberalised but fragmented innovation ecosystem. They argue that while certain initiatives, such as the Production Linked Incentive (PLI) scheme and *Atmanirbhar Bharat*, reflect India's adaptation to global trends, its research and development landscape remains overly reliant on government institutions, with limited private sector involvement. The authors advocate for a paradigm shift towards public–private partnerships, industry-led innovation and strategic investments in emerging technologies, such as artificial intelligence, quantum computing and green hydrogen. By fostering greater collaboration between universities, start-ups and businesses, India can create an innovation-driven economy capable of sustained growth and competitiveness in the global market.

In his exploration of the **Bay of Bengal Blue Economy Integration (B3Ei)** framework, Mr **Khin Maung Zaw** proposes a novel approach to regional economic cooperation that leverages the economic potential of the Bay of Bengal littoral, delta and island economies. The B3Ei framework integrates the principles of blue economy, which emphasises sustainable development through the responsible use of ocean resources. Zaw argues that maritime-based regional integration offers unique advantages over traditional land-based models, particularly in terms of economic diversification and resource sharing. The framework outlines a strategic approach that harmonises the diverse economic systems of the Bay of Bengal Coastal Countries (BBCC), advocating for a sustainable financial model to support B3Ei initiatives. Through a comparative

analysis of maritime and land routes, the chapter identifies key opportunities and challenges, emphasising the need for strong governance, strategic investment and collaborative efforts among the BBCC to ensure the success of this framework. If fully realised, B3Ei could reshape the economic landscape of the Bay of Bengal, offering a forward-looking model for regional cooperation and sustainable development.

In summary, this section underscores the importance of sustainability and innovation as foundational elements for South Asia's future economic trajectory. By integrating climate considerations into trade and investment policies, fostering regional cooperation and revamping innovation ecosystems, South Asia can position itself as a global leader in sustainable development. The region's ability to adapt to evolving economic trends, harness its maritime potential and invest in forward-looking industries will be crucial in navigating the challenges and opportunities that lie ahead.

Achieving South Asian Economic Integration: An Ambitious but Essential Goal

Achieving regional economic integration in South Asia is undoubtedly a complex and multifaceted challenge, yet it remains an essential goal for ensuring the region's long-term prosperity, stability and global competitiveness. Despite the numerous political, economic and infrastructural hurdles, the potential benefits of integration far outweigh the difficulties. By fostering collaboration, investing in cross-border infrastructure and cultivating a shared regional vision, South Asian countries can unlock unprecedented economic opportunities that would accelerate growth, reduce poverty and strengthen resilience against global shocks.

This volume aims to serve as both a strategic road map and a comprehensive resource for policymakers, academics and practitioners who are committed to overcoming these challenges. Through careful analysis and actionable recommendations, it offers a pathway for realising the immense potential that regional economic integration holds for South Asia. By leveraging the insights and lessons presented here, stakeholders can drive forward policies and initiatives that promote trade, investment, innovation and sustainable development across the region.

At its core, this book is a timely assessment and forward-looking guide for those invested in shaping South Asia's economic future. Drawing together diverse, multidisciplinary perspectives, *Achieving Regional Economic Integration in South*

Asia makes a significant contribution to the ongoing dialogue about how to transform the region's economic landscape. It provides a framework for addressing key challenges, while emphasising the strategic importance of cooperation in securing a prosperous and inclusive future for all South Asian nations.

SECTION I

Geopolitical, Strategic and Cultural Dimensions of Economic Integration

1

Revitalising Regional Economic Integration in South Asia in the Post-COVID Era

Dammu Ravi

The world has undergone significant changes since the COVID-19 pandemic, which was unprecedented in both its scale and spread, leaving no nation untouched. Even remote island nations were not spared from its effects. Beyond the tragic loss of human lives, the pandemic placed immense economic strain on countries, forcing many to implement substantial stimulus packages to aid in recovery. The disparity in recovery rates was evident, with wealthier nations rebounding more quickly, while poorer countries continue to grapple with deep indebtedness.

The COVID-19 also highlighted the critical importance of international cooperation in addressing pandemics, which know no borders. Effective responses required timely coordination for the evacuation of people and the distribution of medical supplies and vaccines. In South Asia, nations demonstrated strong collaboration, which significantly contributed to their success in managing the pandemic. Similarly, regions worldwide adopted regional strategies and joint approaches to share resources, including medicines, equipment and vaccines.

In many ways, the COVID-19 crisis underscored the vital role of regional cooperation in achieving global stability.

Need for Enhanced Regional Integration

The ongoing global uncertainties, such as the war in Ukraine and rising tensions in West Asia, have significantly impacted the outlook of international trade.

These developments underscore the urgent need to bolster the global economic landscape through regional integration. True global stability and peace begin with regional cooperation, requiring concerted efforts by regional players to achieve deeper integration.

Since World War II, some regions have achieved remarkable progress through effective integration. The European Union (EU) stands as a classic example of deep regional integration, while the Association of Southeast Asian Nations (ASEAN) has also made significant strides. Similarly, the regions encompassed by the North American Free Trade Agreement (NAFTA) and MERCOSUR (a trade bloc in South America) have achieved varying degrees of economic integration. The African Union, through its African Continental Free Trade Agreement (AfCFTA) and Agenda 2063 for industrialisation, has set ambitious plans for regional integration.

In contrast, South Asia remains one of the least integrated regions globally.

Challenges in South Asian Integration

The South Asian Association for Regional Cooperation (SAARC), established in 1985, initially showed promise but, ultimately, failed to achieve its potential due to geopolitical tensions and mistrust among its members. India's size and economic power often evoke both confidence and apprehension: while it is seen as a potential solution provider for regional issues, its economic dominance is feared to overshadow the smaller economies in the region.

The region faces numerous connectivity challenges due to its complex terrain, which includes islands, mountains and landlocked economies. Improved connectivity is crucial for enhancing market access and economic opportunities, which is increasingly important for strengthening supply chain resilience and facilitating trade within and across borders.

Despite these challenges, it is imperative for the countries of South Asia to find solutions to their shared problems. Nearly 2 billion people live in the region, many of whom face poor human development indices. South Asia also has a significant youth population, with an average age below 25 years. These young people are aspirational and have high expectations from their governments regarding development and job creation. Moreover, technological advancements have made them acutely aware of the rapidly changing world around them.

Addressing Challenges to South Asian Economic Integration

For South Asia to unlock its potential and contribute to global stability, regional players must overcome existing challenges and work towards deeper integration. By enhancing connectivity and fostering cooperation, South Asia can create a more prosperous and stable future for its people.

Strengthen Trade Relations among South Asian Countries

The evolution of trade in South Asia serves as a key indicator of the extent of economic integration achieved in the subcontinent. As trade is a catalyst for development, it is crucial to address the existing imbalances and barriers that hinder regional economic growth. In South Asia, trade plays a pivotal role in fostering development and integration, with countries adopting various trade policies for both global and regional markets. Over the last two decades, intra-South Asian trade has grown steadily, increasing from approximately US\$ 3 billion in 2000 to US\$ 39.55 billion in 2022. Notably, India alone has contributed about 86 per cent of this regional trade, highlighting a significant imbalance. Excluding India, intra-regional trade in South Asia shrinks to a mere US\$ 8 billion, reflecting minimal contributions from the other seven countries in the region.

This uneven distribution of trade benefits presents a significant challenge, as India emerges as the dominant economic force in the region. Further analysis reveals that intra-South Asian trade constitutes less than 5 per cent of the region's total global trade, a stark contrast to other regions. For example, the EU's intra-regional trade exceeds 80 per cent, while ASEAN's is over 40 per cent. This disparity underscores a fundamental weakness in the manufacturing capabilities of South Asian businesses. Additionally, greater trade outside the region results in higher logistics costs, making regional goods less competitive in global markets. High tariff barriers and trade-restrictive practices further prevent businesses from leveraging regional supply chains, thereby hindering economic integration.

Interestingly, South Asia's trade with China, excluding India, is more than two-and-a-half-times greater than its trade with India, despite the higher logistics costs associated with trading with the country. This significant volume of trade with China raises concerns as deeper economic ties can create dependencies that may not align with India's strategic interests. However, the solution does not lie in becoming more trade restrictive or solely focusing on subregional economic linkages through initiatives, like Bangladesh, Bhutan, India, Nepal (BBIN)

initiative and Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), to navigate geopolitical challenges.

A more effective approach would be to prioritise strengthening trade relations among India's neighbours to create mutually beneficial outcomes. This strategy would involve promoting regional cooperation and integration, reducing trade barriers and enhancing the competitiveness of South Asian economies. By doing so, all countries in the region can benefit from stronger economic ties, fostering greater stability and development across South Asia.

Enhance Integration in Global Value Chains (GVCs)

The GVCs are vital for boosting trade competitiveness and fostering economic growth. The GVCs involve the cross-border movement of intermediate goods and components, enabling the value-added manufacturing of semi-finished and finished products in various countries. By effectively utilising these robust supply chains, countries can significantly increase manufacturing output, create jobs, reduce migration pressures and expand consumer choices.

According to the World Trade Organization (WTO) data, East Asian countries are leaders in global supply chains, accounting for approximately 39 per cent of the total share, with China and Hong Kong alone contributing 19 per cent. The NAFTA region has a 15 per cent share, with the United States (US) controlling 9 per cent. The EU also has a significant share, representing about 35 per cent of global supply chains. In stark contrast, South Asia's participation in these global supply chains is minimal, accounting for only about 1.5 per cent of the total. Within this small share, India is the dominant player, contributing 1.4 per cent, while the other South Asian countries collectively account for just 0.1 per cent.

This limited involvement underscores the need for South Asia to enhance its integration into the GVCs to drive economic growth and development in the region.

Upgrade South Asian Free Trade Agreement (SAFTA) with a Comprehensive Regional Trade Agreement

Analysing the performance of the SAFTA over the past two decades provides valuable insights into the future of regional integration in South Asia. Launched in 2006 with the ambitious goal of fostering regional economic cooperation, the SAFTA has largely fallen short of its objectives due to persistent mistrust and

geopolitical tensions among member states. As a preferential trade agreement, SAFTA lacks the depth of more comprehensive economic partnerships. It primarily focuses on reducing tariffs to a certain level, such as 5 per cent, without making substantial efforts to harmonise standards and regulatory frameworks across the region.

One major shortcoming of the SAFTA is its reliance on the Harmonised System (HS) at the six-digit tariff level, which is less detailed than the eight-digit level used in more ambitious free trade agreements, like the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and the Regional Comprehensive Economic Partnership (RCEP). These agreements provide a more detailed classification of products, enhancing the utilisation of regional supply chains and supporting manufacturing processes to move up the value chain. After more than two decades, it is clear that the SAFTA needs an upgrade, contingent on a shared understanding among member states that an integrated market would benefit all of South Asia.

Data from the Economic and Social Commission for Asia and the Pacific (ESCAP)–World Bank Trade Cost Database highlights that trade costs in South Asia remain prohibitively high, with average tariff equivalents around 161 per cent. This is significantly higher than the 42 per cent tariff equivalents among the three largest European economies and the 58 per cent tariff equivalents among China, Korea and Japan. Such high trade costs underscore the need for reform and modernisation of regional trade agreements in South Asia.

The India–ASEAN Free Trade Agreement offers a useful benchmark for comparison. More comprehensive agreements, like the India–Japan Comprehensive Economic Partnership Agreement (CEPA) and the India–Korea Comprehensive Economic Cooperation Agreement (CECA), set higher standards by eliminating up to 60 per cent of tariffs in a phased manner. These agreements also include various chapters on investment, services, intellectual property rights and standards, all of which facilitate trade and have boosted bilateral trade and investment across a range of sectors.

In contrast, the SAFTA is limited to trade in goods and does not account for investment flows within the region, which is a likely reason for the inadequate levels of intra-regional investment in South Asia. Furthermore, the lack of common standards and regulatory frameworks has hindered market integration. Allowing each country to adopt its own standards independently is counterproductive to the goal of regional integration. For South Asia to realise

its full potential, there must be a concerted effort to upgrade the SAFTA and address these key limitations.

Enhance Appeal of South Asia as an Investment Destination

India is a significant investor in South Asia, primarily through the efforts of the Development Partnership Administration under the Ministry of External Affairs. India's investment strategy is recipient driven, focusing on meeting the specific needs of partner countries without imposing conditions from the outset. Currently, around \$15–18 billion worth of infrastructure projects are being executed across the region, targeting development-oriented sectors, such as energy, connectivity and irrigation. These projects play a crucial role in fostering economic growth and development in South Asian countries.

Despite being a large market with considerable purchasing power, South Asia has not yet been viewed as a potential region for China+1 investments, raising questions about its attractiveness to foreign investors. In the future, India's Production Linked Incentive (PLI) scheme could help attract more investments to the country. However, developing product-specific ecosystems is essential to encourage foreign entities to set up manufacturing units in the region. By doing so, South Asia could enhance its appeal as an investment destination, supporting broader economic integration and development.

Foster Intra-regional Investments

While it is natural for countries within a region to compete for foreign direct investment, fostering intra-regional investments is essential for creating comprehensive economic activity. South Asian businesses should be encouraged to manufacture within the region, taking advantage of geographical proximity, low production costs, reduced logistics expenses and a large pool of skilled labour. Indian companies, given their global presence, could be incentivised to establish manufacturing units across the region through joint ventures and collaborations.

Such cross-border manufacturing activities would not only enhance economic integration but also encourage the movement of people within the region, reducing the risk of brain drain. While the vision of a 'Factory South Asia' might seem ambitious now, other regions, like Europe, North America and East Asia, have successfully achieved similar goals through sustained efforts. For policymakers in South Asia, focusing on the development of 'Factory South Asia' should be a priority to fully harness the region's potential and accelerate economic growth.

Improve Regional Connectivity

Improved connectivity and trade facilitation are crucial for supporting sustainable development and reducing global trade costs. Effective connectivity enhances GVCs and facilitates cross-border trade. In South Asia, strengthening trade facilitation and connectivity is essential for unlocking the region's potential, driving trade, creating jobs, promoting sustainability and reducing poverty.

Infrastructure development is a key driver of economic growth. Over the past decade, India's ambitious infrastructure projects, including extensive networks of corridors, highways, railways and airports, have significantly accelerated economic progress. Prime Minister (PM) Modi's vision for infrastructure connectivity through the PM Gati Shakti initiative highlights the potential to extend these benefits beyond India's borders. For example, extending the Delhi–Mumbai corridor to Kathmandu and the Chennai–Kolkata corridor to Dhaka would greatly enhance regional integration. Cross-border infrastructure projects like these should be a central component of South Asia's regional integration strategy.

Moreover, projects like the India–Myanmar–Thailand trilateral corridor, extending to Vietnam, and the India–Middle East–Europe Economic Corridor (IMEC) would fully realise their potential with enhanced connectivity to South Asia. Similarly, India's Sagarmala project aims to connect all countries in the region through its extensive coastline.

Between 2000 and 2022, India has implemented approximately 115 bilateral connectivity projects across South Asia. While these projects have advanced regional connectivity, a more visionary and coordinated approach is needed. Aligning national logistics and connectivity plans, such as India's Gati Shakti and the BIMSTEC master plan for transport connectivity, will be crucial. Developing economic corridors under a public–private partnership model can help diversify regional industries and enhance global competitiveness through technology, logistics and business support services.

Despite geopolitical tensions, pursuing these ambitious infrastructure projects should remain a priority. Continued efforts to overcome these challenges will be essential for realising the full potential of regional connectivity and economic integration in South Asia. Further, achieving interoperability in digital networks is also essential and should be a priority for all countries to achieve the vision of integrated regional connectivity.

Improve Trade Facilitation through Digital Integration

South Asia has made notable progress in digital and sustainable trade facilitation, as reflected in the Trade Facilitation Index. However, there remains considerable variation among the countries in the region. In 2023, India achieved a remarkable trade facilitation rate of over 93 per cent, significantly surpassing the regional average, which remains below 70 per cent. This disparity is largely due to India's more advanced infrastructure, robust trade institutions and strong digital economy.

India's high performance in trade facilitation can be attributed to its developed infrastructure and established trade systems. Innovations, such as Electronic Value (EV) bills and FASTags, have significantly reduced logistical inefficiencies and waiting times. Other South Asian countries have also made progress by implementing digital tools and streamlining customs processes.

The implementation of the Trade in Services Agreement and the WTO Trade Facilitation Agreement, effective since 22 February 2017, aims to simplify trade through automation and improved service provisions. However, to fully realise these benefits, greater harmonisation of processes and standards across the region is necessary, ideally through a unified single window system.

India's Single Window Interface for Trade (SWIFT) system has set a precedent for contactless and paperless trade, which other South Asian countries, including Bangladesh, Bhutan and Nepal, have begun to adopt with their single window customs initiatives. To unlock the full potential of these systems, establishing a regional single window for customs clearances would be crucial. Additionally, expanding digital trade capabilities presents a significant opportunity to further reduce trade costs and increase trade volumes across South Asia.

India's Gati Shakti program, which focuses on comprehensive infrastructure development, could serve as a model for other Asian countries, fostering greater regional collaboration.

Strengthen Regional Energy Cooperation for Sustainable Growth

Cooperation in the energy sector is vital for the growth and development of South Asia. As the region seeks to achieve energy self-sufficiency, there is a growing focus on incorporating renewables and biofuels into the energy landscape.

South Asia is progressively liberalising its energy markets, creating significant opportunities for cross-border energy commercialisation. This can stimulate

entrepreneurial ventures and lead to the establishment of large-scale energy projects. India's successful implementation of gigawatt-scale renewable projects, including solar and wind energy, serves as a model that neighbouring countries could replicate.

India's engagement in energy buyback agreements could further facilitate the expansion of renewable energy projects across the region. Such collaborative efforts would not only enhance energy security but also support sustainable development and address climate change challenges throughout South Asia.

Enhance Regional Food Security

Food security is an urgent issue in South Asia that demands immediate and focused attention. India, with its extensive buffer stocks and record food production of 330 million metric tonnes, has transitioned from being dependent on food imports to achieving self-sufficiency. However, this stability is not uniformly experienced by its neighbours, who often rely on India's surplus to meet their food needs.

With nearly 2 billion people residing in South Asia, there is a critical need to develop a regional strategy for 'Food Security for South Asia'. India could play a central role by spearheading initiatives to boost agricultural production throughout the region. This might involve encouraging Indian entrepreneurs to invest in food grain cultivation in neighbouring countries, promoting cross-border trade and exploring international market opportunities.

Implementing such a strategy would require a combination of entrepreneurship, financial investment, skills and expertise to foster regional agricultural collaborations. However, this approach may encounter resistance due to the sensitive nature of agriculture in many countries. Addressing these challenges will be essential for achieving sustainable food security and enhancing regional cooperation in South Asia.

Harness Potential of Digital Infrastructure

India's implementation of the digital public infrastructure, particularly through the Aadhaar system, has showcased the transformative potential of digital solutions. Aadhaar, a unique identification system for citizens, has revolutionised governance by enhancing efficiency and reducing leakages in welfare programmes. The direct cash transfer system enabled by Aadhaar has empowered millions by ensuring financial inclusion and removing barriers to accessing state benefits.

Replicating and adapting these low-cost, high-impact digital solutions to address the specific needs of South Asian countries could significantly boost regional economies. Tailoring such solutions to local contexts can drive economic transformation and strengthen regional interdependencies.

Moreover, digital tools have the potential to streamline and automate international trade procedures. The United Nations ESCAP Cross-Border Paperless Trade Facilitation Agreement, ratified by several South Asian countries, offers a framework for enhancing digital connectivity and trade efficiency. To fully capitalise on these benefits, South Asian nations should recommit to implementing these agreements and explore collaborations with development partners, such as Japan, the US, Germany and Korea. These partners can provide crucial investment, technology and infrastructure support.

To realise these advancements, it is essential to implement necessary reforms, establish supportive policies and foster regional cooperation. By doing so, South Asia can leverage digital public infrastructure to drive sustainable development and integration within the region.

Promote Trade Settlement through the Use of Local Currencies

The use of local currencies for trade settlements has gained prominence due to global currency shortages exacerbated by the COVID-19 pandemic. While eliminating the dollar from trade transactions entirely may be impractical, integrating local currencies into trade settlements can significantly boost intra-regional trade in South Asia.

Trading in local currencies can reduce dependence on hard currencies and facilitate barter and countertrade arrangements. India has been proactive in establishing bilateral mechanisms for trade settlements in Indian Rupees (INR), setting up 22 such mechanisms with various countries, and steadily increasing the volume of trade conducted in this manner.

To advance this initiative, increased awareness and encouragement for South Asian businesses to adopt these mechanisms is crucial. Complementing this effort with the adoption of the Unified Payments Interface (UPI) can further enhance efficiency in cross-border transactions in local currencies. Implementing UPI will streamline payment processes and support regional investment projects.

By promoting the use of local currencies for trade and payments, South Asia can strengthen regional economic integration, reduce transaction costs and build

stronger economic ties within the region. This approach will not only foster greater intra-regional trade but also enhance the economic resilience of South Asian nations.

Conclusion

The integration of South Asia offers a pivotal opportunity to reimagine the region as a cohesive and dynamic entity. We face a critical choice: to view South Asia as a collection of countries centred around India or as an interconnected whole. While sovereignty remains a sensitive and complex issue, an alternative perspective is to envision South Asia as politically sovereign entities that are economically unified.

Central to this vision should be the concept of ‘shared prosperity’, which can drive a transformative agenda for the region. By focusing on mutual benefits and collaborative growth, South Asia can progress towards a future where economic integration enhances the stability and prosperity of each nation.

As India’s gross domestic product (GDP) is projected to reach \$5 trillion, \$10 trillion and eventually \$30 trillion by the end of the Amrit Kaal period, it is crucial that this growth also benefits all South Asian countries. A prosperous South Asia is not only essential for the region but also for global stability and progress.

In summary, a stronger, more integrated South Asia will contribute to a more robust world. Achieving this vision requires collective effort, commitment and a shared belief in the advantages of regional cooperation and growth.

2

South Asian Economic Integration: A Geopolitical Quotient

Achyut Wagle

Introduction

South Asia is one of the least economically integrated regions in the world, with intra-regional trade accounting for only 5 per cent of its total trade volume. Despite being home to approximately 1.9 billion people—nearly a quarter of the global population—the region, which includes Afghanistan, Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan and Sri Lanka, contributes only a small percentage to the global gross domestic product (GDP).

In 2022, intra-regional trade within South Asia amounted to a mere US\$ 23 billion, while the region's trade with China exceeded US\$ 155 billion. Trade between India and China alone reached US\$ 136 billion, highlighting the significant economic influence China has in the region. The region's trade deficit with China is substantial, at 88 per cent, underscoring an economic imbalance that challenges efforts towards greater regional integration.

Despite the establishment of institutional mechanisms, like the South Asian Association for Regional Cooperation (SAARC) and the South Asian Free Trade Agreement (SAFTA), meaningful economic integration and prosperity have remained elusive. Alternative initiatives, such as the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) and the Bangladesh, Bhutan, India, Nepal (BBIN) initiative, have also achieved limited success. Additionally, certain initiatives, like the China–Pakistan Economic

Corridor (CPEC) and the Bangladesh–China–India–Myanmar Economic Corridor (BCIM-EC), have generated interest but have not significantly advanced regional cohesion.

This chapter explores the intricate relationship between geopolitics and economic integration in South Asia, shedding light on the challenges and identifying potential pathways to enhance regional cooperation and economic development.

Influence of Geopolitics on the Dynamics of Trade Blocs

Regional economic integration is an agreement among countries within a geographic region to reduce and eventually eliminate tariff and non-tariff barriers, thereby facilitating the free movement of goods, services and production factors among member countries (Cole et al., 1999). According to Balassa (1961), it involves a process where economic disparities and discriminations among national economies are progressively removed. Various factors influence trade and contribute to economic integration, with the level of trade among regional economies serving as a primary measure of integration.

Geopolitics extends beyond simple trade relations, encompassing a broader, multilateral framework that surpasses bilateral diplomacy between any two countries. Historically, rulers have established geographically controlled domains, using trade to maximise economic benefits for their realms or populations. The formation of economic groupings, whether regional or global, has long promoted diplomatic relations and has become an essential aspect of geopolitical studies. In contemporary international affairs, regional economic integration remains a vital component of geopolitics.

The benefits of economic integration, regardless of the level achieved, are significant. Regional economic integration is a powerful tool for promoting stability, addressing regional challenges and accelerating economic growth. Enhancing regional cooperation and integration, particularly in various Asian subregions, has substantial potential to reduce poverty and foster inclusive and sustainable development (Taghizadeh-Hesary et al., 2020).

However, the success of economic integration depends largely on the political will of the governments involved and is shaped by the cultural, linguistic, social and religious contexts of the participating countries. Critical factors include the development of transnational trade infrastructure, investment in these

infrastructures, institutional arrangements for trade facilitation and the extent to which tariff and non-tariff barriers are removed.

In recent years, strategic and security considerations have increasingly influenced economic integration decisions, particularly among economically powerful nations. These ‘strategic’ choices are often driven by the desire to expand geopolitical influence, thereby altering the dynamics of trade blocs that once aimed for various levels of economic integration.

For instance, the European Union (EU) has advanced to the point of adopting a common currency and the Association of Southeast Asian Nations (ASEAN) has achieved significant levels of intra-regional trade. In contrast, despite decades of effort and initiatives, like the establishment of the SAARC, South Asia remains as unintegrated as it was in 1970. This lack of integration underscores the complex interplay of economic, political and strategic factors in regional economic integration efforts (see figure 2.1).

Stages of Regional Economic Integration

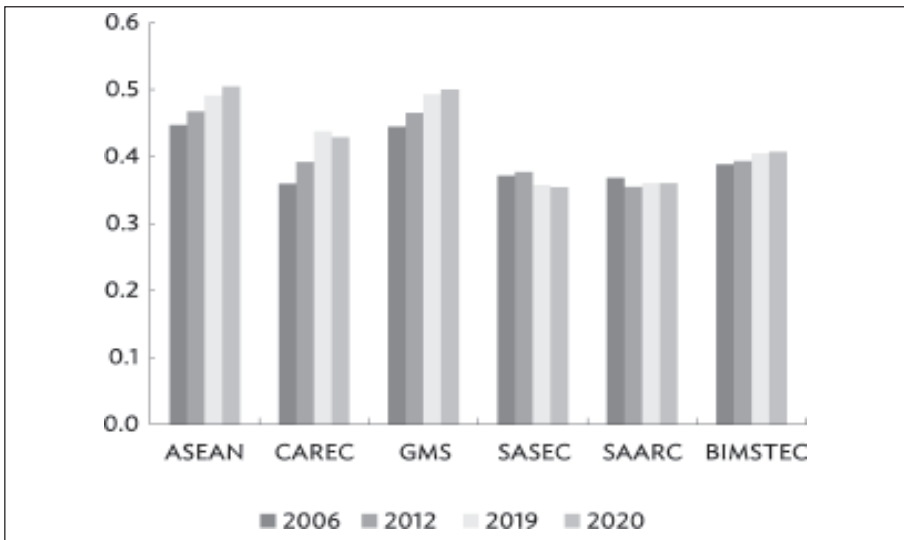
Rodrigue (2017) proposed five progressive ‘level’ or stages of regional economic integration:

1. *Free trade area*: Tariffs between member countries are significantly reduced or abolished, allowing each country to maintain its tariffs against non-members. The primary goal is to enhance economies of scale and comparative advantages, thereby promoting economic efficiency.
2. *Customs union*: Member countries establish common external tariffs, creating a unified trade regime. This arrangement helps level the competitive playing field and addresses re-export issues, where goods imported into one country are subsequently exported to another member country with preferential tariffs. However, the movement of capital and labour remains restricted.
3. *Common market*: In this stage, services and capital can move freely within member countries, further expanding economies of scale and comparative advantages. Despite this integration, each country retains its own regulations regarding product standards, wages and benefits.
4. *Economic union (single market)*: All tariffs on trade between member countries are removed, creating a uniform market. There is also the free movement of labour, allowing workers to relocate and work in any member country. Monetary and fiscal policies are harmonised, indicating

a degree of political integration. This stage may also involve the adoption of a common currency, such as the Euro in the EU.

5. *Political union*: This represents the most advanced form of integration, characterised by a common government that significantly reduces the sovereignty of individual member countries. This level of integration is typically seen in nation states with federal systems, where a central government and regional entities (provinces, states, etc.) share governance responsibilities over defined matters, such as education.

Figure 2.1: Overall Integration Indices, by Subregional Initiative



Note: CAREC = Central Asia Regional Economic Cooperation; GMS = Greater Mekong Subregion; and SASEC = South Asia Subregional Economic Cooperation.

Source: Asian Development Bank (2022).

The SAARC Process

The SAARC was established with the primary goal of promoting economic prosperity in South Asia through enhanced cooperation among its member states (see Box 2.1 for the SAARC Charter). The objectives outlined in the SAARC Charter (see Box 2.2) were designed to align with the vision of creating a regional forum to foster economic integration. The SAARC was envisioned as a mechanism to promote regional economic cooperation, with aspirations to emulate the successes of other regional organisations, such as the ASEAN and, potentially, the EU.

Box 2.1
SAARC Charter

1. Desirous of promoting peace, stability, amity and progress in the region...;
2. Conscious that in an increasingly interdependent world, the objectives of peace, freedom, social justice and economic prosperity...;
3. ...the need for joint action and enhanced cooperation within their respective political and economic systems and cultural traditions;
4. ...regional cooperation among the countries of South Asia is mutually beneficial, desirable and necessary for promoting the welfare and improving the quality of life of the peoples of the region;
5. ...economic, social and technical cooperation among the countries of SOUTH ASIA would contribute significantly to national and collective self-reliance;
6. ...that increased cooperation, contacts and exchanges among the countries of the region will contribute to the promotion of friendship and understanding among their peoples;
7. Recalling the DECLARATION signed by their Foreign Ministers in NEW DELHI on August 2, 1983 and noting the progress achieved in regional cooperation;
8. Reaffirming their determination to promote such cooperation within an institutional framework;

Source: SAARC Charter, South Asian Association for Regional Cooperation, at <https://www.saarc-sec.org/index.php/about-saarc/saarc-charter>

Box 2.2
Objectives of SAARC

- a) to promote the welfare of the peoples of SOUTH ASIA and to improve their quality of life;
- b) to accelerate economic growth, social progress and cultural development in the region and to provide all individuals the opportunity to live in dignity and to realise their full potentials;
- c) to promote and strengthen collective self-reliance among the countries of SOUTH ASIA;
- d) to contribute to mutual trust, understanding and appreciation of one another's problems;

- e) to promote active collaboration and mutual assistance in the economic, social, cultural, technical and scientific fields;
- f) to strengthen cooperation with other developing countries;
- g) to strengthen cooperation among themselves in international forums on matters of common interests; and
- h) to cooperate with international and regional organisations with similar aims and purposes.

Source: SAARC Charter, South Asian Association for Regional Cooperation, at <https://www.saarc-sec.org/index.php/about-saarc/saarc-charter>

However, the initial objective of economic integration within SAARC was soon overshadowed by geopolitical manoeuvres, distrust and rising tensions among member states. The proposal to establish a regional association in 1978, put forward by Ziaur Rahman, the then President of Bangladesh, was quickly endorsed by Nepal, Sri Lanka, the Maldives and Bhutan, but India and Pakistan were sceptical of the idea.

India's concerns were primarily about the proposal's mention of security matters in South Asia. The Indian policymakers feared that the SAARC could be used by smaller neighbours to regionalise bilateral issues and potentially 'gang up' against the country. Pakistan, on the other hand, suspected that the proposal might be an Indian strategy to organise other South Asian countries against Pakistan and secure a regional market for Indian products, thereby consolidating the country's economic dominance in the region (Wriggins et al., 1992).

Despite these reservations, foreign ministers of the seven founding countries—Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan and Sri Lanka—met in New Delhi in August 1983. They adopted the declaration on SAARC, formally launching the Integrated Programme of Action (IPA). However, the then Indian Prime Minister (PM), Indira Gandhi, was not enthusiastic about formally establishing such a regional body. She believed that India's regional influence in South Asia would be diluted by the creation of such an organisation as it would mean sharing power that India was predominantly exercising in the region (Dixit, 1997).

The 1st SAARC Summit was held in Dhaka, Bangladesh, on 7–8 December 1985, only after the assassination of Indira Gandhi in October 1984. India was represented at the summit by her son, Rajiv Gandhi.

The Economics of SAFTA

Despite political challenges among its member countries, the SAARC established the SAARC Preferential Trading Arrangement (SAPTA) at the Dhaka Summit in April 1993. After nearly two years of negotiations, the SAPTA came into effect on 7 December 1995, following Pakistan's ratification in October of that year.

At the 12th SAARC Summit in 2004 in Islamabad, the South Asian heads of government decided to create the SAFTA to facilitate the free movement of goods by eliminating tariff and non-tariff barriers. The SAFTA was implemented on 1 January 2006, replacing SAPTA. Later, Afghanistan joined SAARC during the 14th SAARC Summit in New Delhi on 3–4 April 2007, and became a part of SAFTA after signing a joint protocol at the 15th SAARC Summit in Colombo on 2–3 August 2008.

According to paragraph 7 of the SAFTA protocol, the agreement would come into force on the 90th day after notification by the SAARC Secretariat, following ratification by all member states. The protocol officially took effect on 7 August 2011, once all the members had ratified it (see Table 2.1 for ratification dates).

Table 2.1: SAFTA Ratification Dates

<i>Member State</i>	<i>Date of Ratification</i>
Afghanistan	4 May 2011
Bangladesh	22 December 2008
Bhutan	22 January 2009
India	27 October 2009
Maldives	20 April 2010
Nepal	24 July 2009
Pakistan	23 January 2009
Sri Lanka	22 October 2008

From 2008 onwards, the SAFTA aimed to reduce tariff rates on imports among regional member countries, as well as significantly cut down the sensitive list of items exempt from tariff reductions, although the extent varied among nations. In April 2010, member states signed the SAARC Agreement on Trade in Services (SATIS) to promote trade in services within the region. The SAFTA's goal was to reduce customs duties among member countries to zero by 2016.

India notably limited its sensitive list to six items, excluding Pakistan and Sri Lanka.

The SAFTA allows member countries to maintain ‘sensitive lists’, protecting certain products from tariff cuts. However, these extensive sensitive lists have been a major reason for SAFTA’s limited effectiveness, as nearly 55 per cent of total import trade among members was initially subject to these lists, which has since reduced to about 34.7 per cent.

Despite these efforts, the expected economic benefits have not been fully realised. The three major pillars of economic integration, namely, intra-regional trade, investment and connectivity, have delivered suboptimal results. Intra-regional trade, as mentioned earlier, accounts for just 5 per cent of South Asia’s total trade with the rest of the world, amounting to only \$23 billion, far below the estimated potential of at least \$67 billion. By comparison, intra-regional trade in the ASEAN region constitutes 25 per cent of its total trade (see figure 2.3).

Figure 2.2: Average Intra-regional and Inter-regional Trade Costs, 2010–15



Note: NAFTA = North American Free Trade Agreement.

Source: World Bank (2018) estimates.

According to a report, ‘[b]order challenges mean it is about 20 percent cheaper for a company in India to trade with Brazil than with a neighboring South Asian country’ (World Bank, 2022). This limited trade is attributed to several factors, including inadequate road, marine and air transport infrastructure, protective tariffs, non-tariff barriers—both real and perceived—restrictions on investments and a general lack of trust across the region. Since 1990, regional trade in South Asia has grown by only 2 per cent, in stark contrast to other new regional trading blocs, which have seen growth rates surpass 30 per cent. This indicates a failure to capitalise on the geographical proximity of the countries in the region.

Figure 2.3: Trade in South Asia



Source: World Bank (2022).

Intra-regional investment in South Asia is also notably low. According to a 2018 World Bank report, intra-regional investment within the SAARC accounted for less than 1 per cent of total investment. Factors contributing to this limited regional integration include inadequate transport connectivity, burdensome logistics and regulatory barriers, historical political tensions, cross-border conflicts and security concerns. The total intra-regional investment stock in South Asia is approximately US\$ 3 billion, making it the lowest among developing regions in terms of intra-regional investment as a share of total regional inward investment stocks (0.6 per cent) and total regional outward investment stocks (2.7 per cent).

A critical component for economic integration is the connectivity infrastructure, which supports a functional supply chain. Quality infrastructure services are essential for integration, yet they remain underdeveloped in South Asia. In 2010, the SAARC countries declared the decade from 2010 to 2020 as the 'Decade of Intra-regional Connectivity in SAARC', acknowledging the need for improved transport infrastructure and transit facilities, particularly for landlocked countries. The SAARC Regional Multimodal Transport Strategy Study, developed with assistance from the Asian Development Bank, provided a framework for regional connectivity. However, telecommunication costs among member countries remain high; the digital divide is significant across various

demographics; and transport infrastructure development is slow and inefficient. The region's trade logistics are also poor, unreliable and costly.

The World Bank estimated that South Asia needed to invest between US\$ 1.7—US\$ 2.5 trillion to close its infrastructure gap, equating to 6.6–9.9 per cent of the region's 2010 GDP per year until 2020. This target was missed, leaving a significant infrastructure deficit in the region.

Dysfunctional SAARC

The SAARC is, in practice, largely dysfunctional. The last SAARC summit, which was intended to be a biennial event, was held in Nepal in 2014. The 19th Summit, scheduled to take place in Pakistan in 2016, has been indefinitely postponed. Although some meetings and seminars occur intermittently, the organisation's ability to promote economic integration has been minimal.

Despite this, several SAARC initiatives remain active. These include: the SAFTA; five centres dedicated to agriculture, energy, culture, health and disaster management; the South Asian University in New Delhi; and the regional development fund. Member countries also continue to appoint diplomats to the SAARC Secretariat in Kathmandu.

During the COVID-19 pandemic, there were calls to revitalise the SAARC, particularly to enhance cooperation on maintaining supply chains and supporting vaccine distribution. However, these efforts were limited in scope and effectiveness. The trend towards alternative regional frameworks, such as the BBIN Motor Vehicle Agreement and the BIMSTEC, indicates a diminishing role for the SAARC. Nonetheless, these alternatives have yet to make a substantial impact on the region's economic integration.

Extra-regional Geopolitics

The dynamics of South Asia have been profoundly shaped by extra-regional factors, particularly the growing influence of China through initiatives, such as the CPEC. Historically, enduring conflicts and misunderstandings between India and Pakistan—two key members of SAARC—have impeded regional economic cooperation. The advent of CPEC has further complicated this scenario.

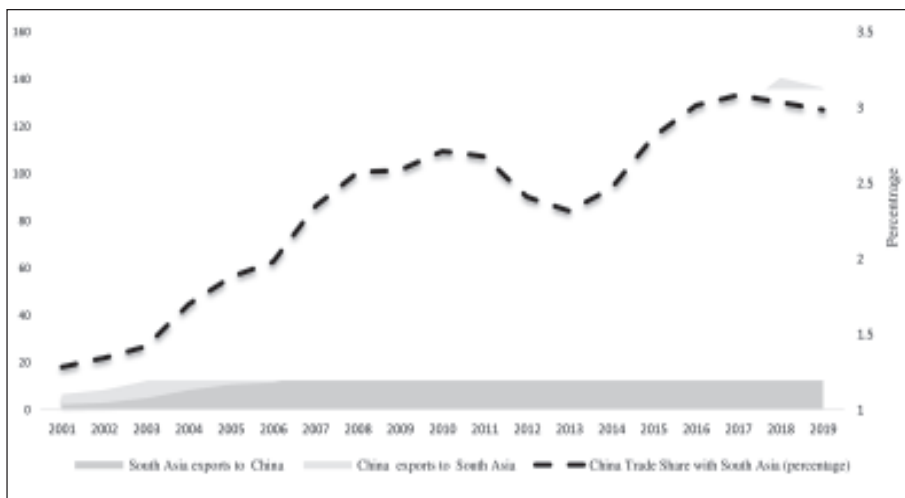
Launched on 20 April 2015, the CPEC is a major bilateral project aimed at developing road, rail and maritime infrastructure in Pakistan, with the goal of providing China access to global trade routes via Gwadar Port on the Arabian Sea. This project is a significant part of China's Belt and Road Initiative (BRI),

announced in 2013, to boost connectivity, trade and cooperation across Eurasia. The initial agreements between Chinese President Xi Jinping and Pakistani PM Nawaz Sharif were valued at US\$ 46 billion, a figure that has since grown to US\$ 68 billion, causing unease in India.

China's BRI, supported by a substantial US\$ 1 trillion investments, has made significant inroads into several South Asian countries, including Afghanistan, Bangladesh, Sri Lanka, Nepal and the Maldives. This includes investments in infrastructure projects, cultural exchanges and an increasing influence on regional policies.

China has adopted a more assertive economic strategy in recent years, with substantial growth in trade relations with South Asia. Currently, China enjoys a significant trade surplus with all the SAARC countries, despite these countries' increasing dependence on China for essential imports, such as capital and consumer goods (see figure 2.4 and table 2.2). Among these nations, India is China's largest trade partner in the region, followed by Pakistan and Bangladesh. Interestingly, landlocked countries in South Asia have a higher share of intra-regional trade compared to their trade with China.

Figure 2.4: China's Total Trade with South Asia Region and its Trade Share in the Region/Global Trade (in billion US\$)



Source: Mufti and Ali (2020).

Table 2.2: South Asian Countries' Trade Deficit with India and China, 2022 (million US\$)

<i>Countries</i>	<i>Trade deficit with India</i>	<i>Trade Deficit with China</i>
Afghanistan	462 (545–1007)	49.9 (9.09–59)
Bangladesh	11,690 (2,000–13,690)	16, 690 (650–17,340)
Bhutan	630 (314–944)	180 (1–181)
India	–	101,020 (17,480–118,500)
Maldives	372 (50–422)	396 (5–401)
Nepal	10,900 (1,340–11,240)	2,327 (23–2,350)
Pakistan	539 (4–543)	21,538 (3,325–24,863)
Sri Lanka	4,875 (112–4987)	4,629 (519–5,148)
Total	30,468	45,855+101,020=146,875

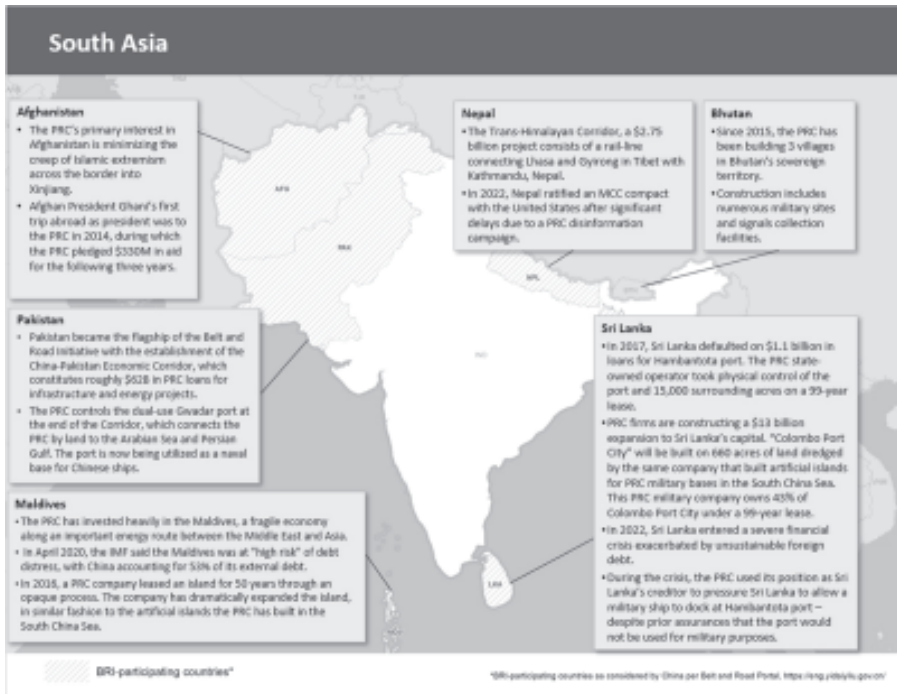
Source: Author's calculation from data of various sources.

India–China Strategic Competition and South Asian Economic Integration

China's investment in South Asia has surged, with the region being a key focus of its BRI (see Figure 2.5). South Asia's strategic location, intersecting the proposed 'Silk Road Economic Belt' and the '21st Century Maritime Silk Road', has made it a crucial component of China's global economic strategy. Since Xi Jinping assumed power in 2013, China has committed over \$100 billion in investment contracts within South Asia, with nearly half of this amount directed towards Pakistan. For example, in 2019, China provided \$2.5 billion to Pakistan to help stabilise its foreign exchange reserves amid a debt crisis. Since 2005, China has also invested approximately \$3.5 billion in Afghanistan.

China's investments in Sri Lanka, the Maldives, Nepal and Bangladesh have shifted from infrastructure to energy and manufacturing sectors, indicating a broader strategy to embed these countries within the BRI framework through enhanced trans-Himalayan connectivity. Guohong (2020) highlights that the proposed China–Nepal trans-Himalayan railroad could become economically viable if linked with India's railway network, positioning Nepal as a transit state and shortening cargo transit distances between China and the Indian subcontinent.

Figure 2.5: BRI Participating Countries: South Asia



In response to China's growing influence, India has been pursuing its 'Neighbourhood First' policy and 'Security and Growth for All in the Region' (SAGAR) vision under PM Narendra Modi since 2014. This strategy is intended to bolster India's regional presence as a counterbalance to China's BRI, with Modi reaffirming this policy following his re-election (*The Statesman*, 2024).

The competition between China and India for economic, security and strategic influence is palpable. The strategic manoeuvres by both the nations reflect an effort to counterbalance each other. A United States (US) government-sponsored study by the U.S.-China Economic and Security Review Commission points to tensions driven by China's support for Pakistan, the Tibet issue, border disputes and competition in the Indian Ocean. All these factors contribute to perceptions of China attempting to contain India, while China views India's strengthening ties with the US as part of a broader US-led strategy to encircle China (Brattberg and Feigenbaum, 2022).

India's diplomatic priorities extend beyond the SAARC region, as demonstrated by its involvement in other groups, such as the Quadrilateral

Security Dialogue (Quad; consisting of the US, Japan, Australia and India), the D10 (a coalition of 10 democratic nations) and the Indo-Pacific Partnership. Additionally, the expansion of Brazil, Russia, India, China and South Africa (BRICS) platform to include new countries, like Argentina (which later withdrew), Egypt, Ethiopia, Iran, Saudi Arabia and the United Arab Emirates, during the 15th BRICS Summit in South Africa, has fuelled speculation that BRICS+6 might further China's strategic aims rather than purely economic objectives. For ambitious goals—such as de-dollarisation and South–South cooperation—to succeed, a focus on rule-based operations and clearly defined objectives is necessary, which seems to overshadow India's diplomatic efforts.

Despite these geopolitical dynamics, India's role in South Asian economic integration remains pivotal. As the largest economy in the region, India accounts for nearly 80 per cent of South Asia's GDP, making it a crucial player in any efforts towards meaningful economic integration. Pakistan and Bangladesh contribute 10 per cent and 7 per cent, respectively, to the regional GDP, with the remainder distributed among other countries. Thus, genuine progress in South Asian economic integration is dependent on India's active participation and commitment.

Conclusion

South Asia remains one of the least economically integrated regions globally, despite its significant potential for intra-regional trade, investment and supply chain connectivity. Two primary geopolitical factors contribute to this lack of integration.

First, enduring political tensions among the member states of the SAARC have severely impeded the flow of investment, trade, people and knowledge across borders. These long-standing conflicts make the establishment of a sustainable regional supply chain appear nearly insurmountable. Second, China's rise as an economic powerhouse and its expanding strategic influence in South Asia, particularly in countries traditionally within India's sphere of influence, have dramatically reshaped the region's economic landscape.

The region's potential to create backward and forward linkages in industries and to develop platforms for clean energy supply remains largely unrealised. Institutional frameworks, like SAARC and the BBIN initiative, which were designed to foster regional integration, have achieved limited success.

India, as the largest economy in South Asia, plays a crucial role in advancing economic integration. The dynamics of India's trade and strategic relations with China are particularly significant, given China's growing involvement in the region's trade and investment. While Chinese-led infrastructure projects could help bridge regional divides, they also risk exacerbating tensions, especially between India and Pakistan (U.S.-China Economic and Security Review Commission, 2020).

To achieve meaningful economic integration, South Asia must harness its intra-regional capabilities and potential. The growing trade deficit with China and China's increasing strategic influence through investments and BRI diplomacy highlight the urgency of this task. The region holds considerable untapped potential in several sectors, such as education, health, tourism and cross-border digital finance, which could enhance trade prospects and reduce costs and non-tariff barriers.

Energy trade, though promising, faces geopolitical challenges. India's apprehensions about importing electricity from investments by countries perceived as security threats, along with the need for cooperation on third-country wheeling, complicate the situation.

South Asia must also tackle shared challenges, like climate change and disaster management, to improve economic resilience. The region faces the dual challenge of uplifting millions from poverty and addressing issues related to the migration of largely unskilled or semi-skilled workers and the prevalent brain drain.

For even modest progress in economic integration, such as increasing intra-regional trade from the current 5 per cent to 10 per cent over the next 5–7 years, decisive action is required. Despite their geographical proximity, South Asian countries have yet to fully capitalise on the benefits of the free movement of goods and people. Adapting to the global shift towards digital economies, leveraging cross-border payment systems and real-time financial transfers are essential steps.

Remapping regional value chains and supply chains, along with capitalising on comparative advantages—such as affordable labour and demographic dividends—can redefine the approach to regional integration and cooperation in South Asia.

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3

South Asian Connectedness: Culture as the Foundation for Economic Integration

Tarun Vijay

Introduction

In South Asia, discussions of regional cooperation and economic integration frequently focus on political, social and economic factors. However, there is a notable absence of cultural considerations in these debates. This chapter addresses the significance of cultural connectedness as the foundation for fostering regional economic cooperation in South Asia. Despite colonial legacies that shape the conceptual systems of many South Asian states, it is vital to recognise the deeper civilisational ties that bind the region together. These cultural ties not only contribute to economic and political collaboration but also forge stronger trust among the South Asian countries.

Culture, in this context, refers not only to shared historical legacies but also to contemporary practices, languages, arts, festivals and traditions. As the Indian Minister of External Affairs, Dr S. Jaishankar, has noted, cultural diplomacy plays a crucial role in advancing soft power and strengthening relationships beyond conventional political and economic frameworks. The aim of this chapter is to demonstrate that culture, when understood as a cohesive force, offers a unique opportunity for fostering regional integration in South Asia.

Literature Review

Scholars and economists have historically hesitated to incorporate culture as a determinant of economic phenomena due to its expansive nature and difficulty

in measurement. Culture's omnipresence in society often makes it challenging to identify clear economic implications. However, recent scholarship, as seen in works by Lopamudra Maitra Bajpai (2021) and others, acknowledges the role that shared cultural practices, traditions and legacies play in shaping economic relationships.

Moreover, discussions on soft power and cultural diplomacy, notably articulated by Joseph Nye (2020), provide valuable insights into how non-economic and non-political factors influence international relations. The increasing recognition of soft power's role in diplomacy is gradually altering the conventional understanding of regional cooperation, especially in regions like South Asia where cultural and civilisational similarities abound.

The South Asia region itself is a complex mix of ancient civilisations, historical empires and major religions. These factors provide a shared cultural space that can enhance trust, generate goodwill and facilitate economic exchange. In addition, South Asia has witnessed initiatives like the Mekong–Ganga Cooperation (MGC), which highlights cultural and commercial ties dating back centuries.

Culture and Regional Integration in South Asia

Historical Context

South Asia is home to a rich historical narrative that includes shared civilisational roots, such as those of the Indus Valley Civilisation and the Gangetic Plains. Many empires, like the Mauryas and Guptas, left an indelible mark on the region, fostering a sense of unity that transcends present-day national boundaries. This shared history is a powerful factor for integration.

Various religions, such as Hinduism, Buddhism and Jainism, originated in the region and continue to bind South Asian societies together. Shared cultural practices, like religious festivals (Diwali, Baisakhi), and common linguistic roots further solidify the cultural commonality. These cultural connections, while overlooked, provide a natural foundation for economic and political collaboration.

The Role of Cultural Diplomacy

As Dr Karan Singh highlighted at the 9th South Asia Conference on regional cooperation organised by Manohar Parrikar Institute for Defence Studies and Analyses (MP-IDSA), South Asia is a microcosm of a multicultural world (Singh,

2015). He noted that the region should aim to become an area of peace and stability, with culture playing a central role in this effort. While formal agreements and trade negotiations are important, trust—rooted in shared cultural experiences—plays an even more fundamental role in fostering cooperation. Cultural diplomacy, in this sense, is not a new idea but a re-emphasis on the civilisational ties that have long connected South Asia's people.

Examples of cultural diplomacy abound. The Asian Car Rally in 2016, for instance, highlighted the historical ties between India and Myanmar, where shared memories of leaders like Lokmanya Tilak resonated strongly across borders. Such events demonstrate how cultural diplomacy can complement economic and political initiatives by reinforcing shared histories and values.

Culture as an Economic Tool

Trust is essential for economic cooperation, and trust is often rooted in shared cultural values. For instance, shared religious icons like Ganapati and Hanuman, celebrated across the region, can serve as symbols of unity in economic negotiations. Similarly, cultural practices, like the use of cowries as currency in historical South Asia, show how culture and economy have been interwoven throughout the region's history.

Recent years have witnessed a resurgence in efforts to leverage cultural connectivity for economic gain. The Act East policy by the Indian government, for example, emphasises the importance of regional economic integration through shared cultural legacies. The success of the Kashi Corridor project in India, which attracted millions of visitors and boosted local economies, demonstrates how cultural projects can have significant economic impacts.

Contemporary Initiatives and Opportunities

The MGC

The MGC is a prominent example of how cultural and civilisational rivers, like the Ganga and the Mekong, can serve as conduits for both cultural and economic exchange. This initiative emphasises closer contact between the people of India and Southeast Asia, demonstrating how shared heritage can support diplomatic and economic goals.

Intra-regional Economic Growth

South Asia has seen growth in intra-regional trade, driven by efforts to strengthen South Asian Association for Regional Cooperation (SAARC) and other regional bodies. Yet, cultural initiatives remain largely untapped as an economic resource. By emphasising shared cultural roots, regional economic policies can foster a deeper sense of trust and collaboration. Shared cultural projects, such as literary festivals, art exchanges and culinary celebrations, can enhance cross-border interactions and boost regional economies.

Challenges and Future Directions

While cultural cooperation holds great promise for strengthening economic ties in South Asia, challenges remain. Political tensions, especially between India and Pakistan, and differing national priorities can hinder cultural exchanges. Moreover, the region's colonial history has left a legacy of borders and divisions that complicate efforts at cultural and economic integration.

However, these challenges can be addressed through conscious efforts to emphasise cultural diplomacy in regional policymaking. The promotion of shared festivals, cultural icons and historical narratives can serve as stepping stones towards broader regional cooperation.

Conclusion

Culture is not an afterthought but a central element in regional integration efforts. South Asia's shared civilisational history, linguistic diversity and religious traditions offer unique opportunities for fostering trust and cooperation across borders. Cultural diplomacy, which taps into these historical and cultural ties, should be at the forefront of regional cooperation efforts. By recognising the importance of cultural commonality, South Asia can achieve greater economic integration, political stability and social harmony.

Future initiatives should actively incorporate cultural exchange programmes, promote shared historical narratives and recognise the profound economic potential of South Asian cultural connectivity.

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4

Navigating Economic Shifts: India's Cohesive Role in the Bay of Bengal

Soumya Bhowmick and Nilanjan Ghosh

Introduction

At the dawn of the 20th century, particularly in 1911, a major geopolitical shift occurred with the relocation of British India's capital from Calcutta (now Kolkata) to Delhi. This move significantly affected India's regional ties with nations in the Bay of Bengal (BoB) region, including Bangladesh, Indonesia, Myanmar, Sri Lanka and Thailand (Xavier and Baruah, 2018). During this era, the economic policies of these nations, except Thailand, were predominantly inward focused, with state-controlled economies prevailing over market-driven mechanisms. This dynamic shifted around the 1990s, as these countries transitioned towards market-oriented economies, reintegrating into global value chains (GVCs). The shift was marked by the adoption of policies that promoted free movement of goods, services, capital, technology and information.

The BoB region, an integral part of the larger Indo-Pacific area, has since emerged as a dynamic arena for economic partnerships. Accounting for about 60 per cent of the global population (United Nations Population Fund [UNFPA], n.d.), this region is distinguished by some of the world's fastest-growing economies and busiest maritime trade routes (Louis, 2020). The increasing interdependence within the region and with external actors has been particularly noteworthy, especially in the context of China's influential role in regional value chains and as a dominant trade and investment partner. This trend is exemplified by the

surge in India–China trade, which reached an unprecedented high of US\$ 135.98 billion in 2022 (Krishnan, 2023).

In the landscape of regional economic integration, the BoB region's evolution into a significant trading bloc, underscored by the pivotal role of the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), stands out as a compelling narrative of connectivity and development. Before the COVID-19 pandemic struck in late 2019, the geopolitical landscape was largely shaped by the need to counter China's expanding influence, manifested through its Belt and Road Initiative (BRI) and 'String of Pearls' strategy. In response, countries like India strengthened their links with Southeast Asian nations through various initiatives, such as the Act East policy. Concurrently, global powers, including the United States (US), Japan and Australia, sought to mitigate China's dominance by developing Indo-Pacific linkages, exemplified by the US-led Indo-Pacific Economic Framework (IPEF) and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP).

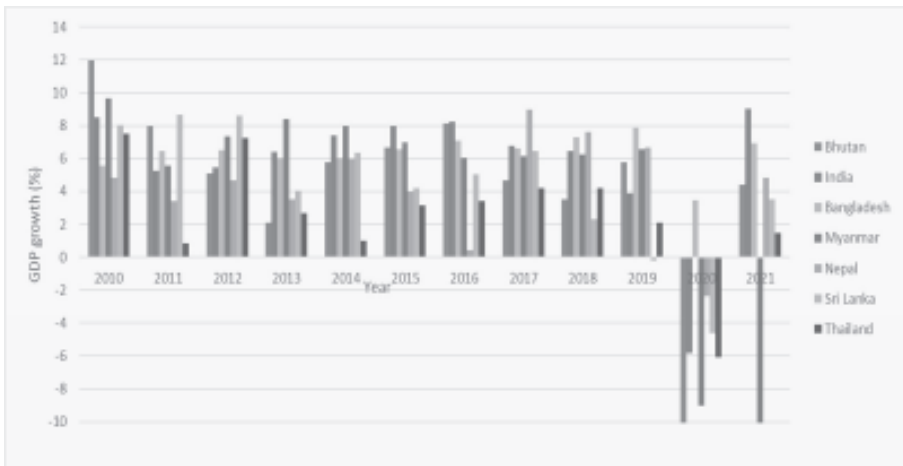
The advent of the COVID-19 pandemic had profound and far-reaching impacts on the global economic fabric, highlighting the world's over-reliance on Chinese manufacturing (Bhowmick, 2021). The ensuing supply chain disruptions prompted major corporations, such as Apple and its supplier, Foxconn, to explore diversifying their manufacturing bases to countries in South Asia and Southeast Asia, with Foxconn planning to invest up to US\$ 1 billion in India over the next three years (Lee and Phartiyal, 2020). Furthermore, the pandemic catalysed a shift among governments towards regional and domestic self-sufficiency in value chains, driving the development of resilient domestic capacities and fostering alternatives to China.

In the face of these global shifts, India's strategic decision to opt out of the Regional Comprehensive Economic Partnership (RCEP) in 2020 was a move to protect its domestic market and diminish its economic dependency on China (Ganguly and Gupta, 2020). Parallel developments, such as the Comprehensive Economic Partnership Agreement (CEPA) between India and the United Arab Emirates (UAE), were aimed at bolstering trade and reducing reliance on Chinese commerce. The India–UAE agreement was projected to increase the two-way trade by US\$ 40 billion by increasing access to Arab and African markets for Indian exporters (*The Economic Times*, 2022). The pandemic also necessitated a re-evaluation of prevailing globalisation trends, with nations now navigating the

complex interplay between globalisation, localisation and the hybrid concept of ‘glocalisation’.

Amidst these developments, the role of BIMSTEC in facilitating regional integration has been increasingly recognised. Established in 1997, the BIMSTEC is a critical platform for enhancing connectivity and fostering dialogue and cooperation across borders. Its contribution towards building more integrated and adaptable regions is especially pertinent in an age marked by rapid technological advancements and the fluid movement of financial capital. The BIMSTEC, encompassing Sri Lanka, India, Nepal, Bhutan, Bangladesh, Myanmar and Thailand, represents a significant segment of the global populace and economy, with a combined population of 1.6 billion and a gross domestic product (GDP) of US\$ 2.8 trillion and high growth rates—indicative of the region’s robust economic vitality (World Bank, 2020) (see Figure 4.1).

Figure 4.1 : Annual GDP Growth Rates of BIMSTEC Nations (percentage)



Source: Authors’ illustration from data from the World Bank.

The BIMSTEC’s comprehensive approach to regional cooperation is reflected in its focus on 14 sectors, ranging from trade, technology, energy, transport to environment, culture and people-to-people contact. This broad spectrum of cooperation highlights the organisation’s commitment to holistic regional development. Despite its potential, BIMSTEC’s profile has remained relatively understated for much of its existence, with the first summit-level meeting occurring only in 2004, seven years after its formation. However, recent years

have witnessed a resurgence of interest in BIMSTEC, necessitating an exploration of the factors behind this revival, the potential opportunities it presents and its prospects for success in advancing regional integration and development. As a bridge between South Asia and Southeast Asia, BIMSTEC's evolving role in shaping the economic future of the region is increasingly significant.

Challenges and Opportunities

The BIMSTEC's historical dormancy, marked by organisational weaknesses and inconsistent commitment levels among the member countries, and ambiguity in the role of institutional actors have been a hindrance to its effectiveness (Xavier, 2018a). The recently endorsed Kathmandu Declaration marks a pivotal step towards revitalisation, identifying 13 key institutional reforms aimed at empowering the organisation and expanding its scope and efficacy. Among these, the adoption of the BIMSTEC Charter stands out as a critical development, providing a comprehensive framework to guide the organisation's vision, objectives and member responsibilities.

The proposed structural reforms outlined in the Kathmandu Declaration are poised to test the intent and commitment of member countries to revitalise BIMSTEC. This includes considerations for a permanent representative, akin to the United Nations (UN) model, at the secretariat in Dhaka, enhancing regular interactions among ambassadors to monitor the organisation's progress. At the heart of BIMSTEC's challenges lies the inadequate physical infrastructure plaguing the region. Poor road and rail connectivity, last-mile link challenges and cumbersome customs procedures have been persistent impediments to trade and economic cooperation. Without addressing these infrastructure gaps, the BIMSTEC's potential remains unrealised.

The development of physical networks, including roads and maritime linkages, is essential not only for boosting regional connectivity and trade but also for facilitating people-to-people interactions. The BoB region, rich in economic potential, has increasingly attracted extra-regional powers with an interest in creating new physical networks. While numerous agreements are in the pipeline to enhance regional communication and infrastructure, the onus lies on member countries to demonstrate the necessary intent for implementation.

In light of the geopolitical complexities in the region, BIMSTEC has the opportunity to position itself strategically in the 'theatre of convergence and competition' (Hussain, 2018), involving China's BRI, India's Act East policy

and the Asia–Africa Growth Corridor. Navigating these dynamics requires a delicate balance between leveraging regional strengths and aligning diverse interests to ensure BIMSTEC's success on the global stage.

Significant socio-economic disparities among the member countries introduce complexities during negotiations and implementations. These differences manifest in various forms, such as the rapid progress of Thailand in socio-economic development, marked by advancements in education, healthcare and social security (World Bank, 'The World Bank in Thailand...'). In contrast, Myanmar faces challenges due to its unpredictable domestic politics, which has international repercussions, notably in the Rohingya crisis.

Each member country presents unique strengths and challenges. Sri Lanka, for instance, boasts the best social security indicators in South Asia, coupled with a significant reduction in poverty (Xavier, 2018b). However, political stability remains a key factor for future development. Similarly, Nepal, with a dynamic services sector and tourism as a vital component of its economy, aspires to achieve middle-income status by 2030, overcoming previous political instability. Navigating these socio-economic disparities is pivotal for harnessing the individual strengths of member countries and fostering a balanced regional approach. The momentum that BIMSTEC is gaining needs to be maintained with a nuanced understanding of the diverse trajectories of member countries.

Navigating economic shifts in the BoB requires a proactive approach to external pressures. While China's BRI looms large, strategic investments in connectivity infrastructure, informed by a comprehensive regional vision, can fortify the BoB countries against undue influence. Collaborative partnerships with like-minded nations can provide an alternative to unilateral initiatives, fostering a balanced geopolitical landscape.

Interconnected histories, shaped by colonial legacies, significantly influence bilateral and multilateral relations among the member countries. Overcoming historical thorns demands a forward-looking approach, focusing on contemporary issues independent of past grievances. While historical baggage has, at times, proven to be a thorn, the future may be shaped by approaches to contemporary issues that are delinked from the bearings of the past.

The BIMSTEC's objectives align seamlessly with India's Neighbourhood First and Act East policies. India, being the largest economy in BIMSTEC, holds a leading role in the organisation and has expressed its intent to build deeper ties

with the neighbouring countries. This includes the north-eastern states, strategically positioned as an economic corridor between South Asia and Southeast Asia. The revitalisation of land connectivity networks in these states could provide a significant boost to BIMSTEC's objectives.

For landlocked countries, like Bhutan and Nepal, greater integration with BIMSTEC implies increased opportunities for access to the BoB and Southeast Asia. Conversely, BIMSTEC offers chances for a greater maritime role for Sri Lanka, already a developed maritime hub in South Asia. Thailand and Myanmar benefit from connectivity and access to South Asia, balancing their engagements with Beijing.

Engagements within the BIMSTEC have gained momentum, with pending agreements awaiting finalisation. These encompass conventions on legal assistance, combatting terrorism, a free trade area, cultural industries and the implementation of infrastructure and poverty action plans. Military exercises, like MILEX, underscore a commitment to interoperability and counterterrorism efforts, signalling a shared dedication among the member countries.

The identified reforms, coupled with a strategic approach to historical legacies and socio-economic disparities, can pave the way for BIMSTEC to emerge as a potent regional cooperation platform, contributing significantly to the socio-economic progress of the BoB region. As the organisation charts its course forward, it is crucial for the member countries to demonstrate unwavering commitment, translating rhetoric into tangible actions that propel BIMSTEC towards a more resilient and integrated future.

India's cohesive role in the BoB emerges as a linchpin for navigating economic shifts. From addressing regional integration challenges to countering external pressures, India's strategic leadership is instrumental. Collaborative initiatives, both within the BIMSTEC and bilaterally, hold the key to unlocking the region's true potential. As the BoB transforms from a region of challenges to a hub of opportunities, India's commitment to inclusive growth, sustainability and resilient economic practices will shape the destiny of the nations that share its shores.

Sectoral Analysis

The intersection of global geopolitical shifts, including Russia–Ukraine and Israel–Palestine conflicts, has reverberated across the BoB region, impacting sectors crucial to economic stability. The sectoral analysis delves into the ramifications on food security, energy dynamics and technological innovation,

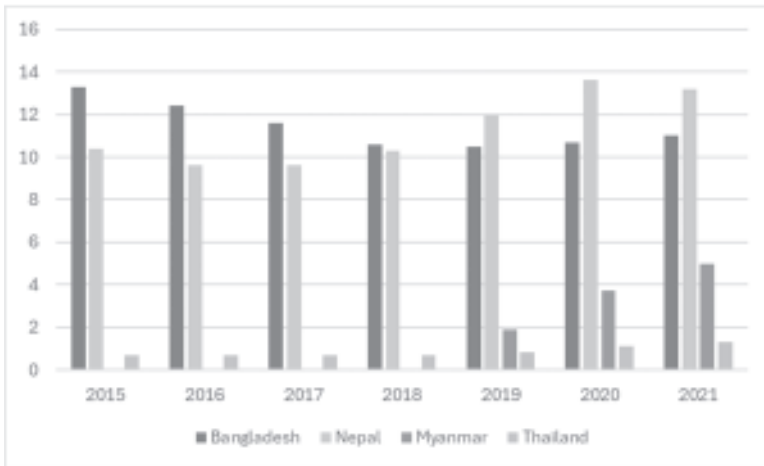
underscoring the need for strategic regional cooperation to navigate the evolving global landscape.

Food

The Russia–Ukraine conflict has significantly altered the landscape of global food security, propelling the challenge to the forefront and impacting supply chains worldwide. Before the hostilities, Ukraine and Russia, major contributors to the global food supply, collectively exported over one-third of the world's wheat and barley and more than 70 per cent of sunflower oil. The conflict disrupted exports of around 20 million tonnes of Ukrainian grain (*The Times of India*, 2022), resulting in a substantial decrease in global food availability. Before the invasion, an estimated 6 million tonnes of agricultural commodities were exported monthly to Asia, Africa and West Asia. By June 2022, this number had plummeted to one-fifth of its value, leading to dire global food shortage (Strubenhoff, 2022).

The UN Food and Agriculture Organization (FAO) reported a 33 per cent increase in global food prices between 2020 and 2023, projecting a rise in the undernourished population from 7.6 million to 13.1 million due to the war's ripple effects on food prices and availability (FAO). In this scenario, the BoB economies, already grappling with post-pandemic hunger, have faced severe consequences (see Figure 4.2). For instance, the economic meltdown in Sri Lanka worsened its trade performance in the agricultural sector, forcing the country to import essentials, including rice and sugar, due to a decline in food security of the local population (World Food Programme, 2022). Bangladesh also grappled with food inflation, necessitating regional groups, like the BIMSTEC, to establish safeguards against geopolitical events and macroeconomic threats.

One promising proposal is the establishment of a food bank for the BoB countries, modelled on the Association of Southeast Asian Nations (ASEAN) food bank (Suhrawardy, 2008). This initiative can play a pivotal role in stabilising prices and ensuring a more secure food supply. In November 2022, India hosted the 2nd Agriculture Ministerial-level Meeting of BIMSTEC, urging member countries to develop a regional strategy for transforming agriculture and promoting millet as a staple in food systems. Promotion and intra-regional trade of food items, such as millet, where countries have surplus production, can be instrumental in ameliorating food insecurity in the region.

Figure 4.2: Prevalence of Food Insecurity (population percentage)

Source: Authors' illustration based on data from the World Bank ('Prevalence of Severe Food Insecurity...').

Energy

The BIMSTEC countries, particularly India, Myanmar and Bhutan, heavily rely on energy imports, making the region highly vulnerable to external macroeconomic shocks, such as the Russia–Ukraine conflict. Bangladesh, in particular, faces a precarious situation concerning energy security due to its inability to transition to renewable energy and heavy dependence on fuel imports. The conflict further exacerbated these challenges, leading to an increase in energy prices and escalating subsidy bills in Bangladesh. In response, the government implemented austerity measures in August 2022, including significant increases in domestic fuel prices: diesel (42.5 per cent); kerosene (42.5 per cent); octane (51.6 per cent); and petrol (51.1 per cent) (*Business Standard*, 2022a). These were the highest hikes in almost two decades.

Despite the endorsement of a 'Plan of Action for Energy Cooperation in BIMSTEC' and the signing of a memorandum of understanding for the BIMSTEC Grid Interconnection, various challenges hinder energy cooperation among the member countries. These challenges include: the absence of required infrastructure; an adaptive power market; the lack of synchronisation of the grid system and grid codes to electric power and natural gas pipeline technology; and the absence of appropriate financial policies. The BIMSTEC Grid

Interconnection Coordination Committee has worked on developing a policy framework for trading and exchanging electricity, as well as establishing a tariff mechanism.

The region's economies, with their vast potential, can invest in research for green technologies, fostering self-reliant energy markets. For example, foreign direct investment from Japanese firms has had positive spillovers on the Indian economy, with over 1,455 Japanese companies operating across sectors (Invest India, n.d.). Fully utilising the scale economies and the potential of the Japanese firms in developing green energy technologies could reduce regional dependence on China, currently the dominant player in solar energy (Prasad, 2022). At the 27th Conference of Parties (COP27) in 2022, India unveiled its long-term commitment to phase out all forms of fossil fuels, including coal and oil, by the year 2070 (Dickie, 2022). Led by India, the BoB region can share knowledge and learnings in innovations in renewable energy, such as solar and wind. India's National Green Hydrogen Mission can boost the manufacture, use and export of green hydrogen, promoting self-reliance in the region's energy sector and accelerating decarbonisation of industrial and transportation activities in regional value chains.

Technology

Integration is no longer just a physical concept; digital connectivity has become an equally important domain. Digital technologies not only facilitate physical connections but also enable psychological connectivity by fostering people-to-people engagements and networks (Observer Research Foundation [OFR], 2020). The expansion of digital technologies, particularly in India, necessitates the promotion of a regional digital cooperation framework that supports e-commerce, digital innovation, cybersecurity and resilient supply chains.

Information technology (IT) has been a driving force behind the 4th Industrial Revolution, impacting various spheres, including trade cooperation and pandemic response. Developments in artificial intelligence (AI), data processing and transfer, and data security play a central role in shaping domestic and international policies (Patel et al., 2021). The neoclassical and endogenous growth theories point to variations in technology levels as causes behind poverty in developing countries (Hernández, 2003). As technology progresses, the gap between rich and poor narrows, with convergences in per capita income levels.

While the BoB countries were late entrants to the IT revolution, the import

of advanced technology significantly improved their total factor productivity (TFP). The BIMSTEC, from its inception in 1997, identified technology as a priority area for cooperation, focusing on goals in agro-based industries, food processing, herbal products, biotechnology and information and communication technology-related industries (BIMSTEC, n.d.). Taking the lead in BIMSTEC's science and technology initiatives was Sri Lanka. In 2008, the BIMSTEC leaders envisioned the establishment of the BIMSTEC Technology Transfer Facility (TTF) in Colombo, Sri Lanka (BIMSTEC, n.d.).

The group's efforts, however, have been rather piecemeal in the last two decades (see Appendix 1, Table 4A.1). While the region boasts of tremendous human resources potential that can be harnessed for technological innovation, it is important to note that the software services exports from India to the South Asian region have remained consistently low between 2020 and 2022 (Reserve Bank of India, 2022). Initiatives like 'Make in India', launched in 2014, could be leveraged for economic progress in the BoB region. However, to realise this potential, the BoB countries need to invest in upskilling their youth through strategic regional collaborations.

The India–Japan digital partnership, formalised in 2018, seeks to promote start-ups and enhance digital security. Additionally, the Australia-India Cyber and Critical Technology Partnership (AICCTP), initiated in April 2021, has already demonstrated advancements in quantum computing and the Internet of Things (IoT). These partnerships underline the potential for countries in the region to collaborate and move up the technology value chains together.

Japanese investments, predominantly focused on Bangladesh, present an opportunity for creating regional value chains. The free flow of technology and capital between Japan and Bangladesh could leverage each country's strengths, contributing to the entire BoB region's economic development.

Furthermore, regional cooperation plays a critical role in promoting cybersecurity. The Quadrilateral Security Dialogue's (Quad) model, with its focus on different aspects of cybersecurity, showcases how countries with diverse strengths can collaborate effectively. India, in particular, can play a crucial role in steering cybersecurity for supply chain resilience, aligning with the region's technological integration into GVCs.

The strategic alignment of food, energy and technology sectors can not only enhance the economic well-being of the BoB countries but also contribute to

the larger goal of global sustainability and innovation. The establishment of a food bank, investment in green technologies and the promotion of regional digital cooperation can serve as pillars for building a prosperous and resilient BoB region in the face of evolving global dynamics.

Geopolitical Dynamics and India's Role

Against the backdrop of a changing global economic order and the increasing imperative to reduce over-reliance on the Chinese economy, countries in the BoB region find themselves grappling with internal dynamics on trade and regional economic integration. The challenges, such as insulating tendencies, rising nationalistic fervour and the lingering effects of the COVID-19 pandemic, underscore the need for a strategic approach to navigate these uncertainties. While potential security arrangements, like the Quad, have sought to address emerging geopolitical transitions, their impact on economic sectors remains constrained (Aghi, 2021).

India, as it strategically manages China's expanding economic influence in the Indo-Pacific, is steering the strengths of BoB countries to the forefront of its growth agenda. The renewed emphasis on regional groupings, like the BIMSTEC, and investments from institutions, like the Asian Development Bank (ADB), aim to invigorate the region as a trade and investment hub (Dongxiang and Winston, 2021). The littoral countries in the BoB region—India, Bangladesh, Indonesia, Myanmar, Sri Lanka and Thailand—house over 25 per cent of the global population ('World Population Clock...') and account for a GDP of US\$ 5.46 trillion (World Bank, 'GDP (Current US\$)...'). This positions the region as a critical player in global product and factor markets.

Enhancing regional commercial ties holds the potential to directly contribute to the growth prospects and long-term economic resilience of the BoB countries. Moreover, it presents other trading partners, like the US and the EU, with a sustainable alternative to China, especially in the wake of the US and the EU efforts to curtail Chinese influence, which could have ripple effects on trade flows to other countries in the Global South. Recognising the influence of institutional factors on economic convergence, the BoB countries, when posited as an economic bloc, become a viable alternative to China, enabling them to climb the global economic ladder.

Historically, bilateral trade connections between the BoB countries and the US or the EU have been restricted compared to their trade interactions with

China (*BBC News*, 2021; US Census Bureau, 2022). In 2022, China was the third-largest trading partner for both the US and the EU, contributing 13.2 per cent of the total trade for the US.

The structural gravity model of international trade provides a theoretical framework for understanding the dynamics of trade relations (see Appendix 2, Box 4A.1). This model posits that the volume of goods and services traded between two countries is directly proportional to their economic size (serving as a proxy for the production capacity of each trading partner and the market demand each represents) and inversely related to associated trade costs (Baier and Standaert, 2020). In other words, larger economies with lower trade costs are likely to engage in more significant trade flows.

Empirical evidence derived from the gravity model sheds light on how trade relations have developed between advanced economies, like the US and the EU, and their counterparts in the BoB region (Baier and Standaert, 2020; Chaney, 2018; Limão and Venables, 2001). The model reveals that the relative economic size of trading partners plays a crucial role in determining the volume of bilateral trade. For instance, China's large economy, reflecting static economies of scale and a comparative advantage in global markets, has contributed to its robust trade relations worldwide.

Comparing the aggregate economic size of major trading partners of the US and the EU in the BoB region to that of China, the relatively smaller economies in the BoB littorals fall short (see Table 4.1). However, regional integration of the BoB countries into an economic bloc has the potential to increase bilateral trade flows between the BoB region and countries in the Global North. This shift could serve to reduce the over-reliance on China and contribute to a more diversified and balanced global trading landscape.

Table 4.1: Aggregate Economic Size for the US, the EU, China and the BoB, by GDP (current US\$, 2021)

<i>Trading Partner</i>	<i>GDP (US\$, in trillions)</i>
European Union	17.18
United States	23.32
China	17.73
India	3.18
Bay of Bengal Economic Bloc (including India, Bangladesh, Indonesia, Myanmar, Sri Lanka and Thailand)	5.46

Source: World Development Indicators (World Bank, 'GDP (Current US\$)...').

Beyond economic size, the gravity model highlights the role of income levels in influencing bilateral trade flows. Bilateral trade tends to increase as the relative difference in income levels between trading partners decreases (Baier and Bergstrand, 2001; Helpman 1987). The overlapping representative demand of trading partners, driven by similar income levels, translates into universal demand, fostering intra-industry trade and product differentiation.

The integration of the BoB countries into an economic bloc has the potential to reduce the relative differences in income levels between individual countries and the US or the EU. This reduction in income disparities allows for specialisation based on demand bias and representative demands becoming a basis for trade. As nations with similar representative demands are likely to develop similar industries and engage in trade in similar but differentiated goods, the BoB countries, through regional integration, can tap into this aspect to promote trade and economic cooperation.

Transaction costs, whether natural (geographical) or unnatural (cultural, logistical or barriers), significantly influence bilateral trade (Baier and Standaert, 2020). However, regional economic integration plays a crucial role in addressing shared vulnerabilities, aligning mutual interests and working out possible pathways for advancing a common agenda of building economic resilience in the long run.

In the current context of the economies in the BoB region, the importance of the gravity model is underscored by its ability to explain how regional economic integration can be critical to the vision of long-term resilience. As both food and energy security face threats from evolving geo-economic and geopolitical tensions globally, creating a strong regional value chain becomes crucial. Connectivity emerges as a cornerstone for achieving an effective regional economic order, while technology and digital connectivity play a crucial role in shaping the future trajectory.

India's leadership in the Group of Twenty (G20) presidency over the year 2023 became instrumental in amplifying the priorities of the BoB region on a global platform. India leveraged its G20 presidency to highlight the importance of achieving self-reliance through the promotion of regional value chains, emphasising various sectors, like food, energy and technology. The success of these endeavours can be transformative, creating an inflection point in the current global economic order and solidifying India's role as a global economic power and key geopolitical actor in the years to come.

To further the objectives of regional economic integration, India's emphasis on BIMSTEC aligns with its broader geo-economic and political aspirations. The Neighbourhood First and Act East policies find expression in BIMSTEC, where India, as the largest economy, assumes a leading role. The north-eastern states of India, strategically positioned as a gateway between South Asia and Southeast Asia, emerge as a crucial land connection to enhance physical connectivity, promoting trade and people-to-people interactions.

Renewing land connections in the north-eastern states presents a significant opportunity to invigorate BIMSTEC and uplift the socio-economic prospects of the region. For landlocked nations, that is, Bhutan and Nepal, greater integration with BIMSTEC opens avenues for access to the BoB and Southeast Asia. Sri Lanka, already a maritime hub, gains an expanded maritime role through BIMSTEC, while Thailand and Myanmar benefit from enhanced connectivity, balancing their engagements in the region.

Regional Value Chains and Connectivity Infrastructure

Developing strong regional value chains faces significant challenges, particularly in terms of physical connectivity, which hinders partnerships in key economic sectors. In 2020, South Asia's intra-regional trade only made up 5.6 per cent of the total trade volumes in the region. In comparison, Sub-Saharan Africa experienced a more substantial 22 per cent of total trade happening within the region (Sareen and Sinha, 2020). This highlights the urgent need for better infrastructure to allow for the smooth flow of information, capital and technology, laying the groundwork for an integrated regional value chain geared towards sustainable growth. Surprisingly, only 2–4 per cent of India's total trade is conducted with its immediate neighbours in the BoB region (Sareen and Sinha, 2020), signalling underutilisation of the geographical proximity for fostering regional trade relationships.

The low level of trade among the member countries can be attributed to a number of factors, such as limited purchasing power, inadequate production capabilities, substantial informal trade and restricted product categories. The members, excluding India and Thailand—two countries that are more exposed to global trade than other members—engage in a greater degree of commercial exchanges among themselves. Examining the trade intensity indices (which represent the ratios of a trading partner's share to a country/region's total trade and the share of world trade with the same trading partner) within the regional

bloc in 2017, we find that Bangladesh (3.05), Bhutan (24.18), Myanmar (5.32), Nepal (17.32) and Sri Lanka (4.96) heavily depend on intra-regional trade (Ghosh, 2020) (also see Table 7.2). This underscores the significant potential for developing a free trade area or a free economic zone to harness these benefits.

Table 4.2: Trade Intensity Index of BIMSTEC Member Countries

<i>Year</i>	<i>Bangladesh</i>	<i>Bhutan</i>	<i>India</i>	<i>Myanmar</i>	<i>Nepal</i>	<i>Sri Lanka</i>	<i>Thailand</i>
2004	4.97	35.68	1.67	15.32	26.50	6.70	1.07
2005	4.58	34.78	1.45	16.18	26.08	7.40	1.08
2006	3.96	30.02	1.30	17.40	25.34	6.99	1.12
2007	4.11	30.32	1.25	14.74	24.24	7.43	1.12
2008	4.13	29.60	1.00	14.47	21.63	5.98	1.11
2009	3.38	28.49	0.93	14.09	19.60	4.83	1.17
2010	3.41	23.99	0.89	11.87	19.44	5.05	1.01
2011	3.28	22.00	0.87	9.05	18.68	5.52	1.04
2012	3.01	23.80	0.88	10.03	18.47	4.95	0.98
2013	2.95	24.77	0.96	8.06	18.25	4.11	1.05
2014	3.00	25.04	1.11	6.83	18.40	4.86	1.12
2015	2.74	24.30	1.16	6.35	16.98	6.16	1.12
2016	2.74	25.56	1.20	6.35	18.18	4.77	1.06
2017	3.05	24.18	1.11	5.32	17.32	4.96	1.10

Source: ADB (2020).

The disjointedness in trade ties restrains the BoB countries from fully capitalising on the wealth of opportunities within their immediate neighbourhood. For instance, Myanmar, Nepal and Bhutan possess an abundance of hydropower infrastructure but hesitate to tap into it due to the absence of domestic demand that would justify the project costs (Bhandari, 2021). On the other hand, India and Bangladesh, as significant importers of energy, could serve as potential markets for this surplus hydropower. Recognising and utilising such complementarities can unlock opportunities for creating resilient regional production networks.

The challenge of physical connectivity is further complicated by the substantial time and compliance costs associated with cross-border trade in South Asia. The average time for cross-border trade in the region is a considerable 53.4 hours, in contrast to 16.1 hours for Europe and Central Asia (ECA) and a mere 12.7 hours for the high-income Organisation for Economic Co-operation and

Development (OECD) countries. Additionally, the border compliance costs in South Asia are notably high at US\$ 310, compared to US\$ 150 for ECA and US\$ 136.8 for the OECD (Singh and Verma, 2021). These figures emphasise the urgent need for simpler processes and reduced costs to encourage more efficient cross-border trade.

Customs clearance issues between Bangladesh and India prove to be a major hassle. The complexities of customs clearance significantly increase both time and production costs. This, in turn, discourages potential investors from venturing into regional manufacturing businesses, hindering the potential benefits of their collaboration.

To address these challenges, a careful analysis of the resource base, existing production capacities and market demand structures of the regional economies is crucial. Such an analysis lays the foundation for boosting intra-regional trade among the BIMSTEC countries. This strategic approach requires robust multilateral support, especially in the energy sector, with institutions like the ADB playing a pivotal role. Notably, countries facing financial constraints for large-scale projects, such as Myanmar and Nepal, would benefit significantly from such support, facilitating transformative initiatives.

China has historically been a significant investor in Nepal's hydropower sector. However, India's interest in investing has prompted Nepal to diversify its hydropower projects to Indian companies (Bhushal, 2022), illustrating the mutually beneficial expansion of bilateral economic linkages. Similar collaboration is witnessed between India and Bhutan in the hydropower sector, emphasising the potential for fostering symbiotic relationships to drive regional economic integration (*The Hindu*, 2022). India's proactive role, not just as a financial contributor but also as a source of knowledge and expertise, remains pivotal for the success of such initiatives. Proposals like the Bay of Bengal Power Grid, with local governments as key stakeholders, further highlight the potential for trading energy resources between regions.

Maintaining a delicate balance between overall external debt and debt to China is another intricacy that countries in the BoB region must navigate. This becomes particularly crucial for those involved in the BRI. Sri Lanka's experience with the Hambantota Port project, initially rejected in 2003 but later realised with a hefty US\$ 1.1 billion in Chinese financing (*The Hindu*, 2022), serves as a cautionary tale. Sri Lanka's case underscores the perils associated with what has been dubbed China's 'debt trap diplomacy'. Despite China not constituting the

highest percentage of Sri Lanka's outstanding external debt, the nuanced issues of liquidation techniques and hidden debts in various infrastructure projects reflect the problematic outcomes of Beijing's aggressive distribution of loans.

Efficient connectivity networks, particularly through ports, are crucial for creating regional value chains. The United Nations Conference on Trade and Development (UNCTAD) predicts a significant growth rate of 3.5 per cent in global maritime trade between 2019 and 2024 (Bhandari, 2021). The BoB, with its vast maritime potential, emerges as a key player in this scenario. Strategically diversifying investments in connectivity infrastructure becomes paramount to counterbalance Chinese influence in the region and unlock the full potential of maritime trade.

India's potential to spearhead regional connectivity and economic growth is evident. The Andaman and Nicobar Islands, strategically positioned, can provide the much-needed impetus to India's ambitions. The International Container Transshipment Terminal (ICTT) at Great Nicobar Island, envisioned as a hub in the East–West international shipping corridor (Roy, 2022), holds promise as a pivotal node for regional trade. However, logistical challenges, such as congestion and a lack of storage space in ports on India's east coast, must be promptly addressed to foster a positive and efficient relationship between the ports and user countries.

India's strengths in road and rail transport connections with Nepal, Bangladesh and Myanmar provide a robust foundation that can be further expanded to provide direct connectivity with the neighbourhood. Private ports on India's east coast, including Kattupalli, Krishnapatnam and Ennore, present lucrative investment opportunities with their deep-water channels, improved connectivity and operational efficiency. The relaxation of cabotage laws has already spurred increased direct shipments in Indian ports, and extending similar measures for vessels operating between the BoB countries could further catalyse the smooth movement of cargo.

India's commitment to enhancing regional connectivity is evident in various initiatives, such as the BIMSTEC Master Plan for Transport Connectivity (ADB, 2022). Moreover, financial pledges, exemplified by India's commitment of US\$ 1 million at the 5th BIMSTEC Summit in 2022 to increase the operational budget of the organisation (*Business Standard*, 2022b), underscore the nation's dedication to fostering regional cooperation.

The challenges associated with creating regional value chains through enhanced physical connectivity are formidable, but not insurmountable. By meticulously addressing issues, such as customs clearance, cross-border trade efficiency and strategic infrastructure investments, countries in the BoB region can unlock the true economic potential of the region.

Conclusion

In conclusion, the dynamic landscape of global economic order stands at the precipice of a transformative shift, necessitating a delicate equilibrium between 'localisation' and 'globalisation'. The historical benefits of globalisation, such as increased regional and global integration, trade facilitation and economic development, have encountered new challenges in the face of current geopolitical and geo-economic contexts. The rise of China, trade tensions, supply chain disruptions and the ongoing global pandemic have prompted a re-evaluation of economic dependencies and a focus on safeguarding industrial sovereignty.

Amidst these challenges, the BoB region emerges as a pivotal arena where nations, particularly India, can shape a path towards resilient and sustainable economic development. India's impending demographic and economic ascendancy positions it as a key player in fostering 'glocalised' models of economic partnerships. Through targeted policymaking, the BoB region can harness its potential to build self-reliant regional value chains in critical sectors, like food, energy and technology.

Connectivity emerges as a cornerstone for achieving these economic aspirations. Investments in maritime connectivity and the creation of multimodal networks within and beyond the BoB region can significantly enhance trade facilitation, reduce associated costs and incentivise increased collaboration with major global players, like the US and the EU. However, such ambitious economic goals must be pursued with a comprehensive approach that integrates carbon neutrality and inclusive development into all future policies.

India's geopolitical presence in the region becomes paramount, particularly in managing the complex dynamics between China and the smaller nations in the BoB region. While the Global North contemplates disengagement from Chinese-dominated value chains, the BoB countries face the challenge of maintaining their economic ties due to geographical proximity and existing connectivity networks. India, in its pursuit of regional value chains, must navigate this complexity to ensure sustainability and protect its interests.

The recent example of India's initiative within the South Asian Association for Regional Cooperation (SAARC) during the COVID-19 pandemic highlights the potential for regional collaboration. While the future of SAARC remains uncertain, BIMSTEC emerges as a promising avenue for leveraging regional strengths. The organisation's compatibility with the aspirations of member countries, cordial bilateral relationships and the prospect of a BIMSTEC+ format underscore its potential to underwrite the larger Indo-Pacific region.

However, various challenges, such as diverse interests, political uncertainties and varying socio-economic capacities among the member countries, demand sustained political will for BIMSTEC's success. Decision making and operations must be systematised to overcome asymmetries and facilitate the organisation's functioning. In this context, the focus should be on attainable goals, enhancing visibility and building public consciousness to preserve and sustain the interest generated in the region.

Looking ahead, the BoB region stands at a critical juncture, and the choices made today will shape its economic trajectory. By embracing 'glocalisation', fostering regional value chain and navigating geopolitical complexities, the nations in the BoB region, with India at the forefront, can pave the way for a resilient, sustainable and inclusive economic future.

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Appendix 1

Table 4A.1
BIMSTEC Efforts in the Domains of Science, Technology and Innovation

<i>Year</i>	<i>Meetings/Summits</i>	<i>Proposals</i>
2006	11th Senior Officials Meeting, Colombo, Sri Lanka.	Proposal to establish a BIMSTEC Technology Transfer Exchange in Sri Lanka.
2006	9th Ministerial Meeting, New Delhi, India.	Emphasis on: cooperation in advanced areas of fundamental scientific research; exchange of expertise in software and hardware development; joint research and development in this field; technology transfer; and exchange of experience on Geographical Information System (GIS).
2008	2nd BIMSTEC Summit, New Delhi, India.	Decision to establish a BIMSTEC TTF in Sri Lanka.
2014	3rd BIMSTEC Summit, Nay Pyi Taw, Myanmar.	Enhancing cooperation in expanding skill and technology base of BIMTEC member states through partnerships that are targeted towards micro, small and medium enterprises (MSMEs). Decision to accelerate efforts for the finalisation of Memorandum of Association (MoA) on the establishment of BIMSTEC TTF in Sri Lanka.
2016	BIMSTEC Outreach Summit and Leaders' Retreat, Goa, India.	Emphasis on the establishment of BIMSTEC TTF in Sri Lanka to help MSME sectors in the member countries.
2017	The 4th Meeting of the BIMSTEC Expert Group on the Establishment of BIMSTEC TTF, Colombo, Sri Lanka.	The draft text of the MoA of the BIMSTEC TTF was finalised. The proposed budget for the facility was also prepared for submission to the 19th Session of the BIMSTEC Senior Officials' Meeting.
2021	17th BIMSTEC Ministerial Meeting, Colombo, Sri Lanka (virtual).	Decision to establish an Expert Group on Technology. Consisting of representatives from all the BIMSTEC member nations, once this Expert Group is formed, it is expected to develop a plan of action or work programme with the objective to strengthen cooperation in technology.
2022	5th BIMSTEC Summit, Colombo, Sri Lanka	The MoA for the establishment of the BIMSTEC TTF was approved by the union cabinet with the Indian prime minister as the chair. The MoA was signed by the member countries.

Source: Bhowmick and Basu (2023) and BIMSTEC (Science, Technology & Innovation...).

Appendix 2

Box 4A.1

Gravity Model of International Trade

$$X_{ij} = \frac{Y_i \cdot Y_j}{Y_w} \phi_{ij}^{-\varepsilon}$$

Where,

X_{ij} is the total volume of bilateral trade between countries i and j ,

Y_i (Y_j) is the GDP of country i (j) representing its economic size,

Y_w is the global GDP,

$\phi_{ij}^{-\varepsilon}$ is the associated trade cost between countries i and j , and,

ε is the elasticity of bilateral trade to associated trade costs

Source: Authors' own illustration.

5

Deepening Subregional Economic Integration in South Asia: The Strategic Importance of Bangladesh–India Bilateral Partnership

Delwar Hossain

Introduction

The concept of subregional economic integration in South Asia, while not entirely new, has gained renewed momentum in recent years. Today, subregional cooperation is a pragmatic, development-centred approach involving multiple countries that form a geographically cohesive network. This cooperation also extends to minilateral initiatives, offering flexible frameworks for deeper engagement. In South Asia, subregional collaboration has evolved around six key pillars: trade; connectivity; energy; investment and private sector engagement; information and communication technology (ICT); and people-to-people ties. The process is driven by three institutional frameworks that have become essential to fostering integration, namely, the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), the Bangladesh–Bhutan–India–Nepal (BBIN) initiative and the South Asia Subregional Economic Cooperation (SASEC) programme.

The BIMSTEC, which includes Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka and Thailand, plays a pivotal role in promoting trade, investment and economic cooperation among its member states (See table 5.1 for GDP of some South Asian Economies). Likewise, although it faced initial challenges, the

BBIN Motor Vehicles Agreement (MVA) stands as a resilient example of subregional cooperation, driving connectivity and economic diversification, particularly for landlocked countries, like Bhutan and Nepal. The SASEC programme too has emerged as a robust platform for advancing economic integration across the region.

Table 5.1: Gross Domestic Product of Selected Economies in South Asia (billion US\$)

<i>Rank</i>	<i>Country</i>	<i>2024</i>	<i>2025</i>	<i>2026</i>	<i>2027</i>	<i>2028</i>
5	India	4,105.38	4,511.85	4,951.62	5,427.39	5,944.38
33	Bangladesh	455.16	511.79	576.49	651.69	734.60
35	Vietnam	469.67	514.65	559.28	606.43	657.27
74	Sri Lanka	74.0	76.0	82.0	82.0	82.0
85	Myanmar	79.27	83.58	87.96	92.63	98.03
98	Nepal	45.46	49.94	54.40	59.10	64.20
165	Bhutan	2.86	3.09	3.366	3.57	3.80

Source: Compiled by the author based on data from <https://www.worldeconomics.com/> and <https://www.imf.org/>.

The surge in subregional economic integration gained traction particularly in the 2010s, with Bangladesh and India at the forefront of this transformation. Their strategic partnership has become central to all major initiatives promoting subregional stability and prosperity. Over the past 15 years, Bangladesh–India relationship has witnessed a paradigm shift, evolving into a model of South Asian diplomacy. This bilateral relationship has fostered mutual trust and cooperation, laying the groundwork for a robust partnership.

Bilateral connectivity initiatives between Bangladesh and India have been instrumental in increasing trade volumes and driving economic growth in the subregion. These initiatives have opened new trade routes and created opportunities, positioning South Asia as a hub for economic activity. Bangladesh–India bilateral cooperation has transformed the landscape of subregional trade, fostering deeper economic integration.

A closer examination of Bangladesh–India relations reveals the visionary diplomacy that has paved the way for this transformative collaboration. Key agreements and protocols—such as the establishment of protocol routes, the agreements on cooperation in the development of minor ports and coastal shipping, the 2010 agreement on border haats and memorandums of

understanding (MoUs) on cooperation in the power sector and railways—demonstrate the commitment of both nations to subregional development. The standard operating procedure (SOP) for the use of Chattogram Port and Mongla Port further highlights their dedication to facilitating seamless trade and commerce in the region. Recent measures, such as conducting trade in local currencies, also reflect their efforts to strengthen economic ties and reduce reliance on the United States (US) dollar. As the two countries progress towards financial integration through digital connectivity, they have the opportunity to create a seamless, efficient cross-border trade ecosystem that benefits businesses and individuals across the region.

In this context, the chapter posits that Bangladesh–India bilateral initiatives aimed at expanding their partnership and deepening solidarity provide a strong foundation for enhancing subregional economic integration in South Asia and beyond. These initiatives are not mere diplomatic rhetoric; they represent tangible steps towards overcoming historical obstacles and building a collaborative environment conducive to shared economic growth and prosperity. The chapter will explore the specific contributions and impacts of Bangladesh–India bilateral efforts on subregional integration, shedding light on the future potential of their partnership in reshaping South Asian economic landscape.

Conceptualisation and Contextualisation

Subregional integration is fundamentally about deepening cooperation at the multilateral level, rooted in a shared commitment to collective progress. Cooperation, an intrinsic part of human interaction, reflects a natural inclination towards mutual aid and collaboration that transcends societal, cultural and national boundaries (Messner et al., 2013). In international relations, cooperation takes on greater significance as countries recognise the necessity of working together to tackle shared challenges and achieve common objectives (World Economic Forum, 2020). Whether through formal treaties or informal alliances, nations understand the value of pooling strengths and resources for collective progress and prosperity. Cooperation fosters mutual understanding, conflict resolution and sustainable development, transcending narrow national interests to serve the greater good of humanity (United Nations, 2015; Wendt, 1999). Through dialogue, trust building and compromise, cooperation becomes a powerful mechanism for bridging differences and promoting peaceful coexistence (Kristensen, 2021). By working together, countries can address pressing global

issues, like poverty, climate change and health crises, fostering a sense of interconnectedness and solidarity essential in an increasingly globalised world (Richmond and Visoka, 2021).

From a theoretical perspective, functionalism explains that subregional cooperation arises from shared functional needs or common challenges that necessitate collective action (Ashworth and Long, 2016). This theory posits that states collaborate on specific issues, such as trade, security or environmental concerns, leading to the formation of regional cooperation mechanisms. Over time, functional cooperation may deepen as states recognise the benefits of collaboration and expand their joint efforts (McLaren et al., 1978). In contrast, neo-functionalism emphasises the ‘spillover effect’, where progress in one area of cooperation leads to further integration in other sectors. This framework highlights how cooperation in one domain can catalyse broader integration processes (Jarvis, 1994; Lindberg and Scheingold, 1971). This dynamic is evident in the Bangladesh–India bilateral relationship, where initial cooperation has spilled over into more comprehensive regional integration efforts.

New regionalism, on the other hand, offers a contemporary approach to regional cooperation characterised by flexible governance structures and the inclusion of diverse actors beyond traditional state entities (Deas and Lord, 2006). Unlike older forms of regionalism that relied heavily on intergovernmental institutions, new regionalism embraces non-state actors, such as civil society organisations, private enterprises and international institutions (Baba and Ersen, 2023). In the case of Bangladesh and India, this is reflected in the involvement of non-governmental entities and legal frameworks that support bilateral and subregional cooperation. This shift acknowledges the modern challenges posed by globalisation, transnational threats and technological advancements, which require more innovative, adaptive and inclusive forms of cooperation (Pattanaik, 2016).

Building on this conceptual framework, subregional cooperation in South Asia can be defined as a pragmatic, development-focused, multi-country arrangement within a geographically cohesive area. It provides a platform for addressing specific development priorities and strengthening socio-economic ties among neighbouring countries with shared geographical proximity and common interests (Brunner and Prasad, 2014). By pooling resources and capacities, subregional cooperation aims to accelerate economic growth and reduce poverty within the region.

Subregional initiatives, like the BBIN cooperation and the BIMSTEC, exemplify this approach by focusing on enhancing connectivity, trade and investment. These frameworks leverage geographical proximity and complementary economic structures to foster mutually beneficial outcomes. By promoting collaboration in certain areas, like infrastructure development, energy cooperation and trade facilitation, subregional cooperation unlocks the region's economic potential and improves the livelihoods of its people. It also builds trust, enhances dialogue and resolves bilateral disputes, laying the groundwork for broader regional integration efforts in South Asia.

There are several forms of subregional cooperation emerging in South Asia:

1. *Minilateralism*: This form departs from traditional multilateral approaches by emphasising smaller coalitions of like-minded states to pursue shared objectives. In subregional initiatives, minilateralism enables closer cooperation and faster decision making by avoiding the complexities of larger multilateral frameworks (Kashem and Islam, 2016).
2. *Growth triangles*: These spatial frameworks involve neighbouring regions or countries cooperating to promote economic development. Growth triangles operate across borders and typically involve cooperation at the local and regional levels, transcending national boundaries (Chia and Lee, 1992; Kotler et al., 1997).
3. *Growth corridors*: Expanding the idea of growth triangles, growth corridors link key economic centres, production hubs and transportation networks to enhance connectivity and regional economic integration. For Bangladesh and India, growth corridors have the potential to serve as strategic pathways for greater connectivity and development.
4. *Micro-regionalism*: This approach focuses on addressing localised challenges and opportunities in specific border regions. Initiatives like cross-border trade zones and border haats (markets) are practical examples of micro-regionalism, enhancing grassroots-level connectivity and economic cooperation (Breslin and Hook, 2002). Micro-regionalism strengthens people-to-people ties and addresses grassroots needs, complementing larger regional integration efforts.

In conclusion, subregional cooperation in South Asia offers a practical and inclusive strategy for fostering development and integration. It provides a platform for collaboration that is more targeted and flexible than broader regional

frameworks, enabling neighbouring countries to pool resources, address common challenges and promote collective prosperity.

Evolving Global Dynamics: From Unipolarity to Multipolarity

The shift from unipolarity to multipolarity in global politics marks a transformative change in the international landscape, defined by the rise of multiple power centres. This transition carries significant implications for global and regional dynamics, including those in South Asia, where geopolitical rivalries, inter-state conflicts and the increasing prominence of the Indo-Pacific intersect with broader trends, such as globalisation and the impact of ongoing conflicts. Several key forces drive this transformation:

1. ***Globalisation and economic integration:*** Globalisation has fundamentally reshaped the world order, creating a multipolar world with diverse centres of economic, political and cultural power. Advances in technology, telecommunications and transportation have enabled rapid exchanges of information, goods and services, facilitating deeper integration among nations.
 - (i) The liberalisation of trade and investment has spurred the growth of global supply chains, allowing nations to specialise and engage in mutually beneficial economic partnerships.
 - (ii) In South Asia, globalisation has brought both opportunities and challenges. Countries like Bangladesh and India have leveraged global markets to diversify their economies, improve productivity and elevate living standards through bilateral initiatives and trade.
2. ***Geopolitical rivalries:*** As multipolarity takes shape, geopolitical rivalries have intensified, particularly in strategically important regions, such as South Asia. Global powers, like the US, China, India and Russia, are engaged in complex competition, each seeking to expand its influence and secure strategic interests.
 - (i) China's Belt and Road Initiative (BRI) plays a central role in its ambitions in South Asia, raising concerns among other powers, particularly India and the US, about China's growing foothold in the region.
 - (ii) In response, South Asian nations are forging strategic alliances to balance these influences. India's Act East policy, aimed at enhancing ties with Southeast Asia, and the US Indo-Pacific strategy, focused

on promoting a free and open region, exemplify this trend.

3. *Rising inter-state conflicts*: The move towards multipolarity has also exacerbated inter-state conflicts, driven by competition for resources, territorial disputes and geopolitical dominance.
 - (i) In South Asia, disputes over borders, maritime boundaries and strategic assets have intensified, posing risks to regional stability. Diplomatic efforts have been essential in addressing these issues, as evidenced by the peaceful resolution of land and maritime disputes between Bangladesh and India.
 - (ii) The resurgence of these conflicts underscores the complexities of multipolarity, emphasising the need for diplomacy, conflict resolution and confidence-building measures to prevent escalation.
4. *The spectre of war*: The rise of new powers has increased military posturing and coercive tactics, with some conflicts spilling into war, as seen in the ongoing Ukraine crisis.
 - (i) This conflict has shifted perceptions of inter-state relations and multilateral cooperation. Yet, despite these global challenges, Bangladesh and India have maintained a strong bilateral relationship, emphasising economic collaboration and regional stability. Their resilience in the face of global turmoil offers an example of effective diplomacy amidst multipolar tensions.
5. *The resurgence of the Indo-Pacific region*: The Indo-Pacific has emerged as a strategic theatre in the multipolar world, drawing the attention of major powers, including the US, China, India and others.
 - (i) The region's critical sea lanes, economic routes and strategic chokepoints make it a focal point for global trade and security. Countries, such as India, Bangladesh and Sri Lanka, located at the crossroads of the Indian and Pacific Oceans, find their security and economic interests deeply tied to developments in the region.
 - (ii) The strategic importance of the Indo-Pacific is magnified by concerns over maritime security, freedom of navigation and resource access. China's assertive territorial claims in the South China Sea have triggered responses from regional actors, while initiatives like the Quadrilateral Security Dialogue (Quad) seek to enhance cooperation and uphold a rules-based order.

The transition from unipolarity to multipolarity presents both opportunities and challenges for South Asia and the broader global order. While globalisation has opened new pathways for economic cooperation, intensifying geopolitical rivalries and inter-state conflicts underscore the volatility of the emerging multipolar system. The resurgence of the Indo-Pacific region as a critical strategic arena further complicates these dynamics, demanding a careful balance of diplomacy, dialogue and engagement to navigate the complexities of this evolving world order.

State of Subregional Economic Integration in South Asia

The current state of subregional economic integration in South Asia showcases a mix of progress and persistent challenges, shaped by efforts to strengthen institutional frameworks, enhance connectivity and foster deeper cooperation among neighbouring countries. The growing partnership between India and Bangladesh, along with various institutional initiatives, has played a pivotal role in advancing this integration. However, there is still significant room for improvement, and the continued bilateral efforts of Bangladesh and India are expected to lead the way in shaping the future of subregional integration.

Subregional economic integration in South Asia formally began in 1997 with the launch of the South Asia Growth Quadrangle (SAGQ). Established by the foreign ministers of BBIN, the SAGQ was endorsed as a subregional initiative under the South Asian Association for Regional Cooperation (SAARC) during its ninth summit in Male, Maldives. The SAGQ's primary objectives include: creating a favourable environment for accelerated economic growth; addressing infrastructural deficiencies; harnessing regional synergies; and building the institutional frameworks needed to enhance policy coordination and project implementation across the subregion.

In its initial phase, subregional cooperation in South Asia faced three major hurdles:

1. *Uncertainty of leadership*: Ambiguity existed over whether the SAARC Secretariat or the participating nations should lead the initiative.
2. *Infrastructural deficits*: The region suffered from inadequate infrastructure, impeding smooth integration.
3. *Investment challenges*: Mobilising financial resources and securing investment remained difficult, limiting the scope of joint projects.

Despite these early challenges, subregional economic integration has seen notable advancements in recent years. Key initiatives, particularly those led by Bangladesh and India, have focused on improving infrastructure, enhancing trade facilitation and promoting cross-border investments. These efforts have contributed significantly to economic growth, job creation and poverty reduction across the region. Importantly, these developments reflect a growing recognition of the mutual benefits of cooperation and the critical need for collective action to address shared challenges.

One prominent driver of integration has been the SASEC programme, which has invested in strategic infrastructure, energy connectivity and trade facilitation. The SASEC's efforts have eased cross-border trade and movement, opening up new opportunities for collaboration and inclusive growth across the subregion. The BBIN initiative has also emerged as a key platform for cooperation, advancing projects in road connectivity, power trade and tourism, which have demonstrated the tangible benefits of regional collaboration.

Additionally, the BIMSTEC has extended subregional integration beyond South Asia, incorporating Southeast Asian nations, such as Myanmar and Thailand. The BIMSTEC has broadened the scope of economic and technical cooperation, positioning the region for greater integration with the wider Asia-Pacific.

In summary, while significant progress has been made in advancing subregional economic integration in South Asia, ongoing bilateral efforts, particularly between Bangladesh and India, will remain central to overcoming challenges and unlocking the full economic potential of the region.

Existing Subregional Platforms

BIMSTEC

The BIMSTEC, a regional alliance of seven nations bordering the Bay of Bengal, envisions an integrated South Asia where trade and investment flow seamlessly across borders. This multifaceted initiative has made significant strides in fostering economic cooperation, regional stability and sustainable development. The BIMSTEC region, home to over 1.7 billion people (23 per cent of the global population), boasts a combined gross domestic product (GDP) of approximately \$3.6 trillion, representing around 4 per cent of the global GDP. Despite global

financial challenges, the BIMSTEC member states have achieved an average economic growth rate of 6.5 per cent over the last five years.

In 2021, intra-regional trade within the BIMSTEC reached \$70 billion, a significant figure, though dwarfed by the Association of Southeast Asian Nations or ASEAN's \$600 billion in the same period. Experts estimate that intra-BIMSTEC trade has the potential to rise to \$250 billion, driven by the untapped trade opportunities within the member countries. The 5th BIMSTEC Summit, held in March 2022 in Colombo, marked a pivotal moment with the adoption of the BIMSTEC Charter and the Master Plan for Transport Connectivity. These frameworks guide the future of BIMSTEC, laying out principles, decision-making processes, dispute resolution mechanisms and a road map for improving transport infrastructure across the region.

Significant advancements have been made in improving rail connectivity, including:

1. The construction of a double track between Tongi and Bhairab Bazar in Bangladesh (2006–18) with \$267 million Asian Development Bank (ADB) support, and additional bridges funded by the Indian line of credit (LOC).
2. The gauge conversion of the Maynaguri–Changrabandha line and restoration of the Radikapur–Biral line linking India and Bangladesh (2016–17).
3. Upgrades to the Trincomalee rail line in Sri Lanka (\$50 million), supported by the ADB, the China Exim Bank and the Indian government.
4. Development of a new rail terminal in Thailand's Laem Chabang (\$63 million), improving logistical connectivity across the region.

SASEC

The SASEC focuses on trade, connectivity, energy, investment and fostering people-to-people links to strengthen economic integration in South Asia. Since its inception in 2011, the SASEC has driven significant progress in regional collaboration, particularly between Bangladesh and India, emphasising transport, trade facilitation and energy projects. The SASEC's portfolio includes 47 projects valued at \$9.2 billion, with contributions from the ADB and SASEC member governments.

In 2017, the SASEC countries adopted a long-term vision aimed at harnessing regional synergies for sustainable economic growth. Key goals include:

1. Leveraging natural resources to tap into latent industrial demand within the subregion.
2. Strengthening industry-to-industry links to create regional value chains.
3. Expanding trade and commerce by enhancing access to regional and global markets.

By December 2021, the SASEC portfolio had grown to 74 committed projects with a cumulative value of \$17.57 billion, including \$10.28 billion in ADB funding. The transport sector comprises the majority of projects (44 projects worth \$12.32 billion), followed by energy (16 projects), economic corridor development (nine projects), trade facilitation and ICT. The SASEC's projects have received significant co-financing from governments and development partners, contributing to the region's economic integration and infrastructure development.

The SASEC's Action Plan on Strategic Initiatives (APSI) for 2022–24 prioritises 53 key projects, with a total projected cost of \$34.54 billion, further propelling SASEC's long-term vision for subregional cooperation and economic integration. These initiatives focus on deepening knowledge sharing, improving infrastructure and streamlining coordination among member states.

BBIN Initiative

The BBIN initiative has made significant strides in promoting subregional economic integration among its member countries. A cornerstone of this cooperation is the MVA, which, despite initial challenges, remains a vital mechanism for fostering smoother cross-border transportation, increasing trade and driving economic diversification. This agreement particularly benefits Bhutan and Nepal, by easing connectivity and access to larger markets.

The BBIN emerged in response to the stalled SAARC MVA in 2014, which failed to reach consensus due to Pakistan's objections. In contrast, the BBIN MVA, signed on 15 June 2015 in Thimphu, aims to create a seamless economic corridor across Bangladesh, Bhutan, India and Nepal. While Bangladesh, India, and Nepal have ratified the agreement, Bhutan is yet to fully participate, although it facilitates the passage of goods through its territory.

The demand for regional cooperation and integration within the BBIN

framework has grown, particularly post-COVID-19, as countries seek to rejuvenate economies. India's Act East policy has been instrumental in promoting connectivity between north-east India and its neighbours. Ongoing projects to upgrade railway links in Bangladesh, supported by Indian credit lines, along with initiatives to connect Nepal to India's railway network, are seen as pivotal for enhancing trade and mobility across the region.

However, challenges remain. Bhutan's decision to act as an observer rather than a full participant in the BBIN MVA has delayed broader implementation. Yet, progress is still evident—between 200–300 trucks carrying goods already traverse the region daily. Furthermore, there is growing emphasis on upgrading road infrastructure, particularly the east–west roadway that connects major land ports, like Birgunj, Biratnagar and Bhairahawa (Nepal), crucial for boosting transportation efficiency and trade flows.

Intra-BBIN trade is gradually increasing, with trade between member countries rising from 2.45 per cent in 2010 to 4.5 per cent of total trade in 2020—a positive sign for future integration (see Table 5.3).

Table 5.2: Trade–GDP Ratio of BBIN Region

<i>Country</i>	<i>Trade % of GDP</i>	<i>Export % of GDP</i>
Bangladesh	28	10.7
Bhutan	85	31.8
India	44	21.4
Nepal	44	5.2
South Asia	37	17.2

Source: Compiled by the author based on data from <https://www.macrotrends.net>.

Table 5.3: Intra-regional Trade of BBIN Region

<i>Country</i>	<i>2010</i>	<i>2015</i>	<i>2020</i>
Non-BBIN	97.54%	96.7%	95.4%
Intra-BBIN	2.45%	3.20%	4.5%

Source: Compiled by the author based on data from <https://unctad.org/> and <https://www.wto.org/>

The BBIN MVA is particularly promising for connecting mainland India to its north-east, including cities like Agartala, Guwahati and Shillong, historically challenged by poor infrastructure and geographic isolation. Enhanced road, rail and waterway connectivity will reduce logistical costs, improve trade routes and stimulate economic growth in these regions.

Additionally, the collaboration between the Bangladesh Inland Water Transport Authority and the Inland Waterways Authority of India offers further economic benefits, particularly for landlocked Bhutan and Nepal, as waterways provide efficient access to international markets. Recent events, such as the BBIN Business Forum and Expo in West Bengal, demonstrate optimism regarding the MVA's role in facilitating trade, investment and people-to-people ties, particularly in the emerging economic zone encompassing Panchagarh (Bangladesh), Siliguri (India), Biratnagar (Nepal) and Phuntsholing (Bhutan).

Bangladesh–India–Nepal (BIN) Initiative

The **BIN initiative** represents a new layer of subregional cooperation in South Asia, aimed at deepening economic integration. Building on the strong bilateral ties between Bangladesh and India, the BIN approach leverages the diplomatic and strategic foundations established by these two nations, creating a more interconnected economic framework.

The BIN initiative highlights the importance of bilateral efforts in promoting regional collaboration, especially as the **BBIN framework** faces hurdles due to Bhutan's reservations about the MVA. With Bhutan's hesitations limiting BBIN's progress, Bangladesh, India and Nepal can forge ahead by defining a distinct BIN agenda focused on connectivity, trade and economic collaboration.

Major Changes as Outcomes of Subregional Cooperation

1. ***Institutional capacity building:*** Subregional cooperation has led to the creation of institutional frameworks, such as BIMSTEC, SASEC, BBIN and now BIN, providing platforms for economic integration. These frameworks contribute by facilitating government training programmes, promoting best practices in policy and enhancing institutional capacity for managing regional cooperation.
2. ***India's leadership in integration:*** India's role as the largest economy in the region is pivotal in driving subregional integration. Through different initiatives, like the **Neighbourhood First** policy, India promotes deeper economic ties, improved infrastructure connectivity and collaborative efforts to address shared challenges, solidifying its leadership position.
3. ***Bangladesh–India partnership as a cornerstone:*** The bilateral partnership between Bangladesh and India has been the backbone of subregional integration, fostering collaboration in trade, investment, connectivity

and development. This partnership has laid the foundation for other initiatives, like BIN, proving that bilateral relationships are central to successful subregional efforts.

4. ***Connectivity as a driver of economic growth:*** Connectivity projects, particularly in transportation, energy and telecommunications, are essential for reducing trade barriers and enhancing access to markets. By connecting landlocked regions to maritime routes, these infrastructure initiatives stimulate economic growth, investment and development across the subregion, furthering integration.
5. ***Growth in intra-regional trade:*** The increasing volume of intra-regional trade is a key indicator of the success of subregional integration. Trade between neighbouring countries has opened new opportunities for mutual benefit, as nations capitalise on their comparative advantages to boost production efficiency and competitiveness.
6. ***Inclusive and sustainable development:*** Subregional cooperation has been instrumental in promoting inclusive, sustainable growth. Donor countries, multilateral institutions and regional organisations provide critical financial aid and technical expertise, helping to address development challenges while promoting long-term growth. India's LOCs have been crucial in funding infrastructure projects and human development initiatives in the region.
7. ***Enhanced diplomatic engagement:*** Diplomatic understanding and trust are vital to effective subregional integration. Ongoing diplomatic dialogue and confidence-building measures help resolve historical tensions, foster mutual trust and create a conducive environment for collaboration and economic growth.
8. ***Shared economic prosperity:*** The pursuit of common economic prosperity serves as a unifying force behind subregional integration. By aligning their development agendas in trade, investment, infrastructure and human capital development, countries can tackle shared challenges more effectively, maximising the benefits of collective action.
9. ***Strengthened joint bargaining power:*** Subregional cooperation enhances the negotiating capacity of South Asian countries in regional and global forums. By coordinating positions and presenting a unified front, member countries increase their leverage, allowing them to secure favourable outcomes and protect their collective interests.

10. ***Increased mobility of people:*** The increased movement of people across borders plays a key role in subregional integration, driving labour migration, tourism and cultural exchange. Efforts to liberalise visa regimes and harmonise immigration policies foster greater economic and social interaction, promoting understanding, tolerance and cooperation.

In the broader landscape of subregional cooperation, initiatives like **BBIN**, **BIMSTEC**, **SASEC** and **BIN** are making strides towards a more interconnected South Asia. However, the bilateral initiatives between Bangladesh and India remain the linchpin of these efforts, driving progress and setting the stage for greater regional integration.

While multilateral frameworks are essential for regional collaboration, **Bangladesh–India partnership** is the true engine of subregional economic growth. This bilateral relationship has expanded trade routes, enhanced connectivity and opened new economic opportunities for the entire region, positioning it for long-term prosperity and stability.

The Centrality of the Bangladesh–India Partnership

The Bangladesh–India partnership represents a paradigm shift in South Asian geopolitics, marked by proactive initiatives and multidimensional engagement rooted in deep historical ties. As key players in the subregional economy, both nations embody the transformative potential of collaboration in fostering regional stability, economic growth and integration. This partnership spans diverse sectors, including trade, connectivity, energy, security and people-to-people exchanges, making it a cornerstone for subregional cooperation.

A series of MoUs and agreements across these sectors demonstrates a profound commitment to regional integration. Trade agreements and connectivity protocols, such as border haats, rail links and inland water trade, reveal a strategic emphasis on strengthening economic ties and improving the flow of goods and services. Energy collaborations, including in nuclear and renewable energy, underscore joint efforts towards sustainable development and mutual benefit. The focus on education, healthcare and investment agreements further highlights a comprehensive approach to shared development goals. Meanwhile, cultural exchange programmes and collaborations in traditional medicine exemplify the partnership's commitment to fostering mutual understanding and people-to-people connections.

In the realm of security, defence cooperation agreements and mutual legal assistance initiatives reflect a shared determination to address common challenges, including terrorism, violent extremism and border security. By solidifying these frameworks, Bangladesh–India partnership not only strengthens bilateral ties but also lays the foundation for a more interconnected and cooperative South Asian region. As these initiatives unfold, they are expected to drive economic integration, technological advancement and cultural understanding, contributing to the prosperity and stability of the entire region.

Historical Foundations

Bangladesh–India partnership is deeply rooted in a shared history that transcends traditional diplomatic relations. India’s pivotal role in supporting Bangladesh’s independence during the Liberation War of 1971 created an unbreakable bond, built on shared principles of justice, freedom and democracy. The sacrifices made by both nations during that tumultuous period have shaped a relationship characterised by empathy, solidarity and mutual respect. This enduring bond continues to influence contemporary cooperation, ensuring that their partnership is not merely strategic but also deeply personal.

Economic Influence in the Subregional Economy

The partnership between Bangladesh and India occupies a central position in South Asia’s economic landscape, contributing significantly to regional integration and growth. Both countries serve as vital hubs for trade, investment and economic activity, leveraging their strategic geographic locations and complementary industrial bases.

Table 5.4: Combined GDP of Bangladesh and India as Percentage of Subregional Economy

<i>Institutions</i>	<i>Share of Bangladesh and India Combined GDP (%) in 2023 (based on IMF data)</i>	<i>Share of Bangladesh and India Combined GDP (%) in 2028 (based on IMF data)</i>
BIMSTEC	86.02	88.73
SASEC	95.61	97.83
BBIN	98.97	97.64
BIN	98.96	99.05

Note: IMF = International Monetary Fund.

Source: Compiled by the author based on data from <https://www.imf.org/> and <https://mof.portal.gov.bd/>.

In 2023, Bangladesh and India collectively accounted for 86.02 per cent of the GDP within BIMSTEC, a figure expected to rise to 88.73 per cent by 2028 (see table 5.4). Similarly, their combined GDP share within SASEC is projected to grow from 95.61 per cent in 2023 to 97.83 per cent by 2028. Within the BBIN framework, their joint GDP share was 98.97 per cent in 2023, with a slight adjustment to 97.64 per cent by 2028. These figures underscore the two countries' dominant role in driving the subregional economy.

Interdependence and Shared Security Challenges

The Bangladesh–India partnership exemplifies interdependence, with both nations recognising the benefits of collaboration in addressing common challenges. Trade dynamics between Bangladesh and its neighbours, including India and Nepal, have shown steady growth, reflecting an evolving regional trade landscape. Joint efforts in various areas, such as cross-border energy trade, infrastructure development and renewable energy projects, demonstrate their shared commitment to meeting the growing demands of their economies.

Moreover, shared security concerns, such as terrorism, violent extremism and climate change, necessitate close cooperation in intelligence sharing, border management and counterterrorism measures. Through continuous dialogue and joint initiatives, Bangladesh and India are reinforcing their partnership, showcasing a united front in safeguarding regional stability and pursuing shared aspirations for a peaceful and prosperous South Asia.

Boosting Intra-regional Trade

Bangladesh–India bilateral initiatives, aimed at promoting intra-regional trade, are strategic efforts to unlock the economic potential of South Asia. By leveraging their geographical proximity and complementary production capabilities, both nations are forging mutually beneficial trade relationships that drive economic growth and diversification. These initiatives not only expand market access but also enhance economic resilience within the broader South Asian region.

By prioritising regional trade, Bangladesh and India contribute to a more interconnected regional economy. Their efforts facilitate cross-border investments, shared infrastructure development and greater people-to-people exchanges. This collaborative approach fosters mutual trust, laying the groundwork for addressing common challenges and achieving shared development goals. Ultimately, these efforts bolster peace, stability and prosperity across South Asia.

Table 5.5: Bangladesh's Trade with South Asian States, 2022–23

<i>Country</i>	<i>Imports (in million US\$)</i>	<i>Exports (in million US\$)</i>
India	14,000	2,130
Sri Lanka	225	86
Nepal	412	59
Maldives	39	7.5
Bhutan	38	7.0
Thailand	1,250	84
Total	15,500	2,300

Source: Compiled by the author based on data from <https://mof.portal.gov.bd/> and <https://epb.gov.bd/>.

Table 5.6: Bangladesh's Trade with Subregional Group in 2023

<i>Institution</i>	<i>Imports (in million US\$)</i>	<i>Exports (in million US\$)</i>
BIMSTEC	15.52	2.38
SASEC	15.52	2.38
BBIN	14.04	2.19
BIN	14.00	2.19

Source: Compiled by the author based on data from <https://tradingeconomics.com/> and <https://bbs.portal.gov.bd/>.

Table 5.7: India's Trade with South Asian States, 2022–23

<i>Country</i>	<i>Exports (in billion US\$)</i>	<i>Imports (in billion US\$)</i>
Bangladesh	12.6	2.0
Bhutan	1	0.53
Myanmar	0.84	1.03
Nepal	1.45	0.89
Sri Lanka	5.1	1.04
Thailand	5.52	11.3
Total	26.0	16.0

Source: Compiled by the author based on data from <https://tradingeconomics.com/> and <https://commerce.gov.in/>.

Table 5.8: India's Trade with Subregional Group in 2023

<i>Institution</i>	<i>Exports (in billion US\$)</i>	<i>Imports (in billion US\$)</i>
BIMSTEC	26.09	16.60
SASEC	26.09	16.60
BBIN	16.93	3.24
BIN	15.06	2.89

Source: Compiled by the author based on data from <https://tradingeconomics.com/> and <https://commerce.gov.in/>.

Japan's Role in Subregional Cooperation

Bangladesh and India have benefitted from Japan's growing interest in promoting subregional cooperation through bilateral and multilateral initiatives. Japan's expertise in infrastructure development, advanced technology and financial resources provides both countries with a unique opportunity to accelerate their industrialisation processes. Through partnerships with Japan, they have been able to undertake large-scale infrastructure projects that fuel economic growth and sustainable development.

Japan's involvement enhances Bangladesh and India's global competitiveness by opening new markets and fostering stronger international ties. The collaboration with Japan not only advances the economic standing of both nations but also strengthens subregional integration, paving the way for greater prosperity across South Asia.

Key Factors Driving Subregional Cooperation

Several critical factors underscore the deepening of Bangladesh–India cooperation and its broader impact on subregional cooperation:

1. *Technology transfer*: Both nations benefit from technology transfers, enhancing industrial capabilities, productivity and competitiveness. This exchange accelerates progress towards shared development goals.
2. *Information sharing*: Collaboration in certain areas, such as climate change, public health and disaster management, enables both countries to develop coordinated strategies, building resilience against shared threats.
3. *Economies of scale*: By pooling resources and optimising supply chains, Bangladesh and India achieve cost efficiencies and enhance their competitiveness in global markets.
4. *Investment harmonisation*: Aligning investment regulations fosters greater investor confidence, leading to increased foreign direct investment inflows and promoting sustainable development across the region.
5. *Dispute resolution*: Bangladesh and India provide a rare example of peacefully resolving bilateral disputes, including those related to borders, maritime boundaries and water sharing. This peaceful cooperation ensures a stable environment conducive to economic growth.
6. *People-to-people connectivity*: Strengthening mobility and people-to-

people contacts is key to subregional integration. Bilateral cooperation between Bangladesh and India sets the stage for building strong human networks across the region (see table 5.9).

Table 5.9: Growing Number of Visitors from Bangladesh to India

<i>Year</i>	<i>Particulars</i>	<i>Number of Visitors</i>
2017	Bangladeshis travelling to India for medical treatment.	221,751
2018	Bangladeshi tourists travelled to India.	2,250,000
2019	Total tourist arrivals in India: 10.93 million, with almost 2.58 million arrivals (23.6%) from Bangladesh. Bangladesh accounted for 57.5% of all medical tourists.	2,580,000
2020	Arrivals from Bangladesh declined due to COVID-19 pandemic. It still grabbed 20% of total tourist arrivals in India.	549,273
2023	Bangladeshis got Indian visas.	1,600,000
FY23	Passengers to and from India at the Benapole land port in Jashore quadrupled.	2,129,693
	The inflow of medical tourists from Bangladesh surged by 83% since 2018.	–

Source: Dhaka Tribune

Key Challenges to Subregional Economic Integration in South Asia

Subregional economic integration in South Asia faces myriad challenges that hinder its full potential. These challenges, spanning institutional, infrastructural, regulatory, geopolitical and socio-economic dimensions, create a complex web that prevents seamless cooperation. The historical failure of the SAARC to alleviate post-partition animosities and deliver on its mandate has exacerbated mistrust and stagnation, making subregional cooperation elusive. This section outlines these critical obstacles, highlighting the need for renewed commitment to overcoming them in order to unlock the region's potential.

1. *Gap between policy formulation and implementation:* One of the most significant barriers to integration is the wide gap between policy creation and execution. Bureaucratic inefficiencies, administrative inertia and inadequate coordination among regional organisations, like SAARC and BIMSTEC, lead to delays in implementing agreed-upon projects. Political differences and competing national interests further complicate consensus building on key issues, such as trade, investment and connectivity. This failure to act undermines the credibility of regional organisations and erodes trust in the future of subregional cooperation.

2. *Inadequate infrastructure*: Despite recent progress, South Asia's inadequate physical infrastructure remains a major hurdle. Poor transportation networks, unreliable energy supplies and insufficient digital connectivity impede the free flow of goods, services and people. Congested ports, deteriorating road and rail networks and frequent power outages raise transaction costs, hamper trade and stifle economic growth. Addressing these shortcomings is critical to boosting intra-regional trade and fostering deeper economic ties.
3. *Resource constraints*: Resource shortages present another significant challenge. Many South Asian countries lack the financial resources to develop critical infrastructure, such as transport, energy and digital systems. These limitations restrict their ability to foster connectivity and adopt advanced technologies, stunting their integration potential. Regional cooperation mechanisms need to address these disparities to ensure equitable development.
4. *Regulatory and bureaucratic barriers*: Cumbersome regulatory frameworks and bureaucratic red tape create barriers to trade and investment within the region. Divergent regulations, inconsistent enforcement and complex administrative procedures increase costs, create delays and breed uncertainty, particularly for small and medium-sized enterprises. Harmonising regulations and streamlining procedures are essential to facilitate smoother cross-border business operations and to integrate supply chains across South Asia.
5. *Impact of global factors*: Global events beyond the region's control—such as geopolitical tensions, trade wars and economic shocks—can destabilise cooperation efforts. The COVID-19 pandemic is a prime example, disrupting supply chains and economic activity across the region. Global trade fluctuations, commodity price shifts and external pressures from major powers, like China and the US, can further complicate South Asia's integration agenda.
6. *Divergent trade policies and market access*: Incompatible trade policies, tariff barriers and varying customs procedures hinder the creation of a seamless regional market. Restrictive investment policies and limited market access further impede intra-regional trade. To overcome these hurdles, South Asian countries must harmonise trade regulations, streamline customs processes and open their markets to facilitate

investment and economic growth.

7. *Mistrust and bilateral disputes*: Deep-rooted mistrust and unresolved bilateral disputes—such as the Kashmir issue between India and Pakistan—continue to hamper regional integration. Territorial disputes, like those between India and Nepal or Bangladesh and Myanmar, further exacerbate tensions. These conflicts perpetuate diplomatic stand-offs and military confrontations, undermining efforts to build trust and regional cooperation.
8. *External interference and geopolitical rivalries*: The influence of external powers further complicates subregional integration. Strategic competition among major powers, like China and the US, and regional actors adds another layer of complexity to South Asia's already fraught relationships. External actors often pursue their own geopolitical interests, which can exacerbate existing tensions and disrupt regional cooperation.
9. *Violent extremism and non-traditional security threats*: The threat of violent extremism and terrorism destabilises the region, undermining peace and economic activities. Extremist groups exploit socio-economic grievances and political instability to perpetuate violence, disrupt cross-border trade and sow distrust among neighbouring countries. Additionally, non-traditional threats, such as drug trafficking, human trafficking and illegal migration, present serious challenges to regional stability and cooperation.
10. *The Myanmar conflict and the Rohingya crisis*: The ongoing civil war in Myanmar and the protracted Rohingya crisis have created instability and strained resources in South Asia, particularly in Bangladesh, which hosts over 1.3 million Rohingya refugees. This humanitarian crisis not only heightens social tensions but also impedes efforts to foster regional stability and economic cooperation.
11. *Domestic opposition to integration*: Domestic political resistance, fuelled by nationalist sentiments and protectionist policies, poses another significant challenge. Fears over sovereignty, identity and economic control often lead to opposition against deeper integration efforts. Vested interests, entrenched industries and bureaucratic inertia further complicate the implementation of regional projects, delaying progress.
12. *The vicious cycle of low integration and non-cooperation*: The low level of integration within South Asia feeds into a cycle of non-cooperation.

When countries fail to engage in meaningful dialogue or coordinate on policy issues, opportunities for economic collaboration are missed, stifling innovation and growth. Breaking this cycle requires a strategic shift towards proactive collaboration, recognising that collective efforts will lead to greater regional prosperity.

Way Forward: What is to be Done?

Realising the full potential of subregional economic integration in South Asia requires a multifaceted strategy. The key lies in addressing the persistent challenges, strengthening cooperation and leveraging opportunities for collective growth. Some critical steps for advancing integration and fostering sustainable development across the region are given next:

1. *Timely implementation of projects and decisions:* The success of subregional initiatives hinges on translating policy objectives into actionable outcomes. Delays due to bureaucratic inefficiencies and resource constraints must be overcome through enhanced coordination mechanisms and streamlined approval processes. Governments should introduce clear timelines, establish accountability frameworks and ensure transparent monitoring to avoid delays and maximise impact. Effective project management capacities will ensure that subregional and cross-border initiatives translate into tangible economic benefits.
2. *Addressing infrastructure deficits and enhancing connectivity:* Investment in physical infrastructure is paramount to fostering seamless trade and connectivity within South Asia. To overcome deficiencies in transport networks, energy supply and digital infrastructure, countries must collaborate on large-scale infrastructure projects. Public–private partnerships, multilateral financing and innovative development schemes can mobilise the necessary resources and expertise. By investing in regional logistical hubs, digital highways and energy corridors, South Asia can unlock its economic potential and significantly boost intra-regional trade and investment.
3. *Promoting awareness and knowledge-sharing initiatives:* Public perception plays a crucial role in regional cooperation. To foster a culture of collaboration, South Asian governments should invest in educational programmes that emphasise the benefits of regional integration. Knowledge-sharing platforms, cross-cultural exchanges and capacity-

building initiatives can build social cohesion and trust among South Asian societies. Digital platforms, media outreach and educational campaigns can also help address misconceptions and encourage public participation in integration processes.

4. ***Resolving bilateral disputes and building mutual confidence:*** Diplomatic efforts to resolve long-standing disputes are essential for regional cooperation. Border disputes, security concerns and historical grievances continue to undermine trust between neighbouring nations. Dialogue, confidence-building measures and cross-border engagements in different sectors, like culture, sports and education, can help foster goodwill. By focusing on the peaceful settlement of disputes, countries can create a more conducive environment for economic collaboration and integration.
5. ***Shifting mindsets and mobilising public support:*** For subregional integration to succeed, public support must be nurtured. Governments, civil society, media and political leaders should engage stakeholders and foster dialogue on the benefits of integration. Public forums, awareness campaigns and education initiatives can address misconceptions and encourage public buy-in. Promoting a shared regional identity and a collective sense of destiny can help overcome opposition rooted in ultra-nationalism and protectionist sentiments.
6. ***Harmonising trade policies and regulatory frameworks:*** Seamless market integration requires aligning trade policies and regulatory standards. South Asian countries must streamline customs procedures, reduce tariff and non-tariff barriers and synchronise regulatory frameworks to facilitate trade and investment. Regional mechanisms for trade policy coordination, dialogue and dispute resolution should be strengthened. By promoting greater predictability and transparency, countries can enhance competitiveness and foster stronger regional value chains.
7. ***Strengthening connectivity initiatives:*** To enhance economic cooperation, it is vital to invest in cross-border infrastructure projects, such as transportation networks, energy grids and digital connectivity. Enhanced connectivity will facilitate access to regional markets, promote innovation and support economic diversification. Governments must collaborate on strategic planning and resource mobilisation to address infrastructural gaps and overcome barriers to free movement across borders.

8. ***Leveraging Bangladesh–India partnership:*** The success of bilateral initiatives between Bangladesh and India serves as a model for subregional integration. Building on mutual trust and shared objectives, both countries have undertaken trade agreements, infrastructure projects and people-to-people exchanges that demonstrate the benefits of collaboration. Expanding this partnership to include other neighbouring countries can create synergies that strengthen subregional cooperation and provide a blueprint for regional integration across South Asia.
9. ***Safeguarding regional sovereignty from external actors:*** Failure to advance regional integration projects may leave South Asia vulnerable to external influences, which often exploit regional divisions. South Asian countries must recognise the strategic importance of subregional integration in preserving sovereignty and minimising extra-regional engagements that could exacerbate geopolitical tensions. Strengthening intra-regional cooperation will reduce reliance on external actors and enhance the region's strategic autonomy.

Specific Initiatives to Deepen Subregional Cooperation

1. ***Creating a common currency at the BBIN level:*** Introducing a common currency for BBIN could mitigate exchange rate risks, lower the transaction costs and promote monetary policy coordination. This would deepen economic integration and stabilise macroeconomic conditions across the region. However, adopting a common currency requires the alignment of fiscal policies, convergence of economic indicators and careful institutional planning to ensure long-term success.
2. ***Establishing a BBIN bank for financial and infrastructure needs:*** A dedicated BBIN bank could provide specialised financial services and technical assistance to fund critical infrastructure projects and regional integration initiatives. By supporting transportation, energy and digital infrastructure development, such an institution would mobilise resources for the region's growth. Collaborating with existing multilateral banks and private sector partners could further strengthen financing mechanisms and boost investment in priority areas.

The future of subregional economic integration in South Asia is intricately linked to the success of collaborative efforts, like Bangladesh–India partnership. These initiatives showcase the transformative power of regional cooperation in addressing

historical barriers, promoting mutual trust and building a shared vision of prosperity. As South Asia charts its course towards deeper integration, the region must embrace its collective potential by fostering dynamic collaborations. The path to integration is not only defined by agreements and frameworks but also by the commitment to overcome challenges and pursue shared growth for the benefit of all nations in the region.

Conclusion

Deepening subregional economic integration in South Asia, particularly through the bilateral initiatives between Bangladesh and India, holds substantial promise for mutual benefits and regional prosperity. The strategic partnership between these two nations not only enhances their standing within regional frameworks but also facilitates their integration into global supply chains. This chapter argues that Bangladesh–India relationship is pivotal across multiple dimensions—ranging from economic integration and trade facilitation to addressing shared challenges and fostering closer people-to-people ties. By assuming leadership in subregional cooperation, Bangladesh and India can spearhead initiatives that harmonise economic policies, streamline cross-border trade and create a conducive environment for investment, infrastructure development and connectivity. These collaborative efforts have the potential to drive subregional integration, unlocking new opportunities for collective growth and shared prosperity.

The geographical proximity and historical interconnectedness of Bangladesh and India provide a strong foundation for tackling common challenges. From combatting climate change and managing natural disasters to resolving trans-boundary issues, like water resource management, their partnership can serve as a model of effective regional cooperation. Together, they can develop joint strategies and mechanisms to mitigate these shared challenges, fostering resilience and sustainability across both nations. Moreover, by enhancing trade facilitation, the partnership can lay the groundwork for more efficient transportation corridors, simplified customs procedures and the establishment of cross-border trade infrastructure, thus accelerating the movement of goods, services and investments throughout the region.

The cultural and people-to-people ties between Bangladesh and India represent a valuable asset for fostering regional understanding and harmony. Initiatives promoting cultural exchanges, educational collaborations and tourism can help cultivate a sense of shared identity and mutual respect. This form of

cultural diplomacy has the potential to transcend borders and foster community feeling among the diverse nations of South Asia, further supporting the drive for regional integration. Through sustained collaboration, Bangladesh and India not only stand to advance their national interests but also contribute to shaping the future of South Asia, laying the groundwork for a more integrated, peaceful and prosperous region.

Nevertheless, this process of integration is not without challenges, particularly with respect to external interference and regional power dynamics. India, given its economic stature and strategic influence, plays a critical role in shaping the trajectory of South Asia's integration efforts. The Bangladesh–India partnership serves as a catalyst for deepening economic ties, leveraging their collective strengths for the broader development of the region. By navigating these challenges and capitalising on the opportunities within their partnership, Bangladesh and India are well-positioned to drive further subregional economic integration, reinforcing their roles as key players in South Asia's evolving economic landscape.

The success of regional platforms, such as BBIN, BIMSTEC, SASEC and BIN, is inextricably linked to the strategic and forward-looking cooperation between Bangladesh and India. Their bilateral initiatives have already transformed subregional trade dynamics, fostering an environment conducive to deeper economic integration. As both nations continue to strengthen their ties and build on this partnership, the entire subregion stands to benefit from sustained economic growth, transcending historical challenges and forging a path towards greater prosperity and interconnected development across South Asia.

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6

Terrorism as Bottleneck to Regional Economic Integration

Navita Srikant

The significance of international peace and stability is underscored by the very structure of the United Nations (UN), the world's largest multilateral institution. Among its various organs, the United Nations Security Council (UNSC) stands out as the only body with the authority to make binding decisions, while others are limited to offering recommendations. This distinction highlights the essential role that peace, security and stability play as cornerstones for political, economic and social development in any region. Without them, progress in these areas becomes unattainable.

Historically, regional economic cooperation corridors, trade routes and collaborative frameworks have not only facilitated free trade via land and maritime routes but also strengthened cultural ties and people-to-people connections. Yet, armed conflicts, insurgencies and terrorism have severely disrupted these networks, with far-reaching consequences. History provides clear evidence of the detrimental impact of violence:

1. *Economic disruption*: Armed conflicts destroy infrastructure, disrupt trade routes and sever connectivity.
2. *Market instability*: Political uncertainty and instability make markets volatile and deter investors.
3. *Reduced investment*: Foreign direct investment (FDI), tourism and the insurance industry suffer due to elevated risks, particularly in terror-prone areas.

4. *Political risk and displacement:* Terrorism drives political risk, forcing migratory and refugee flows as people flee existential threats.
5. *Unproductive security spending:* Countries divert valuable resources into security measures rather than development, leading to unproductive expenditures.

However, the pages of history also show that hope and growth return when regions plagued by insurgency and terrorism adopt inclusive political, economic and social approaches. Successful counterterrorism efforts involve dismantling terror networks, denying safe havens, addressing grievances and supporting victims of terrorism while upholding human rights. These comprehensive measures, albeit requiring significant political will, foster trust, reintegrate affected communities and promote long-term economic recovery.

The political dimensions of terrorism become clear when examining cases like that of Pakistan and India. Pakistan's support for terrorism against India has created a proxy war environment that stifles economic cooperation and development. Countries that back insurgencies and terror activities against others inevitably harm their own prospects, as hostility and conflict prevent regional collaboration and economic progress. Short-sighted attempts to inflict harm on neighbours through terrorism result in self-destruction, making it essential for nations to prioritise peaceful coexistence and cooperation for the sake of their own development and the welfare of their people.

The Economic Costs of Terrorism in South Asia and Beyond

Terrorism's direct and indirect impacts on the economy are profound. Governments must allocate significant resources to counterterrorism efforts, including deploying security forces, investing in surveillance and destroying terror infrastructure. Additionally, terrorism exacts a human toll, while insurance claims, security costs and higher country risk premium (CRP) increase the cost of doing business. This CRP raises borrowing costs, reduces competitiveness and destabilises currency exchange rates, further straining economic stability.

The FDI also declines in politically unstable environments. The multinational corporations (MNCs) prefer secure, stable markets for cross-border investments. Terrorism disrupts supply chains, creates uncertainty and makes the MNCs reluctant to enter markets where safety cannot be guaranteed. This is evident from a 2002 report presented to the United States (US) Congress, which highlighted the macroeconomic impacts of terrorism (Saxton, 2002).

Similarly, an International Monetary Fund (IMF) publication on South Asia notes that prolonged civil conflicts severely hamper investment in special economic zones (SEZs), as seen in Nepal and Sri Lanka. In fact, it takes years for investor confidence to recover after a terrorist attack (Gaibullov and Sandler, 2008). A recent IMF report also underscores that a negative image caused by terrorism repels investment, particularly in the SEZs, further stalling economic growth (Salgado and Anand, 2023).

Further, terrorism contributes to political instability and brain drain as skilled professionals seek opportunities abroad to escape insecurity. Nepal, for example, witnessed a decade of armed conflict followed by 15 years of political transition, exacerbating its brain drain and delaying economic recovery.

Terrorism in South Asia: A Persistent Threat

The *Global Terrorism Index 2023* report reveals that South Asia remains the most terrorism-affected region globally, a position it has held since 2007 (Institute for Economics and Peace [IEP], 2023). The region's hotspots, including Afghanistan and Pakistan, bear the brunt of terrorism's destructive impact. Afghanistan ranks first and Pakistan ranks sixth in the world for terrorism-related violence, which has crippled economic growth and lowered per capita income. The report also notes that the most common targets of the Islamic State (IS) attacks in 2022 were military personnel, and that South Asians perceived terrorism as the greatest threat to their safety in 2021.

In such an environment, significant defence budgets are required to maintain national security; but terrorism has broader ripple effects. Attacks on security forces demoralise societies, destabilise markets and impede growth.

The Impact of Terrorism on Regional Cooperation

The economic costs of terrorism extend beyond national borders, derailing regional cooperation. For example, the first Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) Summit Declaration of 31 July 2004 highlighted terrorism as the primary obstacle to regional economic integration. The declaration's longest paragraph is dedicated to combatting international terrorism and transnational crime, recognising that terrorism hinders both economic progress and social development across the region:

Express grave concern at the continuing threat of international terrorism and transnational crime that has adversely affected the economic and

social progress of the peoples of the BIMSTEC region; recognize that the solidarity and friendship existing among member states could be utilized as a basis to counter this threat; agree, as an urgent priority, to co-ordinate our efforts to combat this menace; including through the exchange of information among concerned agencies, and other concrete programmes of co-operation, and resolve to continue active co-operation in ongoing efforts of the international community in combating terrorism in all its forms and manifestations, by whosoever it is perpetrated irrespective of its cause or stated rationale.

Two decades later, the BIMSTEC is still struggling to achieve its full economic potential, with terrorism remaining a significant bottleneck.

As BIMSTEC approaches its 20th anniversary, it offers an opportunity to reassess regional achievements in combatting terrorism and reinvigorate efforts towards economic integration. To unlock the region's full potential, it is imperative that member states work together to eliminate terrorism and create a stable environment conducive to economic cooperation.

Case Study: Kashmir—Containment of Terrorism and Economic Growth

For over three decades, Kashmir suffered from the devastating effects of terrorism, which stifled economic growth and deterred investments. With limited FDI and minimal infrastructure development, the region's potential remained largely untapped. However, with the abrogation of Article 370 in 2019 and the containment of terrorist activities, Kashmir's economic landscape has begun to transform, offering valuable lessons on how combatting terrorism can pave the way for growth and prosperity.

The Economic Impact of Terrorism in Kashmir

Terrorism had a profound impact on Kashmir's economy. For years, economic activity was muted and the region struggled to attract investment. Foreign investments, including FDI, were almost non-existent due to the instability, which hampered infrastructure development and broader economic progress. Tourism, a vital part of Kashmir's economy, was significantly affected, further diminishing the region's growth prospects.

Post-Abrogation Economic Growth

Since the abrogation of Article 370 and subsequent reduction in terrorist activity, Kashmir has experienced a remarkable economic resurgence. The region's gross state domestic product (GSDP), foreign investments, exports, tourist arrivals and per capita income have all shown significant improvement. For example, the United Arab Emirates (UAE) committed FDI worth ₹ 3,000 crore (approximately US\$ 391.8 million) in March 2022, a clear sign that international investors are now viewing Jammu and Kashmir (J&K) as a viable and safe investment destination (India Brand Equity Foundation [IBEF], 2024a).

The containment of terrorism has also allowed the government to allocate more resources towards economic development. In the 2023–24 budget, Prime Minister Narendra Modi announced a historic ₹ 1.18 lakh crore (approximately US\$ 14.27 billion) development package for J&K, marking a 48 per cent increase from 2015 (Jayaswal 2023). The government aims to double J&K's GSDP within five years; and the region's GSDP is projected to reach ₹ 2.31 trillion (US\$ 27.95 billion) by 2023–24, growing at a compound annual growth rate (CAGR) of 8.84 per cent from 2018–19 (IBEF, 2024b).

Transformation through Infrastructure and Investment

The transformation of Kashmir's economy was not easy and required strong political will, international cooperation and transparent governance. The government's focus on building a trustworthy ecosystem was critical to unlocking investments. This required structural changes, particularly in regional trade and connectivity, which were made possible through substantial infrastructure development.

In return for these efforts, the people of Kashmir have seen the emergence of financial inclusion, social protection and new job opportunities. The region's transformation has disrupted the terror narrative, with terrorists losing hideouts, local businesses no longer being used for unlawful activities and gullible locals turning away from terror funding.

The establishment of hard infrastructure and a robust economic ecosystem has allowed local businesses to integrate into emerging value chains. The legitimisation of economic opportunities has thus served as a powerful alternative to the cycle of violence and terror that once plagued the region.

Kashmir's transformation serves as a powerful example of how the containment of terrorism can lead to economic growth and stability. With the

government's efforts focused on infrastructure, investment and transparency, the region is now on a path to sustained development. This case demonstrates that combatting terrorism is not just about security, it is also about creating economic opportunities and improving the welfare of people. It is a lesson for countries facing similar challenges that international cooperation and a comprehensive approach to counterterrorism can unlock significant economic potential.

Case Study: The Threat of Terrorism from New and Emerging Payment Technologies and India's Response

In today's interconnected world, regional integration is no longer just about physical infrastructure. The rapid rise of digital infrastructure and emerging technologies, such as cryptocurrency, mobile payment systems, digital wallets, unmanned aerial systems (UAS) and social media platforms, has transformed global commerce and communication. These technologies have revolutionised the way goods and services are delivered and facilitated real-time, cross-border communication between individuals.

Evolving Payment Systems and Terrorist Exploitation

The development of financial technology (fintech) has brought about remarkable innovations in how payments are processed. From centralised to decentralised finance platforms and between fiat currencies, virtual assets and digital currencies, payment systems have become faster and more efficient. These advancements have reshaped industries, like betting, gaming and gambling, creating new opportunities for legal transactions. However, these same technologies have also created vulnerabilities that can be exploited by terrorists and criminal organisations.

One of the most pressing threats is the misuse of emerging payment technologies by terrorist groups. Cryptocurrencies and other digital assets operate outside traditional banking systems, often without adequate know-your-customer (KYC) checks or regulatory oversight. This lack of regulation allows terrorists to transfer funds covertly, facilitating their illegal activities without detection. The anonymity, security and speed offered by these digital assets make them appealing for financing terrorism.

For instance, the gaming, betting and gambling sectors have experienced a surge in users of Play2Earn (P2E) games based on cryptocurrencies. While these

platforms offer new financial opportunities, their regulatory frameworks remain underdeveloped, exposing them to risks of money laundering and terror financing. Similarly, the new generation of users, often young and inexperienced, is drawn to speculative investments in digital assets. Without adequate digital literacy, they may unknowingly participate in platforms that harbour criminals, further complicating the fight against terrorism.

Terror Financing through Narco-terrorism and Emerging Technologies

Narco-terrorism has long been a reliable source of funding for terrorist organisations, but the methods of trafficking drugs are evolving. The UAS are increasingly being used for drug smuggling, as evidenced by cases in Punjab, India. In addition, maritime routes—such as those in the Golden Triangle (Southeast Asia) and the Golden Crescent (Southwest Asia)—are seeing a rise in drug trafficking activities.

Moreover, the darknet and social media sites have emerged as new platforms for illicit drug sales. These developments challenge traditional law enforcement as digital transactions and the anonymity provided by these platforms make it difficult to monitor and intercept the flow of funds used to finance terrorism. The global threat of terrorism financing has grown beyond physical borders, demanding new approaches to counter it.

India's Response: A Holistic Approach to Combatting Terror Financing

India has taken significant steps to counter the threat of terror financing through its 'whole-of-government' approach to fintech regulation and anti-financial crime initiatives. The success of India's digital infrastructure—exemplified by its Aadhaar biometric identification system and Unified Payments Interface (UPI)—has brought millions of people into the formal financial system. This digital transformation has created a strong KYC network that can detect and counter the risks posed by illegal financial activities.

The regulatory technology industry in India has also embraced emerging technologies, such as application programming interfaces (APIs), artificial intelligence (AI), machine learning, blockchain and cryptography, to offer compliance, surveillance and investigative services. These tools enable financial institutions and law enforcement agencies to monitor transactions more effectively

and identify suspicious activities. India's Financial Intelligence Unit (FIU) has played a pivotal role in this effort, with its Strategic Analysis Lab (SAL) conducting deep dives into both traditional and new payment technologies to identify patterns and risks.

Additionally, India's focus on rural digital transformation, with expanded 4G and 5G connectivity, has facilitated more digital transactions and fewer cash-based dealings. This shift not only promotes financial inclusion but also leaves a digital trail that can be monitored for potential links to terrorist activities.

Despite these advancements, terrorist groups continue to seek the same transactional goals as any fintech user—confidentiality, integrity and availability. This pursuit drives them to exploit various platforms, using both cash and digital assets, like cryptocurrencies, to conceal their operations.

The Need for International Cooperation

While India has made significant strides in countering the abuse of emerging technologies by terrorists, global cooperation is essential. South Asian countries, in particular, stand to benefit from working together to combat terrorism and insurgency. India's technological expertise could be instrumental in helping its neighbours strengthen their regulatory frameworks and disrupt terror financing networks.

By sharing intelligence, collaborating on anti-terrorism initiatives and fostering regional cooperation, countries can address the root causes of terrorism, eliminate financial support for terror groups and promote economic development. In turn, these efforts would enhance regional stability, accelerate economic growth and improve the quality of life for citizens across the Global South.

Regional and International Response to Combat Terrorism

India is increasingly seen as a key player in fostering interconnectivity and economic integration across global and regional groupings. Through various platforms, India has taken a leadership role in galvanising the collective response to terrorism, recognising it as a major obstacle to regional and global economic progress. These platforms aim to build a consensus on combatting terrorism and transnational crime, harmonising international terrorism laws and ensuring their uniform application. Some notable recent achievements in this field are given next.

Security and Growth for All in the Region (SAGAR) Initiative on Maritime Security (2015)

India launched the SAGAR initiative in 2015, focusing on comprehensive security of the maritime ecosystem. In recent years, maritime terrorism has posed significant threats, from attacks on critical infrastructure to drug and arms trafficking through maritime routes. International cooperation is essential to assess and mitigate maritime terrorist risks to critical infrastructure and trade routes, involving regional and global frameworks.

BIMSTEC Convention on Combatting Terrorism (2021)

The ‘BIMSTEC Convention on Cooperation in Combating International Terrorism, Transnational Organized Crime and Illicit Drug Trafficking’ was a significant step towards strengthening regional cooperation. This agreement between the Bay of Bengal countries addresses the growing transnational threats posed by terrorism and organised crime, promoting coordinated efforts across borders.

Delhi Declaration on Countering the Use of Emerging Technologies for Terrorism (2022)

During India’s presidency of the UNSC’s Counter-Terrorism Committee, the Delhi Declaration was adopted in October 2022. This declaration focuses on the misuse of new and emerging technologies—such as information and communication technologies (ICTs), new payment systems and UAS—for terrorist purposes. A key point of concern is the global rise in the misuse of UAS by terrorists for attacking critical infrastructure, targeting soft sites and trafficking arms or drugs.

Group of Twenty (G20) New Delhi Leaders’ Declaration on Terrorism (2023)

Under India’s presidency, the G20 New Delhi Leaders’ Declaration was adopted in September 2023. It addresses the issue of terrorism in the context of international cooperation. The declaration emphasises the importance of renewable energy alliances as well as the connectivity of hard and digital infrastructure for the seamless movement of people, goods and services. It further highlights the risks of terrorism disrupting these aspirations, especially through coordinated attacks on critical energy infrastructure.

The declaration also condemns terrorist attacks on critical infrastructure, including energy facilities, and encourages the full implementation of Financial Action Task Force (FATF) recommendations on issues, such as beneficial ownership, the travel rule and asset recovery. It further underscores the need for greater financial transparency to disrupt terrorist financing networks.

India's leadership in these areas demonstrates its strong political will and commitment to a zero-tolerance policy on terrorism, while championing collective global efforts for regional economic integration and progress.

Clearly, it is time for the **civil society** to play a more active role in combatting terrorism. While international cooperation is crucial for mitigating the impact of geopolitical tensions and terrorism, civil society must pressure governments to move away from supporting or harbouring terrorist groups. Civil society should recognise the immense costs—both human and financial—of terrorism and influence public opinion in favour of multilateral collaboration and zero tolerance towards terrorism. By doing so, sustainable regional integration can be achieved, improving the lives of people across South Asia and helping countries realise their full potential.

Recommendations

To address the evolving threat of terrorism, the following seven key recommendations are proposed, emphasising the need for commitment, discipline, agility and capacity building:

1. *Harmonisation of international terrorism laws:*

Regional and global efforts must focus on the harmonisation of laws related to international terrorism, ensuring their timely implementation and uniform application.

2. *Global research centre for terrorism and emerging technologies:*

Establish a **global research centre in India** to study and develop typologies of terror activities using new and emerging technologies, such as digital payment systems and UAS.

3. *Real-time information grid for terrorism-related data:*

Create a **region-agnostic real-time information grid** that tracks incidents and leads on channels, platforms and markets exploited by terrorists. This grid would monitor:

- (i) Emerging payment methods alongside traditional ones, like cash and hawala.
- (ii) The acquisition and use of UAS by terror groups.
- (iii) Misuse of information and communication platforms for spreading extremist content and raising funds.
- (iv) Changes to beneficial ownership of critical infrastructure.
- (v) Other data sets related to terror financing and operations.

Maturity model for countering terror fintechs:

Develop and recommend a maturity model for using new and emerging technologies in countering the financing of terrorism, with India leading this initiative. This model would enhance trust at the regional and country levels.

4. *Capacity building through regional collaboration:*

Strengthen regional Indian Technical and Economic Cooperation (ITEC) collaborations under India's Neighbourhood First and Act East policies as part of other initiatives, such as Bangladesh, Bhutan, India, Nepal (BBIN), South Asia Subregional Economic Cooperation (SASEC) and BIMSTEC's Security Group. These collaborations should focus on capacity building for counterterrorism efforts.

5. *Civil society engagement:*

Civil society must be empowered to report suspicious activities related to terrorism and the misuse of technology. Digital users should be encouraged to report cybercrime and misuse of personal identifiable information (PII), with this data feeding into the regional information-sharing grid.

6. *Public-private partnerships and academic collaboration:*

Foster **public-private partnerships and academia participation** to strengthen the strategic analysis capabilities of law enforcement agencies. This collaboration should focus on sharing intelligence and information at both domestic and regional levels.

Finally, we must consider the question: can **economic incentivisation** of countries, like Afghanistan and Pakistan, help dismantle terror safe havens and infrastructure? It may be time to pursue sustainable regional integration from South Asia to Central Asia, focusing on economic growth as a tool for peace.

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SECTION II

Trade, Investment and
Economic Opportunities

Investment Opportunities for Least Developed Countries through BIMSTEC

Fahmida Khatun and Afrin Mahbub

Introduction

The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) represents a population of 1.7 billion people, accounting for 22 per cent of the world's population. With a combined gross domestic product (GDP) of approximately US\$ 3.6 trillion, the BIMSTEC countries hold significant potential to contribute to the global economy. However, despite notable economic progress, these nations continue to face challenges, such as global inequality and rising unemployment rates. The region has made substantial advancements over time, but its recent socio-economic performance has declined, particularly in the wake of the COVID-19 pandemic.

The region also needs to improve the productivity of labour for better economic growth and improved trade. However, the Human Development Index (HDI) in the region seems to be declining. Although India leads in GDP growth, its HDI growth rate declined by 0.009 per cent in 2021 compared to 2020. In fact, all BIMSTEC countries, except for Bangladesh and Sri Lanka, experienced a decline in HDI during this period (see Table 7.1). This underscores the need for renewed efforts to achieve higher economic growth and improve human development, especially given that the pandemic has reversed many of the long-term successes achieved by these nations.

Table 7.1: Basic Socio-economic Indicators of Member Nations in BIMSTEC in 2021

<i>Indicators</i>	<i>Bangladesh</i>	<i>India</i>	<i>Myanmar</i>	<i>Nepal</i>	<i>Sri Lanka</i>	<i>Thailand</i>
Population (in million)	166	1,393	54	30	22	70
Population density (per sq km)	1,278	469	84	207	358	137
GDP in constant US\$ (billion US\$)	285	2,733	71	31	92	439
GDP per capita (in constant US\$)	1,715	1,961	1,292	1,050	4,157	6,270
GNI per capita (in current US\$)	1,807	1,931	1262	1,056	4,059	-
GDP growth (%)	6.9	8.9	-18	4.2	3.7	1.6
Share (%) of agriculture in GDP	11.6	16.8	23.5	21.3	9	8.5
Share (%) of industry in GDP	33.3	25.9	35.2	11.7	27.8	34.8
Share (%) of services in GDP	51.3	47.7	41.3	52.6	57.5	56.7
HDI (change from 2020)	0.006	-0.009	-0.015	-0.002	0.002	-0.002

Notes: (i) There is insufficient data for Bhutan for the year 2021.

(ii) GNI = gross national income.

Source: Authors' compilation using data from the World Bank (2022) and United Nations Development Programme (UNDP, 2022).

As the global economy confronts its most severe crisis since the 1970s, BIMSTEC's importance has resurfaced with renewed relevance. This moment presents an ideal opportunity to evaluate BIMSTEC's performance, particularly as countries and regions increasingly commit to enhancing trade and investment through Comprehensive Economic Partnership Agreements.

Insufficient Investment in Bangladesh from the BIMSTEC Region

Investment within the BIMSTEC region has been insufficient, with a mixed track record across member nations. Among these countries, Bangladesh has received a significant portion of foreign direct investment (FDI) from India, Thailand and Sri Lanka (see figure 7.1). In fact, India and Thailand are the largest contributors to regional cooperation among the BIMSTEC nations.

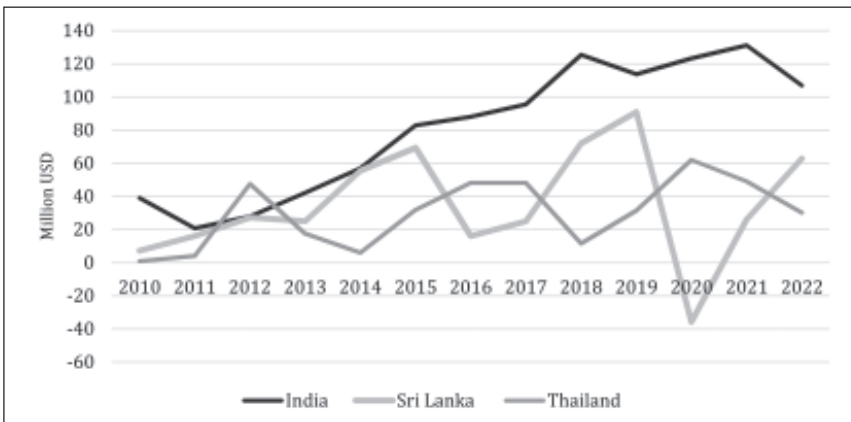
India's investments in Bangladesh have generally shown an upward trend, rising from US\$ 39 million in 2010 to US\$ 131.2 million in 2021, before slightly declining to US\$ 106.8 million in 2022. The momentum of cross-border investment flows between India and Bangladesh was bolstered by the signing of the Treaty on Bilateral Investment and Protection in 2009. This agreement, along with Bangladesh's ongoing efforts to create a conducive investment environment, has led to several substantial cooperative partnerships and

investment initiatives between the two nations. Notably, several Indian textile companies have established operations in Bangladesh, taking advantage of the country's low labour costs and tariff reductions (Kanungo, 2012).

Thailand has also made significant investments in Bangladesh, with notable amounts in 2012 (US\$ 47.4 million), 2016 (US\$ 48.2 million) and 2020 (US\$ 61.9 million). While there was no change in Thailand's investment between 2016 and 2017, the 2020 investment marked the highest level in a decade. Thailand's Look West policy, which complements India's Look East policy, has strengthened economic ties between Thailand and Bangladesh. This policy, initiated in 1996, aims to foster economic relations and explore markets in South Asia, the Middle East and Africa, positioning Bangladesh as a potential favoured destination for Thai investors (Kapoor, 2022).

In contrast, Sri Lanka's investments in Bangladesh have been underwhelming over the past decade. Despite a positive trend in Sri Lankan investments between 2010 and 2015, the amount significantly declined in 2016. After reaching a peak of US\$ 90.8 million in 2019—surpassing Thailand's investment that year—Sri Lankan investments turned negative in 2020. This decline was likely due to loans repaid by Sri Lankan corporations operating in Bangladesh exceeding the equity received (Bangladesh Bank, 2022). However, it is important to note that while Indian and Thai investments in Bangladesh declined in 2022, the net FDI inflows from Sri Lanka increased.

Figure 7.1: FDI Inflows to Bangladesh from BIMSTEC Countries (in million US\$)

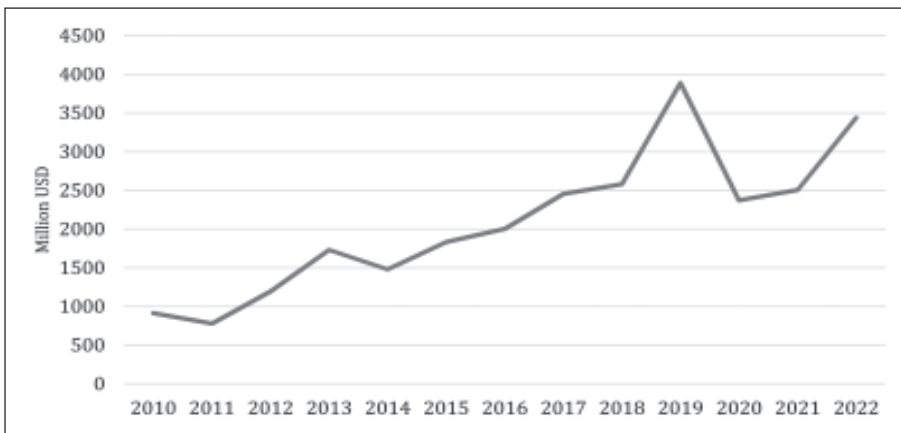


Source: Authors' illustration based on data from Bangladesh Bank (2022).

In contrast to the investments from BIMSTEC member countries, overall FDI inflows into Bangladesh from global economies have been steadily increasing. Over the years, Bangladesh has emerged as an attractive destination in South Asia for FDI, primarily due to its sizable market, high population density, increasing purchasing power and growing GDP. The provision of various fiscal and non-fiscal incentives, low labour costs and the establishment of export processing zones have created a favourable environment for foreign investors, especially in labour-intensive sectors (Mujeri et al., 2021).

From 2006–07 to 2021–22, cumulative FDI inflow into Bangladesh amounted to US\$ 29.7 billion. Additionally, from 2010 to 2022, overall net FDI inflow increased from US\$ 913.0 million to US\$ 3,439.6 million. The peak of FDI inflow to Bangladesh was in 2019, at US\$ 3,889 million—the largest amount reported in more than a decade. However, the overall net FDI inflow decreased drastically in 2020 to US\$ 2,370.5 million, likely due to the constraints imposed by the pandemic. Despite this setback, net FDI inflows began to increase again in 2021, with the second-highest amount recorded in 2022 (Figure 7.2).

Figure 7.2: Overall Net FDI Inflows to Bangladesh (in million US\$)



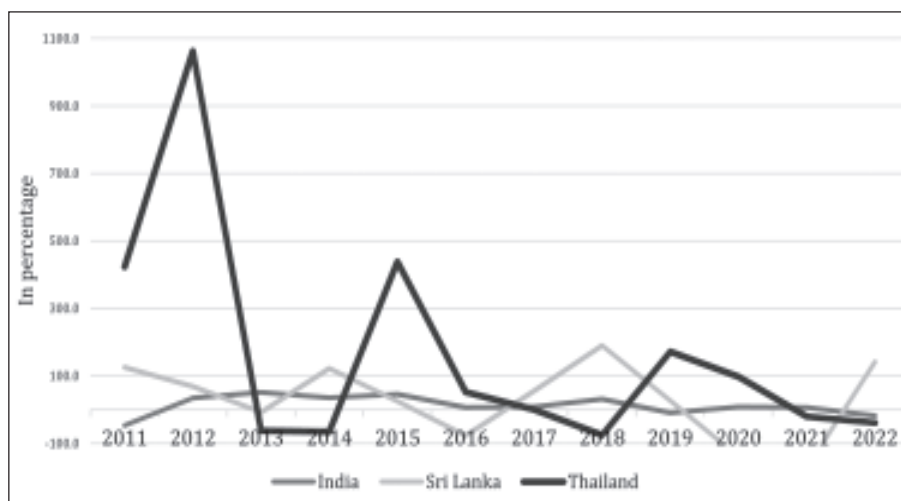
Source: Authors' illustration based on data from Bangladesh Bank (2022).

While overall FDI inflows from India and Thailand to Bangladesh may seem positive, the annual growth rate of investments from these BIMSTEC countries tells a different story. Indian investments in Bangladesh have shown a slowing growth rate over time, decreasing from about 50 per cent in 2013 to 6.5 per cent

in 2021 (Bangladesh Bank, 2022). Additionally, Indian investment amounts fell in 2019 and 2022 compared to the previous years, resulting in negative growth rates.

Similarly, the growth rate of investments from Thailand in Bangladesh decreased substantially, from 97 per cent in 2020 to -38.6 per cent in 2022. The decline in the growth rate of Sri Lankan investments in Bangladesh was even more pronounced, dropping from 125 per cent in 2011 to -172.7 per cent in 2021, before rebounding to 141.5 per cent in 2022 (Figure 7.3).

Figure 7.3: Growth of FDI from BIMSTEC Countries in Bangladesh



Source: Authors' illustration based on data from Bangladesh Bank (2022).

Major Sectors of Bangladesh Attracting FDI Inflows from BIMSTEC Countries

In 2022, Bangladesh's textile and clothing sector attracted the highest amount of FDI, followed by the power sector, gas and petroleum sector, banking sector and non-banking financial institutions (NBFIs). Over the past decade, overall foreign investments in Bangladesh's textile and clothing sector have grown significantly, increasing from US\$ 158 million in 2010 to US\$ 691.6 million in 2022 (Table 7.2).

The rising FDI inflow in this sector is crucial as it provides the capital needed for major investments, supports skilled labour and facilitates technology transfer. However, to fully capitalise on these benefits, Bangladesh should focus on

enhancing its manufacturing capacity and producing higher value items in the garment sector. This approach will help secure better pricing from global brands, thereby boosting export revenues (Mujeri et al., 2021).

**Table 7.2: Overall Net FDI Inflow to Bangladesh in Major Sectors
(in million US\$)**

<i>Year</i>	<i>Textile and clothing</i>	<i>Power</i>	<i>Banking</i>	<i>Gas & Petroleum</i>	<i>NBFI</i>
2010	157.9	36.79	111.6	36.87	5.93
2011	225.2	52.59	208.8	74.6	6.43
2012	241.4	64.2	253.4	180.8	9.78
2013	412.4	71.32	268.5	22.35	7.15
2014	445.8	47.72	225.5	2.71	8.45
2015	351.6	80.44	389.6	199.5	11.09
2016	396.1	207.8	254.2	222.3	-4.19
2017	360.4	334.3	155.6	133.7	2.4
2018	459.5	588.8	321	107.8	-46.6
2019	262.7	1218	299.4	110.8	119.8
2020	271.2	520.5	302.8	111.7	1.03
2021	376.8	456.6	240.6	150.1	7.91
2022	691.6	445.9	311.3	322.5	266.9

Source: Authors' compilation based on data from Bangladesh Bank (2022).

India, among the BIMSTEC nations, has been the most active investor in Bangladesh's textile and clothing sector, with nearly US\$ 40 million invested in 2022. In comparison, investments from other BIMSTEC countries, particularly Thailand and Sri Lanka, have lagged behind the general level of foreign investment in this sector. Until 2018, India's investments in Bangladesh's banking sector were greater than those in the textile and apparel sector. However, after 2018, the trend shifted, with increased investments in the textile and apparel sector and a decrease in banking sector investments, which fell to US\$ 17.5 million in 2022. India's interest in Bangladesh's power sector surged after 2017, although it has been investing in the banking and pharmaceutical sectors for a longer period. Indian investments in Bangladesh's trading sector began gaining momentum after 2016, growing from US\$ 5.6 million in 2016 to US\$ 6.6 million in 2020, before slightly declining to US\$ 5.7 million in 2022 (Table 7.3).

Thailand has focused most of its investments in Bangladesh on the

construction sector. In 2020, Thai FDI in Bangladesh's construction sector reached US\$ 55.8 million, marking the highest investment from Thailand in this sector over the past decade. Thailand has also consistently invested in the cement, agriculture and fishing and food sectors. However, Thai investments in Bangladesh's textile and clothing sector have been notably low, with investments in 2022 amounting to US\$ -0.49 million, indicating that intra-company loan repayments exceeded equity investments.

Sri Lanka has consistently invested in Bangladesh's textile and apparel sector, with investments rising from US\$ 0.5 million in 2010 to US\$ 18.3 million in 2021, before decreasing to US\$ 12.1 million in 2022. In 2019, Sri Lanka made its largest investment in Bangladesh's power sector in the past decade, amounting to US\$ 26.3 million. Although Sri Lanka has also invested in Bangladesh's trading sector and NBFIs, these amounts have been relatively small. On the other hand, Sri Lanka's investments in Bangladesh's banking sector have seen a significant increase, growing from approximately US\$ 3.4 million in 2010 to US\$ 36.2 million in 2022, representing the highest investment by Sri Lanka in this sector over the last decade (Bangladesh Bank, 2022).

Bangladeshi Investment in other BIMSTEC Countries

Until recently, Bangladesh was cautious about investing abroad. However, in 2015, the Government of Bangladesh (GoB) amended the 1947 Foreign Exchange Regulation Act to allow outward direct investments for export-oriented enterprises (Bangladesh Bank, 2022). Since then, Bangladesh has made investments in several BIMSTEC member states, including India, Nepal, Myanmar and Sri Lanka.

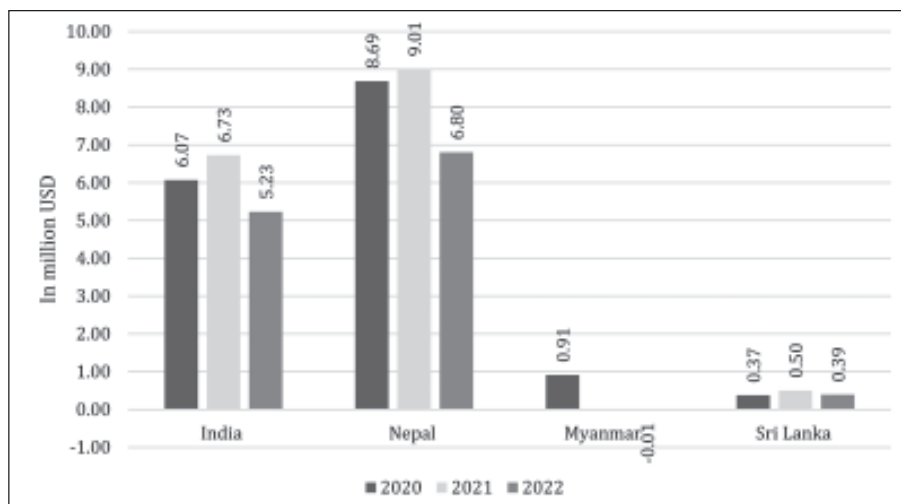
Between 2020 and 2022, Bangladesh's outward FDI to India decreased from US\$ 6.07 million to US\$ 5.23 million; and its investment in Nepal declined from US\$ 8.69 million to US\$ 6.80 million. This reduction in outbound FDI may reflect the GoB's efforts to maintain the balance of payments, preserve foreign exchange reserves and minimise capital flight (Mujeri et al., 2021). In contrast, Bangladesh made outward investments in Myanmar only in 2020. Meanwhile, Sri Lanka saw a slight increase in investments from Bangladesh between 2020 and 2022, although the amounts were relatively small (Figure 7.4).

Table 7.3: FDI Inflows from BIMSTEC Countries in Major Sectors of Bangladesh (in million US\$)

Year	India					Thailand					Sri Lanka				
	Textile and clothing	Power	Banking	Chemicals & pharmaceuticals	Trading	Construction	Agriculture and fishing	Food	Cement	Textile and clothing	Banking	Textile and clothing	Power	NBFI	Trading
2010	1.15		30.04	0.48							3.35	0.52			
2011	6.76	0.07	0.3	1.05		0.02		0.31		4.02	6.86				
2012	1.86		5.77	0.16	0.19	40.88	1.26	0.72		4.35	1.32		1.03		
2013	13.19		4.36	1.15						4.7	2.1	12.75			
2014	4.68		5.39	6.32	2.29					25.57	1.17	0.73		0.01	
2015	17.94	6.11	13.53	2.85	1.09	0.37	27.77	-0.33	0.97	48.91	10.15	5.86	1.19	0.08	
2016	15.54		23.95	2.69	5.57	15.58	28.44	0.62	0.01						
2017	13.9	10.08	21.67	4.59	5.11	16.32	27.08	0.97	12.11	-0.03	10.61	3.33		0.2	
2018	14.04	23.47	30.44	5.48	6.69					46.65	9.18	6.26		0.61	
2019	13.28	12.36	3.23	6.12	6.06	9.4	14.05	0.83		41.92	13.37	26.31	0.97	0.58	
2020	8.49	25.29	15.09	7.67	6.59	55.83	2.03	1.83	0.67						
2021	15.92	34.47	10.2	6.72	5.75	26.89	4.83	1.81	9.44	-5.52	18.29	8.93		0.62	
2022	40.28	18.57	17.48	5.96	5.74	15.15	12.15	-0.11	-0.17	-0.49	36.15	12.09	11.24	0.89	0.75

Source: Authors' compilation based on data from Bangladesh Bank (2022).

Figure 7.4: FDI Outflows of Bangladesh in BIMSTEC Countries



Source: Authors’ illustration based on data from Bangladesh Bank (2022).

Outward FDI of Bangladesh in BIMSTEC Countries by Major Sectors

Bangladesh has primarily invested in the financial intermediary sector in India, Nepal and Sri Lanka. Between 2020 and 2022, Bangladesh’s outward FDI in this sector increased in India, rising from US\$ 0.64 million to US\$ 2.09 million. However, investments in the same sector in Nepal decreased from US\$ 8.69 million to US\$ 6.8 million. Similarly, Sri Lanka experienced a decline in investments from Bangladesh in the financial intermediary sector, dropping from US\$ 0.73 million in 2020 to US\$ 0.39 million in 2022. Additionally, Bangladesh has invested in India’s mining and quarrying sector. These investments remained relatively stable in 2020 and 2021, before declining in 2022 (Table 7.4).

Table 7.4: Outward FDI of Bangladesh in Major Sectors of BIMSTEC Countries (in million US\$)

Year	India		Nepal		Sri Lanka	
	Financial intermediary	Mining and quarrying	Financial intermediary	Mining and quarrying	Financial intermediary	Mining and quarrying
2020	0.64	5.43	8.69	–	0.73	–
2021	1.33	5.4	9.01	–	0.5	–
2022	2.09	3.14	6.8	–	0.39	–

Source: Authors’ compilation based on data from Bangladesh Bank (2022).

Major Challenges for Graduating Least Developed Countries (LDCs)

Within the BIMSTEC, certain countries face unique challenges due to their specific circumstances. Notably, Bangladesh and Nepal, both classified as LDCs, are set to graduate from LDC status in 2026. This transition will result in the loss of various international support measures, including duty-free quota-free (DFQF) market access provided by developed countries and international organisations. The loss of DFQF benefits could make exports from these countries more expensive, reducing their competitiveness and leading to lower export income.

Bangladesh, in particular, has effectively utilised DFQF access, including that offered by India, to boost its exports. However, the full potential of these benefits has not been fully realised, and Bangladesh continues to experience trade deficits with several countries. To address these deficits, concrete initiatives are needed to unlock the potential opportunities available.

One of the major challenges in increasing trade within the BIMSTEC region is the presence of non-tariff barriers, such as anti-dumping and countervailing duties imposed by importing countries. These measures restrict market access for products from Bangladesh and other countries in the region. Additionally, inadequate trade facilitation, including the lack of mutual recognition agreements for testing and inspecting goods, further hampers trade.

Infrastructure shortcomings also hinder efforts to boost intra-regional trade among BIMSTEC members. Establishing efficient infrastructure is essential to overcoming these trade-related obstacles. For example, setting up laboratories for goods inspection at border points could reduce delays and facilitate smoother trade processes. Enhanced infrastructure, combined with streamlined regulatory procedures, could significantly improve the trade environment within BIMSTEC, fostering greater economic integration and growth.

Way Forward to Boost Intra-regional Trade among the BIMSTEC Members

To address these trade-related challenges, it is important to develop production networks and establish backward and forward value chains that benefit regional trade, business and commerce. Achieving this will require substantial investment from both the government and private sectors. Public–private partnerships and

cross-country joint private sector investments should be explored to capitalise on the opportunities arising from BIMSTEC cooperation.

Investment is also crucial in other areas, such as education—especially in science and technology—health and climate change. Higher investment in human capital is essential for countries aiming to achieve rapid progress. Unfortunately, most BIMSTEC countries spend very little on health and education. Except for Thailand and Bhutan, out-of-pocket healthcare expenses for individuals in all other BIMSTEC countries exceed 50 per cent. Upon graduating from the LDC category, these countries will need to improve productivity of their human resources to remain competitive in the global market.

The region is also highly vulnerable to the impacts of climate change. Although greenhouse gas emissions in the region are relatively low, they are on the rise. Therefore, investment in green technology is crucial to mitigate climate change. Additionally, substantial resources are needed for adaptation, such as building resilient infrastructure and creating new livelihood opportunities. These regional challenges require collaborative efforts involving resource mobilisation and technology transfer. Multilateral organisations, like the Asian Infrastructure Investment Bank and the National Development Bank, can be important sources of investment for the BIMSTEC region.

The BIMSTEC has already prioritised healthcare and climate change as key areas of cooperation. Some initiatives, like the JIPMER-BIMSTEC Telemedicine Network, launched in 2017, promote modern medicine; share knowledge about disaster management and climate change; and strengthen links between medical institutions within member countries. These efforts will ultimately help Bangladesh and other BIMSTEC nations achieve better healthcare systems and a cleaner environment.

Conclusion

Bangladesh and Nepal are set to graduate from LDC status in 2026, which will result in the loss of DFQF market access in both developed and developing countries, potentially limiting their trade opportunities. To address these challenges, it is crucial to develop production networks and establish value chains that support regional trade and business. The BIMSTEC holds significant potential to drive economic development and improve well-being in the region by promoting regional trade and investment in key sectors. However, progress within the BIMSTEC has been slower than anticipated.

For years, investment from the BIMSTEC member countries has remained below expectations, reflecting a lack of confidence and hindering efforts to fulfil the commitments outlined in various BIMSTEC agreements. Given the current geopolitical climate, strengthening regional alliances like BIMSTEC is more important than ever. Enhanced cooperation among member nations is essential for advancing global development goals and addressing the challenges posed by the upcoming LDC graduation.

The BIMSTEC was established with high hopes of fostering regional cooperation between South Asia and Southeast Asia. As a bridge connecting these two regions, BIMSTEC has the potential to significantly boost economies and improve the well-being of people through increased regional trade and investment in strategic sectors. However, progress has been slow and unsatisfactory.

While economic and technical challenges have played a role, political obstacles, particularly the trust deficit among member states, have been a major hindrance. This lack of trust has delayed the implementation of various commitments and plans outlined in BIMSTEC declarations. In today's complex geopolitical environment, revitalising initiatives like the BIMSTEC requires strong political will and decisive action.

To overcome these barriers, it is essential to strengthen political commitment and build trust among the member countries. Effective collaboration within the BIMSTEC can not only enhance regional integration but also position the bloc as a significant force in global negotiations. By demonstrating unity and a shared commitment to common goals, the BIMSTEC can realise its full potential, driving sustainable development and prosperity across the region.

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8

Fostering Regional Supply Chains: A New Approach to South Asian Trade Agreements beyond Market Access

Mathisha Arangala

Introduction

Over the past four decades, a combination of factors, including the reduction in global tariff rates, the advent of container shipping and breakthroughs in information and communication technology (ICT), facilitated the emergence of global value chains (GVCs). The GVCs permitted the production process to be fragmented across multiple countries, allowing businesses to manufacture parts and components of a product in various locations before assembling them elsewhere. Countries that were quick to adopt the GVCs, particularly in East Asia (including the Association of Southeast Asian Nations [ASEAN]), facilitated increased efficiency and predictability of the supply of goods, which enabled them to catapult their exports. Yet, while East Asia disproportionately reaped the benefits of GVCs, South Asia remained largely on the periphery of this global restructuring (World Bank, 2019).

For instance, the rise of GVCs brought about three key trends in world trade, all of which South Asia was left out of. The first was the rise of intermediate goods (or component) trade. Currently, nearly 60 per cent of intra-regional trade within Asia involves intermediate goods, underscoring the pivotal role of GVCs in trade within Asia (Asian Development Bank [ADB], 2020a). Yet, within Asia too, the lion's share goes to East Asia. For instance, while 43 per cent of the

world's share of intermediate trade emanates from Asia, 36 per cent comes from East Asia. South Asia accounts for only 1.5 per cent of the world's share of intermediate goods trade, while India accounts for 1.4 per cent of this (World Trade Organization [WTO]).

Second, the GVCs enabled the rise of three high-value sectors that have been instrumental in propelling the growth of East Asian economies, namely, electrical machinery, mechanical appliances and automobiles, which collectively account for 35 per cent of world trade. However, while these products account for between 43–53 per cent of total exports of certain countries, like South Korea, Vietnam, Malaysia and Thailand, they have a minimal presence in South Asia's exports. For instance, they account for only 17 per cent of India's total exports and 6 per cent of Sri Lanka's exports (International Trade Centre). The consequence of this disparity is illustrated when comparing the export performance of Sri Lanka and Vietnam, two countries with similar export values of US\$ 3 billion in 1993, which has since diverged dramatically. Vietnam's exports are now US\$ 336 billion, while Sri Lanka's is only US\$ 13 billion. What is more alarming is that while Sri Lanka is still exporting the same basket of goods it did in 1993, that is, apparel, tea and other agricultural exports, Vietnam's exports—which were led by more agricultural products than even Sri Lanka at the time—are now concentrated on electronics (Harvard, 'The Atlas of Economic Complexity').

Third, the GVCs brought about a rise in intra-regional trade, particularly in East Asia. For instance, today, 52 per cent of all exports from East Asia and the Pacific are within the region, and only 29 per cent are with North America and the European Union (EU). In this context too, South Asia has been left behind, with the exports of South Asia within the region amounting to only 7 per cent. In countries like Sri Lanka, up to 60 per cent of trade occurs with North America and the EU (World Bank, n.d.).

The proliferation of GVCs and regional trade in East Asia can be primarily attributed to the rise of trade agreements within the region, while there are multiple barriers that restrict intra-regional trade in South Asia in particular. In addition to a generally protectionist attitude regarding tariffs, the region suffers from considerable non-tariff barriers (NTBs) stemming from complicated, non-transparent and non-uniform product standard requirements (sanitary and phytosanitary measures [SPS]/technical barriers to trade [TBT]) between the countries (Mantraya, 2016). Dysfunctional border agencies, lack of trade

facilitation and poor transport and logistics connectivity have also created a situation where trading within South Asian countries is sometimes more expensive than trading with countries outside the region. All these factors have disrupted and discouraged the creation of smoothly functioning supply chains within the region (Kathuria, 2018).

The East Asian countries, on the other hand, have effectively reduced these barriers by being ready to embrace more comprehensive intra-regional trade agreements (that is, agreements between members of the region), moving beyond just market access towards greater supply chain integration, as well as prioritising certain issues, like NTBs, trade facilitation and connectivity. This approach has allowed these countries to specialise in certain segments of a supply chain within the region and trade seamlessly with minimal barriers, effectively creating a unified market that attracts multinational investments from within and outside the region. In contrast, South Asia has remained resistant to comprehensive intra-regional trade agreements. South Asia's only regional free trade agreement (FTA), the South Asian Free Trade Area (SAFTA), was signed almost 20 years ago, and other bilateral agreements amongst the South Asian countries have failed to advance beyond basic trade in goods, leaving the region lagging far behind in economic integration.

In spite of South Asia having missed the bus with the last proliferation of supply chains, the region is now under the spotlight again due to recent geopolitical shifts, which have prompted a gradual diversification of supply chains away from China. The term 'ALTASIA', introduced by *The Economist* (2023), highlights 14 countries, including India and Bangladesh, as emerging alternatives to absorb China's supply chains. In South Asia, India, particularly with its attractive labour costs, young population and growing domestic market, is poised to be the region's key manufacturing and supply chain hub. However, it seems that only India and, to a certain extent, Bangladesh are capitalising on this narrative, with other South Asian countries, like Sri Lanka, Nepal and Pakistan, remaining on the periphery despite having the potential to benefit from the region's economic reconfiguration. The World Bank's *Global Economic Prospects Report* (2024) indicates a varied economic outlook within South Asia: India and Bangladesh are seen as growth leaders; Nepal, Bhutan and the Maldives are seen to show moderate potential; and Pakistan and Sri Lanka face challenges due to debt distress (Wignaraja and Bootwalla, 2024).

In fact, countries like Sri Lanka have a unique opportunity to leverage their

geographic and economic position to serve India's manufacturing growth. So, for the rest of South Asia to not get left behind and to harness India's growth, the region needs to be more proactive about prioritising comprehensive agreements that are beyond market access and focused on creating a more seamless trade environment for supply chains to foster. This chapter examines the factors hindering deeper economic integration in South Asia, particularly between India and its neighbours. It explores the barriers that prevent the region from moving beyond traditional market access agreements, as well as the potential pathways towards fostering regional supply chains through more comprehensive trade frameworks.

Key Findings

South Asia's Limited Progress beyond Market Access

Intra-regional trade agreements, that is, trade agreements amongst countries within the region, play a key role in enabling supply chains within a region. These agreements remove the barriers that hinder a country's ability to specialise in certain supply chain components and seamlessly trade these within the region.

The chapter compares and analyses 40 intra-regional trade agreements of South Asia, East Asia and agreements that South Asia has enacted jointly with East Asia. The comparison is made along three criteria: (i) the comprehensiveness of agreements based on the number of policy areas covered; (ii) the degree to which the agreements have been upgraded over time; and (iii) the reach of the agreements, that is, the degree to which they are bilateral or plurilateral. The United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) Asia-Pacific Trade and Investment Agreement Database (APTIAD), updated as of December 2023, has been considered for this study (ESCAP, n.d.). It should be noted that only agreements already entered into force have been considered and agreements which provide preferential access, like the Asia-Pacific Trade Agreement (APTA) and the SAARC Preferential Trading Arrangement (SAPTA), have not been considered. As a result, certain agreements, such as the recent Sri Lanka–Thailand FTA signed on the 3 February 2024, which is set to enter into force by January 2025, are not considered. Appendix 4 (Table 8A.3) gives the list of these 40 agreements.

Context: Comparing South Asian and East Asian Trade Agreements

South Asia started enacting regional trade agreements around the same time as East Asia. The APTA, the oldest preferential trade agreement between countries in the Asia-Pacific region, was signed in 1975. It featured countries from both South and East Asia, initially including Sri Lanka, India, Bangladesh, South Korea, Laos and later, China and Mongolia. Regarding intra-regional agreements, the ASEAN and the South Asian Association for Regional Cooperation (SAARC), for instance, had similar aspirations, with the ASEAN Agreement on the Common Effective Preferential Tariff Scheme (which eventually turned into the ASEAN Economic Community) signed in 1992 and the SAPTA signed in 1993 (ESCAP, n.d.).

Yet, there has been a different attitude towards trade integration between these two regions from the start. South Asia started with a preferential agreement that allowed tariff reductions but not zero tariffs. It was only in 2006 that South Asia got an FTA in goods with the SAFTA, which, however, is criticised for having an extensive negative list that excludes vital goods from tariff concessions. For instance, up to 35 per cent of the value of the intra-regional trade in South Asia is on the negative list of SAFTA. Further, the SAFTA does not provide clear guidelines for phasing out the negative lists (Kathuria, 2018). In contrast, the ASEAN Agreement on the Common Effective Preferential Tariff Scheme, signed in 1992, had explicit provisions for an accelerated removal of tariffs for products on the inclusion list, alongside a gradual transfer of products from the negative list to the inclusion list. In 2009, the ASEAN Trade in Goods Agreement was signed to accelerate the tariff elimination process. Today, trade within the ASEAN is almost entirely free, with almost 99.7 per cent of the tariff lines abolished by Brunei, Malaysia, Singapore, Thailand, Indonesia and the Philippines, as well as Cambodia, Laos, Myanmar and Vietnam maintaining tariff rates between 0–5 per cent for almost 99 per cent of the tariff line (Kathuria, 2018).

In addition, the ASEAN introduced services liberalisation into their agreement in 1995, three years after signing the AFTA, and an investments component in 2009. The latest iteration is the ASEAN Economic Community, which was established in 2015, having ‘virtually eliminated intra-regional tariffs and formal restrictions on services gradually removed’; simplified cross-border trade, including customs processes, rules of origin, harmonisation of technical regulations and mutual recognition arrangements; adopted common investment frameworks; and improved connectivity in transport and infrastructure networks

(ASEAN, 2017). In contrast, it was only in 2010 that a services agreement for South Asia was signed, almost 15 years after the ASEAN, in the form of the SAARC Agreement on Trade in Services (SATIS) (ESCAP, n.d.). However, the provisions in SATIS have been criticised for being too superficial and the agreement is not fully operational (Mantraya, 2016). South Asia still does not have a regional investments agreement. Efforts towards further regional integration amongst the SAARC countries have also stalled over the past decade mainly due to ongoing tensions between Pakistan and India, hindering progress towards greater regional integration. Other initiatives which do not include Pakistan and, as a result, do not pit India and Pakistan together, like the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), also face challenges due to slow progress and a lack of binding commitments, reflecting broader issues in regional integration within South Asia.

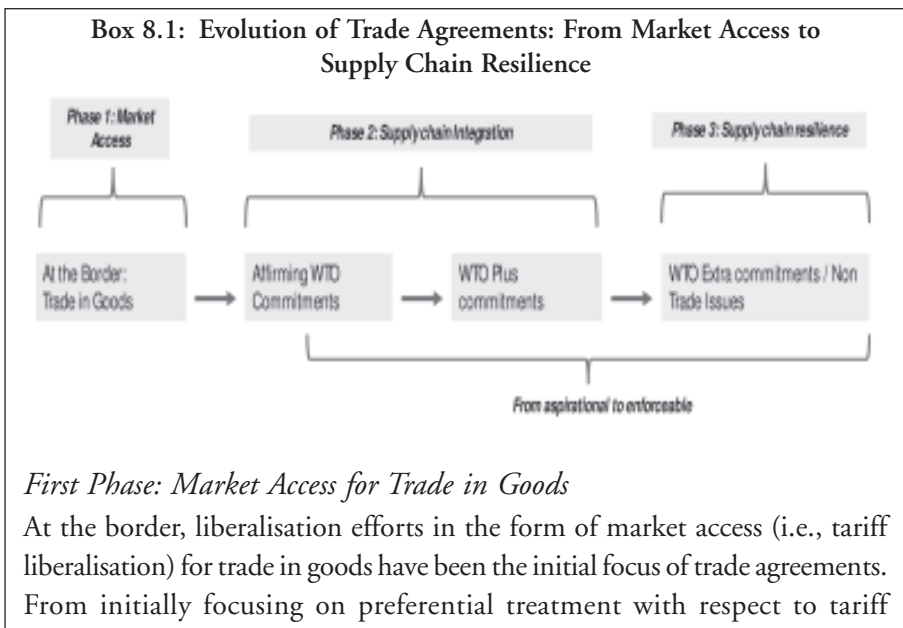
Supported by its success, the ASEAN has also signed separate comprehensive agreements with other regional partners, like China, Korea, Japan and India, which it has negotiated as a country bloc. Now, the ASEAN is even participating in mega-regional agreements with countries outside the immediate region through the Regional Comprehensive Economic Partnership (RCEP) and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) (ESCAP, n.d.). In contrast, due to the ineffectiveness of its regional agreements like SAFTA, South Asian countries have opted to ignore regional arrangements and sign bilateral agreements with each other. Starting with the Indo-Lanka Free Trade Agreement (ILFTA) in 1998, multiple other agreements have been penned between the different South Asian nations.

Yet, the existence of para-tariffs, which are taxes imposed on imports in addition to import duties (and therefore, basically import duties in another name) by countries like Sri Lanka and Bangladesh, makes the provisions under SAFTA and these bilateral agreements—which only provide concessions for import duties—virtually ineffective (Kathuria, 2018). Further, the effectiveness of these agreements is also muted by complicated NTBs, strict rules of origin requirements, quotas on critical exports, poor dispute settlement mechanisms and a lack of post-agreement evaluations to address these issues (Kathuria, 2018). More comprehensive trade agreements could address all these issues by harmonising standards and rules of origin requirements, ensuring trade facilitation and creating provisions for greater connectivity (Kelegama, 2012). However, none of these

agreements have evolved to include even the most basic requirements for a comprehensive agreement, that is, services and investment liberalisation.

The proposed India and Sri Lanka Economic Cooperation and Trade Agreement (ECTA) was a key comprehensive agreement that garnered attention. Yet, progress on the ECTA has been slow and is still under negotiation despite being envisioned over 20 years ago. There has, however, been a renewed interest in concluding this agreement over the past year, with hopes of a conclusion in 2024 (*Daily News*, 2024). A similar sentiment is seen in the India–Bangladesh Comprehensive Economic Partnership Agreement (CEPA) as well (*India Shipping News*, 2024).

In the context of supply chains, the scope of trade agreements has evolved significantly from the first phase, which concentrated on market access in the trade in goods, to the second phase, aimed at supply chain integration. These agreements looked into making enforceable WTO commitments, like services and investment liberalisation, trade facilitation, intellectual property and digital trade. The third and current phase of trade agreements focuses on supply chain resilience. These agreements consider non-trade or WTO extra commitments, such as security and sustainability issues (see Box 8.1 for more details). The assessment shows that intra-regional agreements in South Asia lag far behind East Asian agreements when keeping up with these trends in trade agreements.



liberalisation with agreements like APTA, the FTAs started to become the norm, whereby countries negotiated zero tariffs for bilateral trade.

Second Phase: WTO Plus and Supply Chain Integration

Over time, the scope of trade agreements evolved significantly, from market access to progressively incorporating a broader array of policy issues. This evolution into other policy areas started with trade agreements, first, reaffirming commitments made by the WTO and then, expanding to include ‘WTO plus’ commitments—covering areas beyond those traditionally addressed by the WTO, such as NTBs, trade facilitation, intellectual property rights, digital trade and services liberalisation (see Appendix 1, Table 8A.1).

Latest Evolution: Mega-Regional Trade Agreements

Along with these more comprehensive agreements emerged mega-regional agreements aimed at supply chain integration. The RCEP and the CPTPP exemplify this shift by incorporating measures to foster regional supply chain integration. The RCEP, for instance, consists of 15 members, including the ASEAN countries and some large economies, such as China, Korea, Japan and Australia. This agreement came into effect in January 2022.

In addition to market access for 80–90% of tariff lines, enabling better price competition in the region, the RCEP features multiple provisions aimed at reducing disincentives for supply chains:

1. Services liberalisation, through a more comprehensive negative list approach, enables a more streamlined movement of labour and service providers, facilitating the servicification of manufacturing.
2. Investment liberalisation to allow for unrestricted movement of capital within the region to streamline investments into GVCs.
3. Allows for the cumulation of inputs in products made within the region. Rules of origin have been one of the biggest challenges with trade agreements, as they can discourage supply chain creation. Rules of origin requirements in trade agreements specify the minimum proportion of a product that must originate from the exporting country to qualify for tariff preferences in the importing country. However, this framework often clashes with the nature of supply chains, which prioritises intermediate trade, where the value-added component in

goods traded is typically minimal. In such a trade environment, strict rules of origin can significantly deter the establishment and growth of supply chains. However, the RCEP aims to resolve this issue by harmonising rules of origin requirements and allowing for the cumulation of inputs in products made within the RCEP region. This will create a single market for intermediate goods, easing regulatory barriers to complex supply chains and allowing multiple border crossings of value-added goods at zero duty (see Appendix 2 for more details).

4. Looks at trade facilitation commitments beyond the WTO Trade Facilitation Agreement (TFA); in other words, WTO TFA plus. For instance, the RCEP calls for customs clearance of goods within 48 hours of arrival. For express consignments, the time limit is reduced to 6 hours. The RCEP also contains improved advance ruling provisions and a time limit of 150 days for the issuance of advance rulings.

Third Phase: Supply Chain Resilience

Trade agreements are going through a third evolution, moving beyond supply chain integration to supply chain resilience to address pressing global concerns on security and sustainability in supply chains. This initiates a strategic pivot in how countries approach trade negotiations to address a more comprehensive set of geopolitical and social challenges. As a result, how and where products are made is being rethought. The following developments have prompted these changes over the past few years:

1. An increasing demand for climate action and labour rights in the Western economies, driven by public pressure and global initiatives, like the Paris Agreement, is increasing the demand for sustainable supply chains. This has led to significant legislative changes in regions like the EU, with the introduction of the European Due Diligence Act and the EU Digital Product Passport, mandating companies to adhere to sustainability standards throughout their supply chains—a shift that impacts not just the EU countries but also their trading partners, including many South Asian nations, like Sri Lanka and Bangladesh. As a result, there has been a shift from product standards to product process standards and from lean supply chains to lean and green supply chains (sustainable supply chains).

2. The COVID-19 pandemic and the Russia–Ukraine war have exposed vulnerabilities in global supply chains and are creating a shift from just-in-time production models to just-in-case approaches. These changes reflect a growing emphasis on supply chain reliability over cost and speed.
3. An ageing population, China’s insular response to the pandemic, heightened geopolitical concerns led by national security concerns and technological advancements, such as artificial intelligence (AI) and robotics, are also changing the way traditional investors and buyers in the West view supply chains in the East, especially concerning strategic goods like semiconductors. As a result, there is a shift in focus from ‘made in China’ to ‘made outside China’ or ‘made with China’. This has led to re-shoring supply chains closer to home or friend-shoring, where manufacturing bases are shifted to what the Western countries deem to be geopolitically safe spots. Increased use of industrial policy in the West, such as the United States (US) Inflation Reduction Act, the US Chips Act and the EU Chips Acts, aims to incentivise the same. A survey by the Boston Consulting Group (BCG) from 2023 highlights this trend, with over 90% of North American manufacturers moving some production from China in the past five years.

Due to the above-mentioned trends, modern agreements now aim to improve supply chain resilience by tightening control over critical supply chains, decreasing reliance on strategic competitors and addressing sustainability within supply chains. They also seek to alleviate bottlenecks in crucial sectors, like pharmaceuticals; ensure the availability of critical minerals; protect emerging technologies, such as robotics, 5G and AI; facilitate data sharing; and guarantee adequate labour and skills to prevent supply chain disruptions (see Appendix 3 for some of the key issues discussed in these new agreements and key examples of such agreements).

In fact, this trend towards broadening the scope of trade agreements to non-trade issues was evident even before the heightened emphasis on supply chain resilience. There has been an increasing emergence of ‘WTO extra’ commitments in trade agreements, addressing issues entirely outside of the WTO’s purview. This includes different areas, like environmental standards, anti-corruption measures, labour standards, investment and the movement of people. However, while these expanded commitments were featured in

agreements as aspirational measures and non-binding, many recent agreements have made them legally enforceable.

Recent shifts in how products are made and where they are made is evident from the given figure:



Source: Inbound Logistics, Global Trade Changes Course

Sources: ADB (2022); BCG (2023); Inbound Logistics, Global Trade Changes Course; Seshadri (2023); World Bank, 'Deep Agreements Dashboard'.

Key Observations from the Analysis

Table 8.1 showcases the depth of the agreements for each region, assessed using three metrics: (i) the 28 measures assessed in the ESCAP APTIAD database; (ii) the number of enforceable WTO commitments; and (iii) the number of enforceable WTO extra commitments in each agreement as per the World Bank's deep agreements analysis (ESCAP, n.d.). It can be observed that the depth of South Asia intra-regional agreements is much lower in all three metrics when compared to East Asia. It is only when South Asian countries have signed agreements with East Asia that the agreements are more comprehensive. This is evident in India's and Sri Lanka's agreements with East Asia. For instance, both of Sri Lanka's bilateral comprehensive agreements, which include services and investment liberalisation, are with East Asian countries, namely, Singapore and Thailand, signed in January 2018 and February 2024, respectively.

Table 8.1: Number of Policy Measures in Intra-regional Agreements between South Asia and East Asia

<i>Region</i>	<i>Average Number of Measures in Each Agreement (out of 28)</i>	<i>Average Number of Enforceable WTO Commitments</i>	<i>Average Number of Enforceable WTO Extra Commitments</i>
South Asia	4.6	2.5	0.3
East Asia	17.3	9.1	3.2
South Asia & East Asia	17.5	9.4	2.7

Sources: ESCAP (n.d); World Bank, 'Deep Agreements Database'.

Table 8.2 shows that the South Asian agreements fail to encompass most of the policy issues which enable the seamless integration of supply chains as well as investments into supply chains, like trade in services, investment liberalisation, trade facilitation, intellectual property rights, technical cooperation, financial services, competition policy and the movement of persons. Further, none of the South Asian FTAs encompass issues that ensure resilient supply chains, such as sustainable development, environmental provisions, labour protection, gender, human rights and transparency. However, yet again, the South Asian agreements signed with East Asian countries encompass many of these measures. This suggests that signing agreements with East Asian countries has forced South Asia to be more liberal in its agreements.

Table 8.2: Incidence of Key Policy Measures in South Asian versus East Asian Agreements (as a % of total agreements)

<i>Measure name</i>	<i>South Asia</i>	<i>East Asia</i>	<i>South Asia and East Asia</i>
Count of Agreements	5	27	8
Trade in goods	100	100	100
SPS/TBT	60	67	100
Anti-dumping duty	80	85	88
Safeguard	80	89	100
Trade in services	20*	81	100
Investment	0	81	100
Trade facilitation & customs cooperation	20	85	75
Government procurement	0	56	25
Competition policy	0	67	75
Intellectual property	0	70	75
Dispute settlement	60	93	100
Temporary movement of natural persons	20	78	88
Sustainable development-related provisions	0	85	88
Sustainable development by concept	0	22	50
Labour protection	0	19	13
Human rights	0	0	0
Gender	0	11	0
Health	0	59	75
Environment	0	48	50
SMEs	0	70	50

<i>Measure name</i>	<i>South Asia</i>	<i>East Asia</i>	<i>South Asia and East Asia</i>
Technical cooperation	0	85	88
Transparency	20	93	100
Financial services	0	74	63
Telecommunications	0	33	63
E-commerce	0	81	50
Online consumer protection	0	33	13
Personal data protection	0	41	13
Data flows	0	22	13

Notes: (i) *This 20% is just one agreement, SATIS, which, while enacted, is not fully operational.

(ii) SMEs = small and medium-sized enterprises.

Source: ESCAP (n.d.); World Bank, 'Deep Agreements Database'.

Another feature of East Asian agreements that is not seen in South Asian agreements has been the degree to which old agreements have been upgraded over time. A good example is the ASEAN agreement, which started as the ASEAN Agreement on the Common Effective Preferential Tariff Scheme and eventually turned into the much more comprehensive ASEAN Economic Community. Table 8.3 shows that four of the 27 East Asian agreements assessed have been upgraded at least once over the years, while none of South Asia's agreements have seen any upgrades.

Table 8.3: Number of Agreements Upgraded Over Time

<i>Region</i>	<i>Have Upgraded the Agreement</i>	<i>Number of Agreements</i>
East Asia	Yes	4
	No	23
	Total	27
South Asia	No	5
	Total	5
South Asia & East Asia	Yes	3
	No	5
	Total	8

Sources: ESCAP (n.d.); World Bank, 'Deep Agreements Database'.

Table 8.4 shows that East Asia also tends to engage with more plurilateral agreements compared to South Asia, making those agreements more conducive to supply chain integrations as they allow for the cumulation of rules of origin requirements over a larger geographical area, opening the door for greater specialisation among countries in the region (see Appendix 2).

Table 8.4: Reach of the Agreements

<i>Region and Kind of Agreement</i>	<i>Count of Agreement</i>	<i>Average Number of Measures (Out of 22)</i>
South Asia	5	4.6
Bilateral	4	3.5
Pluliteral	1	9.0
East Asia	27	17.3
Bilateral	18	16.8
Pluliteral	9	18.2
South Asia & East Asia	8	17.5
Bilateral	7	18.7
Pluliteral	1	9.0

Sources: ESCAP (n.d.); World Bank, 'Deep Agreements Database'.

Other Observations

South Asia is missing out not only on the second wave of comprehensive regional agreements aimed at supply chain integration but also on the trend towards mega-regional trade agreements. Having succeeded in creating a seamless market for supply chains within East Asia through the ASEAN Economic Community and various bilateral agreements between ASEAN, China, Korea and Japan, East Asia is also actively engaging in mega-regional agreements, such as the RCEP and the CPTPP. The goal is to create supply chain links within the larger East Asia and Pacific region. The RCEP, with its 15 members, including the ASEAN countries, China, Korea, Japan, Australia and New Zealand, came into effect in January 2022. It aims to promote regional supply chain integration by harmonising rules of origin, facilitating input accumulation and enhancing trade facilitation (ADB, 2020b; also see Box 8.1). However, no South Asian country has been exploring such agreements. Sri Lanka and Bangladesh have expressed interest in joining the RCEP; however, the future of this endeavour is yet unclear (*Daily News*, 2024).

South Asia is also at risk of missing out on the third wave of trade agreements aimed at supply chain resilience (see Box 8.1). Currently, countries are increasingly leveraging trade agreements to establish conditions that bolster secure and environmentally sustainable supply chains. East Asia is moving forward with such agreements. For instance, South Korea's Minister of Trade, Ahn Duk-Geun, at the 2023 World Economic Forum in Davos, emphasised that South Korea's trade policy now focuses on trade and investment partnership frameworks rather than FTAs. The country is refocusing its priorities from market access and tariff

liberalisation to development cooperation, digital cooperation, green technology cooperation and even bio-economic partnerships. According to Ahn Duk-Geun: ‘The goal is to reach out to multiple countries to offer Korean businesses more choice and flexibility in sourcing and selling their products, thus safeguarding them from supply chain disruptions caused by military aggression, pandemics, and climate change’ (Washington International Trade Association, 2023). Some key examples of such agreements signed recently include: the Indo-Pacific Economic Framework for Prosperity (2022); the United States (US)–Singapore Partnership for Growth and Innovation; the US–Korea Supply Chain and Commercial Dialogue (2022); the US–Thailand Supply Chain Resilience Engagement (2022); the US–Taiwan Initiative on 21st-Century Trade; the Australia–Singapore Green Economy Agreement; the France–Singapore Digital and Green Partnership; the Digital Economy Partnership Agreement (DEPA) (Chile, New Zealand, Republic of Korea, Singapore); the Republic of Korea–Singapore Digital Partnership Agreement (see Appendix 3).

Meanwhile, India is responding but seems to be going solo, leaving behind the rest of South Asia. Despite initially missing out on the trend towards comprehensive agreements like the rest of South Asia, India has changed its tune considerably over the past decade, having signed several comprehensive agreements with economies in the Asia-Pacific region. Notably, India has also embraced the latest trend in trade agreements focused on enhancing supply chain resilience, signing multiple agreements of this nature over the past four years, particularly with the US (Department of Commerce, India; Department of Foreign Affairs and Trade, Australia; Renshaw, 2023; US Government Accountability Office). However, none of these agreements have been with South Asian countries (see Table 8.5).

It is encouraging to note that comprehensive agreements with Sri Lanka and Bangladesh are currently being negotiated. Recently, South Asia has also witnessed certain non-trade agreements being signed to enhance connectivity, like the Motor Vehicles Agreement in 2015 between India, Bangladesh, Bhutan and Nepal, eliminating the need for vehicles carrying passengers and cargo to transfer at the border (Mantraya, 2016). Multiple memorandums of understanding have also been signed between India and Sri Lanka over the past year in connectivity and technology cooperation, especially with regard to payment systems and renewable energy (Pathi and Mallawarachi, 2023).

However, South Asian countries must act quickly to leverage India’s rise by

signing more concrete and enforceable agreements. East Asia, the US, the EU, the United Kingdom (UK) and Australia are already taking advantage of the new opportunities emerging from India by rushing to engage with the country on agreements which create conditions for better integration for their traders with supply chains emerging from India and to ensure their sustainability and security. For instance, over the last decade, Southeast Asian countries have signed multiple agreements with India, including the ASEAN–India Trade in Goods Agreement, India–ASEAN Comprehensive Economic Cooperation Agreement (CECA), the India–Malaysia CECA, the India–Korea CEPA and the India–Japan CEPA (ESCAP, n.d.). They involve various concessions and tariff reductions for trading goods, rationalising rules of origin, services, investments and the movement of people. Consequently, bilateral trade relations have strengthened among these countries, increasing exports and imports. Thus, over the past decade, merchandise trade between the ASEAN and India has significantly increased, with exports rising by 23 per cent and imports by 55 per cent (World Bank, n.d.).

Table 8.5: New Comprehensive Agreements that India has Initiated

Comprehensive Trade Agreements			Supply Chain Resilience Agreements	
<i>Agreement Name</i>	<i>Year</i>		<i>Agreement Name</i>	<i>Year</i>
India–Singapore Comprehensive Economic Cooperation Agreement (CECA)	2005	<i>Yet none with South Asia (although the ECTA with Sri Lanka is in the pipeline).</i>	Indo-Pacific Economic Framework for Prosperity: Supply Chain Resilience Agreement; India and the US, plus 12 other countries	2022
India–ASEAN CECA: Trade in Goods, Services and Investment Agreement	2015		Quad Leaders’ Summit; the US, Australia, India, Japan	2021
India–South Korea CEPA	2010		Summit on Global Supply Chain Resilience; 16 countries, including India and the US	2021
India–Japan CEPA	2011		Resilient Supply Chain Initiative; Australia, Japan, India	2022
India–Malaysia CECA	2011		Minerals Security Partnership; India plus 12 other partner countries, plus the EU	2023
India–Mauritius Comprehensive Economic Cooperation and Partnership Agreement	2021		Indo-US Quantum Coordination Mechanism	2023
India–United Arab Emirates CEPA	2022		Joint Task Forces on Advanced Telecommunications, focused on Open RAN and research and development in 5G/6G technologies	2023
India–Australia ECTA	2022		US–India Climate and Clean Energy Agenda 2030 Partnership and Strategic Clean Energy Partnership	2023
In the pipeline: FTAs with Sri Lanka, Bangladesh, the United Kingdom (UK), Canada and the EU			Initiative on Critical and Emerging Technology	2023

Sources: Department of Commerce, India; Department of Foreign Affairs and Trade, Australia; Renshaw, 2023; US Government Accountability Office.

Key Barriers to Greater Integration between India and the Rest of South Asia

Sri Lanka's journey towards deeper integration with India exemplifies the challenges and opportunities faced by smaller South Asian countries in pursuing economic integration. Fears of increased competition affecting local industries and services from both Sri Lanka and India are exacerbated by a trust deficit and historical grievances between them, which has complicated negotiations for broader agreements within the region.

Fears of Increased Competition and Coercion

Many countries in South Asia still have a protectionist mindset. Fears of increased competition and coercion in the negotiations from a much larger India make any discussions on market access to India politically unfeasible for the smaller South Asian countries. The differences in size and population and the increasing economic disparity between India and the rest of South Asia have raised concerns amongst the smaller South Asian nations that opening up to India would result in being dominated by it. The disparity in size also makes the smaller South Asian countries less confident about being able to negotiate with India on an equal footing (Kathuria, 2018).

The prolonged negotiations for the Sri Lanka and India Economic and Technology Cooperation Agreement (ETCA) illustrate the region's sluggish approach to trade integration:

1. In 2000, the ILFTA marked South Asia's foray into bilateral trade agreements, focusing on merchandise trade.
2. In 2003, a point study group proposed the CEPA to expand the ILFTA and include services and investment liberalisation. However, opposition from certain Sri Lankan business groups halted its progress.
3. In 2015, the Sri Lankan government revived interest in strengthening economic ties with India, leading to the proposed ETCA, a variation of the original CEPA. However, despite 11 rounds of bilateral talks between 2016 and 2019, the ETCA also failed to come to fruition as nationalist groups and trade unions within Sri Lanka resisted the pact and perceived it as unfairly advantageous to India (Abeyasinghe and Arangala, 2023).
4. After a hiatus, negotiations resumed in November 2023, indicating a renewed effort to expand the scope of the original FTA to include technology cooperation and a separate bilateral investment treaty. The

agreement is expected to be signed in 2024 (*Daily News*, 2024). However, it remains to be seen whether this renewed effort towards the ECTA will also face the same fate as the previous attempts.

A fear of competition can also be observed in India. For instance, Sri Lanka can only export 8 million pieces of ready-made apparel to India at zero duty through the ILFTA because of fears of competition from Sri Lankan apparel exporters (Verite Research, 2015). India, over the years, has also expressed concerns over dumping and increased cheap imports from China and elsewhere through the FTAs in South Asia. In fact, India's withdrawal from the RCEP is linked to concerns of being overwhelmed with Chinese goods, further deteriorating its trade balance with China. A similar concern has been voiced with respect to initiating the India–Bangladesh CEPA. With Bangladesh expressing its interest in joining the RCEP, there are fears within India that it could facilitate the flow of Chinese goods into India through Bangladesh by circumventing rules of origin requirements (Sen, 2023).

Historical Grievances and Trust Deficit

In addition to the tensions between India and Pakistan which have stalled further regional engagements like the SAARC, historical grievances have played a key role in deterring some other South Asian countries from greater economic engagements with India. For instance, in Sri Lanka, past invasions from India in the Middle Ages and the country's involvement in the Sri Lankan Civil War in the 1980s and the 1990s have been propped up by nationalist forces within the country to discourage increased engagements with India. Security concerns have also complicated regional engagements: the increasing presence of China amongst the smaller nations has created a hint of mistrust and uneasiness in India concerning its South Asian neighbours (Kathuria, 2018).

However, lessons from East Asia show that, despite historical grievances and mistrust, it is possible to engage with deeper economic integration. For instance, Japan, the country which led the growth in East Asia, did grave injustice to its neighbours during World War II. Yet, South Korea, China and the Southeast Asian countries, which suffered the most, have managed to set apart their grievances and engage with Japan's growth. Japan, by providing development aid through institutions like the ADB, particularly to countries in Southeast Asia, also did a lot to mend the trust deficit within the region. Meanwhile, unlike Japan, India has far less severe historical grievances with some South Asian

countries, like Nepal, Sri Lanka and Bangladesh. It should be easier for South Asia to set aside its grievances when compared to the rest of East Asia with Japan. Further, in addition to historical grievances, East Asia is also embroiled in contemporary tensions, such as between China, Vietnam and the Philippines over the South China Sea. Yet, these countries still actively engage with China economically.

As such, to resolve this issue, a paradigm shift is necessary for the South Asian countries to look at India as an economic opportunity rather than a threat. South Asia should emulate the pragmatic approach of the East Asian countries, which have set aside historical grievances for mutual economic benefit.

Breaking the Deadlock: Towards Comprehensive Agreements in South Asia

Shifting the Focus beyond Market Access

Trade agreements focused on supply chain integration and resilience are less encumbered by the complexities of market access negotiations and present a more politically feasible path forward. For instance, traditional trade agreements seeking market access for finished goods can get entangled with the interests of various business lobbies seeking protection. As a result, negotiations for such agreements take a more adversarial approach and can get stalled due to political pressure. In contrast, agreements focused on supply chain integration are more focused on market access for intermediate goods, which is less contentious amongst local businesses as they will also benefit from cheaper raw materials. In addition, intermediate goods already have lower tariffs to begin with. For instance, in India, the most favoured nation (MFN) rate for motor vehicles is 53.7 per cent, but it is around 14.5 per cent on average for vehicle parts (World Bank, n.d.). Further, supply chain agreements concentrate on mutually beneficial issues, like trade facilitation, sustainability and technology transfer. These issues are less contentious and can enable the negotiations to foster a more partnership approach.

As such, regarding agreements like the ECTA between India and Sri Lanka, while ensuring greater market access is important, the level of resistance could be greatly reduced if it prioritises policy issues beyond market access, such as reducing NTBs through effective dispute resolution mechanisms, mutual recognition of technical standards, as well as concentrating on other issues, like

trade facilitation, addressing sustainability issues, infrastructure connectivity, energy cooperation, digital cooperation and technology transfers.

India's Role in Offering More Generous Concessions

Overcoming resistance from the smaller South Asian nations over fears of greater competition from India requires the country to adopt a more generous stance in the existing trade agreements. This would help convince the smaller nations of the benefits of a trade agreement with India and alleviate the prevailing trust deficit. This could even take the form of unilateral measures by India to address the existing barriers that South Asian countries face when exporting to India. For instance, the effectiveness of the ILFTA has been hindered by the substantial NTBs faced by Sri Lankan exporters in India (Kathuria, 2018). As mentioned earlier, despite reducing the tariffs for apparel to zero, India has put quotas which limit Sri Lankan ready-made apparel exports to India through the ILFTA to 8 million pieces. Even when duties have been waived and no quotas are present, NTBs hinder the success of certain exports from Sri Lanka to India. A good example is processed food exports, which are held back by stringent import permit requirements, inconsistent procedures, compliance costs and a lack of mutual recognition of standards. Most of these issues have simple fixes that do not require renegotiating existing trade agreements. For instance, in the case of lack of mutual recognition of standards for processed foods whereby the tests and certifications done by Sri Lankan institutes are not recognised by Indian officials, a mutual recognition agreement for standards between the two countries would suffice (Verite Research, 2015).

Need for the Rest of South Asia to View India as a Partner

Emulating the pragmatic approach of East Asian countries, which have set aside historical grievances for mutual economic benefit, could pave the way for a more interconnected and prosperous South Asia. This would entail the smaller South Asian countries having more confidence in their engagements with India and viewing its growth as an opportunity rather than a threat. It might even entail smaller countries like Sri Lanka offering certain unilateral concessions of their own: for instance, reducing the para-tariffs that Sri Lanka imposes in addition to the import duties on traded goods, which have virtually made existing trade agreements like the ILFTA (which only consider concessions in import duty) useless.

It is encouraging to note that, today, there is a glimpse of such an attitude coming out of countries like Sri Lanka—it has initiated a unilateral reduction in para-tariffs. Over the last year, there has also been a growing interest in Sri Lanka towards more comprehensive trade agreements with South and East Asian countries. On 3 February 2024, Sri Lanka signed a comprehensive trade agreement with Thailand. The Thailand FTA is expected to be the first of several similar agreements with other Asian countries, including India, Bangladesh, Malaysia, China, Indonesia and South Korea. Sri Lanka also has ambitions to join the RCEP. Through these FTAs, the country hopes to deviate from the stagnating markets in the West, which account for 60 per cent of Sri Lanka's current exports (World Bank, n.d.).

For a country like Sri Lanka to benefit from future trade agreements with India, it should be reimagined as a framework that goes beyond manufacturing in Sri Lanka for India, to manufacturing with India for global markets. In other words, Sri Lanka should contribute to regional supply chains emanating from India. See Box 8.2 for opportunities for Sri Lanka to leverage India's growth.

Box 8.2: Opportunities for Sri Lanka to Leverage India's Rise

To leverage India's growth, Sri Lanka must do the following:

1. Move beyond seeking market access in the existing basket of goods, primarily apparel and agricultural products, towards exporting products that play a significant role in GVCs, such as electronics, machinery and motor vehicles. Rather than concentrating on the export of final products, the focus should also be on parts and components that can be integrated into regional supply chains.
2. Leverage on the servicification of Indian manufacturing: Sri Lanka can be to India what Singapore was to China. Singapore and many of the ASEAN countries capitalised on the servicification of China's manufacturing. A key opportunity for Sri Lanka in this regard is to leverage its established logistics and transshipment relationships with India—where it already handles 45% of India's transshipment cargo through the Colombo Port—to offer more value-added services supporting Indian manufacturing, like entrepôt trade. However, Sri Lanka must proactively seize these opportunities. India, for instance, has already set up plans to reduce its reliance on transshipment in

Colombo Port by developing its southern ports, such as Vizhinjam Port in Kerala, and has also proposed plans to develop ports in the Andaman Islands. Further, India has revised its cabotage laws, which are used to discourage transshipment between Indian ports. Suppose Sri Lanka is to maintain its spot as a logistics hub for Indian cargo, it must create a niche by providing value-added logistics services beyond basic transshipment services to give Indian companies a reason to continue to look at Sri Lanka as a logistics hub in the region.

Opportunities in the Servicification of Indian Manufacturing for Sri Lanka

1. Value-added logistics services beyond transshipment:
 - entrepôt and multi-country consolidation;
 - warehousing;
 - packaging and labelling;
 - quality control; and
 - inventory management.
2. Regional headquarters services.
3. Information technology and balance of payment services.
4. Financial hub for South Asia.

Source: Abeyasinghe and Arangala (2023).

Conclusion

South Asia has a unique, but fleeting, opportunity to harness India's economic rise and build regional supply chains that benefit all its nations. To achieve this, current trade agreements must evolve beyond mere market access, focusing instead on fostering supply chain integration and resilience. This shift would help South Asia overcome barriers, such as NTBs and inadequate connectivity, which have long hindered regional trade.

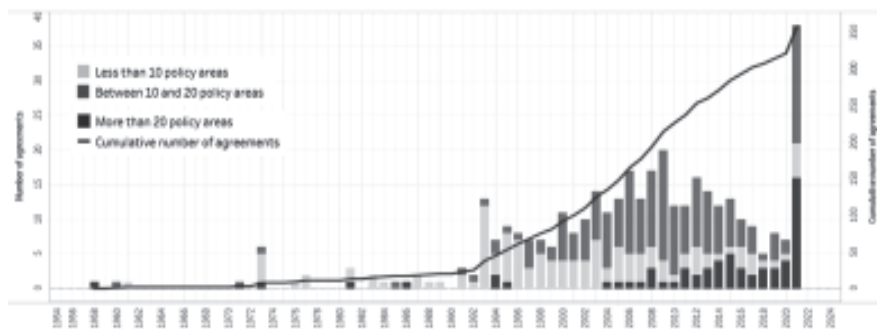
Persistent trust deficits and protectionist attitudes within the region, however, continue to threaten the prospects for deeper integration. To break this cycle, South Asian countries must adopt a pragmatic, cooperative approach similar to East Asia's, viewing one another as economic opportunities rather than threats. For this to happen, India should take a more generous and inclusive stance towards its smaller neighbours, while these smaller nations should build confidence in their ability to engage constructively with India.

By embracing this mutual trust and cooperation, South Asia can unlock its true potential and establish a more integrated, prosperous regional economy.

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*Appendix 1: The Growth and Content of Deep Agreements***Figure 8A.1: Number of Policy Areas Covered and Legally Enforceable in Preferential Trade Agreements, 1950–2021**

Source: Deep Trade Agreements Database 4.0
 Note: Number of policy areas covered in an agreement is calculated as the count of policy areas included in a PTA. The maximum number of policy areas mapped is 63. For more information on the policy areas that are mapped see Hoffman, Gurgis and Hude (2024) <https://doi.org/10.21203/rs.3.rs-3900000/v1>, a preprint on the arXiv preprint server.

Table 8A.1: Content of Comprehensive Agreements

<i>A. WTO Plus Measures</i>	<i>B. WTO Extra and Non-Trade Issues</i>
<ul style="list-style-type: none"> • Services liberalisation • Trade facilitation • State aid • Government procurement • NTBs • Regulatory governance • Intellectual property (TRIPs) • Digital trade 	<ul style="list-style-type: none"> • Environmental standards • Human rights and labour standards • Anti-corruption; money laundering; terrorism • Education • Competition policy • Transparency • Investment and movement of capital • Economic policy dialogue: joint studies, exchange of ideas • Movement of persons, illegal immigration • Consumer protection • Data protection • Cultural cooperation • Innovation policies; R&D—technology transfers, joint research; exchange of information; and dissemination of new technologies • Technical assistance; SME development

Note: TRIPs = Trade-Related Aspects of Intellectual Property Rights Agreement; R&D = research and development.

Source: Seshadri (2023) and World Bank, ‘Deep Agreements Dashboard’.

Table 8A.2: Average Number of Legally Enforceable Policy Areas in Trade Agreements

<i>Country</i>	<i>Region</i>	<i>Average No. of Legally Enforceable Policy Areas</i>
Japan	East Asia	19.3
South Korea	East Asia	18.0
Vietnam	East Asia	15.6
China	East Asia	14.6
Malaysia	East Asia	14.2
Philippines	East Asia	12.0
Indonesia	East Asia	11.7
Thailand	East Asia	11.4
India	South Asia	7.2
Sri Lanka	South Asia	3.3
Bangladesh	South Asia	2.7
Nepal	South Asia	2.3

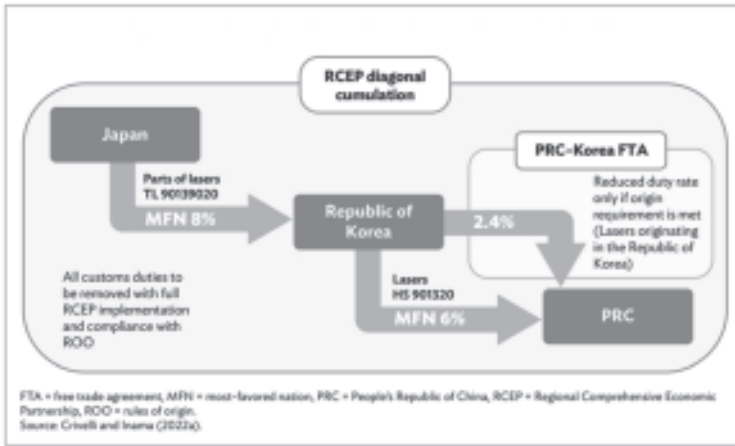
Source: World Bank, ‘Deep Agreements Dashboard’.

Appendix 2: RCEP: Rules of Origin Cumulation Requirements

The rules of origin requirements under the RCEP are as follows:

1. Brings thousands of product-specific rules of origin scattered across many ASEAN FTAs under a single FTA.
2. Allows for cumulating inputs within the RCEP region to qualify as an RCEP-originating product: a pertinent example of this improvement involves the trade-in of laser parts and finished lasers among Japan, Korea and China. Before the RCEP, Japanese laser parts exported to Korea would incur an MFN tariff of 8 per cent in Korea. Then, the finished lasers from Korea exported to China would be subject to a 2.4 per cent tariff in China if they met the rules of origin requirements under the China–Korea FTA, or a 6 per cent MFN tariff if they did not meet the rules of origin requirements (see Figure 8A.2). In contrast, under the RCEP, with all three countries belonging to RCEP, these tariffs are eliminated; and more importantly, the laser parts sourced from Japan for manufacturing in Korea would be considered to originate from within the RCEP region, thus qualifying the final laser product for duty-free access in China when exported by Korea to China. This exemplifies the benefits of the RCEP’s approach to rules of origin and regional cumulation, facilitating smoother regional trade flows.

Figure 8A.2: An Example of Trade Liberalisation Effects within the RCEP



Source: ADB (2020b).

Appendix 3: Agreements towards Supply Chain Resilience

Some of the key new issues discussed in the latest evolution of trade agreements focused on supply chain resilience are as follows:

1. National security concerns:
 - (i) Control over critical supply chains, particularly in semiconductors.
 - (ii) Reducing dependency on strategic competitors like China.
 - (iii) Cooperation on export control measures.
2. Technical support and capacity building: Strengthen supply chains through technical support and capacity enhancement.
3. Sustainability of supply chains: Environmental and labour rights, joint investments in green technologies and recognition of the crucial role of workers in supply chain resilience.
4. Rapid response forums: Address immediate disruptions and bottlenecks in critical goods, like pharmaceuticals.
5. Anti-corruption measures: Bribery, money laundering, protection for whistleblowers, corrupt foreign officials.
6. Critical minerals supply chain resilience: Securing supply chains for critical minerals essential in battery and electric vehicle manufacturing. For instance, the provisions in the India–Australia ECTA address critical minerals supply chains.
7. Digital economy and technology collaboration:
 - (i) Foster collaboration in the digital economy, smart city and smart transport

- development.
- (ii) Deployment of new technologies.
 - (iii) Protection of emerging technologies: robotics, additive manufacturing, 5G and AI.
 - (iv) Cooperation on standards and certifications.
 - (v) Promotion through holding industry showcases and collaborating at trade events.
8. Regulatory cooperation: Implementing public consultations on draft regulations and establishing a Good Regulatory Practices Committee.
 9. Information sharing and data flows: Enhancing supply chain visibility through information sharing, data flows and consultations.
 10. Securing talent supply: Address labour mobility restrictions and workforce shortages through migration and mobility agreements. Provisions to minimise future skill shortages and secure industries against supply chain risks. Ensure a skilled workforce in supply chains through continuous upskilling, reskilling and promoting labour rights.

Sources: American Institute in Taiwan (2023); Brookings Institution (2023); IPEF Pillars; Observer Research Foundation (ORF); US Department of Commerce (2023); US Government Accountability Office; Vajiram and Ravi, 'India, US, 12 other IPEF members sign supply chain resilience agreement'.

Key Examples of Supply Chain Resilience Agreements

1. The Indo-Pacific Economic Framework for Prosperity (2022).
2. The US–Singapore Partnership for Growth and Innovation.
3. The US–Korea Supply Chain and Commercial Dialogue (2022).
4. The US–Thailand Supply Chain Resilience Engagement (2022).
5. The US–Taiwan Initiative on 21st-Century Trade.
6. The US–EU Trade and Technology Council (TTC).
7. The United States–Mexico–Canada Agreement (USMCA).
8. The Australia–Singapore Green Economy Agreement.
9. The France–Singapore Digital and Green Partnership.

These initiatives mark a significant evolution in trade policy, focusing not just on economic benefits but also on ensuring that trade practices contribute to sustainable and resilient global supply chains.

Appendix 4: List of Intra-regional Trade Agreements between South Asia and East Asia

Table 8A.3 contains a list of all the FTAs and digital agreements entered into force as of 1 December 2023, as per the APTIAD (ESCAP, n.d.).
 Legend: 1 = Yes; 0 = No; N = N/A
 The total number of measures assessed in the ESCAP study is the following 28 measures, given with the abbreviation used in the table: B = bilateral; P = plurilateral; M = multilateral; AD = anti-dumping duty; SG = safeguard; SER = services; INV = investment; TF&CC = trade facilitation and customs cooperation; GP = government procurement; CP = competition policy; IP = intellectual property; DS = dispute settlement; TNMP = temporary movement of natural persons; SDRP = sustainable development-related provisions; SDC = sustainable development by concept; LP = labour protection; HR = human rights; GN = gender; HT = health; ENV = environment; SMEs = small and medium-sized enterprises; TC = technical cooperation; TY = transparency; FS = financial services; TC = telecommunications; Ecom = e-commerce; OCP = online consumer protection (in e-commerce chapter); PDP = personal data protection (in e-commerce chapter); and DF = data flows (in e-commerce chapter). Table 8A.3, however, does not contain all the abovementioned measures.

Table 8A.3: List of Trade Agreements

Agreement Name	Region	Reach	Type	Upgraded	Goods	Year Signed (Goods)	SPS/TBT	SER	Approach (SER)	INV	Approach (INV)	TF&CC	CP	IP	TMNP	SDRP	HR	GN	ENV	TM	E-Com	Number of Measures (out of 28)	Total Enforceable WTO Commitments*	Total Enforceable WTO Extra Commitments**
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)	EA	P	FTA&EIA	0	1	2018	1	1	Neg	1	Neg	1	1	1	1	1	0	1	1	1	1	27	12	5
Japan–Mongolia	EA	B	FTA&EIA	0	1	2015	1	1	Pos	1	Neg	1	1	1	1	1	0	0	1	1	1	23	9	3

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
Republic of Korea–Vietnam	EA	B	FTA&EIA	0	1	2015	1	1	Pos	1	Neg	1	1	1	1	1	0	0	0	1	1	22	9	3	
China–Republic of Korea	EA	B	FTA&EIA	1	1	2015	1	1	Neg	1	Neg	1	1	1	1	1	0	0	0	1	1	22	10	5	
Republic of Korea–Singapore	EA	B	FTA&EIA	0	1	2005	1	1	Neg	1	Neg	1	1	1	1	1	0	0	1	1	1	22	12	3	
Regional Comprehensive Economic Partnership (RCEP)	EA	P	FTA&EIA	0	1	2020	1	1	Neg	1	Neg	1	1	1	1	1	0	0	0	1	1	22	N	N	
Singapore–Sri Lanka	SA&EA	B	FTA&EIA	0	1	2018	1	1	Neg	1	Neg	1	1	1	0	1	0	0	0	1	1	22	N	N	
India–Japan	SA&EA	B	FTA&EIA	0	1	2011	1	1	Pos	1	Neg	1	1	1	1	1	0	0	1	1	0	21	10	4	
India–Singapore	SA&EA	B	FTA&EIA	0	1	2005	1	1	Pos	1	Neg	1	1	1	1	1	0	0	1	1	1	21	11	5	
India–Malaysia	SA&EA	B	FTA&EIA	0	1	2011	1	1	Pos	1	Pos	1	1	1	1	1	0	0	1	1	1	20	7	3	
China–Singapore	EA	B	FTA&EIA	1	1	2008	1	1	Neg	1	Neg	1	1	0	1	1	0	0	1	0	1	20	10	4	
India–Republic of Korea	SA&EA	B	FTA&EIA	1	1	2009	1	1	Pos	1	Neg	1	1	1	1	1	0	0	1	1	0	20	13	2	
ASEAN Economic Community	EA	P	FTA&EIA	1	1	1992	1	1	Pos	1	Neg	1	0	1	1	1	0	0	0	0	1	19	1	0	
Brunei Darussalam–Japan	EA	B	FTA&EIA	0	1	2007	0	1	Pos	1	Neg	1	1	1	1	1	0	0	1	0	1	19	8	4	
Japan–Philippines	EA	B	FTA&EIA	0	1	2006	0	1	Pos	1	Neg	1	1	1	1	1	0	0	1	0	1	19	9	4	
Japan–Thailand	EA	B	FTA&EIA	0	1	2007	0	1	Pos	1	Pos	1	1	1	1	1	0	0	1	0	1	19	9	4	
Japan–Singapore	EA	B	FTA&EIA	0	1	2002	0	1	Pos	1	Neg	1	1	1	1	1	0	0	1	0	1	19	11	2	
Singapore–Taiwan Province of China	EA	B	FTA&EIA	0	1	2013	1	1	Neg	1	Neg	1	1	1	1	1	0	0	0	0	1	19	11	2	
Trans-Pacific Strategic Economic Partnership Agreement (Trans-Pacific SEPA)	EA	P	FTA&EIA	0	1	2005	1	1	Neg	0	No	1	1	1	1	1	0	1	0	0	1	19	N	N	
Indonesia–Japan	EA	B	FTA&EIA	0	1	2007	0	1	Pos	1	Neg	1	1	1	1	1	1	N	N	1	0	0	18	9	4
Japan–Vietnam	EA	B	FTA&EIA	0	1	2008	0	1	Pos	1	Neg	1	1	1	1	1	1	N	0	1	0	0	18	9	3

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Japan–Malaysia	EA	B	FTA&EIA	0	1	2005	1	1	Pos	1	Neg	1	1	1	1	1	0	0	1	0	0	18	10	4
ASEAN–Hong Kong, China	EA	P	FTA&EIA	0	1	2017	1	1	Pos	1	Pos	1	0	1	1	1	0	0	0	1	1	18	N	N
Cambodia–China	EA	B	FTA	0	1	2020	1	1	N/A	1	N/A	1	0	0	0	1	0	0	1	0	1	17	N	N
ASEAN–China	EA	P	FTA&EIA	1	1	2004	1	1	Pos	1	Neg	0	0	1	1	1	0	0	1	1	1	17	4	0
ASEAN–Japan	EA	P	FTA	0	1	2008	1	0	No	1	No	1	0	0	1	1	0	0	1	1	1	16	9	1
Digital Economy Partnership Agreement (DEPA): Chile; New Zealand; Republic of Korea; Singapore	EA	P	Digital	0	1	2020	0	0	No	0	No	1	1	1	0	1	0	1	0	0	1	16	N	N
Malaysia–Pakistan	SA&EA	B	FTA&EIA	0	1	2007	1	1	Pos	1	Neg	1	0	1	1	1	N	0	0	0	0	14	11	3
Indonesia–Republic of Korea	EA	B	FTA&EIA	0	1	2020	1	1	N/A	1	N/A	1	0	1	0	1	0	0	0	0	1	14	N	N
China–Pakistan	SA&EA	B	FTA&EIA	1	1	2006	1	1	Pos	1	Pos	0	1	0	1	1	0	0	0	0	0	13	6	2
Cambodia–Republic of Korea	EA	B	FTA	0	1	2021	1	0	No	0	No	1	0	0	0	1	0	0	0	0	1	11	N	N
ASEAN–Republic of Korea	EA	P	FTA&EIA	0	1	2006	1	1	Pos	1	Neg	0	0	0	0	0	0	0	0	0	0	10	11	7
South Asian Free Trade Area (SAFTA) and SAARC Agreement on Trade in Services (SATIS)	SA	P	FTA&EIA	0	1	2004	1	1	Pos	0	No	1	0	0	1	0	0	0	0	0	0	9	2	1
ASEAN–India	SA&EA	P	FTA&EIA	1	1	2009	1	1	Pos	1	Neg	0	0	0	1	0	0	0	0	0	1	9	8	0
Pakistan–Sri Lanka	SA	B	FTA	0	1	2002	1	0	No	0	No	0	0	0	0	0	N	N	0	0	0	5	4	0
India–Sri Lanka	SA	B	FTA	0	1	1998	0	0	No	0	No	0	0	0	0	0	0	0	0	0	0	4	4	0
Bangladesh–Bhutan	SA	B	FTA	0	1	2020	1	0	No	0	No	N	N	N	N	N	N	N	N	N	N	4	N	N

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Republic of Korea–Singapore Digital Partnership Agreement	EA	B	Digital	0	1	2022	0	0	No	0	No	N	N	N	N	0	N	N	N	N	1	2	N	N
Bhutan–India	SA	B	FTA	0	1	2006	0	0	No	0	No	0	0	0	0	0	0	0	0	0	0	1	0	0
China–Thailand	EA	B	FTA	0	1	2003	N	N	N/A	N	N/A	N	N	N	N	N	N	N	N	N	N	0	N	N

Notes: (i) *Derived from World Bank, ‘Deep Agreements Database’. It looks into the inclusion of the following measures: FTA industrial; FTA agriculture; customs; export taxes; sanitary and phytosanitary measures (SPS); technical barriers to trade (TBT); state trading enterprises (STE); anti-dumping (AD); countervailing measures (CVM); state aid; public procurement; trade-related investment measures (TRIMs); General Agreement on Trade in Services (GATS); and Trade-related Aspects of Intellectual Property Rights (TRIPs).

(ii) **Derived from World Bank, ‘Deep Agreements Database’. It looks into the inclusion of the following measures: anti-corruption; competition policy; environmental laws; intellectual property rights; investment; labour market regulation; movement of capital; consumer protection; data protection; agriculture; approximation of legislation; audio-visual; civil protection; innovation policies; cultural cooperation; economic policy dialogue; education and training; energy; financial assistance; health; human rights; illegal immigration; illicit drugs; industrial cooperation; information society; mining; money laundering; nuclear safety; political dialogue; public administration; regional cooperation; research and technology; SME; social matters; statistics; taxation; terrorism; and visa and asylum.

(iii) EA = East Asia; SA = South Asia.

Source: ESCAP (n.d.); World Bank, ‘Deep Agreements’ (<https://datatopics.worldbank.org/datatable.html>).

9

Economic Partnership Agreements (EPAs) in South Asia: An Entrepreneur's Perspective

Kesang Om

Introduction

Entrepreneurship is a vital force for economic growth and innovation in South Asia, a region known for its diverse and dynamic economic landscape. Entrepreneurs in South Asian countries, namely, Afghanistan, Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan and Sri Lanka, are essential for job creation, economic diversification and technological advancement. These efforts are crucial in addressing regional economic challenges and capitalising on opportunities.

Economic partnership agreements (EPAs) are crucial for promoting trade and investment among member countries by reducing or eliminating trade barriers, like tariffs, quotas and import bans. These agreements often include provisions on trade in services, investment, intellectual property rights (IPRs) and competition policy, making them critical for regional economic integration. In South Asia, EPAs, like the South Asian Free Trade Area (SAFTA) and the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), have been instrumental in enhancing economic cooperation and trade flows.

Historically, the implementation of EPAs in South Asia has been marked by ambitious goals and significant challenges. While SAFTA was designed to reduce tariffs and foster economic cooperation among the South Asian Association for Regional Cooperation (SAARC) countries, its full potential has been hampered

by political tensions and non-tariff barriers. Meanwhile, BIMSTEC, which involves both South and Southeast Asian nations, focuses on multi-sectoral cooperation, aiming to leverage complementarities among member countries to drive economic growth and development.

This chapter explores these agreements from the perspective of entrepreneurs, highlighting their potential to alleviate some challenges by opening new markets and providing resources. However, EPAs also bring new dynamics, such as increased competition and compliance requirements. The chapter will delve into how the EPAs affect entrepreneurship in South Asia, examining both the benefits and drawbacks.

Literature Review

The concept of EPAs is deeply rooted in classical trade theories, such as comparative advantage and the benefits of free trade. These foundational theories suggest that trade liberalisation enhances economic efficiency and growth. Modern trade theories have evolved to reflect the complexities of contemporary trade dynamics, including the role of EPAs in regional and global trade integration.

From a theoretical standpoint, EPAs aim to reduce trade barriers and create a more predictable and transparent trading environment. Lowering tariffs and non-tariff barriers can stimulate trade flows, enhance competition and lead to more efficient resource allocation. For entrepreneurs, these reduced barriers can provide greater opportunities for innovation and business expansion by opening access to larger markets and diverse resources.

Impact of EPAs on Small and Medium-sized Enterprises (SMEs) Globally

Studies on the impact of EPAs on SMEs globally indicate both positive outcomes and challenges. For example, research on the European Union's (EU) EPAs with African, Caribbean and Pacific countries shows increased trade volumes and export diversification, benefitting SMEs through reduced tariffs and improved market access. However, these studies also highlight the need for capacity building and the difficulties SMEs face in meeting regulatory standards and competing with larger firms.

Comparative studies, such as those on the North American Free Trade Agreement (NAFTA), reveal that while large enterprises quickly exploit new market opportunities, SMEs often require more time and support to adjust to competitive pressures and regulatory demands. This underlines the importance of tailored support measures to ensure SMEs can benefit fully from EPAs.

Existing Studies of EPAs in South Asia

In South Asia, most literature on EPAs focuses on macroeconomic impacts rather than specific effects on SMEs and entrepreneurs. Studies have shown that agreements, like the SAFTA and the BIMSTEC, have the potential to increase intra-regional trade, attract foreign direct investment and foster economic cooperation. For instance, research on SAFTA indicates a modest increase in trade among member countries, although non-tariff barriers and political tensions have limited its full potential.

More granular analysis reveals that while EPAs offer significant opportunities for SMEs, there are substantial challenges. Studies on SAFTA's impact on SMEs in Bangladesh and India show that these businesses benefit from reduced tariffs and enhanced market access but struggle with compliance costs and increased competition from larger firms. Similarly, research on BIMSTEC suggests that its multi-sectoral cooperation focus, including trade, technology, energy and tourism, offers vast potential for entrepreneurial growth, contingent on robust policy support and the ability to navigate regulatory landscapes.

Comparative Perspectives on the Effectiveness of EPAs

Different perspectives on the effectiveness of EPAs highlight their dual nature. Proponents argue that EPAs are essential for fostering economic integration, enhancing competitiveness and driving innovation. They cite success stories where businesses have leveraged EPAs to access new markets, form strategic partnerships and increase their competitiveness.

Critics, however, point out the challenges associated with EPAs, particularly for SMEs. They argue that without adequate support measures, SMEs may struggle to compete with larger firms. The regulatory and compliance requirements associated with EPAs can be particularly burdensome for smaller businesses with limited resources. Additionally, asymmetrical trade relations, where developed economies have more influence over trade terms, can exacerbate inequalities and hinder the ability of SMEs in developing regions to compete effectively.

These findings indicate that while EPAs have the potential to benefit SMEs and foster entrepreneurial growth significantly, realising these benefits requires addressing numerous challenges, such as increased competition, regulatory compliance and asymmetrical trade relations.

EPAs in South Asia

South Asia has several key EPAs, including the SAFTA and the BIMSTEC, which aim to enhance regional integration and economic cooperation:

- *SAFTA*: Established in 2006, SAFTA aims to reduce tariffs for intra-regional trade among SAARC member countries. It encompasses trade in goods and aims to foster economic cooperation by creating a level playing field for all members. Despite its ambitious goals, SAFTA has faced challenges, such as political tensions and non-tariff barriers, that have hindered its full potential.
- *BIMSTEC*: In contrast, BIMSTEC includes countries from South and Southeast Asia, focusing on multi-sectoral cooperation, including trade, technology, energy and tourism. The BIMSTEC aims to leverage the complementarities between member countries to boost economic growth and development.

Other notable agreements include bilateral trade agreements between countries, tailored to address specific trade and economic needs, often providing a more focused approach to economic partnership.

Entrepreneurial Perspective

Entrepreneurship in South Asia is characterised by a high degree of informality and a significant presence of SMEs. These enterprises are crucial for job creation and economic diversification. The EPAs offer several opportunities for entrepreneurs, including:

1. *Market access*: The EPAs provide access to larger regional markets, enabling entrepreneurs to scale their businesses and tap into new customer bases.
2. *Resource availability*: By reducing trade barriers, EPAs facilitate the flow of goods, services and capital, providing entrepreneurs with easier access to raw materials and financial resources.
3. *Partnerships and collaborations*: The EPAs often encourage cross-border partnerships and joint ventures, allowing entrepreneurs to collaborate and innovate.

However, these opportunities come with challenges:

1. *Increased competition*: The EPAs open domestic markets to foreign competitors, which can be daunting for local entrepreneurs, especially

SMEs. Established foreign firms may have greater resources, brand recognition and experience competing in international markets.

2. *Regulatory compliance*: Navigating the complex regulatory requirements of EPAs can be challenging, particularly for smaller businesses with limited resources. This includes understanding customs procedures, product standards and intellectual property regulations across different markets.
3. *Capacity building and information gaps*: Many South Asian entrepreneurs, particularly those in smaller businesses, may lack the awareness and resources to navigate the complexities of EPAs. They may not be familiar with the benefits and procedures involved in utilising EPAs to their advantage.
4. *Asymmetrical trade relations*: South Asia's economies are at varying stages of development. The EPAs with developed economies may lead to an uneven playing field, where larger economies dominate trade flows. This can disadvantage South Asian entrepreneurs who may struggle to compete with established firms from developed countries.

Success Stories of South Asian Entrepreneurs: Some Real-World Examples

To showcase the positive impact of EPAs on South Asian entrepreneurs, the following case studies highlight real-world successes.

Case Study 1: Sri Lankan Tea Exporters

The EPA between Sri Lanka and the EU has had a transformative effect on the Sri Lankan tea industry. Before the agreement, Sri Lankan tea exporters faced high tariffs, which hampered their competitiveness in the European market. The EPA significantly reduced these tariffs, allowing Sri Lankan tea exporters to better compete with other tea-producing nations, such as India and Kenya.

Beyond improved market access, the EPA also facilitated easier compliance with European standards, streamlining export processes. The tariff reductions lowered costs for European buyers, leading to increased demand for Sri Lankan tea. As a result, the exporters saw a substantial rise in sales, which led to job creation within the local community. This case exemplifies how strategic trade agreements can unlock opportunities for growth and economic development.

Case Study 2: Nepali Handicraft Business

A small handicraft business in Nepal experienced remarkable growth after an EPA with a developed nation opened new markets for its unique products. Prior to the agreement, the business struggled with high import tariffs and limited market access, restricting its sales mainly to local markets and tourists.

The EPA removed these barriers, allowing the business to export its products to international markets. The surge in demand required the business to expand its production capacity, leading to the employment of more artisans and a boost in local economic activity. Additionally, exposure to international markets provided valuable feedback and insights, fostering innovation and quality improvements in their products.

Case Study 3: Indian Information Technology Start-up

An Indian information technology start-up leveraged an EPA to form a partnership with a foreign technology company, gaining access to advanced expertise and resources. Before the agreement, the start-up faced challenges in scaling due to limited access to cutting-edge technology and international markets. The EPA enabled easier cross-border collaboration, allowing the start-up to integrate advanced technologies and enhance its offerings.

This partnership accelerated the start-up's growth and allowed it to compete more effectively on a global scale. The exchange of knowledge and technology significantly enhanced the start-up's capabilities, leading to innovative solutions and increased competitiveness. This example underscores the importance of EPAs in fostering technological advancement and entrepreneurial growth through strategic international partnerships.

The Way Forward: Maximising the Benefits for South Asian Entrepreneurs

To ensure that EPAs contribute to a thriving entrepreneurial ecosystem in South Asia, a multipronged approach is necessary:

1. *Targeted capacity-building programmes:* Governments and regional institutions should design and implement targeted capacity-building programmes to equip South Asian entrepreneurs with the knowledge and skills necessary to make the most of EPAs. This could include workshops on identifying potential markets, understanding customs

procedures, utilising trade facilitation measures and complying with regulations.

2. *Focus on innovation and technology upgradation:* The EPAs can be a catalyst for fostering innovation and technological advancements within South Asian economies. Governments can incentivise R&D through tax breaks and grants specifically targeted towards domestic entrepreneurs. Additionally, promoting partnerships between South Asian start-ups and established foreign firms can facilitate technology transfer and knowledge exchange, allowing local businesses to become more competitive.
3. *Strengthening support systems for SMEs:* The SMEs form the backbone of South Asia's entrepreneurial landscape. The EPA implementation strategies should prioritise providing support mechanisms for SMEs, including:
 - (i) *Access to financing:* This could involve establishing loan guarantee schemes or facilitating access to venture capital specifically for businesses seeking to expand regionally under EPAs.
 - (ii) *Streamlined business registration processes:* Simplifying registration procedures can reduce administrative burdens and encourage formalisation of businesses.
 - (iii) *Mentorship programmes:* Connecting experienced entrepreneurs with aspiring ones can provide valuable guidance and support.
 - (iv) *Participation in international trade fairs:* Providing financial assistance or organising trade delegations can help SMEs showcase their products and services to a wider audience.
4. *Robust intellectual property protection mechanisms:* Strong enforcement of IPRs is essential for fostering innovation and encouraging entrepreneurship. Governments should collaborate to develop efficient legal frameworks and enforcement mechanisms to protect IPRs. Additionally, raising awareness about IPR protection amongst entrepreneurs is crucial to ensure they understand their rights and utilise them effectively.
5. *Addressing concerns of asymmetrical trade relations:* While negotiating EPAs, South Asian countries should advocate for special provisions that recognise the developmental disparities between member countries. This could include longer transition periods for tariff reductions, technical assistance and trade facilitation support.

6. *Promoting regional supply chains and value addition:* The EPAs offer an opportunity to develop regional supply chains that integrate South Asian countries into global value chains. Governments should encourage businesses to collaborate across borders, facilitating the exchange of goods and services within the region. Additionally, promoting value addition within South Asia will enhance the region's competitiveness and create employment opportunities.
7. *Encouraging digitalisation and e-commerce:* The digital economy is transforming global trade, and EPAs can provide a framework for promoting digital trade in South Asia. Governments should work towards harmonising regulations, creating a conducive environment for e-commerce, and supporting digital literacy initiatives.
8. *Facilitating trade facilitation measures:* Trade facilitation measures, such as streamlined customs procedures, efficient logistics and transparent regulations, can significantly reduce trade costs and enhance the competitiveness of South Asian entrepreneurs. Governments should work towards implementing these measures, ensuring they are accessible and affordable for SMEs.
9. *Enhancing public–private dialogue:* Engaging the private sector in policy formulation is essential for creating an enabling environment for entrepreneurship under EPAs. Regular consultations and dialogues between government officials, business associations and entrepreneurs can help identify challenges, develop targeted interventions and ensure effective implementation of EPAs.
10. *Fostering regional cooperation:* South Asian countries should prioritise regional cooperation and coordination to maximise the benefits of EPAs. This could involve joint efforts to improve trade infrastructure, enhance connectivity and harmonise standards and regulations.

By addressing these challenges and implementing targeted measures, South Asian countries can create a conducive environment for entrepreneurship to thrive under EPAs. This will enhance regional integration and contribute to sustainable economic growth, job creation and poverty reduction in the region.

Conclusion

The EPAs present both opportunities and challenges for South Asian entrepreneurs. While these agreements can provide access to larger markets,

enhance resource availability and foster partnerships, they also introduce increased competition and regulatory complexities. Entrepreneurs must navigate these challenges strategically to leverage the full potential of EPAs. By implementing targeted measures and fostering a conducive environment, South Asian countries can ensure that EPAs drive economic growth, innovation and development in the region. Entrepreneurs, as key drivers of this growth, must be at the forefront of efforts to harness the benefits of EPAs, contributing to a more integrated and prosperous South Asia.

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10

Unlocking Sri Lanka's Economic Growth: The Role of Trade Integration with South Asia and Southeast Asia

Araliya Weerakoon

Introduction

Trade has emerged as a powerful engine of economic growth and poverty reduction across the developing world, driving progress in many regions over recent decades. Countries that have actively lowered trade barriers and expanded regional cooperation have reaped substantial economic benefits. However, the distribution of these gains has often been uneven, concentrated in certain sectors, industries or countries.

Sri Lanka's recent economic performance underscores the urgency of harnessing trade more effectively. After peaking at 8.7 per cent in 2011, the country's real gross domestic product (GDP) growth plummeted to 3.4 per cent by 2013 and further deteriorated to a contraction of -7.8 per cent in 2022. In this challenging context, revitalising Sri Lanka's economic growth is a critical priority. Currently, trade accounts for 47 per cent of Sri Lanka's GDP, while foreign direct investment (FDI) inflows contribute just 1.2 per cent. Comparatively, trade represents 186 per cent of Vietnam's GDP, while Singapore's FDI inflows stand at 30.2 per cent, highlighting significant missed opportunities for Sri Lanka in leveraging trade and investment for economic growth.

Despite entering several free trade agreements (FTAs) to enhance market access, Sri Lanka still faces internal trade barriers that stifle its economic potential.

Deeper trade liberalisation—facilitating the smoother flow of goods, services and investments—offers a path to unlocking Sri Lanka’s growth potential. Increased openness can enable economies of scale, foster innovation and enhance the global competitiveness of Sri Lankan businesses. Consumers would also benefit from a wider range of affordable goods and services.

Crucial to this vision is enhancing Sri Lanka’s connectivity with South Asia and Southeast Asia, two dynamic regions with growing markets and significant trade flows. To date, Sri Lanka’s efforts in regional integration have been relatively modest, focused on bilateral agreements and incremental improvements in trade facilitation. Given the transformative potential of trade, this study explores the role of deeper economic integration with South and Southeast Asia in stimulating Sri Lanka’s economic recovery and growth. It seeks to assess the broader benefits of regional trade and investment, highlighting the strategic importance of these partnerships for Sri Lanka’s future prosperity.

Sri Lanka’s Regional Economic Integration with South Asia

Located at a strategic crossroads of global trade routes, Sri Lanka has a rich history of international trade relations. Since the establishment of the South Asian Association for Regional Cooperation (SAARC) in 1985, Sri Lanka has worked alongside the seven other member states to promote regional trade. Within the SAARC framework, Sri Lanka has signed multiple trade agreements, including the South Asian Free Trade Area (SAFTA) agreement in 2006, as well as bilateral trade agreements with India (2000) and Pakistan (2005). Currently, Sri Lanka is negotiating a new FTA with Bangladesh, demonstrating its intent to further strengthen regional trade ties.

India: Sri Lanka’s Most Important Trading Partner in South Asia

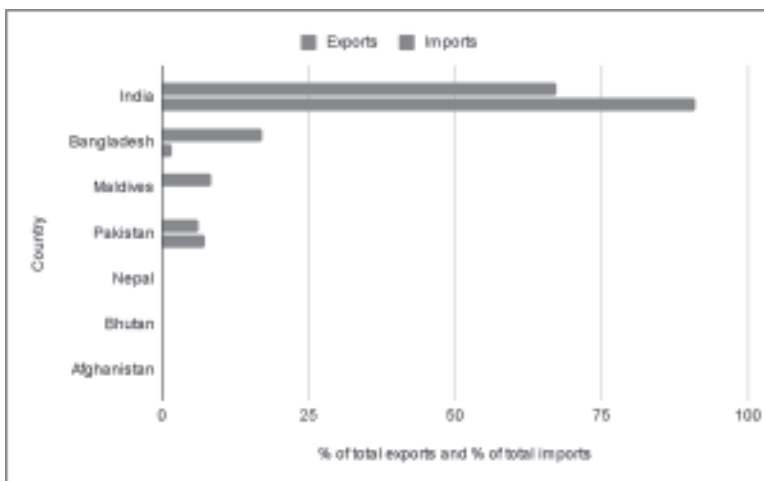
India has long been Sri Lanka’s most significant trading partner within South Asia, playing a pivotal role in the country’s geographical, cultural and economic landscape (Figure 10.1). The two nations share deep historical ties, and India’s ‘Neighbourhood First’ policy reinforces its commitment to regional cooperation. This partnership has proven crucial, particularly during Sri Lanka’s recent economic crisis, exacerbated by the COVID-19 pandemic. As Sri Lanka struggles to recover from its worst economic downturn since independence in 1948, India’s financial and strategic support has been instrumental in achieving short-term relief and fostering long-term stability.

In 2022, India extended approximately US\$ 5 billion in financial aid to Sri Lanka, including a US\$ 400 million currency swap under the SAARC framework. This assistance paved the way for the International Monetary Fund's (IMF) US\$ 3 billion support programme in 2023. India's aid package—which included credit lines, currency swaps and deferred payments—provided immediate relief to Sri Lanka, helping stabilise the economy during its crisis.

In recent years, the economic ties between the two countries have deepened significantly, with bilateral merchandise trade growing from US\$ 3.6 billion in 2020 to US\$ 5.45 billion in 2021—a remarkable increase of 48 per cent. Sri Lanka's exports to India have also risen sharply since the signing of the Indo-Sri Lanka Free Trade Agreement (ISFTA) in 2000, with over 60 per cent of Sri Lankan exports benefitting from ISFTA provisions. However, only about 5 per cent of India's exports to Sri Lanka take advantage of ISFTA benefits, underscoring India's competitive edge in the Sri Lankan market.

Beyond trade, India is also a major source of FDI for Sri Lanka. By 2021, Indian FDI had exceeded US\$ 2.2 billion, with investments concentrated in key sectors, such as petroleum retail, manufacturing, telecommunications, real estate, tourism and banking. In 2021 alone, India contributed US\$ 142 million in FDI, making it the largest investor in Sri Lanka.

Figure 10.1: Import Origins and Export Destinations of Sri Lanka to South Asia



Source: Trade Map, International Trade Centre.

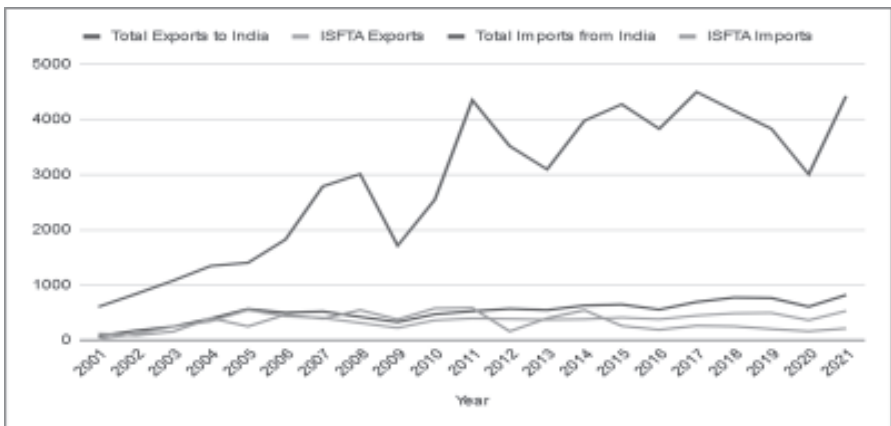
Indo-Sri Lanka Free Trade Agreement (ISFTA)

The ISFTA, signed in 1998 and implemented in 2000, has played a central role in boosting bilateral trade. Under the agreement, India offered Sri Lanka a larger number of tariff concessions, allowing the latter to gradually reduce tariffs over eight years. This phased approach provided Sri Lanka with time to adjust while reaping the benefits of duty-free access to Indian markets.

As a result, Sri Lanka's trade balance with India has improved, with exports to India growing faster than imports. India has become Sri Lanka's third-largest export destination, and the trade relationship remains one of the most balanced ones for Sri Lanka. Over 4,000 tariff lines under ISFTA offer zero-duty access for Sri Lankan exports to India, while a similar number exist for Indian exports to Sri Lanka.

However, sensitive items remain on both countries' negative lists, meaning they are excluded from tariff concessions. Sri Lanka's negative list includes different items, such as agricultural products, rubber, machinery and steel, while India's list primarily covers garments, plastics and rubber products. Despite this, Sri Lanka imports many of these items from India due to their affordability. Around 70 per cent of Sri Lanka's exports to India benefit from zero tariffs, contributing to a trade surplus with India (see figure 10.2) since the ISFTA came into effect (Kelegama, 2017).

Figure 10.2: Sri Lanka's Trade with India, 2001–21 (US\$ million)



Source: Department of Commerce, Sri Lanka.

Table 10.1: Sri Lanka's Trade Balance and Import–Export Ratio with India

<i>Year</i>	<i>Exports</i>	<i>Imports</i>	<i>Trade Balance</i>	<i>Import/Export Ratio</i>
2015	643.04	4,273.3	–3,630.26	6.6
2016	551.21	3,827.5	–3,276.3	6.9
2017	689.48	4,495.99	–3,806.51	6.5
2018	768.71	4,158.18	–3,389.47	5.4
2019	759.03	3,830.85	–3,071.83	5.0
2020	602.32	3,002.09	–2,399.77	5.0
2021	815.79	4,421.35	–3,605.56	5.4

Source: Department of Commerce, Sri Lanka.

Energy Connectivity and Collaboration

Energy cooperation has become a focal point in India–Sri Lanka relations, particularly in the renewable energy sector. India, known for offering some of the world's most affordable electricity, has agreed to enhance renewable energy ties with Sri Lanka. The two countries are exploring the possibility of constructing a land bridge and an oil pipeline to help alleviate Sri Lanka's fuel shortages and ease foreign exchange pressures. Additionally, paying for Indian oil in Indian rupees could reduce trade credit constraints and lower exchange rate risks.

The potential for electricity grid connectivity between India and Sri Lanka is also under consideration. Connecting their grids could allow Sri Lanka to access affordable energy from India, while India could use Sri Lanka as a market for its surplus power. Sri Lanka's offshore wind energy potential, identified by the World Bank, could be developed and exported to India through this shared grid, generating much-needed foreign exchange for Sri Lanka. Indian firms are already collaborating with Sri Lanka on solar panel manufacturing, further supporting the country's renewable energy goals.

Infrastructure Development

India's investments in Sri Lanka have expanded, particularly in infrastructure development, as Sri Lanka seeks to rebuild its economy. In August 2023, India provided an advance payment of Rs 450 million for Sri Lanka's digital identification project, a key component of its digital transformation strategy. Funded by Indian grants, this project aims to improve government service delivery, reduce poverty and enhance access to banking and financial services.

Infrastructure development remains a priority for Sri Lanka, especially in

certain areas, such as highways, railroads, bridges and housing. India has played a critical role in supporting these efforts. In January 2023, India committed to tripling the budget for its community development initiatives in Sri Lanka, a programme that has been active since 2005. This initiative has resulted in the construction of 300 homes across several districts.

Trade Settlement in Indian Rupees

In August 2022, the Indian rupee (INR) was officially designated as a foreign currency in Sri Lanka under the Foreign Exchange Act and the Banking Act, making it one of 16 authorised foreign currencies. This move is intended to enhance trade and investment between India and Sri Lanka by simplifying banking transactions and reducing costs associated with currency conversions. While the Sri Lankan rupee (LKR) remains the official currency for domestic transactions, the use of INR offers advantages for bilateral trade and tourism.

The INR designation builds on the momentum generated by the ISFTA, which has significantly boosted trade between the two countries. The Central Bank of Sri Lanka had long advocated for this measure, with growing economic ties making the case stronger. Following consultations with the Reserve Bank of India, INR was approved for official use in 2022.

The benefits of this policy are far-reaching. It streamlines banking transactions, particularly for small-scale traders; encourages the use of formal banking channels; and reduces conversion costs by enabling direct INR–LKR transactions. Additionally, with Indian tourists representing a key demographic for Sri Lanka, the ability to use INR simplifies payments for visitors and supports the tourism sector.

Sri Lanka's Economic Integration with Southeast Asia

Southeast Asia, represented by the Association of Southeast Asian Nations (ASEAN) formed in 1967, has become one of the world's fastest-growing regions. By 2018, the ASEAN was the fifth-largest economy globally, with a combined GDP of US\$ 2.96 trillion. Although Sri Lanka maintains strong economic ties with Southeast Asia, trade and investment relations are mostly concentrated among a few key ASEAN members.

Sri Lanka's first FTA with an ASEAN country was signed with Singapore in 2018. That same year, the country began talks for an FTA with Thailand, though progress has been slow. Singapore is Sri Lanka's largest export partner in Southeast

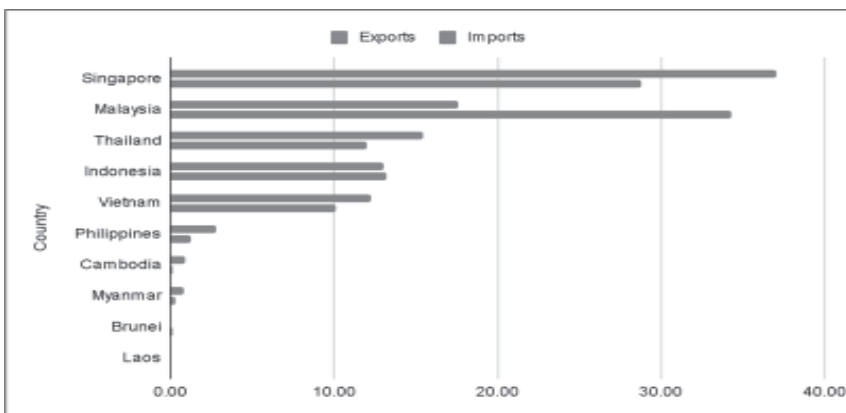
Asia, accounting for 37 per cent of exports to the region, while Malaysia is the largest import partner at 34 per cent. Other significant partners include Thailand, Indonesia and Vietnam, each accounting for over 10 per cent of Sri Lanka's exports and imports (figure 10.3).

Despite steady, though limited, trade growth with Southeast Asia, overall trade volumes have declined slightly. Sri Lanka's exports to the region fell from US\$ 404 million in 2021 to US\$ 374 million in 2022, while imports from Southeast Asia dropped from US\$ 3,037 million to US\$ 2,531 million in the same period. Key exports to Southeast Asia include natural gemstones, clothing, electrical machinery and tea, while major imports are rubber, machinery and mineral fuels.

Although ASEAN investment and tourism in Sri Lanka are on the rise, the overall contribution from the region remains relatively small, revealing untapped potential for deeper economic ties. Sri Lanka aims to further develop bilateral trade relations with ASEAN countries and is exploring trade agreements with Indonesia, Malaysia, Thailand and Vietnam.

Sri Lanka also seeks to join the Regional Comprehensive Economic Partnership (RCEP), a move that could be realised after completing necessary credit optimisation processes. The Sri Lankan government is actively engaging ASEAN members to strengthen trade relations and pursue new FTAs, presenting an opportunity for the country to tap into the region's economic dynamism and growing consumer market.

Figure 10.3: Sri Lanka's Exports and Imports to Southeast Asia in 2022
(as a share of the ASEAN region)



Unsatisfactory Performance of Sri Lanka's Trade Agreements in South and Southeast Asia

In 2022, the Central Bank of Sri Lanka highlighted the underwhelming performance of the country's bilateral and regional trade agreements, despite efforts to revive trade negotiations since 2018. Sri Lanka currently benefits from two major bilateral FTAs in South Asia: the ISFTA and the Pakistan–Sri Lanka Free Trade Agreement (PSFTA). In 2022, exports under these FTAs accounted for 65 per cent of Sri Lanka's total exports to India and 73 per cent to Pakistan. However, imports under these agreements remained minimal, constituting just 4 per cent of Sri Lanka's total imports from India and 3 per cent from Pakistan.

One significant issue with the ISFTA is the quota restriction on apparel exports, which is capped at 8 million pieces annually. In 2022, discussions were held to either remove or increase this quota to stimulate trade growth, but no substantial changes have yet been made.

Challenges with Regional Trade Agreements

Sri Lanka's regional trade agreements have also performed poorly. Trade under the Asia-Pacific Trade Agreement (APTA) has declined, primarily due to reduced exports to China. Similarly, the Global System of Trade Preferences (GSTP) has seen a downturn, particularly in cinnamon exports to Mexico. Exports under the SAARC Preferential Trading Arrangement (SAPTA) have remained negligible, and trade under the SAFTA has also decreased. These trends underscore Sri Lanka's need to strengthen its regional trade relationships and explore new opportunities, such as joining the RCEP.

The Sri Lanka–Singapore Free Trade Agreement (SLSFTA), signed in 2018, has also struggled to produce meaningful results. In 2022, efforts were made to accelerate the review process, with meetings scheduled for 2023 to discuss amendments and expedite implementation. However, persistent challenges—such as inconsistencies in trade policy, non-tariff barriers (NTBs) and limited product diversification—continue to undermine the potential benefits of Sri Lanka's trade agreements.

Efforts to Negotiate New Trade Agreements

Sri Lanka has renewed its focus on negotiating comprehensive bilateral trade agreements. The Sri Lanka–Thailand Free Trade Agreement (SLTFTA) shows promise, with the third round of negotiations concluding in January 2023.

Additionally, talks with China and India are expected to progress, with the proposed Economic and Technology Cooperation Agreement (ETCA) with India—offering a more comprehensive framework than the ISFTA—being actively discussed.

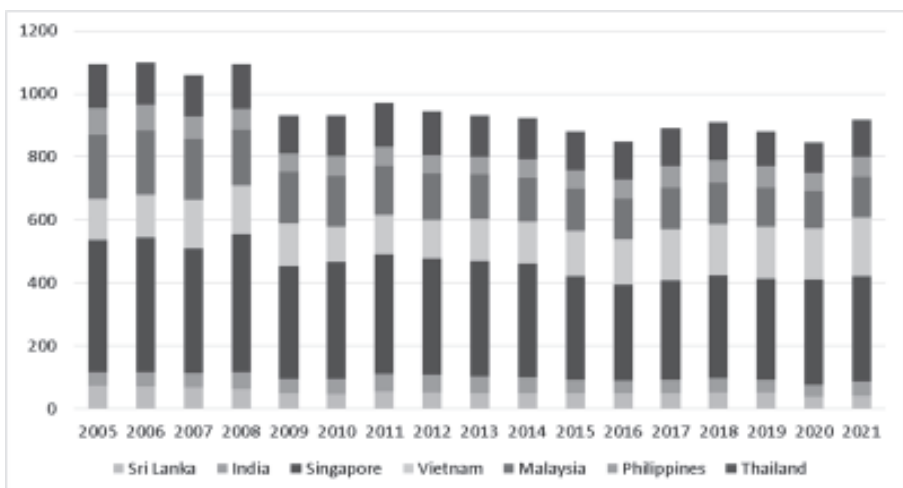
In 2022, Sri Lanka established a National Trade Negotiation Committee (NTNC) to strengthen its trade negotiation efforts. The country is also pursuing preferential trade agreements with Indonesia and Bangladesh, both of which present significant potential for future trade, especially in the apparel sector.

Multilateral Trade Engagement

Sri Lanka has continued to engage in multilateral trade forums, participating in the 12th Ministerial Conference of the World Trade Organization (WTO) in 2022. At the conference, Sri Lanka secured agreements on fisheries subsidies, emergency responses and broader WTO reforms under the 'Geneva Package'.

While Sri Lanka's trade agreements have underperformed in recent years, the government is actively seeking to enhance and expand its trade ties, particularly with South and Southeast Asia. Strengthening existing FTAs, negotiating new agreements and addressing trade policy inconsistencies are key to unlocking the full potential of Sri Lanka's trade opportunities in the region.

Figure 10.4: Trade (% of GDP) in Selected Countries in South Asia and Southeast Asia (2005–21)



Source: World Development Indicators, World Bank.

**Table 10.2: Exports under Preferential Trade Agreements of Sri Lanka
(US\$ million)**

<i>Preferential Agreement</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>2022</i>
Generalised System of Preferences (GSP)	4,077.9	3,671.8	4,312.7	4,314.7
o/w European Union (EU) (including GSP+) (b)	2,766.3	1,907.0	2,402.1	2,440.3
Indo-Sri Lanka Free Trade Agreement (ISFTA); implemented in 2000	489.6	358.4	525.8	561.5
Asia-Pacific Trade Agreement (APTA); implemented in 2006 (d)	179.3	204.7	238.6	228.4
Global System of Trade Preferences (GSTP); implemented in 1989	80.7	89.5	91.8	62.5
Pakistan–Sri Lanka Free Trade Agreement (PSFTA); implemented in 2005	60.8	53.0	62.3	56.6
South Asian Free Trade Area (SAFTA); implemented in 2006	55.9	42.2	101.6	75.2
SAARC Preferential Trading Arrangement (SAPTA); implemented in 1995	1.7	0.8	1.4	1.5
Total exports under preferential agreements	4,945.8	4,420.4	5,334.3	5,300.4
As a share of Sri Lanka's total merchandise exports	41.4	44.0	42.7	40.4

Source: Central Bank of Sri Lanka (2022).

**Table 10.3: Imports under Preferential Trade Agreements of Sri Lanka
(US\$ million)**

<i>Preferential Agreement</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>Share in 2021 (%)</i>
Indo-Sri Lanka Free Trade Agreement (ISFTA); implemented in 2000	198.7	158.58	208.9	1.04
Asia-Pacific Trade Agreement (APTA); implemented in 2006	19.9	20.51	24.2	0.12
Pakistan–Sri Lanka Free Trade Agreement (PSFTA); implemented in 2005	23.9	10.81	12.3	0.06
South Asian Free Trade Area (SAFTA); implemented in 2006	6.4	4.13	7.7	0.04
Global System of Trade Preferences (GSTP); implemented in 1989	-	0.17	0.0	0
SAARC Preferential Trading Arrangement (SAPTA); implemented in 1995	0.1	0.12	0.1	0
Without preference	19,229.62	15,391.82	19,799.10	98.74
Total imports	19,478.65	15,586.14	20,052.37	100

Source: Department of Commerce, Sri Lanka.

Limited Integration between Sri Lanka, South Asia and Southeast Asia

Despite notable economic growth over the past two decades, trade and investment linkages between South Asia and Southeast Asia remain limited, largely due to several persistent barriers. These include high tariffs, para-tariffs, NTBs and inefficient customs processes. South Asia, for instance, imposes significantly higher tariffs on imports from Southeast Asia, averaging 6.9 per cent, compared to Southeast Asia's 2.8 per cent tariff on South Asian imports. Additionally, non-tariff measures, such as sanitary and phytosanitary (SPS) requirements, technical barriers to trade, pre-shipment inspections, non-automatic licensing and price controls, further impede trade flows between the two regions.

There is considerable potential for improving trade relations by streamlining processes and enhancing the efficiency of customs and border control agencies. Key reforms include ensuring transparency, predictability and stability in trade procedures, while reducing redundant inspections and certifications from multiple institutions. Minimising costs and delays associated with trade transactions is equally critical. Digitalising tax systems would significantly expedite customs clearance, reduce opportunities for corruption by limiting the discretionary power of customs officials and make trade regimes more predictable and transparent.

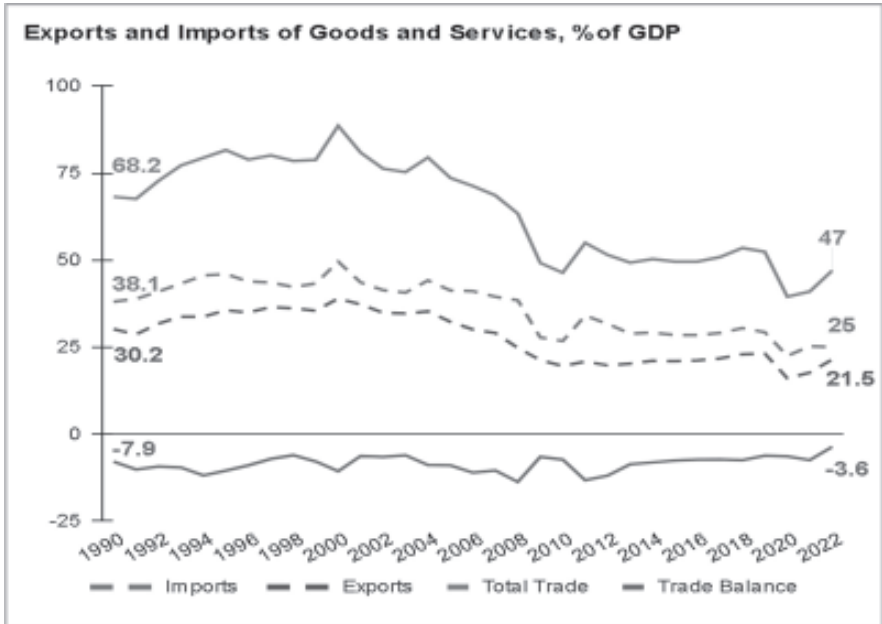
In recent years, Sri Lanka has gradually relaxed the import restrictions it had imposed to address a foreign exchange liquidity crisis. The government has also sought to build partnerships with major regional players through FTAs to enhance trade relations. However, Sri Lanka's external sector faces broader global challenges, including geopolitical tensions, slow economic growth and declining demand in key markets.

According to the Central Bank of Sri Lanka, the country's merchandise trade deficit in 2022 was the lowest since 2011, driven by a decline in imports and an increase in exports. Merchandise exports grew by 4.9 per cent compared to the previous year, while import expenditure fell by 11.4 per cent from 2021 to 2022, largely due to import bans and foreign exchange restrictions.

Since June 2023, however, import expenditure has slightly increased as restrictions were relaxed and the economy began to stabilise. While these measures may help improve food security and consumer welfare, they also carry the risk of widening the trade deficit. This is particularly concerning given the declining foreign demand for Sri Lanka's key exports, such as tea and clothing, as well as rising production costs.

In conclusion, while progress is being made, significant challenges remain in fully integrating Sri Lanka into the broader South and Southeast Asian economic framework. Addressing these barriers will be crucial for sustaining growth and improving trade relations in the region.

Figure 10.5: Sri Lanka’s Exports, Imports, Total Trade and Trade Balance (as a % of GDP)



Source: World Development Indicators, World Bank.

The Highly Protected Nature of Sri Lanka’s Economy: A Barrier to Innovation and Competitiveness

Sri Lanka’s economy is among the most highly protected in the world, creating a business environment that shields many local industries from global competition. While this inward focus has protected domestic markets, it has also stifled innovation and reduced the international competitiveness of Sri Lankan industries, limiting their export potential. However, the country has the opportunity to harness its resources and develop new sectors that could give it a competitive edge in global markets.

Complex Tariff System and Trade Protectionism

One of the major challenges in assessing Sri Lanka's trade protectionism is the widespread use of para-tariffs, that is, additional taxes on imports beyond standard customs duties. These include levies, such as the Export Development Board Levy (CESS), Excise Duty, Ports and Airports Development Levy and the Special Commodity Levy. Together with general customs duties and value-added tax (VAT), these para-tariffs make Sri Lanka's tariff system complex and difficult to navigate.

Sri Lanka's import tax structure, characterised by high tariffs, import bans and complicated regulatory controls, presents significant barriers to international trade. This protectionist system imposes prohibitive and unpredictable costs, especially for local manufacturers reliant on imported raw materials. For many businesses, particularly micro, small and medium enterprises, navigating these tariffs and bureaucratic hurdles—such as obtaining import permits—poses serious challenges to growth and competitiveness both at home and abroad.

Negative Effects of Protectionism

While protectionist measures aim to safeguard domestic industries and generate government revenue, they often have the opposite effect. These policies limit consumer choice and drive up the cost of essential goods. Moreover, the lack of transparency in the para-tariff system creates uncertainty for businesses that import goods, as they face unpredictable fees. As a result, domestic firms that rely on affordable imports struggle to stay competitive.

A 2019 Asian Development Bank study identified **limited access to affordable imported inputs** as a key challenge for Sri Lankan exporters. The lack of foreign competition diminishes the incentive for local producers to innovate or cut costs, resulting in higher domestic prices and reduced global competitiveness. Meanwhile, government trade restrictions continue to protect domestic profits, stunting the growth of export businesses and limiting access to reasonably priced imports.

Import Restrictions amid Economic Challenges

In response to economic shocks caused by the COVID-19 pandemic and rising import costs in 2022, the Sri Lankan government introduced a series of restrictive measures to curb import demand. These included licensing requirements, higher import taxes and temporary bans on a wide range of products. By the end of

2022, non-price import controls affected 31 per cent of the country's imports, targeting consumer goods (46 per cent), intermediate goods (31 per cent) and capital goods (24 per cent).

Recognising the risk of shortages in essential goods and raw materials, the government began to ease some of these restrictions in 2023. However, given Sri Lanka's small domestic market, the country's future economic growth depends increasingly on trade and international market access. Despite this, Sri Lanka has adopted a protectionist and inward-looking economic model since 2004, leading to a sharp decline in trade as a share of GDP—from a peak of 89 per cent in 2000 to just 41 per cent in 2021.

Structural Challenges and the Path Forward

Sri Lanka's protectionist policies have weakened the competitive forces essential for productivity and growth. The absence of an open trading environment remains a structural impediment, hindering the country's economic recovery and long-term development prospects. For Sri Lanka to achieve sustained growth, it must embrace '**competitive intensity**', which encourages businesses to innovate, adopt best practices and leverage new technologies. These goals can only be achieved through a more open, transparent and trade-friendly economic regime.

In conclusion, while trade protectionism has provided short-term benefits to some industries, it has stifled innovation and limited Sri Lanka's potential to compete on a global scale. To unlock its full economic potential, Sri Lanka must reform its trade policies, reduce protectionist barriers and foster a more dynamic, open economy that can thrive in international markets.

Research Objectives

The primary objectives of this study are: analyse the impact of trade with South Asia and Southeast Asia on Sri Lanka's economic growth; and draw policy implications from the findings.

Literature Review

Several theories and empirical studies have attempted to explain the relationship between trade and economic growth. Here is a brief overview of key theories and their relevance to this study:

1. *Comparative advantage theory*: Introduced by David Ricardo in 1817, this theory posits that a country has a comparative advantage in

producing goods that it can produce at a lower opportunity cost compared to other nations. Even if one country has an absolute advantage in producing all goods, each country benefits if it specialises in goods where it has a comparative advantage and trades for others. This theory highlights the potential for profitable trade, particularly for developing nations with limited absolute production advantages.

2. *Neoclassical trade theory*: This theory suggests that countries will specialise in producing goods where they have a comparative advantage and will gradually shift away from goods where they have a comparative disadvantage. Over time, the comparative advantage may diminish, leading to higher opportunity costs. This theory does not always address how trade promotes economic growth.
3. *Infant industry thesis*: Proposed by Friedrich List in 1841, this theory argues that emerging domestic industries should be protected from foreign competition until they achieve economies of scale. This protection can come in the form of import duties, tariffs, quotas and exchange rate controls. While this theory supports temporary trade restrictions to foster domestic industries, it also implies that trade can have negative consequences for the domestic economy.
4. *Heckscher–Ohlin (H-O) theorem*: Developed by Heckscher (1919) and Ohlin (1933), this theorem extends the comparative advantage theory by stating that a country will export goods that use its abundant and cheap factors of production and import goods that use its scarce and expensive factors. The H-O theorem predicts that global trade will equalise the returns on factors of production across countries, improving welfare and income distribution through optimal factor allocation.

Several empirical studies complement these theories and offer valuable insights into the trade–growth relationship:

1. **Kathuria (2018)**: This study, titled 'A Glass Half-Full: The Promise of Regional Trade in South Asia', systematically identifies barriers that hinder trade in South Asia, such as tariffs, para-tariffs, NTBs, connectivity issues and mistrust. The research employs in-depth investigations and stakeholder consultations to highlight critical obstacles to regional trade integration.
2. **Athukorala and Silva (2019)**: This analysis critiques Sri Lanka's FTAs with Pakistan, India and Singapore. The authors argue that proponents

of FTAs have overstated their benefits, suggesting that unilateral trade reforms and supply-side adjustments are more effective for integrating Sri Lanka into the global economy.

3. **World Bank (2022):** The study, *Deepening Linkages between South Asia and Southeast Asia*, explores innovative ways to enhance trade and economic ties between the two regions. It examines migration, investment and trade patterns; identifies barriers to integration; and offers policy recommendations to promote regional cooperation. The research also addresses digital issues and environmental goods and services, while considering challenges posed by the COVID-19 pandemic.
4. **Pabasara (2020):** This review evaluates Sri Lanka's diplomatic and economic relations with the ASEAN, using a SWOT analysis to assess bilateral ties and propose strategies for deeper engagement in trade, investment and tourism in a post-COVID-19 context.
5. **Kannangara (2020):** Utilising the autoregressive distributed lag (ARDL) approach with data from 1960 to 2018, this study analyses macroeconomic factors influencing growth in Sri Lanka. Findings indicate that creating an investment-friendly environment and revising import structures are crucial for growth. The study also highlights a positive relationship between export concentration and real per capita GDP growth, suggesting that FTAs and intra-SAARC trade could benefit economic growth.
6. **Weerakoon and Perera (2014):** This study compares Sri Lanka's trade, investment and technology demands with those of East Asian neighbours, finding that trade with these nations may be more beneficial for Sri Lanka's economic growth than trade with SAARC members under current conditions.

Overall, these theories and empirical studies provide a foundation for understanding the impact of trade on Sri Lanka's economic growth and guide the development of effective trade policies.

Research Methodology

The empirical literature extensively explores the link between commerce and economic growth. However, there is limited empirical research examining Sri Lanka's economic growth contributions specifically from trade with South and

Southeast Asia. Therefore, the aim of this study is to establish a foundation for a detailed empirical investigation into this specific issue.

A time series analysis has been done to determine how trade with Southeast and South Asia affects Sri Lanka's economic growth. The neoclassical growth theory, which explains how much of an increase in overall output is attributable to an increase in various variables of production, has been applied in the model's construction. In this investigation, mostly secondary data have been employed. Time series data have been gathered between 1990 and 2021 from the World Bank's World Development Indicators reports and the Central Bank of Sri Lanka's annual reports. The research has used econometric analysis methods. The ARDL model has been employed in the study to estimate the correlation between the explanatory factors and economic growth.

The quantitative relationship among inputs and outputs is expressed by the production function. Increases in inputs and productivity brought about by better technology and a more skilled labour force result in higher output. Equation 1 illustrates how inputs and productivity (A) are related to output (Y), assuming labour (N) and capital (K) as the only inputs.

$$Y = A.(N, K) \tag{1}$$

Equation 1 can convert into a growth form in which the increase in output is correlated with the increase in inputs. To accomplish this, the entire differential of the previous equation is divided by Y first.

$$\Delta Y = \frac{\partial Y}{\partial N} . \Delta N + \frac{\partial Y}{\partial K} . \Delta K + \frac{\partial Y}{\partial A} . \Delta A \tag{2}$$

$$\Delta Y = MPN . \Delta N + MPK \Delta N + f(K, N) . \Delta N \tag{3}$$

$$\frac{\Delta Y}{Y} = \frac{MPN.N}{Y} . \frac{\Delta N}{N} + \frac{MPK.K}{Y} . \frac{\Delta K}{K} + \frac{1}{A} . \Delta A \tag{4}$$

The factors of production receive payment for their marginal goods in an economy that is competitive. Therefore,

$$MPN = \text{real wage} = w$$

$$MPK = \text{real rental} = r$$

Thus, the following equation can be derived:

$$\frac{\Delta Y}{Y} = \frac{w.N}{Y} \cdot \frac{\Delta N}{N} + \frac{r.K}{Y} \cdot \frac{\Delta K}{K} + \frac{1}{A} \cdot \Delta A \quad (5)$$

where

$$\frac{w.N}{Y} = \text{labour's share of income}$$

$$\frac{r.K}{Y} = \text{capital's share of income}$$

Thus, the following equation can be derived:

It should be remembered that income is the total of all payments made to the production factors.

$$Y = w \cdot N + r \cdot K \quad (6)$$

The transformation of equation 6 is as follows:

$$1 = \frac{w.N}{Y} + \frac{r.K}{Y} \quad (7)$$

$$1 = \theta + (1 - \theta) \quad (8)$$

where,

θ = labour's share of income

$1 - \theta$ = the proportion of income held by capital.

The growth accounting equation can be obtained by substituting equations 7 and 8 in equation 5.

$$\frac{\Delta Y}{Y} = \theta \cdot \frac{\Delta N}{N} + (1 - \theta) \cdot \frac{\Delta K}{K} + \frac{\Delta A}{A} \quad (9)$$

As a result, the contributions of labour and capital are equal to the product of their respective growth rates and the input's percentage of total revenue. The rate of technological advancement is the final component in the formula. The growth of total factor productivity is another term for this.

Based on the aforementioned mathematical model, the following statistical model has been created because trade is thought to be a component of total factor productivity in the theories now in existence on the relationship between trade and growth.

$$\ln GDP_t = \beta_0 + \beta_1 \ln GCF + \beta_2 \ln LFP_t + \beta_3 \ln SA_t + \beta_4 \ln SEA_t + \varepsilon_t \quad (10)$$

where,

- (i) *GDP* is the real *GDP*; *GCF* is the real gross capital formation; *LFP* is the labour force participation rate.
- (ii) The variables *SA* and *SEA* represent the total trade with South Asia (Nepal and Bhutan were excluded due to the lack of data) and Southeast Asia (Cambodia, Brunei and Laos were excluded due to the lack of data), respectively.
- (iii) '*ln*' indicates the natural log, ' ε ' stated as the error term and '*t*' indicates time.

Each variable is pertinent to Sri Lanka and the main global databases, that is, World Development Indicators, World Bank, and Asia Regional Integration Center (ARIC) Integration Indicators, have been used to gather secondary data. Apart from the econometric analysis, the study has mainly used tables and figures for data illustrations from various sources, namely, annual reports of the Central Bank of Sri Lanka, the Department of Commerce, Sri Lanka, and the Trade Map of the International Trade Centre.

Augmented Dickey–Fuller (ADF) and Phillips–Perron (PP) tests have been used in testing for stationarity. A variable is stationary when its mean, variance and covariance remain constant over time. Results of the ADF and PP tests reveal that the order of the lags is not integrated in the same order [$I(0)$ and $I(1)$; see Appendix, Table 10A.2]. Therefore, ARDL bounds testing approach has been used to test cointegration in the model to test the long-run relationship and ARDL error correction model has been used to study the short-run relationship between variables.

The study has used Schwarz criterion as the lag selection criterion (Appendix, Figure 10A.1). In the analysis, 5 per cent of significance has been considered. Diagnostic tests have been performed to determine how reliable the results are. The techniques adopted are: the Jarque–Bera test (to find whether the residuals are normally distributed); Breusch–Godfrey serial correlation (to detect serial correlation among residuals); White test (to detect heteroscedasticity errors in the model); Ramsey RESET test (to detect specification errors in the model); and Cumulative Sum of Squares (CUSUMSQ) test and Cumulative Sum (CUSUM) test (to check the model accuracy and stability) (see Appendix, Tables 10A.4, 10A.5, 10A.6 and Figures 10A.2, 10A.3).

Results and Discussion

The unit root test results (see Appendix, Table 10A.2) indicate that the labour force participation rate (LLFP) is stationary at the level, while all other variables in the model are stationary in the first difference at a 5 per cent significance level. The ARDL model was used to estimate long-run relationships and the error correction model was employed for short-run estimations, following the ARDL bounds test that demonstrated cointegration among the variables.

Table 10.4: Results of ARDL Model Estimations

<i>Long-run Form</i>				
<i>Variable</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-Statistic</i>	<i>Prob.</i>
LLFP	4.387	0.185	23.678	0.000***
LGCF	0.894	0.366	2.441	0.021**
LSA	0.392	0.139	2.803	0.009***
LSEA	0.162	0.223	0.724	0.0450**
<i>Results of Error Correction Model</i>				
D(LGDP(-1))	0.904	0.166	5.422	0.000***
D(LLFP)	0.215	0.141	1.527	0.141
D(LGCF)	0.121	0.033	3.678	0.001***
D(LGCF(-1))	-0.079	0.040	-1.952	0.063
D(LSA)	0.029	0.020	1.422	0.168
D(LSEA)	0.050	0.022	2.276	0.032**
ECT(-1)	-0.219	0.285	-4.275	0.000
R-squared	0.806	Mean dependent var	0.046	
Adjusted R-squared	0.744	S.D. dependent var	0.028	

Note: *, ** and *** indicate rejection of null hypothesis at 10%, 5% and 1% respectively.

The analysis reveals several key findings:

1. *Long-run impacts:* Trade with both South Asia (LSA) and Southeast Asia (LSEA) has a significant positive effect on Sri Lanka's GDP. Specifically, a 1 per cent increase in trade with South Asia corresponds to a 39.2 per cent increase in GDP, while a 1 per cent increase in trade with Southeast Asia leads to a 16.2 per cent increase in GDP, holding other factors constant.
2. *Short-run impacts:* In the short term, trade with South Asia does not show statistical significance, whereas trade with Southeast Asia has a positive and significant impact on GDP growth. A 1 per cent increase

in trade with Southeast Asia results in a 5 per cent increase in GDP, all else being equal. Gross capital formation (LGCF) positively impacts GDP in both the short and long run. The labour force participation rate (LLFP) has a positive impact only in the long run.

3. *Error correction term:* The negative and significant error correction term (ECT) indicates that the model is stable and adjusts to equilibrium in the long run. The speed of adjustment towards the long-run equilibrium is 21.9 per cent, meaning that GDP growth returns to equilibrium after one period following exogenous shocks.
4. *Model diagnostics:* The model's residuals are normally distributed, and there are no issues with autocorrelation, heteroscedasticity or omitted variables. The CUSUM test confirms that the model is dynamically stable and accurate at the 95 per cent confidence level.
5. *Trade patterns:* In 2022, Sri Lanka's exports to South Asia were valued at US\$ 1.2 billion, while imports from South Asia amounted to US\$ 5 billion. With only one bilateral FTA with Southeast Asia, Sri Lanka's imports from Southeast Asia were US\$ 2.5 billion and exports to these nations were US\$ 374 million. These figures highlight the potential for growth in trade with South Asia, especially through new trade agreements.

India dominates Sri Lanka's trade with South Asia, accounting for 67 per cent of Sri Lanka's exports to South Asia and 91 per cent of imports from SAARC in 2022. Given the findings, increasing trade with India and exploring potential FTAs with Southeast Asian countries could be advantageous for Sri Lanka's economic growth. Reducing trade barriers and enhancing regional trade agreements may further support Sri Lanka's move towards a more open economy.

Policy Recommendations for Sri Lanka's Economic Growth

1. *Strengthen trade relations and advance ETCA with India:* Sri Lanka and India have significant potential to deepen their trade partnership. Revising the current ISFTA to include a wider range of commodities and diversify product listings will help maximise this potential. Despite NTBs, Sri Lankan exporters have already established a foothold in the Indian market. The proposed ETCA will further strengthen ties, creating more investment and export opportunities. It is crucial for Sri Lanka to ensure that its interests are well-protected in the negotiations to fully benefit from India's growing

market.

2. *Eliminate NTBs*: The NTBs, such as delays and packing restrictions, have obstructed the benefits of trade agreements. To enhance merchandise trade, Sri Lanka must eliminate these NTBs, simplify trade procedures and expand the product coverage benefitting from tariff reductions. Streamlining negative lists and reducing protectionist para-tariffs will also help. A consistent tariff rate, like the approach used by Chile, would encourage competition and promote economic growth. Dismantling trade barriers gradually will support fair competition, ease access to foreign supplies and foster sustainable growth.
3. *Encourage FDI*: Creating a more business-friendly environment through domestic reforms is essential for attracting greater FDI. Reducing transaction costs, simplifying regulatory processes and addressing issues from the World Bank's ease of doing business report are critical. Promoting investment opportunities, such as the Colombo Port City project, through targeted marketing, will further attract investors. Additionally, reviewing the limitations in FDI agreements, like the Double Taxation Avoidance Agreement and Bilateral Investment Promotion and Protection Agreement, will enhance investment inflows.
4. *Promote an export-oriented economy*: Sri Lanka should diversify its exports across industrial, agricultural and service sectors, focusing on high value-added products. Encouraging industrial development in rural areas can boost employment and reduce urban migration. Strengthening export diversification and negotiating FTAs with ASEAN partners, such as Thailand, will help overcome limited export volumes and reduce trade obstacles. Improved institutional capacity and negotiation skills will enable Sri Lanka to secure favourable trade conditions and expand its export base.
5. *Integrate into the global manufacturing value chain*: To enhance competitiveness and intra-industry connectivity, Sri Lanka needs to adopt advanced manufacturing techniques and foster innovation. Despite low levels of research and development, the country should focus on developing high-tech and digital manufacturing capabilities. By engaging with growing consumer markets and regional supply chains in India and the ASEAN, Sri Lanka can capitalise on the economic potential of South Asia and Southeast Asia. Commercialising innovations and turning patents into market-ready products will also strengthen the industrial sector.

6. ***Optimise bilateral and regional trade agreements:*** Sri Lanka should reassess its bilateral and regional FTAs with ASEAN members, Bangladesh and East Asia. Developing strategies to capitalise on future trade opportunities in key sectors, like agriculture, apparel and services, is essential. Enhancing businesses' understanding of complex rules of origin in FTAs and addressing new trade challenges related to international supply chains will improve the effective use of tariff preferences, ultimately driving economic growth.

Conclusion

This chapter investigates the impact of trade with South and Southeast Asia on Sri Lanka's economic growth, determining which region offers greater potential for enhancing that growth. Utilising the neoclassical growth theory as its theoretical framework, the study analyses time series data from 1990 to 2021 through the ARDL and error correction models to evaluate both stationarity and the long-run and short-run relationships.

The findings indicate that trade with both regions has a positive long-term impact on Sri Lanka's economic growth. To maximise these growth benefits, it is essential for Sri Lanka to expand its trade with countries in both South Asia and Southeast Asia. Particularly, prioritising trade relationships with India and the ASEAN member countries could yield significant growth opportunities.

However, the study also highlights critical challenges to trade and investment between Sri Lanka and these regions. High import duties, NTBs and restrictive trade and customs processes pose substantial obstacles that need to be addressed. To overcome these barriers, Sri Lanka should pursue comprehensive trade agreements with its neighbours, focusing not only on merchandise trade but also on services, FDI promotion, value addition, trade facilitation and digitalisation.

It is imperative for policymakers to ensure these agreements are crafted to maximise benefits for Sri Lanka. By tackling existing trade barriers and establishing deeper, more inclusive trade agreements, Sri Lanka can significantly enhance its economic growth prospects and fully leverage the potential of both South Asian and Southeast Asian markets.

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APPENDIX

Table 10A.1: Sri Lanka's Trade with India vs Exports and Imports under ISFTA (from 2000 to 2022)

Year	Exports (US\$ million)			Imports (US\$ million)		
	Total Exports to India	Exports under ISFTA	% under ISFTA	Total Imports from India	Imports under ISFTA	% under ISFTA
2000 (March–December)	55.65	8.6	16	600	53.9	9
2001	70.12	15.9	23	601	113.1	19
2002	168.81	114.2	68	834	81.7	10
2003	241.14	238.8	99	1076	150.4	14
2004	385.49	339.9	88	1342	394.7	29
2005	559.21	543	97	1,399.43	246.2	18
2006	494.06	431.1	87	1,822.07	459.3	25
2007	516.4	398.2	77	2,785.04	385.3	14
2008	418.08	309.3	74	3,006.93	541.4	18
2009	324.87	218.5	67	1,709.93	371.7	22
2010	466.6	358.4	77	2,546.23	573.7	23
2011	521.59	391.5	75	4,349.43	579.6	13
2012	566.37	379.5	67	3,517.23	156.4	4
2013	543.37	368.8	65	3,092.67	393.4	13
2014	624.81	375.8	60	3,977.76	540.1	14
2015	643.03	407.28	63	4,273.30	253.3	6
2016	551.2	375.25	68	3,827.50	186.7	5
2017	689.48	442.29	64	4,495.99	257.04	6
2018	768.71	483.48	63	4,158.18	246.87	6
2019	759.37	489.89	64	3,830.82	198.74	5
2020	602.32	358.43	59.51	3,002.09	158.58	5.28
2021	815.79	525.85	64.46	4,421.35	208.94	4.73
2022	860	561.5	65.2	4,738	–	–

Source: Department of Commerce, Sri Lanka, and the Central Bank of Sri Lanka (2022).

Table 10A.2: Unit Root Test Results

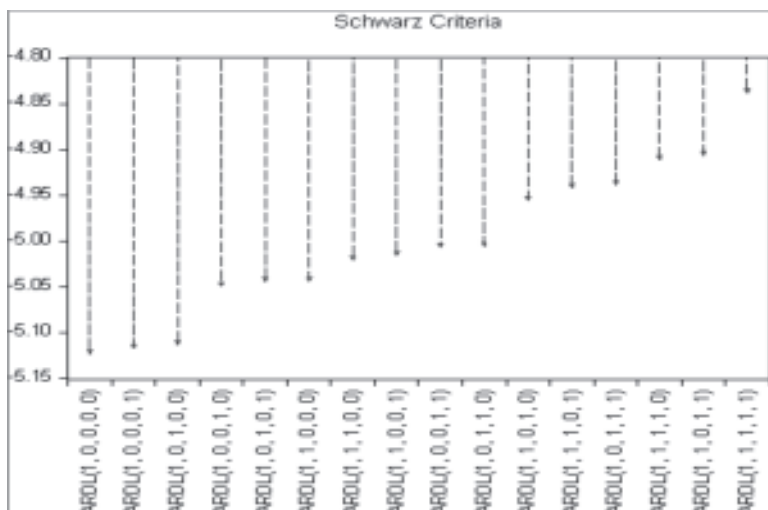
Variable	ADF Test		PP Test	
	Level	1st difference	Level	1st difference
LGDP	-1.124(0.692)	-3.482**(0.015)	-1.158(0.679)	-3.475**(0.015)
LLFP	-3.517**(0.014)	-6.184***(0.000)	-3.569**(0.012)	-8.714***(0.000)
LGCF	-2.361(0.160)	-5.754***(0.000)	-2.282(0.183)	-7.352***(0.000)
LSA	-1.770(0.387)	-5.259***(0.000)	-1.996(0.286)	-5.511***(0.000)
LSEA	-1.761(0.391)	-6.566***(0.000)	-1.761(0.391)	-6.610***(0.000)

Note: *, ** and *** indicate rejection of null hypothesis at 10%, 5% and 1% respectively.

Table 10A.3: Results of Bounds Test

Test Statistic	Value	Signif.	I(0)	I(1)
<i>Asymptotic: n=1000</i>				
F-statistic	69.63627	10%	1.9	3.01
k	4	5%	2.26	3.48
		2.50%	2.62	3.9
		1%	3.07	4.44
		<i>Finite Sample: n=35</i>		
Actual Sample Size	31	10%	-1	-1
		5%	-1	-1
		1%	-1	-1

Figure 10A.1: Model Selection and Related Criteria



Diagnostics Tests Results of Model Adequacy

Figure 10A.2: Results of Jarque–Bera Test—Normality

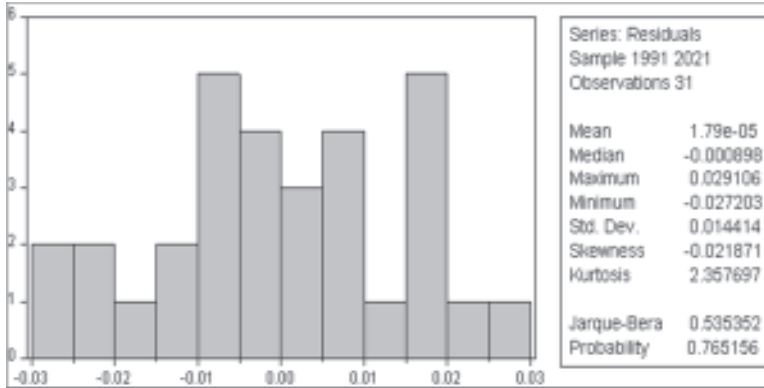


Table 10A.4: LM Test Results—Autocorrelation

<i>F</i> -statistic	1.003345	Prob. <i>F</i> (2,24)	0.3815
Obs*R-squared	2.391976	Prob. Chi-Square(2)	0.3024

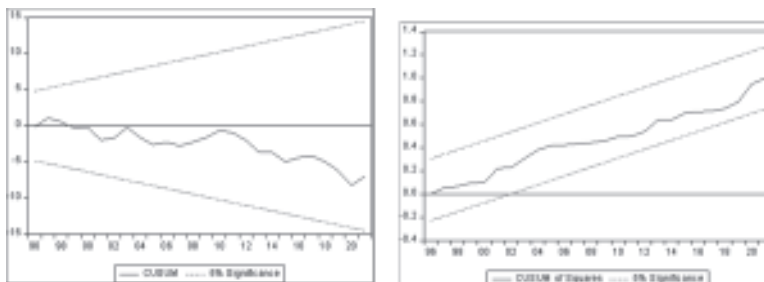
Table 10A.5: Breusch–Pagan–Godfrey Test Results—Heteroscedasticity

<i>F</i> -statistic	2.713261	Prob. <i>F</i> (5,25)	0.0432
Obs*R-squared	10.90474	Prob. Chi-Square(5)	0.0533
Scaled explained SS	5.206871	Prob. Chi-Square(5)	0.3912

Table 10A.6: Ramsey RESET Test Results—Omitted Variables

	Value	df	Probability
t-statistic	2.016564	25	0.0546
F-statistic	4.066529	(1, 25)	0.0546

Figure 10A.3: Cumulative Sum and Cumulative Sum of Squares Tests Results—Stability of the Model: Recursive Estimation



*Barriers to Goods Trade in South Asia:
Challenges and Prospects*

Prabir De

Introduction

South Asia is one of the least integrated regions in the world (Hashim and Razzaque, 2016; Raihan and De, 2021). Despite adopting several trade policy instruments, such as the South Asian Free Trade Area (SAFTA), SAARC Agreement on Trade in Services (SATIS), the South Asian Regional Standards Organization (SARSO) and the SAARC Regional Multimodal Transport Study (SRMTS), the region's free trade potential remains largely untapped. Trade in South Asia is burdened by excessive costs and lengthy procedures for goods and services. While regional connectivity has improved since 2010, the connectivity between India and Pakistan has worsened. The benefits of improved connectivity are unevenly distributed, with larger economies facing different challenges compared to island, mountainous or landlocked nations. Over time, the challenges to regional integration have grown and the cooperation has slowed (Brooks and Stone, 2010; De, 2019a, 2019b, 2022, 2023).

Decline in Intra-regional Trade amid Emerging Challenges

In recent years, South Asia has experienced a decline in intra-regional trade, primarily due to the combined effects of the COVID-19 pandemic and deteriorating trade relations between India and Pakistan. Intra-regional exports in South Asia dropped from US\$ 39.55 billion in 2020 to US\$ 31.87 billion in

2023, representing a mere 4.77 per cent share of the region’s total trade (Table 11.1). The decline is particularly pronounced for Afghanistan, the Maldives and Pakistan. While Afghanistan and Bhutan, both landlocked least developed countries, along with developing countries like Bangladesh, India, and Sri Lanka, continue to rely heavily on South Asia for trade, the trade dependence of the Maldives, Nepal and Pakistan on the region has declined. South Asia’s intra-regional trade is heavily India-centric; excluding India, the region’s intra-regional exports amount to only US\$ 7.39 billion (see Table 11.1). Bridging this trade gap necessitates stronger regional trade within South Asia.

Table 11.1: Trends in South Asia’s Export

<i>Year</i>	<i>Intra-South Asia (US\$ billion)</i>	<i>Rest of the World (US\$ billion)</i>	<i>Total Export of South Asia (US\$ billion)</i>	<i>Intra-Regional Trade Share (%)</i>
1995	2.43	45.34	47.77	4.83
2000	2.92	61.52	64.44	4.60
2005	9.11	124.47	133.58	5.58
2010	16.55	254.91	271.46	4.50
2015	23.33	307.33	330.66	5.56
2018	31.69	367.79	399.48	6.08
2021	38.29	439.31	477.61	6.13
2023	31.87*	485.45	517.31	4.77

Note: *Share of India is US\$ 24.48 billion (77 per cent) and other South Asian Association for Regional Cooperation (SAARC) member states is US\$ 7.39 billion (23 per cent).

Source: Author’s own calculation based on Direction of Trade Statistics (DOTS), International Monetary Fund (IMF).

Global economic uncertainties have led to increased distress across many countries. The United Nations Conference on Trade and Development (UNCTAD, 2023) recently noted that the global economy is at ‘a critical juncture’, with some economies thriving while others struggle. The ongoing global uncertainties, including the war in Ukraine, are significantly affecting trade outlooks. In addition to these challenges, South Asia faces emerging issues that require attention.

The region must address environmental challenges by implementing sustainable connectivity policies. The Group of Twenty (G20) New Delhi Leaders’ Declaration emphasises the importance of a green development pact for a sustainable future (Ministry of External Affairs, 2023). Key to this is transitioning to green transportation, including the adoption of low-carbon vehicles and high-

speed railways, which are crucial for reducing carbon emissions and meeting climate goals.

The COVID-19 pandemic has underscored the need for trade facilitation and digitalisation of trade procedures. Digitalisation is now recognised as a critical component of sustainable trade and connectivity (United Nations, 2023). The G20 leaders have proposed high-level principles for the digitalisation of trade-related documents. The G20 Trade and Investment Ministerial Declaration too highlights the importance of reliability and predictability in international trade and cargo operations, advocating for international paperless trade transactions and targeted investments in logistics infrastructure to boost global trade demand (Ashton-Hart, 2020).

These developments underscore the urgent need for improved global economic cooperation. Enhanced regional cooperation is essential for strengthening partnerships and contributing to global development, ensuring that all economies can navigate these challenges and opportunities effectively.

Intra-regional Trade Items and Value Chains

Major intra-regional traded items include textiles and garments, chemicals, automobiles, agro-food products, electrical items and mining goods. South Asian value chains, though primarily bilateral, show significant potential, especially in textiles, garments, iron and steel, processed foods, machinery and automobiles. Subregional and bilateral value chains are promising for certain products, like rubber (for automobiles), garments, high-end handicrafts, agro-horticulture, cement and pharmaceuticals. However, processed foods, tea and horticulture products typically have lower value chain integration (Asian Development Bank, 2021; Mitra et al., 2020; World Bank, 2020).

Intra-regional Trade Dynamics

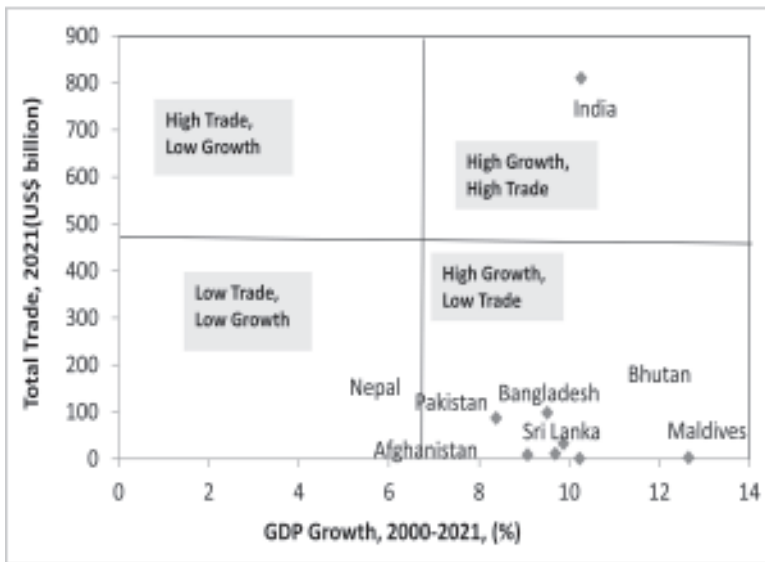
South Asia's intra-regional trade has seen significant growth, rising from approximately US\$ 3 billion in 2000 to US\$ 31.87 billion in 2023, which corresponds to an impressive annual growth rate of 14 per cent. India has played a dominant role in this growth, accounting for about 77 per cent of intra-regional trade in 2023, up from 63 per cent in 2000. This increasing share highlights India's growing centrality in South Asia's trade landscape.

India, as a standout performer in the region, has demonstrated strong economic growth and a substantial expansion in trade. Between 2000 and 2021,

the gross domestic product growth rate for South Asian countries averaged between 9–13 per cent in current United States (US) dollars. However, India’s performance has been particularly notable, outpacing its regional counterparts not only in economic growth but also in its contribution to intra-regional trade (Figure 11.1).

Despite the overall economic growth in South Asia, other countries in the region have not achieved the same level of success in intra-regional trade as India. This indicates that while economic growth has boosted overall trade, the integration of trade within the region remains limited. South Asian countries continue to trade relatively little with each other, suggesting significant potential for enhancing regional trade integration.

Figure 11.1: Trade Performance of South Asian Countries



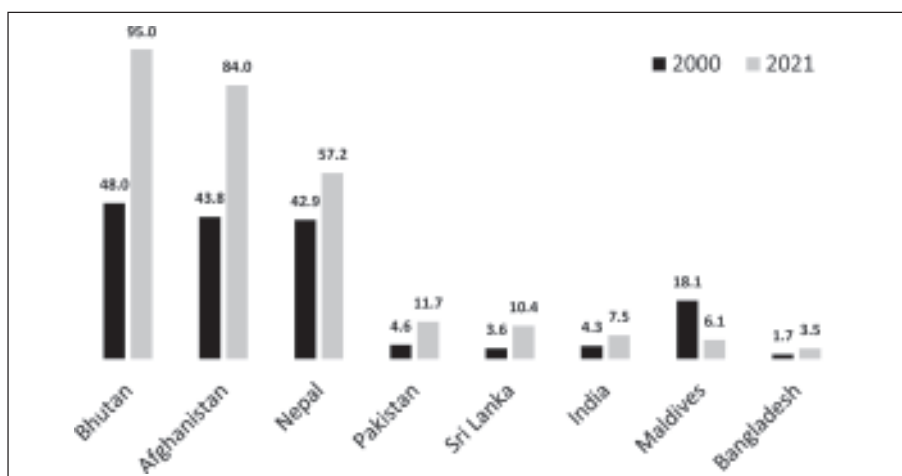
Source: Author’s illustration based on DOTS, IMF; and World Development Indicators (WDI), World Bank.

Divergent Trade Dependencies

South Asia’s trade dynamics reveal two distinct patterns: one group of countries is increasingly dependent on regional trade, while another group is not. Landlocked countries in the region have become more reliant on intra-regional trade over time, while the Maldives, an island nation particularly vulnerable to climate change, has shown a decreasing dependency on South Asian trade.

Countries like Bhutan, Afghanistan and Nepal are heavily reliant on intra-regional trade, with over 60 per cent of their trade occurring within the region. In contrast, other South Asian countries have less than 12 per cent of intra-regional trade (see Figure 11.2). For most South Asian countries, the overall share of intra-regional trade has either declined or remained static. This trend presents challenges, as trade increasingly concentrates towards India, raising concerns about regional connectivity. For landlocked countries, disruptions in trade connections with India could have significant economic repercussions, highlighting the need for more diversified and resilient trade networks within the region.

Figure 11.2: Intra-regional Trade Dependency Ratio (%)



Source: Author's illustration based on DOTS, IMF.

Need for a Comprehensive Trade and Connectivity Strategy

To invigorate regional integration, South Asia needs a comprehensive trade and connectivity strategy that addresses the specific needs of both landlocked and island countries. This strategy should focus on enhancing connectivity within the region and with the rest of the world. Key measures include reducing non-tariff barriers, improving trade governance and developing specialised connectivity programmes tailored to different industries.

For instance, regional trade facilitation could prioritise faster air transport for pharmaceuticals, while multimodal transportation solutions may be necessary for other industries, like iron and steel. Mutual recognition of standards could

significantly boost regional trade in textiles, clothing and processed foods. The success of these initiatives depends on the quality of trade logistics and the mobility of associated services (Francois and Manchin, 2006; Gani, 2017; Organisation for Economic Co-operation and Development, 2019).

The primary challenge for South Asia is to sustain trade growth by reducing trade costs, particularly in a global environment characterised by slowdowns and increased uncertainties. According to De and Kumarasamy (2024), digital economy factors can streamline customs procedures and promote bilateral trade. South Asia stands to gain significantly from reducing cross-border conflicts and enhancing both hard infrastructure, like transport and logistics networks, and soft infrastructure, such as regulatory frameworks.

Trade, being dynamic, suffers greatly from connectivity disruptions, which can lead to regional disintegration. Enhancing trade facilitation and connectivity is crucial, especially in the post-pandemic era, to support cross-border business activities.

A renewed agenda for South Asian regional cooperation should focus on bridging gaps in both intra- and inter-regional trade facilitation and expanding infrastructure to support connectivity. This integration process should provide the resources needed to develop trade infrastructure, thereby advancing the South Asian integration agenda. Enhanced infrastructure and trade facilitation arrangements are essential for fostering deeper regional integration and economic growth (United Nations Economic and Social Commission for Asia and the Pacific [ESCAP], 2014).

Barriers to Trade in South Asia

South Asian trade growth has been hindered by various barriers, which can be categorised into three types: trade policy barriers; infrastructure barriers; and environmental barriers (see figure 11.3).

1. *Trade policy barriers*: These are of two kinds:
 - (i) Tariffs and para-tariffs: Tariffs refer to customs duties imposed on imports, while para-tariffs include additional border charges and fees that act similarly to tariffs, but are not applied to domestic products. Import charges related to specific services provided are not considered para-tariffs.
 - (ii) Non-tariff measures (NTMs): NTMs encompass regulations, standards or practices other than tariffs and para-tariffs, such as

sanitary and phytosanitary (SPS) measures and technical barriers to trade (TBTs). These measures can affect trade by altering quantities, prices or both.

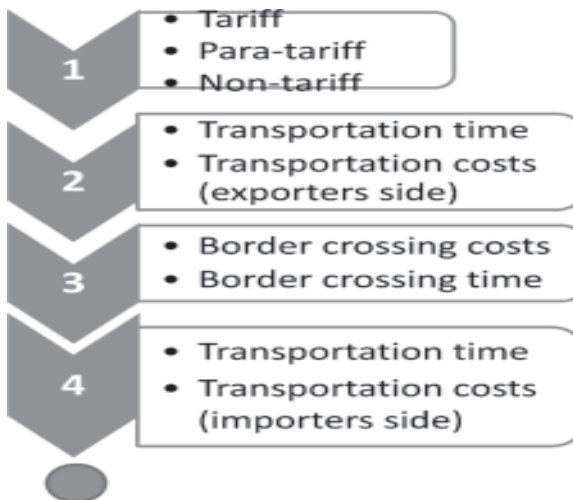
2. *Infrastructure barriers:* These barriers include challenges related to transportation, such as inadequate infrastructure, inefficient logistics and connectivity issues, all of which complicate the movement of goods within and across borders.
3. *Environmental barriers:* Environmental barriers refer to restrictions at borders, including trade limitations through positive lists at land ports, cargo transportation restrictions, lengthy sensitive lists and inadequate testing facilities.

Tariff Trends and NTMs

Tariff Trends

As shown in Table 11.2, most South Asian countries have reduced their tariff rates between 2011 and 2021, with the exception of Pakistan. Sri Lanka, Bhutan and India have the lowest applied tariff rates on imports from all trade partners. Under the SAFTA agreement, member states have reduced tariffs to between 0–5 per cent on all products, except those in sensitive lists. Ongoing discussions aim to further reduce these lists and bring peak tariffs within this range.

Figure 11.3: Illustration of Barriers to Trade in South Asia



Source: Author's illustration.

Table 11.2: Tariff Rate, Applied, Simple Mean, All Products (%)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2021
Bangladesh	13.8	13.53	12.86	–	11.97	12.96	–	–	12.19	11.17
Bhutan	–	–	–	–	12.18		–	–	8.13	3.28
India	10.56	10.71	10.59		9.75	8.91	8.88	9.03	10.21	7.24
Maldives	22.11	11.09	10.98	10.66	11.58	11.41	11.14	11.69	13.25	9.16
Nepal	13.15	12.85	11.82	12.66	12.63	12.65	–	12.79	20.20	11.16
Pakistan	8.91	9.01	9.33	9.86	10.68	–	11.11	10.27	9.45	9.25
Sri Lanka	9.97	9.94	–	9.33	7.87	–	10.35	12.06	16.38	2.10

Source: Author's calculations based on World Integrated Trade Solution (WITS).

Non-Tariff Measures (NTMs)

According to UNCTAD (n.d.), NTMs are policy measures other than ordinary customs tariffs that can impact international trade. Table 11.3 provides a tentative list of NTMs imposed by South Asian countries. Approximately half of the imports in the region do not encounter NTMs, with zero NTM percentages ranging from 52 per cent to 84 per cent. However, the remaining trade is still subject to these measures. While many NTMs are intended to protect public health, hygiene and the environment, they also increase trade costs through higher information, compliance, procedural costs and processing times. This rise in NTMs may undermine the gains achieved through trade liberalisation.

Table 11.3: NTMs of South Asian Countries*

Reporter	NTM Type	Share (%)	NTM Affected Product (count)
India	1 type	15.46	781
	2 types	23.2	1,172
	3+ types	2.75	139
	No NTMs	58.59	2,960
Nepal	1 type	17.52	885
	2 types	1.8	91
	3+ types	0.71	36
	No NTMs	79.97	4,040
Pakistan	1 type	5.96	310
	2 types	5.28	275
	3+ types	4.61	240
	No NTMs	84.15	4,380

<i>Reporter</i>	<i>NTM Type</i>	<i>Share (%)</i>	<i>NTM Affected Product (count)</i>
Sri Lanka	1 type	22.17	1,154
	2 types	5.4	281
	3+ types	20.23	1,053
	No NTMs	52.2	2,717
Thailand	1 type	10.49	546
	2 types	2.54	132
	3+ types	16.16	841
	No NTMs	70.82	3,686

Note: *Counts NTMs imposed on all import products.

Source: Author's calculations based on the WITS.

Additional Barriers

South Asia also faces other challenges, such as rising anti-dumping duties, para-tariffs, extensive sensitive product lists and specific trade restrictions at borders, particularly between India and Bangladesh and India and Pakistan.

Addressing these barriers is essential for enhancing trade growth and integration in South Asia. Key steps include reducing tariffs, simplifying NTMs, improving infrastructure and easing border restrictions. Without proactive measures from the region's political leaders, these barriers can continue to impede economic integration and growth, limiting the potential of South Asian trade and regional cooperation.

Some Recent Positive Developments

The challenge for South Asia lies in sustaining trade growth by dismantling trade barriers. Given the slow pace of regional trade integration, subregional and bilateral arrangements have gained traction. Unilateral trade reforms and measures have been particularly notable since the pandemic. For instance, India has implemented customs reforms to facilitate contactless, faceless and paperless trade, a model that Bangladesh has also adopted. Additionally, India has introduced certain other initiatives, like the National Logistics Policy and the Gati Shakti master plan. India has fulfilled 100 per cent of its commitments under the World Trade Organization (WTO) Trade Facilitation Agreement (TFA), with Pakistan following closely at 97.5 per cent (see figure 11.4).

Positive Developments in Bilateral Relations

While individual South Asian Association for Regional Cooperation (SAARC) members have made positive strides in trade and connectivity, regional cooperation within the SAARC has lagged. However, there are encouraging developments in bilateral relations, particularly between India and Bangladesh, which have strengthened across economic, strategic, cultural and connectivity dimensions. Bangladesh has also fostered stronger bilateral ties with Bhutan and Sri Lanka.

Progress in Trade Facilitation

In South Asia, there is a noticeable increase in free trade agreements (FTAs), the development of trade corridors and the establishment of customs single windows. There have also been efforts to facilitate trade in local currencies, enhance land border infrastructure (such as integrated check posts) and develop logistics parks. While progress in transport and trade facilitation has been significant, it has predominantly been unilateral.

Digital and Sustainable Trade Facilitation

There has been impressive progress in digital and sustainable trade facilitation. Many South Asian countries are adopting national single window systems, following India's 'Single Window Interface for Trade' (SWIFT) model. Trade between India and Bangladesh, for example, has grown rapidly, with Bangladesh's exports to India exceeding US\$ 2 billion. The Bangladesh, Bhutan, India, Nepal (BBIN) subregion has seen improvements in border infrastructure, and countries have also agreed to conduct trade in local currencies.

There is a growing application of digital technology in trade transactions across the region. Enhancements in air linkages, inland waterways, ports and shipping linkages have also been observed, particularly in the BBIN subregion. Table 11.4 presents the regional integration status, highlighting notable progress in connectivity, both physical and people-to-people, as well as trade liberalisation (tariff reductions and NTMs). However, advancements in other areas remain limited.

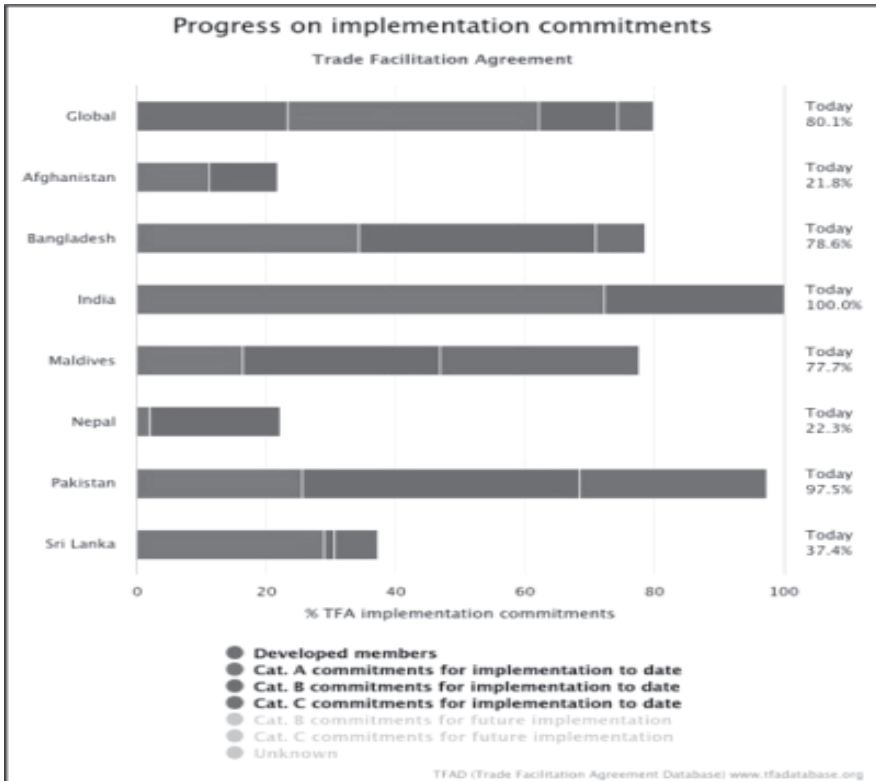
Table 11.4: South Asian Integration Progress Report

<i>South Asia</i>	<i>Tally*</i>
SAFTA implementation	Slow
SATIS implementation	No progress
Investment flows	Nil
Tariff	Moderate
Non-tariff measures	Moderate
Customs cooperation	Negligible
MRA and/or harmonisation of standards	Negligible
Connectivity	Moderate to high
People-to-people links	Moderate to high

Note: *For the period 2000–23;

Source: Author’s tabulation.

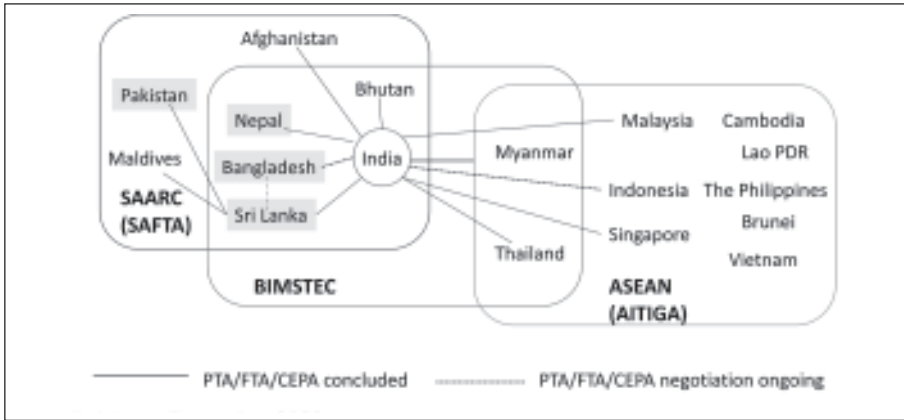
Figure 11.4: WTO TFA Implementation Status*



Note: *As on 30 June 2024.

Source: Author’s illustration based on WTO TFA database.

Figure 11.5: FTA Scenario in South Asia*



Notes: (i) *As on December 2023.

- (ii) ASEAN: Association of Southeast Asian Nations; AITIGA: ASEAN–India Trade in Goods Agreement; BIMSTEC: Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation; CEPA: Comprehensive Economic Partnership Agreement; PTA = preferential trade agreement.

Source: Author's illustration.

Recommendations for Advancing Regional Integration in South Asia

To further advance regional integration, South Asian countries may focus on the following key areas.

Enhancing Regional Cooperation

1. *Strengthen regional frameworks:* Reinforce institutions, like the SAARC, to better coordinate and harmonise trade policies, standards and regulations.
2. *Revitalise regional trade agreements:* Reactivate and fully implement regional agreements, such as the SAFTA, the SATIS and the SARSO.
3. *Promote paperless and digital trade systems:* Transition towards paperless and contactless trade processes and digital payment systems; also, establish networks of customs house agents and authorised economic operators to facilitate smoother trade.
4. *Share best practices:* Establish a regional mechanism to exchange best practices, leveraging India's advancements and Bangladesh's ratification of the United Nations cross-border paperless trade agreement.

Reducing Trade Barriers

1. *Lower tariffs and simplify NTMs*: Continue efforts to reduce peak tariffs and simplify NTMs to make trade more transparent and efficient.
2. *Improve customs procedures*: Implement a regional single window for customs to streamline and expedite trade processes.

Investing in Infrastructure

1. *Develop transportation and logistics*: Invest in modernising transportation networks, logistics and border infrastructure to improve connectivity.
2. *Enhance maritime connectivity*: Focus on developing marine data applications, port facilities and shipping logistics.
3. *Implement regional agreements*: Promote the SAARC Motor Vehicles Agreement and enhance border trade facilities.

Promoting Digital Trade Facilitation

1. *Leverage digital technologies*: Utilise digital technologies to streamline trade processes, reduce transaction costs and improve overall efficiency.
2. *Develop e-commerce frameworks*: Create regulatory and institutional frameworks for e-commerce and digital payments, facilitating cross-border trade for micro, small and medium enterprises and start-ups.
3. *Strengthen digital connectivity*: Establish robust systems for electronic funds transfers among traders and investors across borders, collaborating with development partners, like Japan, the US, Germany and Korea.

Encouraging Bilateral and Subregional Initiatives

1. *Capitalise on bilateral and subregional FTAs*: While pursuing broader regional integration, engage in bilateral and subregional FTAs to foster economic growth. Notable initiatives include:
 - (i) India–Bangladesh Comprehensive Economic Partnership Agreement: Ongoing negotiations to deepen economic ties.
 - (ii) Bangladesh–Sri Lanka FTA: Plans for a bilateral FTA.
 - (iii) Bangladesh–Nepal FTA: Exploring trade agreement possibilities.
 - (iv) Bangladesh–Bhutan Preferential Trade Agreement: A preferential trade agreement already in place.

These strategies can significantly enhance South Asian regional integration, fostering a more connected, prosperous and stable region.

Conclusion

In conclusion, South Asia's regional integration plan requires recalibration and a new strategy. Essential reforms, policies and cooperation are crucial for garnering the support of member countries and expanding the shared agenda. Without these, regional integration will stagnate further. Thus, deepening and broadening cooperation in South Asia is vital for facilitating the integration process. Political leadership is key to overcoming the current impasse. A stronger South Asia is essential for a stronger global community.

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12

Aid, Infrastructure and Regional Connectivity in South Asia: A Recipient's Perspective

Anurag Acharya

South Asia, home to approximately 1.9 billion people, accounts for nearly a quarter of the global population (World Bank, n.d.[a]). However, it also houses one of the largest poor populations in the world, with a multidimensional poverty rate of 48 per cent, the highest globally and 12 per cent higher than that of Sub-Saharan Africa (Finnigan, 2019). Despite these challenges, the region remains one of the fastest-growing one in the world, with nine countries collectively contributing to a gross domestic product (GDP) of \$4.3 trillion (World Bank, n.d.[b]). Significant infrastructure gaps, however, continue to hinder the region's full growth potential and integration into the global markets. To meet its infrastructure needs, South Asia requires an annual investment of \$423 billion, but there is a shortfall of nearly \$200 billion each year (Asian Development Bank [ADB], 2017). While India bears a large portion of this deficit, other countries, such as Bangladesh, Nepal and Sri Lanka, also face severe shortfalls due to limited domestic capital mobilisation.

The absence of adequate infrastructure perpetuates a vicious cycle of low growth and persistent poverty, further exacerbating regional challenges. Given their limited domestic resources, South Asian countries continue to rely on external aid and investments to meet their infrastructure demands. However, external funding is often tied to the strategic interests of donor nations, influencing where and how investments are made.

Historical Context

South Asia's colonial past and post-colonial conflicts have profoundly shaped its geopolitics, complicating efforts towards regional cooperation and integration. Five of the eight South Asian countries were once British colonies, while the others were protectorates or heavily influenced by British presence. The legacy of colonialism, characterised by resource exploitation and division, has left the region vulnerable to ongoing conflicts (McQuade, 2017). The partition of India and Pakistan in 1947, marked by mass migrations and ethnic violence, led to three wars and has left a lasting impact on their relations. Similarly, Bangladesh's independence from Pakistan in 1971 resulted in a war that continues to strain ties. India's relations with Sri Lanka have also been fraught, particularly during the latter's ethnic conflict, while border disputes and water-sharing issues have strained relations between India and Nepal.

Despite these political and historical tensions, South Asia shares deep cultural, ethnic, linguistic and religious connections that form the foundation of its collective identity (Mohammad-Arif, 2014). Pashtuns live along the borders of Pakistan and Afghanistan; Hindu and Muslim families are divided across India and Pakistan; and Bengali speakers are found in both India and Bangladesh. Tamils reside in Sri Lanka, India and the Maldives, while Maithili and Bhojpuri speakers live along the India–Nepal border. These cultural and kinship ties often transcend state diplomacy, offering opportunities for cooperation where political relations falter. Nonetheless, South Asian nations have adopted distinct political systems and pursued different development paths, influenced by their unique historical and geopolitical contexts.

During the Cold War, many South Asian nations aligned themselves with the non-aligned movement, opting to remain neutral and avoid entanglement in global power struggles (Ministry of External Affairs (MEA), n.d.[a]). This principle of non-alignment continues to shape their foreign policies even today. However, powerful external actors have increasingly sought to expand their influence in South Asia, drawn by the region's strategic location as a gateway between the growing economies of East Asia and the vast markets of West Asia (the Middle East), Central Asia and Europe (Economic and Social Commission for Asia and the Pacific [ESCAP], 2017).

The Pursuit of Multidimensional Connectivity

South Asia holds tremendous potential for enhancing regional connectivity

through land, sea and air routes, linking the region with Europe and the rest of Asia. Several projects are emblematic of these efforts, for instance, the Great Asian Highway (also called Asian Highway Network), an ambitious initiative to connect 32 countries across Asia with a 145,000 kilometre road network. Signed by 30 member states of the United Nations ESCAP, the Asian Highway Network aims to improve cross-border movement (ESCAP, 2020). Countries like Nepal are also upgrading highways linking China to India, facilitating direct road connectivity between Beijing, Kathmandu and New Delhi. Additionally, India and Nepal are working on extending their railway networks, with further plans for China–Nepal railway connectivity, which could drastically boost regional ties.

Beyond roads and railways, maritime connectivity is gaining prominence, with the Bay of Bengal and the Arabian Sea serving as critical transit points. China's Belt and Road Initiative (BRI), which envisions six major economic corridors connecting Asia, Europe and Africa, has focused heavily on South Asia (He, 2020). The China–Pakistan Economic Corridor (CPEC), for instance, connects China with Central Asia and Europe through Pakistan, while the Bangladesh–China–India–Myanmar Economic Corridor (BCIM-EC) opens a gateway to South Asia's largest markets and the Association of Southeast Asian Nations (ASEAN) region.

The South Asian countries have also pursued subregional initiatives, like the South Asia Subregional Economic Cooperation (SASEC), involving Bangladesh, Bhutan, India, the Maldives, Myanmar, Nepal and Sri Lanka (SASEC, n.d.). These initiatives aim to improve regional trade and connectivity by developing trans-boundary highways, railways, oil pipelines and energy transmission lines. Enhanced physical and digital infrastructure, particularly in underdeveloped regions like eastern Bangladesh, Nepal and Sri Lanka's northern provinces, could spur growth in tourism, agriculture manufacturing and information technology, reducing dependence on overseas migration for employment (Sakalasoorya, 2021; *The Daily Star*, 2020).

Great Power Investments in South Asia

The competition for influence in South Asia is increasingly shaped by three major powers: India, China and the United States (US). Each is leveraging infrastructure investments to gain strategic advantages, particularly as geopolitical rivalries intensify in the Indo-Pacific region.

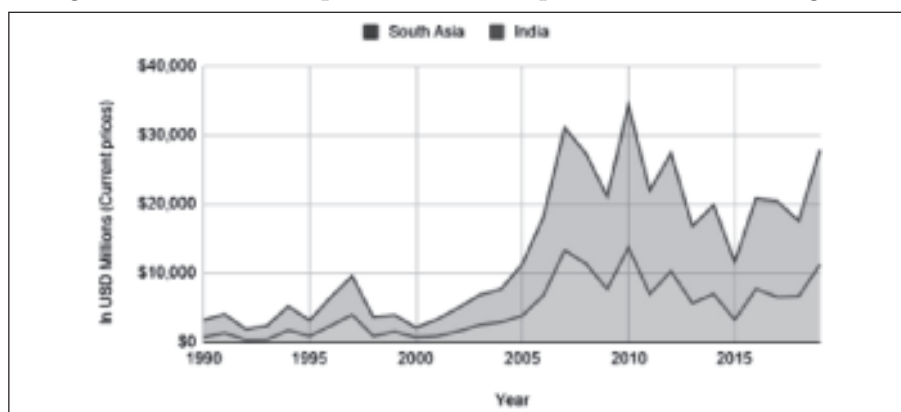
India, though no longer the largest provider of aid in South Asia, remains the most influential regional actor due to its long-standing economic and political relationships. Over the decades, India has invested heavily in neighbouring countries to foster goodwill, particularly in Bhutan, Nepal, Bangladesh, Sri Lanka and the Maldives. Despite disputes over boundaries and resources, New Delhi has managed to safeguard its core interests through these investments, providing critical support for the development of physical and social infrastructure. Annual Indian aid to South Asia (excluding Pakistan) has varied, peaking at \$1.5 billion in 2015, before declining to approximately \$600 million in 2022 (MEA, n.d.[b]).

China, meanwhile, views South Asia as integral to its BRI initiative. The CPEC and BCIM-EC have been focal points for Beijing, reflecting its broader ambition to connect Asia, Europe and Africa. Over the past decade, China has invested over \$60 billion in Pakistan, with funds allocated to power plants, highways, railways and the development of Gwadar Port (*Greek City Times*, 2021; Rafiq, 2023). Similarly, Sri Lanka has received over \$12 billion from China for infrastructure projects, like the Colombo Port City and Hambantota Port (Wignaraja et al., 2020). Bangladesh, too, has benefitted from Chinese investments in expressways, bridges and power plants, though environmental concerns have led China to cancel plans for 10 additional power projects (Charles, 2022).

The US has increased its presence in South Asia in response to China's growing influence. While historically cautious in its engagements with India, the US has deepened its partnership with New Delhi, directing substantial aid towards renewable energy and infrastructure development. Through the US International Development Finance Corporation, nearly \$300 million has been allocated for sustainable infrastructure in India (Sinha, 2023). In Nepal, the US provided a \$500 million grant under the Millennium Challenge Corporation (MCC) to improve grid connectivity and facilitate power trade with India.

While direct infrastructure aid from the US has been limited outside of India and Nepal, Washington's Development Assistance Committee allies, such as Japan, have consistently provided more than \$1 billion in aid annually to support South Asia's infrastructure needs (Ministry of Foreign Affairs of Japan, 2018). Multilateral organisations, like the World Bank and the ADB, have also contributed significantly to infrastructure projects across the region.

Figure 12.1: Total Receipts from the US, Japan and the United Kingdom



Challenges and Opportunities for Recipients in South Asia

The geopolitics of South Asia presents both significant challenges and potential opportunities for recipient countries. As these nations work to improve connectivity and market integration, they must navigate complex political dynamics, particularly involving regional powers like India, Pakistan and China. This dynamic complicates efforts towards regional cooperation, transforming infrastructure investments into a strategic battleground for influence. Despite the benefits of improved regional connectivity, these geopolitical tensions place smaller South Asian countries in a delicate position as they balance developmental needs with the interests of larger, more powerful nations.

Navigating Complex Geopolitics

For smaller South Asian countries, managing the competing interests of larger regional powers, such as India and China, is a complex task. India, as the largest economy in the region, plays a central role in all initiatives aimed at improving regional connectivity. Whether through China's BRI, the Asian Highway Network or the SASEC programme, India's participation is essential. However, diplomatic tensions between India, Pakistan and China have hindered cooperation and regional integration, as seen in the near dysfunctionality of the South Asian Association for Regional Cooperation (SAARC) (Muzaffar et al., 2017).

India's refusal to join the BRI and its alignment with the Indo-Pacific Quadrilateral Security Dialogue (Quad), alongside the US, Japan and Australia, have added to these challenges, reflecting India's growing concerns over border security and regional power dynamics (Cho, 2019). The geopolitical competition

between India and China, intensified by the US strategies to counter Chinese influence in the Indo-Pacific, has created an environment where smaller South Asian nations must carefully navigate their foreign policy choices (Bhattarai, 2020).

These nations often rely on external aid for infrastructure development, but must weigh the risks of becoming entangled in geopolitical rivalries. Balancing these relationships with the need for sustained economic growth requires strategic diplomacy.

Emerging Opportunities

Despite these challenges, there are new opportunities for smaller South Asian countries to leverage foreign aid and investments for economic development. In the past, many of these nations faced domestic political instability, which hindered progress. However, recent years have seen relative political stability in countries like Nepal, Bangladesh and Sri Lanka, enabling them to prioritise economic diplomacy (Acharya, 2022).

For instance, Pakistan has enhanced its transport infrastructure with significant Chinese aid, while Bangladesh has secured investments from multiple donors to strengthen its transport, energy and manufacturing sectors. Similarly, Sri Lanka has upgraded its seaports and transportation infrastructure with support from both China and India. Nepal, too, has attracted aid from China, India and the US for major infrastructure projects, including hydropower and transportation improvements.

As geopolitical competition intensifies, more aid and investments are expected to flow into these countries. However, this influx of aid brings new foreign policy challenges, as recipient countries must manage the competing expectations of powerful donors while ensuring that these investments align with their developmental goals.

Managing Domestic Tensions

Historically, South Asian countries followed a policy of non-alignment, distancing themselves from the Cold War-era power struggles. However, in recent decades, this approach has shifted. India has moved closer to the US in response to its security concerns in the Indo-Pacific, while Pakistan has strengthened its relationship with China. Other South Asian nations have attempted to maintain pragmatic foreign policies, avoiding direct alignment with any single power.

Despite these efforts, they frequently face domestic political tensions over foreign aid and investments.

In 2021, Sri Lanka rejected a \$500 million MCC grant from the US while continuing to pursue China-funded projects. The country's external debt crisis triggered political protests and led to an economic downturn, demonstrating the risks of poorly managed foreign investments (World Economic Forum, 2022). Nepal, too, has faced political divisions over aid from China, India and the US, with large hydropower projects becoming contentious as companies from these countries vie for influence (Pokhrel, 2023). Similarly, the Maldives has experienced domestic tensions due to the geopolitical rivalry between China and India, with electoral outcomes reflecting these power struggles (Roy, 2023).

These examples highlight the difficulties smaller South Asian nations face in managing foreign aid and balancing domestic political stability with international investments.

Prospects for Regional Integration

South Asia, despite its vast market potential, remains one of the least connected regions globally. The SAARC, established in 1985 to promote regional cooperation, has been largely ineffective due to bilateral conflicts and broader geopolitical tensions. However, there are promising developments in subregional initiatives, like the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), which fosters cooperation between South Asian and Southeast Asian countries.

Connectivity projects within the Bangladesh, Bhutan, India, Nepal (BBIN) region, facilitated by the SASEC programme, also show promise in improving cross-border infrastructure and facilitating market integration (SASEC, 2023). These projects demonstrate how improved infrastructure and connectivity can drive economic development, as seen in regions like Europe and East Asia.

India plays a crucial role in fostering regional connectivity and integration (BIMSTEC, n.d.). Its recent proposal at the G20 summit to link South Asian markets with West Asia and Europe marks a significant step in this direction (Global Infrastructure Hub, 2018). Additionally, China's efforts to restart stalled BRI projects in the wake of the COVID-19 pandemic offer further opportunities for the region.

Infrastructure deficits in South Asia present a significant challenge, requiring

substantial investments that domestic capital alone cannot fulfil. As external powers compete for influence in the region, South Asian countries must strategically manage their relationships with major donors to ensure that infrastructure investments align with their developmental goals. Enhanced connectivity has the potential to unlock new opportunities for growth and regional integration, benefitting the region as a whole. However, recipient countries must be prudent in managing foreign aid and investments, ensuring that these contributions lead to long-term economic gains rather than becoming liabilities. This careful management will be crucial as South Asian nations navigate the complex geopolitics of the region.

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SECTION III

Sustainability, Innovation and Regional Response

Nexus between Trade, Investment and Climate Change in South Asian Economies

Pami Dua, Deepika Goel and Neha Verma

Introduction

The South Asian region, which includes Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan, the Maldives and Sri Lanka, has strong linkages with the global economy through trade, investment, economics and geopolitics. At just under 6 per cent, this region is expected to grow faster than any other emerging market and developing region in 2024–25 (World Bank, 2023). However, in recent years, the world economy has been confronted with the challenges of climate change, which has serious ramifications for emerging economies and South Asia in particular. These challenges are expected to severely impact the trade and investment flows from and to the South Asian region and increase climate change-related vulnerability.

Regional integration facilitates neighbouring economies to expand trade and coordinate economic policies to pursue common goals. It is crucial to strengthen collaboration among regions to tackle urgent climate challenges and boost resilience in trade, supply chains, digital economy and sustainable tourism recovery. As South Asia plays a growing role in the fight against climate change, regional cooperation becomes essential for reducing carbon emissions in its production, trade and investment activities.

Climate change-related measures and policies and their interrelationships with macroeconomic parameters of the economy have long been a question of

great interest in a wide range of fields. However, the relative importance of trade and investment openness of an economy in the present context has received scant attention in related literature.

This chapter attempts to fill the gap in the literature by examining the relationship between trade, foreign direct investment (FDI) and climate change in the context of South Asian economies and how the integration of trade and FDI policies with climate-related policies can foster regional growth. The key issues to be addressed in the chapter are: examine the progress of South Asia in intra-regional integration of trade, foreign investment and climate change policies, along with a comparison to other groups of Asian economies; understand the theoretical and empirical linkages between trade, FDI and climate change; and suggest policy recommendations for South Asia to make intra-regional cooperation in trade and investment a catalyst for climate solutions.

The road map of the chapter is as follows. The next section discusses the linkages between trade, foreign investment and climate change based on the review of theoretical and empirical literature. The following section presents an overview of intra-regional integration of South Asian economies with Asia-Pacific across the dimensions relevant to trade and investment links. It also draws a comparison between South Asia and other groups of Asian economies. The section after that discusses the vulnerability of South Asian economies to climate change and provides data on carbon emissions in the region. The section that follows examines the progress of South Asia towards harnessing trade and investment links for climate solutions. The penultimate section discusses the observations from the data analysis in the previous sections. The last section presents the conclusion and discusses the policy recommendations for South Asia for sustainable development.

Conceptual Linkages between Trade, Foreign Investment and Climate Change

There are multiple interlinkages between trade, investment and climate change with several contrasting themes. In this context, the environmental Kuznets curve (EKC) offers a starting point for understanding the relationship between income and the environment of an economy. According to EKC, there is an inverted U-shaped relationship, which suggests that at the early stages of industrialisation and income growth, atmospheric emissions increase but after a certain threshold of industrial development is reached, the emissions start to fall. Grossman and

Krueger (1995) estimate this relationship for sulphur dioxide emissions and get a peak at the per capita income levels of \$5,000 and \$6,000, finding evidence for an inverted U-shaped curve. Similar evidence is found in other studies on carbon monoxide emissions (Frankel, 2008; Selden and Song, 1994).

Most of the developing and emerging economies are operating in the rising part of the inverted U-shaped EKC, where the environment is degrading with industrialisation. To reach the downward-sloping portion of EKC and reduce the emissions, it is important to understand the linkages between trade, investment and emissions, and thereby reduce the trade-embedded emissions. As the atmospheric emissions represent a global externality, effective multilateral arrangements are needed to reach the downward-sloping part of the curve (Kozul-Wright and Fortunato, 2012).

The role of environmental factors is not discussed in the traditional trade and investment models, but with the issue of climate change and environmental degradation gaining traction in recent decades, the theoretical and empirical literature is expanding to understand the effect of trade and investment on climate change and vice versa. The bidirectional relationships are explained in the following subsections.

Effect of Trade on Climate Change

The expansion of trade in an economy can affect the climate through scale, composition and technique effects. ‘Scale’ effects refer to the increase in emissions and environmental degradation owing to the increase in economic activity and consumption with expansion in economic growth. ‘Composition’ effects refer to a transition towards cleaner production processes and ‘technological’ effects refer to the adoption of cleaner and environment-friendly techniques of production with the transition to higher income levels. This effect can facilitate the development of environmentally friendly goods, services and technologies, as well as ratcheting up the environmental standards due to better public awareness (Copeland and Taylor, 1994, 1995; Ji et al., 2020; Wiedmann and Lenzen, 2018).

Apart from these effects, trade agreements with dedicated chapters on environmental and sustainable development can encourage multinational enterprises to transfer cleaner technologies to the economies. There are empirical studies in the literature that find that environmental provisions in trade agreements can limit environmental degradation (Abman et al., 2021; Baghdadi et al., 2013; Monteiro, 2016).

Effect of Foreign Investment on Climate Change

The effect of FDI on environment and climate change is studied in the context of ‘pollution haven’ and ‘pollution halo’ hypotheses. The pollution haven hypothesis suggests that developing and emerging economies with weak environmental regulations and policies often end up being the host of polluting industries from industrialised economies by way of foreign investment inflows and therefore, the carbon emissions in these economies increase manifold. The pollution halo hypothesis contends that foreign investment brings with it managerial expertise and technological innovations aimed at the adoption of cleaner production processes, thereby lowering the environmental damage of economic development and investment inflows.

Thus, on the one hand, the FDI inflows can have a positive effect on host countries by facilitating the transfer of innovative technologies, fostering financial development and improving management practices (Yu and Xu, 2019). On the other hand, FDI inflows can worsen environmental degradation if heavily polluting industries tend to operate in countries and regions with lower environmental standards (Ren et al., 2014). Jijian et al. (2021) also find a positive but insignificant effect of FDI on emissions for 52 Belt and Road Initiative (BRI) economies. There is no consensus in the literature on the effect of FDI on climate change for the recipient economy (Pata et al., 2023; Tang and Tan, 2015).

Effect of Climate Change on Trade and Foreign Investment

The effect of climate change on trade and investment flows is also bidirectional. The main channels of climate change impact on trade and investment are low labour productivity, infrastructure damage, changes in trade policies owing to production fluctuations and environmental degradation worsening the capital inflows. Martínez Martínez et al. (2023) studied a sample of 67 countries and found that international trade flows are significantly affected by extreme weather events. The positive effects could be opening up of new trade routes and strengthening of environmental regulations (Bekkers et al., 2018).

Asian Regional Integration in Trade and Foreign Investment

This section examines the state of intra-regional integration in the South Asian economies with respect to trade and investment flows and other related dimensions. A comparison is also drawn with other groups of Asian economies on these dimensions to understand the untapped potential of regional integration

for South Asia. Figures 13.1 and 13.2 show the share of East Asia (includes China, Hong Kong, Japan, Macau, Mongolia, North Korea, South Korea and Taiwan), Southeast Asia (includes Brunei, Myanmar, Cambodia, Timor-Leste, Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand and Vietnam) and South Asia in merchandise trade and FDI flows. Figure 13.1 shows the exports and imports of these regions for 2022, as the share of world exports and imports respectively; and Figure 13.2 shows the share of FDI inflows and outflows in these regions, as share of world FDI inflows and outflows, respectively, for 2022. The share of South Asia is the lowest among all groups in trade as well as FDI flows.

Figure 13.1: Asian Economies and the World: Trade and Investment (2022)

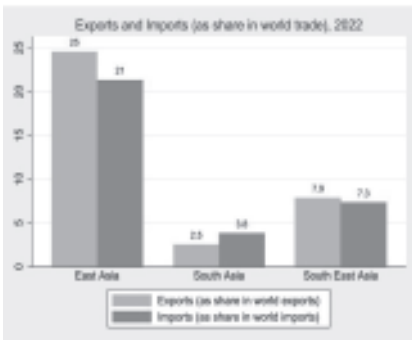


Figure 13.2: Asian Economies and the World: Foreign Investment (2022)

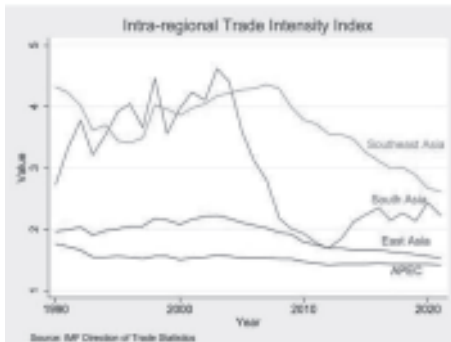


Source: United Nations Conference on Trade and Development (UNCTAD) database (2022).

Figures 13.3 and 13.4 examine the level of intra-regional integration of South Asia with Asia-Pacific in trade and foreign investment flows. Despite the geographical proximity, regional and bilateral trade agreements and cultural similarities, the intra-regional integration in terms of trade and foreign investment is significantly low in South Asia in comparison to other groups of emerging economies, like Southeast Asia and East Asia.

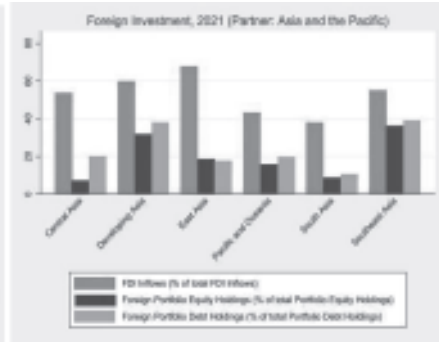
Figure 13.3 illustrates the intra-regional trade intensity for Asia-Pacific regions from 1990 to 2021. The index is defined as the ratio of intra-regional trade share to the share of world trade with the region. South Asia witnessed a significant downfall in the early 2000s and the position has not revived yet. Based on the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) South Asia Gravity Model (2017), more than 67 per cent of the trade potential is not being exploited by the region.

Figure 13.3: Intra-regional Trade Integration (Asian Economies)



Source: Direction of Trade Statistics, International Monetary Fund (IMF).

Figure 13.4: Intra-regional Investment Integration (Asian Economies), 2021



Source: Asian Development Bank (ADB) database.

Figure 13.4 shows the intra-regional integration with Asia-Pacific for FDI and foreign portfolio investment (FPI) flows for 2021. In the case of investment flows as well, the integration of South Asia is the lowest (except Central Asia in the case of foreign equity holdings). Intra-regional investment, which acts as a stimulus for trade movements, is even lower than intra-regional trade and accounts for only 0.6 per cent of FDI inflows from the world to South Asia. South Asia is described as having one of the lowest levels of trade integration in the world and the South Asian Free Trade Area (SAFTA) is believed to have had little success in facilitating intra-regional trade (Jain and Singh, 2009; Kathuria, 2018).

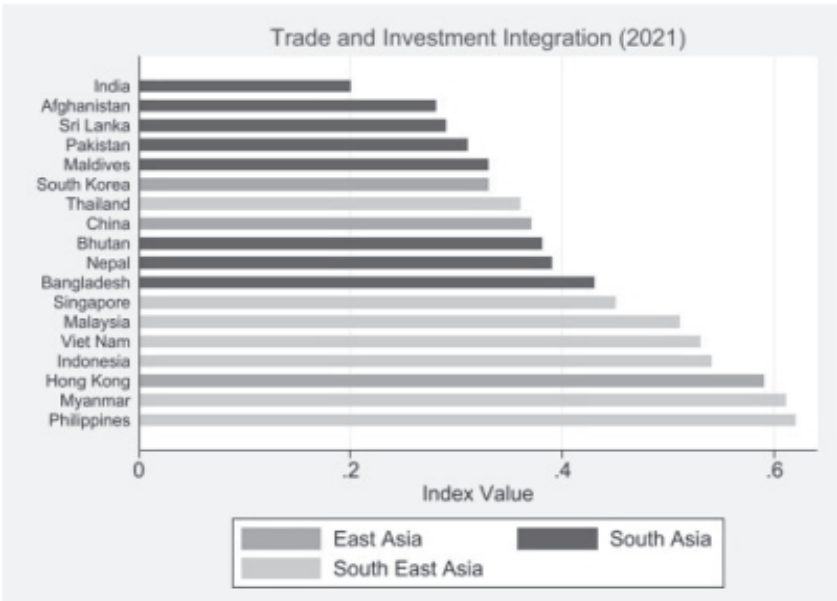
Dimensions of Regional Integration

There are various dimensions of trade and cross-border investment flows and intra-regional integration across these dimensions is crucial for strengthening the overall integration of South Asia with Asia-Pacific. This subsection examines the country-level integration indices for East Asia, Southeast Asia and South Asia across various dimensions, like value chain integration, technological and digital connectivity, money and finance integration, institutional arrangements integration and cooperation in environmental efforts. The indices developed by the Asian Development Bank (ADB) as the Asia-Pacific Regional Integration Index (APRII) are used to examine regional cooperation across various dimensions. For each dimension, there are multiple indicators and weighted average of indicators is taken to compute the dimensional index, with weights determined by principal component analysis (PCA). The overall index of regional

integration is computed by taking a weighted average of dimensional indices. The six dimensions examined in the present study are explained next, along with data analysis for the Asian economies.

1. *Trade and investment integration* measures the intra-regional movement of goods (exports and imports) and the trade intensity. To capture investment integration, this index takes into account the intra-regional FDI inflows and outflows. Figure 13.5 shows Southeast Asian economies are doing much better than South Asian economies in trade and investment integration. Among the eight South Asia economies, five have the lowest level of integration among the economies covered in the analysis. It implies that there is a huge potential for South Asian economies to expand mutual trade and investment with other Asia-Pacific economies.

Figure 13.5: Trade and Investment Integration (2021)



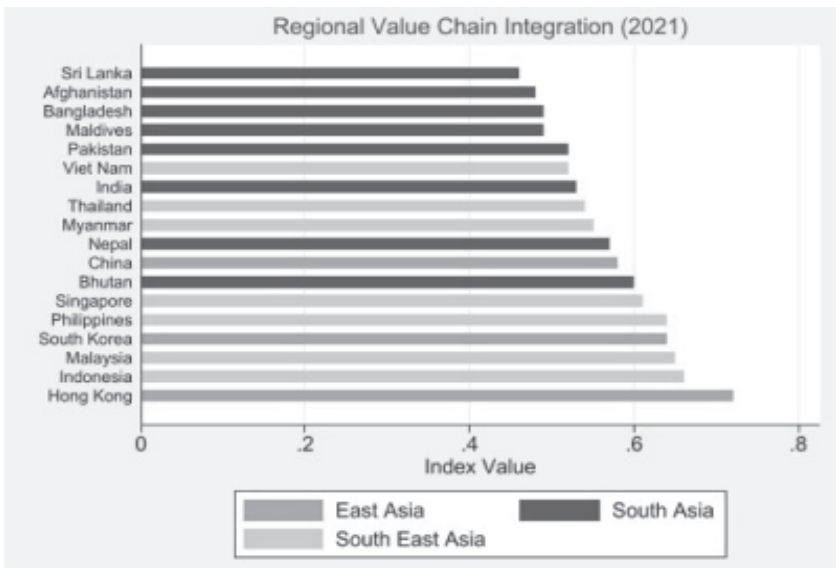
Note: Higher value denotes greater regional integration. Worldwide normalisation is used for all estimations, where the indicators are normalised using global maximum and minimum values across all regions.

Source: Asia Regional Integration Centre, ADB.

2. *Regional value chain integration* is captured by intra-regional intermediate goods exports and imports, value added by regional trading partners

and trade complementarity and trade concentration indices over regional trading partners. Figure 13.6 shows that among the South Asian economies, Nepal and Bhutan are tapping the potential of global value chain (GVC) integration, while other South Asian economies are lagging. The top performer in this dimension is Hong Kong from the East Asia group. A higher integration through participation in regional value chains can potentially transform the production processes towards sustainability and competitiveness, paving the way for tackling climate change issues. The COVID-19 pandemic has exposed the fragility of value chains in South Asia (for example, sickness among workers and intermediate goods shortages) that were recalibrating to vulnerabilities of GVCs (Castañeda-Navarrete et al., 2021).

Figure 13.6: Regional Value Chain Integration (2021)



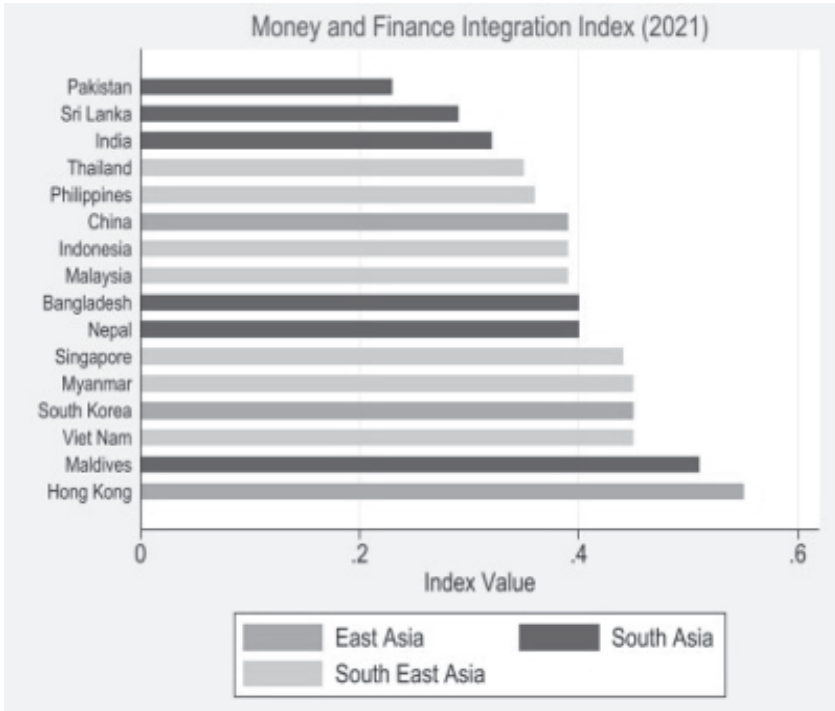
Note: Higher value denotes greater regional integration. Worldwide normalisation is used for all estimations, where the indicators are normalised using global maximum and minimum values across all regions.

Source: Asia Regional Integration Centre, ADB.

3. *Money and finance integration* captures intra-regional cross-border equity and bond liabilities, capital account openness, dispersion in deposit rate and correlation of exchange rates relative to the United States (US) dollar. Figure 13.7 shows that relatively open economies, like the Maldives and

Hong Kong, are doing relatively better than other economies, while Pakistan, Sri Lanka and India are doing worse. Opening up the economy to foreign capital can facilitate the provision of climate finance, which is a crucial challenge for emerging economies in the adaptation and mitigation of climate change.

Figure 13.7: Money and Finance Integration (2021)



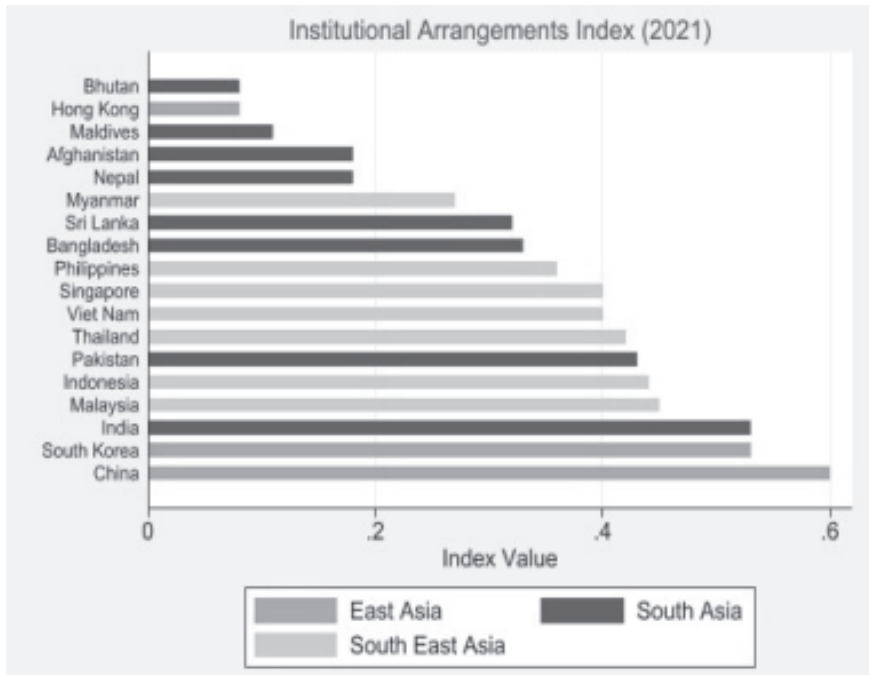
Note: Higher value denotes greater regional integration. Worldwide normalisation is used for all estimations, where the indicators are normalised using global maximum and minimum values across all regions.

Source: Asia Regional Integration Centre, ADB.

4. *Institutional arrangements index* captures the intra-regional free trade agreements signed, bilateral investment treaties signed, double taxation treaties signed, membership of international intergovernmental organisations and having an embassy in the economy. Figure 13.8 shows that the East Asian economies (except Hong Kong) have very high index values, showing a conducive institutional environment for regional cooperation. Among South Asian countries, India has a high value, while

economies like Bhutan, Afghanistan, the Maldives and Nepal lag in institution integration with Asia-Pacific.

Figure 13.8: Institutional Arrangements Integration (2021)

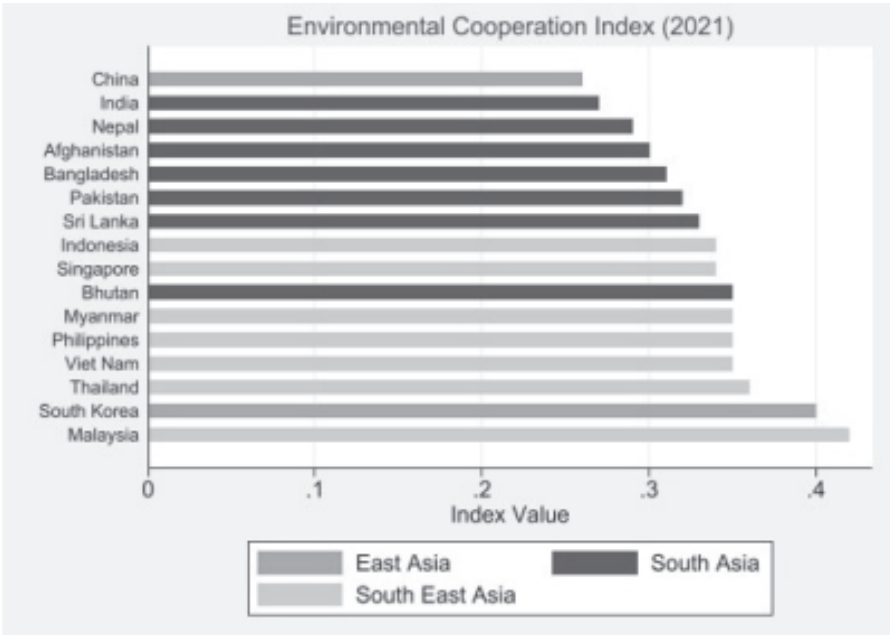


Note: Higher value denotes greater regional integration. Worldwide normalisation is used for all estimations, where the indicators are normalised using global maximum and minimum values across all regions.

Source: Asia Regional Integration Centre, ADB.

5. *Environmental cooperation index* comprises trade in environmental goods (exports and imports), the number of international environmental agreements ratified, the number of health score of the economy and the ecological footprint of production as a share of biocapacity. Figure 13.9 shows that Southeast and East Asian economies are performing much better than South Asia on environmental cooperation. South Korea and Malaysia are performing best in this dimension, while China and India are lagging behind. The latter economies are among the world's highest carbon emitters and intra-regional environmental cooperation can significantly improve their carbon footprint.

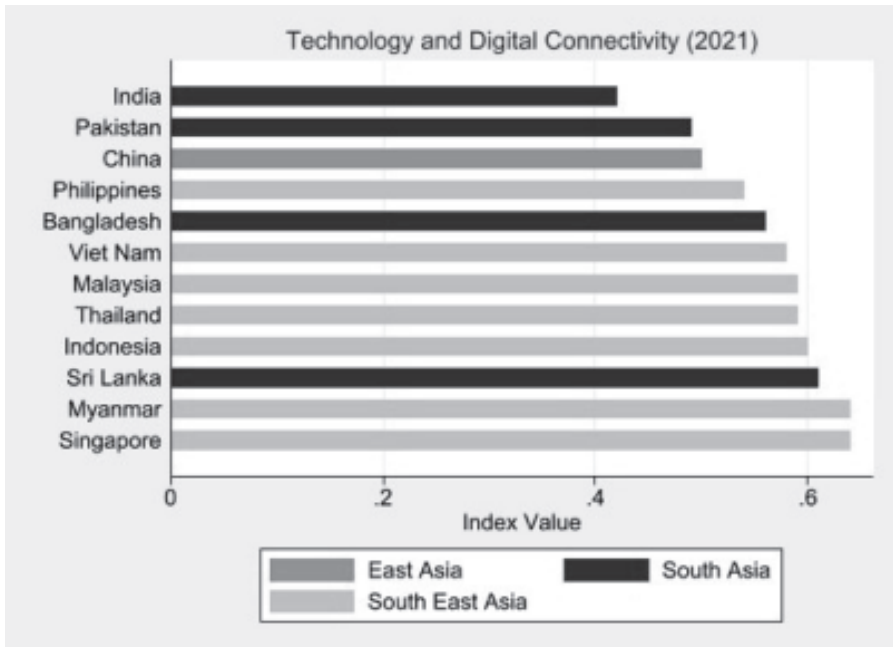
Figure 13.9: Environmental Cooperation Index (2021)



Note: Higher value denotes greater regional integration. Worldwide normalisation is used for all estimations, where the indicators are normalised using global maximum and minimum values across all regions.

Source: Asia Regional Integration Centre, ADB.

6. *Technology and digital connectivity* capture the intra-regional trade in information and communication technologies goods (exports and imports); research output with intra-regional collaborators; patent applications with intra-regional residents; and infrastructure, like the Internet and mobile subscriptions. Figure 13.10 shows that the South Asian economies are lagging behind their Southeast Asian counterparts, though the absolute difference in the index value is low. India has been successful in fostering digital public infrastructure (DPI) in the country but has the lowest index value among the countries analysed. Thus, there is a huge potential for India to expand the DPI framework to other regional economies for better integration.

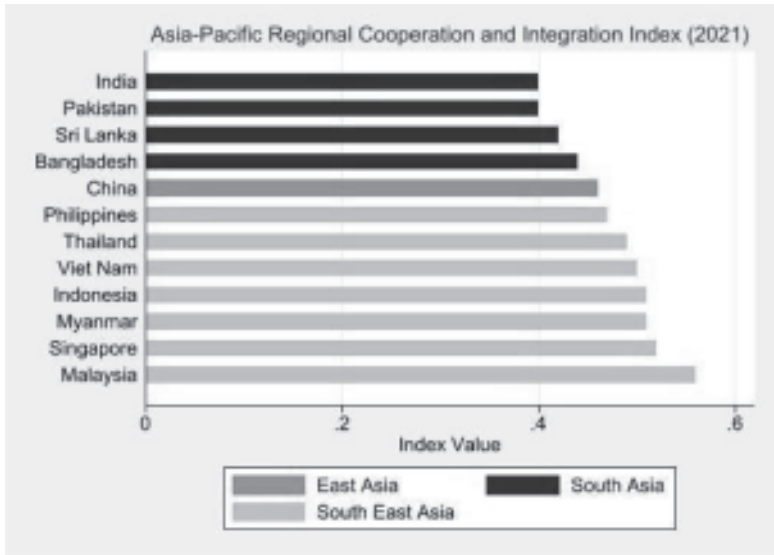
Figure 13.10: Technology and Digital Connectivity Integration (2021)

Note: Higher value denotes greater regional integration. Worldwide normalisation is used for all estimations, where the indicators are normalised using global maximum and minimum values across all regions.

Source: Asia Regional Integration Centre, ADB.

Figure 13.11 shows the aggregate regional cooperation and integration index for various Asia-Pacific economies and the lowest index is found to be for the South Asian economies. The country-specific analysis of regional integration across various dimensions relevant to fostering trade and investment ties in the economies shows that there is untapped potential for integration in South Asia. Within the Asian region, the highest level of regional integration is among Southeast Asian economies, followed by East Asia. On the other hand, the South Asia Subregional Economic Cooperation (SASEC) showed a decline in intra-subregional integration in 2020 (ADB, 2023) in comparison to other groups, along all dimensions.

Figure 13.11: Regional Cooperation and Integration Index (2021)



Source: Asia Regional Integration Centre, ADB.

Another aspect relevant to understanding trade integration is the level of trade restrictions imposed by the economy. The economies employ various trade policy instruments to facilitate or restrict international trade in times of economic and geopolitical challenges. These trade restrictions can have negative repercussions on growth and sustainable development. In the case of Asia, more than 11 per cent of the total trade between 2020–21 has been subjected to restrictive interventions. Based on ADB (2023), among the various subregions of Asia, South Asia has the lowest level of trade benefitting from liberalising interventions in 2022 (after the Central Asia subregion).

Climate Change and South Asia

The trade and investment-led growth in an economy comes at the cost of the environment due to the expansion in trade-embedded emissions (Paz, 2023). Therefore, it is imperative to understand the narrative of climate change with its ramifications on trade and investment and vice versa.

This section provides an overview of the vulnerability and readiness of South Asian economies to climate change and the level of carbon emissions from the region. South Asia region is identified as one of the most vulnerable regions to climate shocks by *Climate Change Action Plan, 2021–2025* (World Bank, 2021).

Five of the eight South Asian economies (Afghanistan, Bangladesh, Bhutan, the Maldives and Nepal) are in the Vulnerable Twenty (V20) group, which deserves particular attention to deal with climate change risks. These economies rely heavily on the agriculture sector for income generation and trade flows and are, therefore, more vulnerable to climate change. Figure 13.12 shows the vulnerability score of Asian economies (grouped according to regions) to climate change for 2021. It is evident from the figure that South Asian economies are among the most vulnerable economies in Asia to climate change-related shocks and natural disasters.

Figure 13.12: Vulnerability to Climate Change (Asian Economies), 2021



Source: Climate Change Dashboard, IMF.

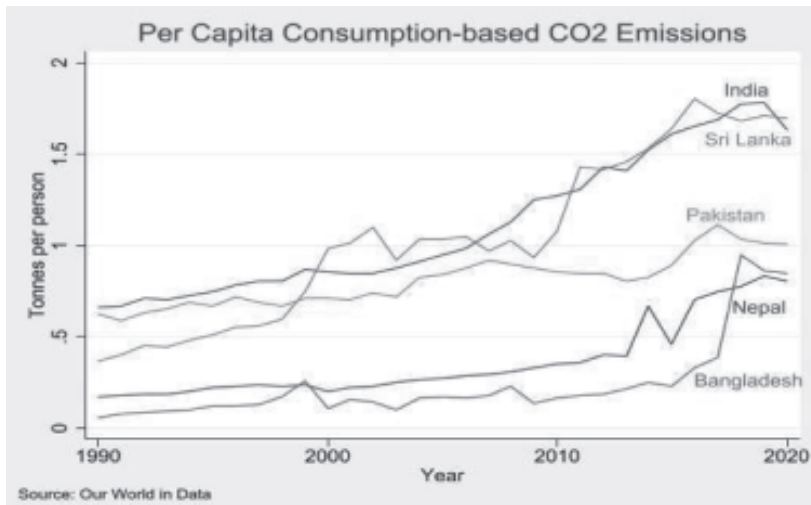
Figure 13.13 presents the score of Asian economies for readiness to tackle climate change. The readiness score for South Asian economies gives a mixed picture, with economies like Afghanistan, Pakistan, Bangladesh and Nepal among the least ready economies for adaptation and mitigation of climate change-related shocks.

Figure 13.13: Readiness to Climate Change (Asian Economies), 2021



Source: Climate Change Dashboard, IMF.

The emission levels of the South Asian region are also very high, as the region uses twice as much energy to produce each unit of output as the global average and lags in the adoption of advanced energy-efficient technologies. It is estimated that by 2030, annual economic losses from climate change in South Asia will average \$160 billion (World Bank, 2021). There are two ways to measure emissions in an economy. The production-based emissions are based on the emissions due to the production activities in an economy, while consumption-based emissions account for the emissions in the production of goods and services based on where they are consumed, rather than where they are produced. Thus, they are calculated by adjusting the production-based emissions for trade. In other words, consumption-based emissions are production-based emissions, *minus* the emissions embedded in exports, *plus* the emissions embedded in imports. The consumption-based measure examined in the study includes the emissions from fossil fuels and industrial activities.

Figure 13.14: Per Capita Consumption-based Carbon Emissions: South Asia

Source: Our World in Data.

Figure 13.14 shows the per capita consumption-based carbon dioxide (CO₂) emissions in the region, which are adjusted for trade flows. For each of the South Asian economies depicted in the figure, the emissions are increasing at an increasing pace over time. Between 1995–2019, the CO₂ emissions embodied in the exports of South Asia increased fivefold (ADB, 2023).

Intersection of Climate Change-related Policies and Trade–Investment Policies

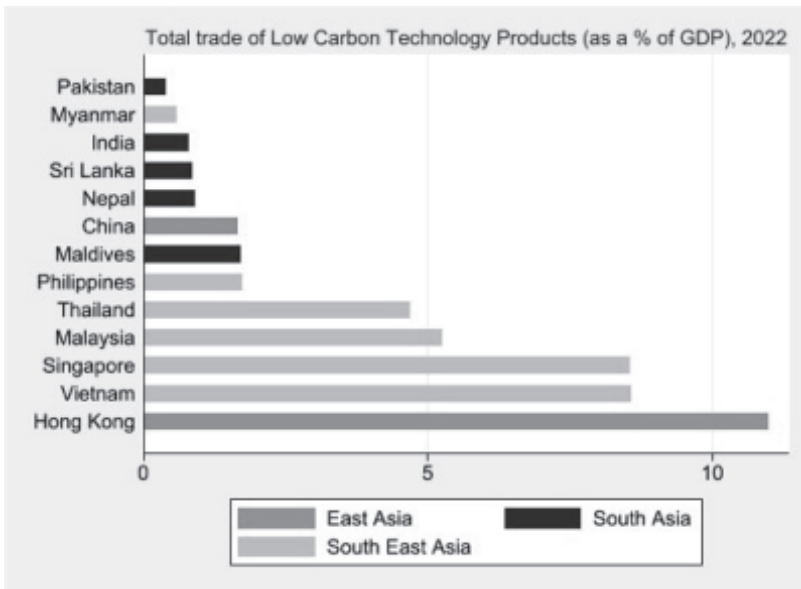
The previous sections have discussed the conceptual interlinkages between trade, foreign investment and climate change, and also given the overview of South Asian economies in comparison to other Asian economies in intra-regional trade and investment integration, along with climate change vulnerability. This section examines the efforts of South Asian economies in integrating climate solutions with trade and investment flows.

The intersection of climate and trade–investment policies is crucial for economies to have sustainable development. Climate policies, like emission targets in production and international, regional and national environmental regulations and standards, should be intertwined with trade policies related to standardisation and certification, services regulatory restrictions and non-tariff barriers, among others. The intersection of these two sets of policies can help economies rationalise

their fossil fuel subsidy reforms, renewable energy trade, clean technology transfer and production of low-carbon technology products.

To examine the climate change-related initiatives in Asian economies, the data on trade in low-carbon technology products as well as data on environment and climate-related chapters in the regional trade agreements (RTAs) are examined. Figure 13.15 presents the data of total merchandise trade (exports and imports) in low-carbon technology products for Asian economies (categorised regionally). The data shows that South Asian economies are lagging behind their contemporaries in low-carbon trade and therefore, the trade policies are not well-tuned with the climate-related policies.

Figure 13.15: Trade in Low-Carbon Technology Products (Asian Economies), 2022

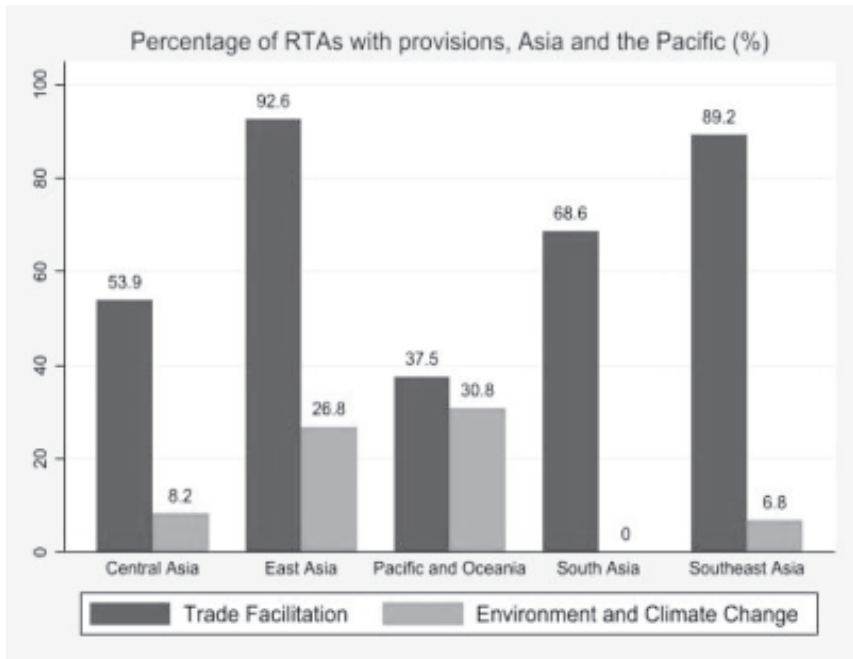


Source: Climate Change Dashboard, IMF; and ADB database.

The provisions related to environmental protection and climate change in the RTAs can go a long way in fostering sustainable development in the trading partners. According to the World Trade Organization, the number and the level of details in such provisions have increased manifold in the past decade, but South Asian economies have had no progress on this front. Figure 13.16 shows the percentage of RTAs with trade facilitation provisions and climate change-

related provisions for different groups of countries in Asia-Pacific. In every subregion, the chapters dedicated to the environment and climate change are much less in comparison to those on trade facilitation and customs procedures. This presents a huge potential area for South Asian economies to improve the integration of their trade and investment policies with climate-related policies.

Figure 13.16: RTAs and Environmental Protection (Asian Economies), 2022



Source: Climate Change Dashboard, IMF; and ADB database.

Observations from Data Analysis

Based on the analysis of data for South Asia and other subregions in Asia and the Pacific, the following observations are made:

1. The level of regional integration in trade and investment with the Asia-Pacific economies is lowest for economies in South Asia in comparison to other subregions.
2. Across different dimensions for regional integration analysed in the study based on the ADB database, the South Asian economies are lagging behind the other group of countries.

3. South Asian economies are not benefitting from liberalising trade practices and are more restrictive in trade facilitation.
4. South Asia is one of the most vulnerable regions to climate change and the readiness index varies across the different economies in South Asia.
5. The consumption-based carbon emissions have been increasing across all the economies in South Asia. These emissions are adjusted for trade, as opposed to the production-based emissions.
6. Among the Asian economies, the South Asian economies have the lowest level of trade in low-carbon technology products.
7. There is no progress in incorporating environment and climate change-related provisions in the RTAs for South Asia.

Conclusion and Policy Recommendations

The chapter explored the relationship between trade, foreign investment and climate change and argues that the intersection of climate and trade–investment policies can help foster sustainable development with appropriate climate solutions for developing economies. In this context, intra-regional integration can play a significant role and therefore, such integration in South Asian economies is examined and compared with other economies across various dimensions.

The expansion of trade increases the emissions and environmental degradation with increased movement of goods, services, people and capital, but can help in the mitigation of climate change by switching to green production and consumption and liberalising trade in environmental goods and services. The strengthening of environmental regulations and standards would facilitate attracting capital to non-polluting industries and switching to clean energy.

The intra-regional integration is found to be the lowest in South Asia in comparison to other groups of developing countries, like Southeast Asia and East Asia, which makes it a contender for growth through regional integration in trade and foreign investment. Moreover, the incorporation of environment and climate-related provisions in the RTAs can help reduce emissions related to international trade and investment.

The intersection of climate change policies and trade–investment policies with global trade rules and multilateral environmental agreements can help foster sustainable growth in the South Asian region (Group of Twenty [G20], 2023).

The findings of the study have several important implications for public policy. The recommendations are discussed next:

1. As emissions and environmental damage can be a global externality, effective multilateral governance mechanisms are needed to check free riding.
2. Give priority to climate-friendly goods and services by reducing tariffs and non-tariff barriers, eliminating fossil fuel subsidies, promoting FDI inflows in this sector and safeguarding through patents and copyrights.
3. Regional cooperation through trade and investment can be strengthened by mobilising financing for environmental-friendly technologies and green investments, enhancing intra-regional trade facilitation, promoting knowledge sharing and capacity building and fostering public–private partnerships.
4. There is a need to focus on GVCs integration on moving up the value chains to high value-added and low-energy consumption production processes to reduce emissions embedded in trade and diversify the exports.
5. Promote regional value chains by enhancing intra-regional engagements, thereby reducing vulnerabilities to global shocks and risks.
6. Leverage technology and digitalisation by investing in climate-friendly infrastructure for transport systems, monitoring and upgrades; use of artificial intelligence and machine learning models; and encourage digitally delivered services and environmental governance.
7. Conditioning factors for regional cooperation play a crucial role and therefore, institutional arrangements, strong macroeconomic conditions, digital infrastructure, the existence of renewable energy policies and risk mitigation mechanisms, among others, can facilitate regional integration in the South Asian economies.
8. Environmental provisions in RTAs, mutual recognition agreements, green agreements and international investment agreements can facilitate sustainable development from trade flows.
9. Tools for informed investment decisions about climate change should be encouraged, like ESG ratings and funds and green bonds.
10. Use of DPI is paramount. The DPI-driven carbon market, open commerce network, such as Open Network for Digital Commerce

(ONDC), a digital mechanism to manage energy resources and waste management and blue–green infrastructure in urban areas can help integrate trade and investment policies with climate policies for sustainable development in the region. India can serve as a global leader in this area.

11. Shift towards the service sector with the promotion of a lower carbon-intensive sector, research and development, innovation and use of technology in services is required.

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Green Goods Trade in South and Southeast Asia: Analysing Trends and Determinants of Import Patterns

Smita Miglani and Pravakar Sahoo

Introduction

The cross-border trade of ‘environmental goods’ or ‘green goods’ (the terms ‘environmental goods’ and ‘green goods’ have been used interchangeably in this chapter) is widely recognised as a key instrument in reducing greenhouse gas (GHG) emissions and promoting sustainable economic growth. The liberalisation of trade in these goods is considered vital for achieving the Sustainable Development Goals (SDGs), especially for developing countries. The importance of this trade has been emphasised since the 2001 Doha Ministerial Declaration of the World Trade Organization (WTO).

In recent years, South and Southeast Asia have become increasingly vulnerable to the impacts of climate change, making the trade in green goods critically important for these regions. Many countries in these regions face significant economic challenges, with underdeveloped environmental goods and services industries (Dahal and Pandey, 2018). Despite substantial literature on green goods trade, there has been limited analysis of the trends and barriers specific to the developing countries in South and Southeast Asia.

This chapter aims to assess the trends, patterns and barriers to green goods trade in nine South and Southeast Asian economies, focusing particularly on imports. The emphasis on imports is due to the lack of revealed comparative advantage (RCA) in environmental goods exports among South Asian countries

(Dahal and Pandey, 2018). As these countries navigate recovery from the COVID-19 pandemic, the Russia–Ukraine war and the recent global recession, it is argued that greater regional cooperation and reforms in green goods trade policies can help foster climate resilience and sustainable economic growth.

Classification and Importance of Trade in Green Goods

The classification of environmental or green goods remains an open question, as no universally accepted definition exists. The Organisation for Economic Cooperation and Development (OECD) defines environmental goods as products that ‘measure, prevent, limit, minimise, or correct environmental damage to water, air, and soil, as well as problems related to waste, noise, and ecosystems’ (OECD and Eurostat, 1999). Similarly, the United Nations Conference on Trade and Development (UNCTAD, 2023a) defines green goods as ‘environmentally friendly products designed to use fewer resources or emit less pollution than their traditional counterparts’. Examples include solar panels, wind turbines, electric vehicles, LED lights, water filtration systems and related parts and equipment (World Economic Forum, 2023). These goods are vital for transitioning to a low-carbon economy, improving efficiency, reducing emissions, conserving resources and enhancing air and water quality.

Trade in green goods plays a pivotal role in driving sustainable growth as economies increasingly adopt environmentally friendly technologies. To support this trade, several attempts have been made to compile comprehensive lists of green goods. The most commonly used list for research is the Combined List of Environmental Goods (CLEG), developed by the OECD to promote international trade in green goods (Sauvage, 2014). The CLEG identifies 248 environmental goods, classified under the Harmonised System (HS) at the 6-digit level. It integrates three other lists: the Asia-Pacific Economic Cooperation (APEC) list of goods eligible for reduced tariffs among APEC members; the OECD list for a Plurilateral Environmental Goods and Services (PEGS) agreement focusing on climate change; and the list proposed by the WTO’s ‘Friends’ group, which aims to reduce trade barriers for environmental goods (for details, see UNCTAD, 2023b).

According to the UNCTAD’s Global Trade Update (March 2023), trade in green goods reached a record value of US\$ 1.9 trillion in 2022, increasing by over US\$ 100 billion from 2021. The highest growth was observed in electric and hybrid vehicles (25 per cent), non-plastic packaging (20 per cent) and wind

turbines (10 per cent) (UNCTAD, 2023a).¹ In 2021, renewable energy products accounted for the largest share of environmental goods trade, valued at approximately US\$ 550 billion or 31 per cent of total trade in this sector. Water management products followed with US\$ 330 billion (18 per cent) and resource-efficient goods reached US\$ 275 billion (15 per cent). Additionally, trade in water management and environmental monitoring products grew by 30 per cent and 40 per cent respectively since 2012, while goods related to natural resource protection also saw significant growth over the same period (UNCTAD, 2023b).

Developed countries are the primary players in the global trade of green goods. In 2021, North–North trade (between developed countries) in green goods amounted to around US\$ 730 billion, while South–South trade (between developing countries) was much lower, at approximately US\$ 320 billion. Over the past decade, trade in green goods has grown at a similar pace in both developing and developed regions. In developed countries, green imports accounted for 11.4 per cent of total manufacturing imports in 2021, compared to 9.7 per cent in developing countries (UNCTAD, 2023).

China and certain European countries, such as Germany, have a strong RCA in green goods exports ($RCA > 1.5$). Some other nations, like Spain, the United Kingdom (UK), Denmark and Mexico, have a moderate to strong RCA ($RCA 1–1.5$) (UNCTAD, 2023). The European Union (EU) is the largest exporter of environmental goods globally, with around half of the EU's trade in these goods occurring within the EU member states. Outside of the EU, China, the United States (US), Japan and South Korea are the largest exporters. Since 2000, China has emerged as a leading global player in green goods exports. In terms of imports, the top global importers are the UK, China and Germany, holding shares of around 19 per cent, 15 per cent and 11 per cent respectively.

Green Goods Trade in South Asia

South Asia and Southeast Asia are among the most vulnerable regions to climate shocks globally, facing increasing climate-related events, such as heatwaves, droughts and floods, over the past few decades. These challenges strain the capacity of governments, businesses and citizens to adapt effectively. According to the World Bank (2022), more than half of the population in South Asia—about 750 million people across eight countries (Afghanistan, Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan and Sri Lanka)—have experienced one or more climate-related disaster in the last 20 years.

Within Asia, and on a global scale, countries like China, India and Pakistan are among the top producers of carbon dioxide emissions. Projections suggest that ongoing climate disasters could severely impact living conditions for up to 800 million people in South Asia, a region home to some of the world's poorest populations. By 2030, if current trends persist, climate-related losses in the region could average US\$ 160 billion annually (World Bank, n.d.).

However, there is a positive development. Like their Western counterparts, South and Southeast Asian countries are embracing climate-smart innovations and scaling up renewable energy solutions. Increasing trade and investment in these climate-friendly solutions is essential to building resilience against the rapidly warming climate and reducing emissions. Green goods play a critical role in supporting climate action, both for mitigation and adaptation, making regional trade in energy and green goods more crucial than ever. Combatting climate change will require a multifaceted approach, including promoting trade in environmental goods and services, supporting green businesses, developing carbon pricing mechanisms and enhancing regional cooperation through trade and investment agreements.

To analyse green goods trade in the region, we have used the CLEG and data from the World Integrated Trade Solution (WITS) United Nations (UN) Comtrade database, following Sauvage (2014). Green goods are classified into 11 categories, encompassing 248 products at the HS 6-digit level:

1. air pollution control (APC);
2. cleaner or more resource-efficient technologies and products (CRE);
3. environmentally preferable products based on end use or disposal characteristics (EPP);
4. heat and energy management (HEM);
5. environmental monitoring, analysis and assessment equipment (MON);
6. natural resources protection (NRP);
7. noise and vibration abatement (NVA);
8. renewable energy plant (REP);
9. management of solid and hazardous waste and recycling systems (SWM);
10. clean-up or remediation of soil and water (SWR); and
11. wastewater management and potable water treatment (WAT).

The Appendix (Figures 14A.2–14A.12) provides a category-wise breakdown of

imports for South Asian and Southeast Asian countries based on the CLEG classification. Between 2017 and 2022, the top importers of green goods in the region were China, India, Indonesia, Singapore and Malaysia (Appendix, Figure 14A.1).

Globally, the top imported products at the HS 6-digit level in 2022 included: ‘Electrical Static Converters’ (HS 850440); ‘Electrical Apparatus; Photosensitive’ (HS 854140); and ‘Boards, Panels, Consoles, and Desks’ (HS 853710). These items were also among the top exported products during the same period. The most imported categories in South and Southeast Asia were: cleaner and resource-efficient technologies (CRE); environmentally preferable products (EPP); air pollution control (APC); and heat and energy management (HEM). China led imports across all categories during this period, followed by India and Singapore, which emerged as key importers in most categories.

Literature on Green Goods Trade in South Asia

Several empirical studies have explored various factors influencing the trade of green goods, often using the standard gravity model and internationally compiled lists of environmental goods.

Steenblik et al. (2005) examined non-tariff barriers (NTBs) to environmental goods trade in India. The authors identified two major obstacles: the lengthy government purchasing process, which often leads to environmental technologies becoming obsolete by the time sales are finalised; and the requirement for domestic testing and certification by local agencies, which delays trade.

Fliess and Kim (2008) also explored barriers to environmental goods exports from India, based on a survey of Indian exporting firms. Their findings echoed similar challenges, including burdensome government bid procedures in India, Pakistan, Bangladesh and Sri Lanka. Additionally, the costs and time associated with setting up letters of credit for exports to India were found to be substantial, reducing potential sales. India’s pre-payment requirements further added to the time and costs after contract signing, and the lack of an independent appeals procedure was also cited as an obstacle.

Several studies have analysed the determinants of green goods trade. Jomit (2014) examined aggregated environmental goods using the gravity model, estimating exports from India to 58 countries between 1991 and 2011. The results showed that India’s export volume was determined by the gross domestic product (GDP) of the importing country, and bilateral trade was positively

influenced by historical ties, such as a shared colonial past, and participation in trade agreements.

Matsumura (2016a) studied the trade structure of environmental goods, particularly those in the APEC list, for the HS84, HS85 and HS90 product groups between 2009 and 2012. The analysis, which covered 43 countries, including the APEC, the EU and countries such as Brazil, India, South Africa, Switzerland and Turkey, found that trade in parts and components was the key driver of increased trade in environmental goods in the APEC region. The proliferation of complex supply chain networks boosted the HS84 and HS90 groups, while the Japan–Association of Southeast Asian Nations (ASEAN) free trade agreement (FTA) played a similar role for the HS85 group. However, the study did not find international production fragmentation to be a major determinant for the EU region’s environmental goods trade.

Matsumura (2016b) also investigated the impact of bilateral tariff rates on renewable energy-related products, focusing on the photovoltaic cell sector between 2000 and 2004. The study revealed that bilateral tariff reductions had a significant effect on trade in photovoltaic cells. However, in a later study, Matsumura (2021) found that the impact of tariffs on trade varied depending on the product. Tariffs had a clear effect on photovoltaic cells, but not on wind-powered electric generating sets, during periods of trade liberalisation. The study took into account both bilateral tariff rates and trade integration agreements.

Bacchetta et al. (2023) used a combination of econometric estimation and quantitative modelling to project the trade, GDP and emissions effects of potential trade liberalisation agreements in energy-related environmental goods and environmentally preferable products. Using the WTO Global Trade Model—a recursive dynamic computable general equilibrium model—the study explored the impact of reducing tariffs and non-tariff measures (NTMs). Their simulations showed a modest increase in GDP across all regions and a reduction in global emissions by about 0.6 per cent, driven by improved energy efficiency.

The relationship between environmental policy stringency and trade has also been explored in the literature. Cantore et al. (2018), using trade data from 71 countries between 1999 and 2014, showed that environmental regulatory stringency was a key determinant of environmental goods trade. Similarly, Huang and Wu (2022) explored a U-shaped relationship between environmental regulations and export development, based on panel data from Zhejiang province

and 18 major Belt and Road Initiative trading partners. They found that stricter environmental regulations initially hindered exports, but later improved competitiveness through innovation, supporting the Porter hypothesis.²

Ouyang et al. (2021) found similar results using quantile regression, showing that the Porter hypothesis holds for China, where stringent regulations spurred innovation and competitiveness. Lee and Park (2020) demonstrated that Korea's strict environmental policies positively impacted environmental goods exports more than the policies of its trade partners, aligning with the Porter hypothesis. Helble and Majoe (2017) similarly showed that environmental regulation could promote international trade in environmental products.

Contrary to these findings, Kommerskollegium (2023) argued that regional trade agreements (RTAs) with environmental goods provisions do not significantly affect absolute or relative trade in environmental goods. According to their analysis, trade flows between countries with such RTAs were not notably larger than between countries without these agreements.

Despite these insights, studies on NTBs specific to green goods trade in Asian countries, especially focusing on barriers to imports, remain scarce. The objective of this study is to address this gap in the literature by analysing the influence of various factors on green goods imports in South and Southeast Asian countries, using the latest available data. The following section discusses the econometric model used in this study, which employs panel data to assess trade linkages between nine Asian countries.

Factors Influencing Green Goods Trade in Asia

We determine the influence of various factors in imports of green goods by South and Southeast Asian countries using the recent available data on environmental goods. We undertake an econometric exercise using a panel data model consisting of trade linkages between nine Asian countries.

We use data on bilateral export from UN Comtrade for the 248 goods listed in the OECD CLEG list for the years 2017–22 for nine countries. It is due to non-availability of data for various variables that the data is compiled for nine countries in the given time period. The selected countries are India, Nepal, Singapore, Malaysia, the Maldives, China, Pakistan, Indonesia and Sri Lanka. The data on all 11 categories of the CLEG have been used in the analysis.

The equation estimated is as follows:

$$\ln(\text{IMP}_{it}) = \alpha + \beta_1 \ln(\text{GDP}_{it}) + \beta_2 \ln(\text{GHG}_{it}) + \beta_3 \ln(\text{Exchange rate}_{it}) + \beta_4 \ln(\text{LCU}_i) + \text{D}^{\text{South Asia}} + \varepsilon \quad \dots(1)$$

The dependent variable is logarithm of imports of each country from the world. The countries under consideration are Singapore, France, China, Germany, Italy, South Korea, Mexico, the Netherlands, Poland, Russia, Spain, Japan, Switzerland, the UK and the US. Variables from gravity model, such as GDP to account for economic size, and other control variables, such as yearly GHG emissions (GHG), official exchange rate and applied most-favoured nation (MFN) tariffs, have been taken. Variables, such as GDP for economic size and location (dummy variable) for the countries, serve as a proxy for trade costs. We take the common logarithm of each of these variables in the regression model.

The variables included in the data set and their sources are summarised in Table 14.1.

Table 14.1: Data Classification and Units of Measurement

<i>Variable Name</i>	<i>Indicator</i>	<i>Units of Measurement</i>	<i>Source</i>
Log (Imports of Green Goods)	<i>lnM</i>	Imports (in 1,000 US\$)	UNCOMTRADE
Log (Greenhouse Gas emissions)	<i>lnGHG</i>	GHG emissions (kilotons)	WDI
Log (Gross Domestic Product)	<i>lnGDP</i>	GDP (constant 2015 US\$)	WDI
Official Exchange rate	<i>lnLCU</i>	Local currency unit (LCU)	WDI
Applied MFN Tariffs	<i>lnMFN</i>	Applied MFN rates (in %)	UNCOMTRADE
Dummy for South Asia	Dummy ^{SA}	Take value of 0 or 1	

Source: Compiled by the authors.

While the elaborated data set had 11,802 observations for all the HS codes under 248 products and nine countries for the time period 2017–22, we summed the imports over the different categories and finally operated on a model of 54 observations and nine countries. We regressed the log of imports with the log of GDP, log of GHG emissions, log of local currency unit (LCU) and a dummy for South Asia, and the coefficients reflect the elasticity of import for the countries against the control variables. The estimates of the resulting generalised least squares (GLS) model are shown in Table 14.2.

The results indicate that the coefficients of GDP and official exchange rate (LCU) are statistically significant in affecting the imports for the selected countries. The coefficients reflect elasticity of import and their signs are as

expected. An increase in GDP by one unit increases the imports of green goods by 0.68 per cent and the change in LCU (depreciation of local currency unit or exchange rate) by one unit decreases the imports of green goods by 0.14 per cent. The GHG emissions and applied MFN tariffs were not found to be statistically significant in influencing imports. However, if a country lies in South Asia, its imports would fall by 0.38 per cent. This means that countries in South Asia were less likely to import green goods compared to Southeast Asia.

Table 14.2: Results of Regression Model

	<i>Coefficient</i>	<i>Std Error</i>	<i>Z</i>	<i>P> z </i>
Ln GDP	0.6806	0.2387	2.85	0.004*
Ln LCU	-0.1422	0.0498	-2.85	0.004*
Ln MFN	-0.0428	0.0654	-0.65	0.514
Ln GHG	0.0437	0.2073	0.21	0.833
Dummy ^{SA}	-0.3785	0.1339	-2.83	0.005*
Constant	-0.7668	1.7499	-0.44	0.000

Number of observations = 54 R-squared: 0.9807

Note: Time and region effects included. Level of significance: * = 5 per cent and ** = 10 per cent.

Though this exercise has been useful in ascertaining the role of various factors in influencing imports, we did not find applied MFN tariffs to be influencing imports for the selected countries. This probably underscores the need to evaluate the importance of NTBs in trade flows of green goods (Dahal and Pandey, 2018; Kommerskollegium, 2023).

A limitation of the exercise is that it does not incorporate the impact of policy and infrastructure variables on imports due to unavailability of consistent time series data for the selected time period and countries. Countries such as Bangladesh, Thailand, Myanmar, the Philippines, and Vietnam, along with others, were excluded from the dataset due to the lack of consistent time series data.

Barriers to Trade in Green Goods in South Asia

The international trade of green goods plays a crucial role in transitioning towards a green economy and achieving the SDGs.³ By fostering energy efficiency, increasing the use of renewable energy and promoting environmental industries, green goods trade can help reduce environmental degradation and support sustainable economic growth.

Determinants of Green Goods Imports in South Asia

The analysis of factors influencing imports of green goods in South and Southeast Asian countries shows that GDP, applied MFN tariffs and GHG emissions are key determinants for the selected countries. However, due to the lack of consistent time series data on policy-related barriers and trade infrastructure for environmental goods, we could not include these as control variables in the model.

South Asia has made significant progress in expanding basic access to electricity, reaching nearly 94 per cent of the population. However, only 59 per cent of the population relies primarily on clean fuels and technologies, which is well below comparable regions (UN Economic and Social Commission for Asia and the Pacific [ESCAP], 2021). Despite improvements, the region remains fragile, grappling with poverty, low per capita income, conflicts and underdevelopment, all of which hinder progress in green goods trade.

Challenges to Green Goods Trade

Several barriers impede the smooth trade of green goods in South Asia. These include gaps in physical infrastructure, a lack of transit and transport agreements, inadequate trade facilitation measures and the absence of harmonised quality standards.⁴ Moreover, integrating local energy sources through regional grids and capitalising on supply–demand complementarities requires greater regional cooperation, investment and technical collaboration.

Definition of Green Goods

One key challenge is the absence of a universally accepted definition of green goods, particularly in the context of FTA negotiations. Many of these products can have dual uses, further complicating their classification.⁵ Notably, none of the 99 chapters in the HS nomenclature specifically classify green goods. For developing countries, this lack of clarity is a major obstacle, as they rely heavily on imported green technology.

Box 14.1: WTO and the Green Goods Trade

Realising the possibilities offered by the trade of environmental goods to deal with environmental challenges, the Doha Round of the WTO agreed to negotiations to increase the trade of environmental goods in 2001. In July 2014, 18 participants representing 46 members at the WTO launched

plurilateral negotiations to reduce tariffs on environmental goods. Negotiations were initiated under the Doha Ministerial Declaration, calling for ‘reduction, or, as appropriate, elimination of tariff and non-tariff barriers to environmental goods and services’. The negotiations under the WTO Environmental Goods Agreement (EGA) followed the 2012 conclusion of an APEC agreement that liberalised tariffs on 54 environmental goods. The original participating countries in WTO negotiations represented 90 per cent of trade in environmental goods under negotiation.

However, in 2016, the talks failed to reach an agreement and collapsed due to various reasons. One of the primary concerns was that the negotiators struggled to reach an agreement on the definition aspects of environmental goods. There were unresolved disagreements around dual-use goods, or those with ambiguous or debatable effects on the environment. Negotiations centred around ‘categories’ of goods defined by the World Customs Organization’s HS codes, as is true with all WTO tariff negotiations. This negotiation used HS 6-digit codes, which cover categories rather than individual products, which made some countries claim that the scope of what constituted an environmental good was too broad.

The EGA was also deemed inadequate for failing to include environmental services⁶ and NTBs. Arguably, NTBs, such as non-transparent licensing practices, product standards and testing procedures, pose more of a limit on trade in environmental goods than tariffs.

Negotiations also suffered from lack of participation. Developing countries, except for China and Costa Rica, and Turkey did not participate. Major economies, like Brazil and India, did not participate over fears of a spike in cheaper, foreign imports. Another fundamental problem was that two of the participating powerhouses—China and the US—had their own demands and political pressures, which complicated negotiations.

During the 11th WTO Ministerial Conference in Buenos Aires (December 2017), the issue of the EGA negotiations was raised and several delegations ‘expressed support for timely resumption of negotiations’. Notwithstanding the calls issued during meetings of the WTO Committee on Trade and Environment by some participating members, the EGA negotiations have not resumed.

Low Intra-regional Trade

South Asia has some of the lowest levels of intra-regional trade globally, with trade between countries accounting for less than 10 per cent of the region's total.⁷ High intra-regional trade costs, weak supply capacities, poor border facilitation and the presence of NTBs exacerbate the situation. This underscores the importance of negotiating FTAs focused on green goods and fostering regional cooperation.

Comparative Advantage

According to Dahal and Pandey (2018), only India among the South Asian countries has an RCA greater than 1 in environmental goods, indicating low comparative advantages in most green goods across the region. This highlights the underdeveloped state of South Asia's environmental industries, which remain reliant on imports. As a result, these countries may see limited benefits from liberalising green goods through multilateral agreements. Financial and technical assistance, along with technology transfers, is therefore vital to stimulate interest in green goods negotiations and to grow domestic environmental industries.

Protectionism and NTBs

Protectionist trade policies can misallocate resources and obstruct trade in green goods. The NTBs, like licensing rules, technical standards and quotas, create significant barriers within the region. In some cases, trade remedies meant to protect local industries inadvertently hinder the production and movement of innovative environmental products (Indian Institute of Foreign Trade, 2016). Moreover, administrative and conformity assessment costs related to environmental standards increase the overall cost of importing green goods, particularly in developing countries, where these additional border costs are estimated to add about 1.5 per cent to the import value (UNCTAD, 2023b).

Tariffs on Green Goods

In 2021, developed countries imposed an average tariff of about 1 per cent on environmental goods, while developing countries imposed around 4 per cent. Although average tariffs have declined slightly from 6.5 per cent in 2012 to 6 per cent in 2021, significant tariffs still exist. About 10 per cent of applied tariff lines on green goods exceed 15 per cent, making it more difficult for these products to be traded freely across borders.

Strategies for Regional Integration

To promote trade in green goods, South Asia must work towards enhancing regional production networks and strengthening existing trade and investment collaborations. Key measures include:

1. *Advancing trade liberalisation*: Reducing tariffs and NTBs on green goods through regional FTAs and facilitating smoother movement of goods across borders.
2. *Strengthening trade facilitation*: Improving transport and customs arrangements, particularly at land borders.
3. *Promoting investment*: Encouraging regional value chains through investment promotion and industrial cooperation.
4. *Harmonising standards*: Establishing unified product standards and conformity assessment procedures to simplify trade.
5. *Cumulative rules of origin*: Implementing flexible rules that encourage regional trade by allowing products to qualify for trade preferences even if they contain inputs from multiple countries in the region.
6. *International payment arrangements*: Enhancing cooperation in financial and banking sectors, including the development of efficient cross-border payment systems.

Energy Connectivity and Cooperation

Developing regional energy connectivity will be crucial for integrating energy markets across South and Southeast Asia. Key initiatives include:

1. *Regional power markets*: Establishing a South Asian Association for Regional Cooperation (SAARC) power grid and promoting the SAARC market for electricity trade.
2. *Sharing best practices*: Enhancing cooperation and knowledge sharing in renewable energy technologies.
3. *Energy resource management*: Strengthening collaboration in energy resource exploration and management.

Greening Trade and Investment

To foster greener trade and investment, governments in the region should:

1. Promote trade in environmental goods and services.
2. Provide policy incentives to support green businesses, including conformity assessments and certification processes.

3. Foster international regulatory cooperation to make climate commitments more transparent and interoperable.

Overcoming barriers to green goods trade and fostering energy connectivity requires concerted regional efforts in South and Southeast Asia. Strengthening trade liberalisation, investment promotion, transport integration and harmonising regulatory standards will enable countries to better leverage green technology and advance towards a sustainable, greener economy. Collaboration between regional organisations, like the ASEAN, the SAARC and the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), is essential for unlocking broader economic opportunities and creating a connected economic space across Asia.

Conclusion

Over the past two decades, significant economic growth in South and Southeast Asia has lifted millions of people out of poverty. However, despite this progress, the region is now at the forefront of the global climate crisis. Between 1995 and 2019, GHG emissions from production in these countries nearly tripled, making the region vulnerable to climate change-related disasters that threaten to undermine development gains and the livelihoods of millions.

The study of green goods trade in South and Southeast Asia remains relatively underexplored. While many countries in the region are making strides towards renewable energy and sustainable development, it is often argued that greater regional cooperation is crucial for building climate resilience and fostering inclusive, sustainable economic growth.

Regional trade integration can be encouraged by gradually reducing barriers to the trade of green goods and investing in modern infrastructure and transportation facilities. Trade liberalisation and enhanced facilitation to reduce trade costs can bring substantial welfare benefits, particularly for smaller and less developed countries in the region, promoting balanced development. Collaborating through multilateral frameworks, such as the ASEAN, the SAARC and the BIMSTEC, can further advance free trade and sustainable development.

This chapter's theoretical and empirical estimates confirm that GDP, applied MFN tariffs, population size and trade openness are critical factors influencing the import of green goods in South and Southeast Asia. Using a panel regression model, we examined the effects of GHG emissions, applied MFN tariffs, currency exchange rates, GDP and geographic location on green goods imports across

nine countries in the region. The results show that GDP has a positive effect on imports, while exchange rate volatility negatively affects imports.

However, the study did not find a significant impact of GHG emissions or applied MFN tariffs on imports, suggesting two key points. First, there is a need to revisit the generalised listing of green goods under the CLEG framework. Second, it is essential to assess NTMs, especially the NTBs, which hinder the trade of green goods. Additionally, compiling environmental policy-related indices, particularly for developing countries, could help better assess the factors affecting international trade in green goods.

In summary, to unlock the potential of green goods trade in South and Southeast Asia, addressing the barriers and fostering regional cooperation is essential for achieving sustainable, inclusive growth.

NOTES

- 1 As per UNCTAD (2023b), in 2021, global trade of products listed on the CLEG totalled US\$ 1.8 trillion from just around US\$ 400 million in 2000. Trade of goods listed on the WTO list totalled almost US\$ 1.3 trillion. The goods on the PEGS list accounted for about US\$ 1.2 trillion and products in the APEC list were valued at about US\$ 600 billion. The value of trade in environmental goods has increased by about 36 per cent from 2012 to 2021. Notably, there was a slow decline in trade of green goods during COVID-19, but a strong uptrend in 2021.
- 2 The pollution haven hypothesis (PHH) and Porter's hypothesis are two (contrasting) theories related to the relationship between environmental regulations and trade. The PHH posits that when costs related to pollution increase due to environmental policies, industries are motivated to shift certain production phases to regions with less stringent environmental regulations. This could entail moving manufacturing stages or acquiring resources from such areas. If the PHH has a substantial effect, major variations in the strictness of environmental policies among countries might possibly undermine domestic environmental efforts and could lead to inequities in the global production landscape and environmental hazards in nations with less stringent rules (Kořluk and Timiliotis, 2016). In contrast, the Porter hypothesis argues that strict environmental regulations can actually drive innovation and competitiveness (Lee and Park, 2020). According to this hypothesis, stringent environmental standards encourage firms to adopt cleaner technologies and processes. This can lead to increased efficiency, reduced waste and the development of new environmentally friendly products, thereby improving a country's economic performance while simultaneously benefitting the environment.
- 3 We particularly refer to SDG 7 here: 'Ensure access to affordable, reliable, sustainable and modern energy for all'.
- 4 Good manufacturing practices could ensure that these products are produced and traded as per well-defined quality standards nationally and internationally.
- 5 For instance, as part of the WTO Environmental Goods Agreement (EGA) talks, China proposed that bicycles should be considered environmental goods exempt from tariffs. However, the US and the EU resisted by stating that bicycles are mainly a transport mode.

- 6 Environmental services include infrastructural environmental services, such as wastewater treatment, and non-infrastructure services, such as air pollution mitigation.
- 7 Regional economic integration is the key to achieving sustainable growth and climate resilience in South and Southeast Asia (Das, 2009; Rahman et al., 2012). Trade within the South Asian Association for Regional Cooperation (SAARC) has historically been limited due to political tensions, restrictive tariffs and duties, import restraints, protracted customs requirements and excessive documentation. Regional integration is seen as important to promote intra-regional trade and economic development among countries. It can raise productivity and growth by increasing investment and trade, which creates large markets and new opportunities. Further, it supports reallocation of resources and development of regional production network, which enhances regional connectivity. Intra-regional trade, as percentage of total trade, is the highest in Europe (60 per cent), followed by East Asia (35 per cent) and Southeast Asia (25 per cent); and it is the least in South Asia (5 per cent). South Asia is often described as the world's least integrated subregion, with value of intra-regional trade less than one-third of its potential. More than 67 per cent of trade potential was not exploited in 2020 (around US\$ 172 billion). For details, see Wani and Yasmin (2023).

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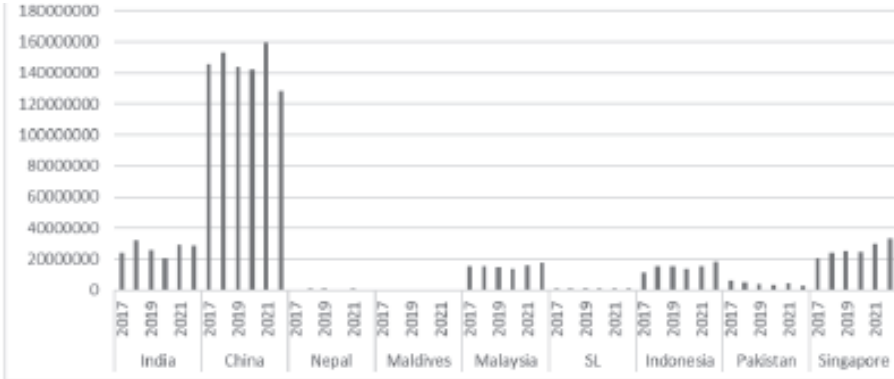
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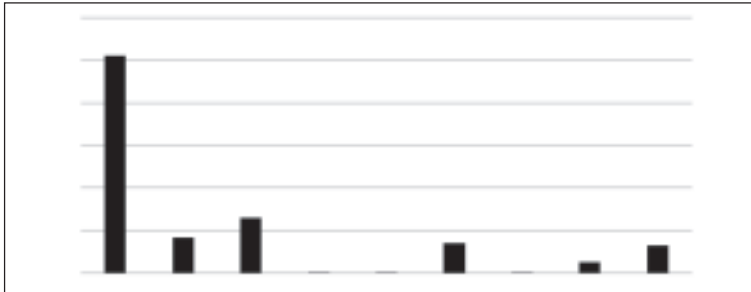
Appendix: Trends of Green Goods Imports by Asian Countries (2017–22)

Figure 14A.1: Green Goods Imports by Asian Countries (2017–22)
(in 1,000 US\$) (for all categories)



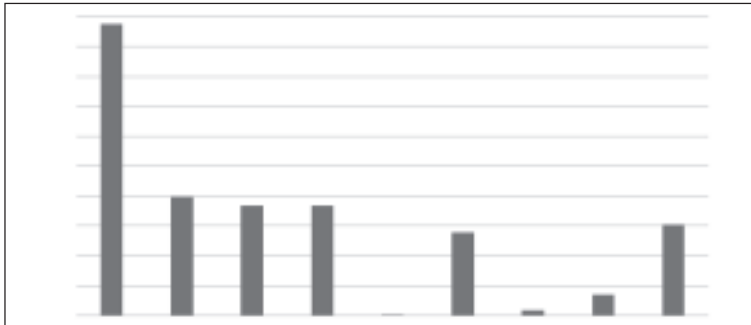
Source: Authors' compilation using WITS UN Comtrade database.

Figure 14A.2: Imports in APC (in 1,000 US\$)



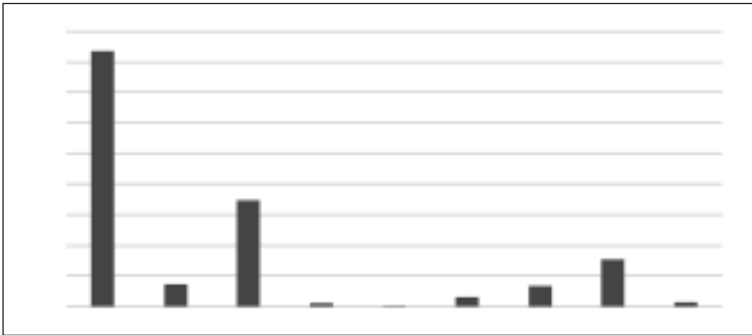
Source: Authors' compilation using WITS UN Comtrade database.

Figure 14A.3: Imports in CRE (in 1,000 US\$)



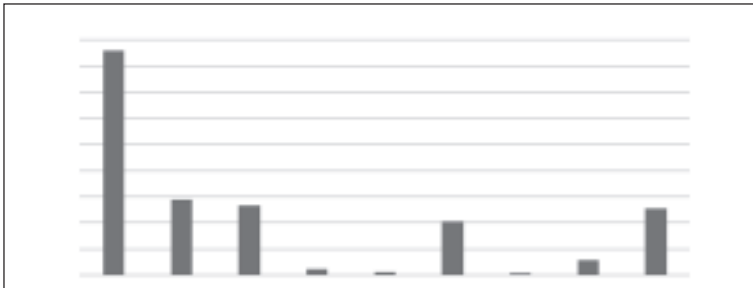
Source: Authors' compilation using WITS UN Comtrade database.

Figure 14A.4: Imports in EPP (in 1,000 US\$)



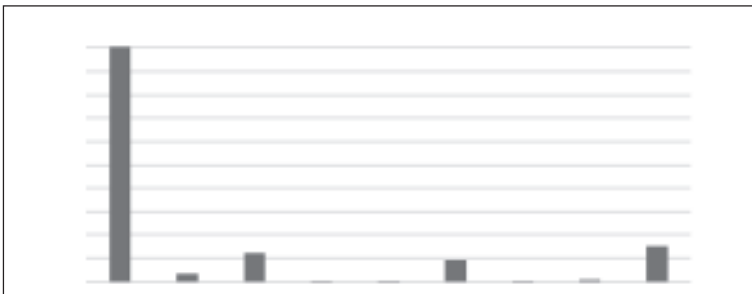
Source: Authors' compilation using WITS UN Comtrade database.

Figure 14A.5: Imports in HEM (in 1,000 US\$)



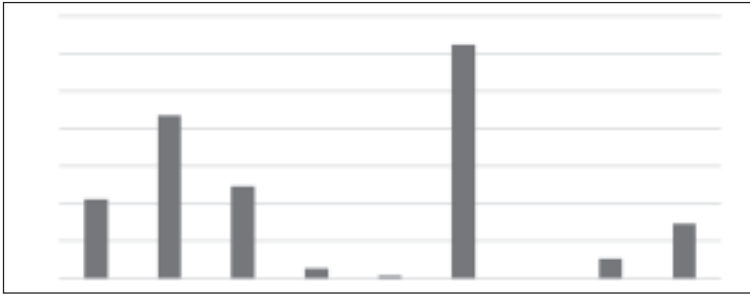
Source: Authors' compilation using WITS UN Comtrade database.

Figure 14A.6: Imports in MON (in 1,000 US\$)



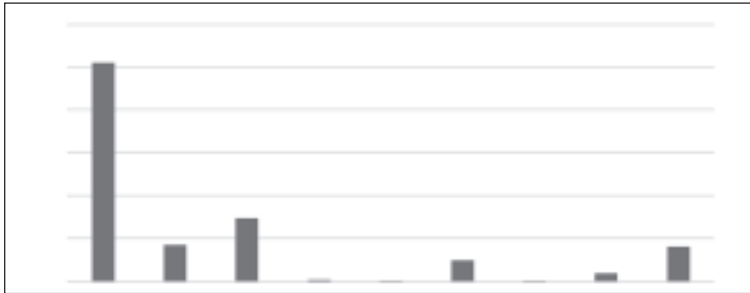
Source: Authors' compilation using WITS UN Comtrade database.

Figure 14A.7: Imports in NRP (in 1,000 US\$)



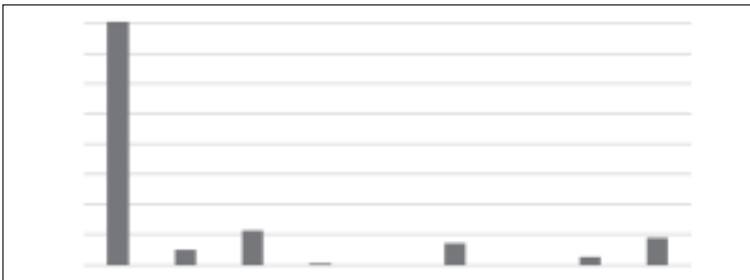
Source: Authors' compilation using WITS UN Comtrade database.

Figure 14A.8: Imports in NVA (in 1,000 US\$)



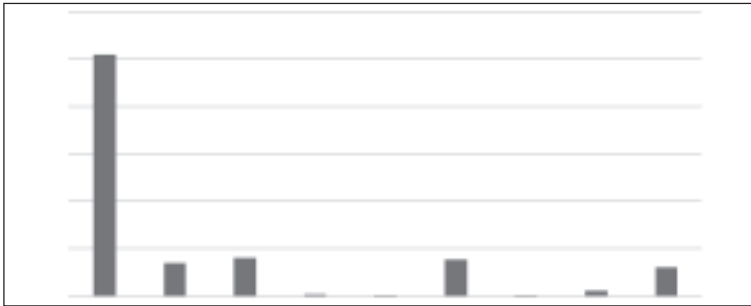
Source: Authors' compilation using WITS UN Comtrade database.

Figure 14A.9: Imports in REP (in 1,000 US\$)



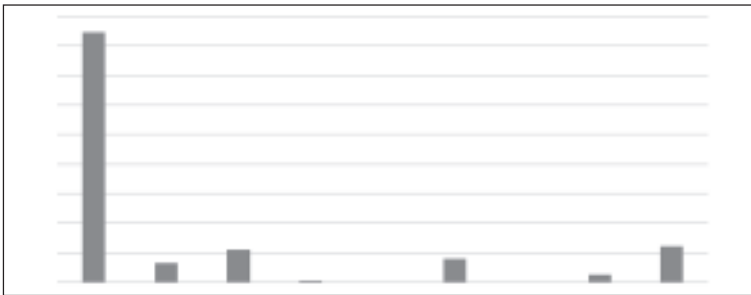
Source: Authors' compilation using WITS UN Comtrade database.

Figure 14A.10: Imports in SWM (in 1,000 US\$)



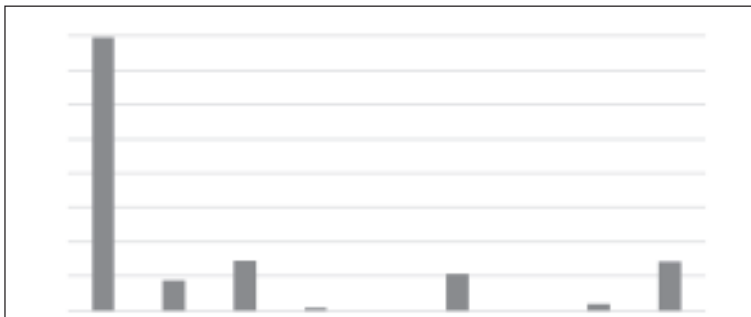
Source: Authors' compilation using WITS UN Comtrade database.

Figure 14A.11: Imports in SWR (in 1,000 US\$)



Source: Authors' compilation using WITS UN Comtrade database.

Figure 14A.12: Imports in WAT (in 1,000 US\$)



Source: Authors' compilation using WITS UN Comtrade database.

*Regional Integration in South Asia:
How Economic Crises are Driving Cooperation*

Anand Kumar

Introduction

South Asia is one of the least integrated regions in the world, despite several attempts at regional cooperation. The region has faced numerous challenges—both internal and external—that have hindered efforts to foster closer integration. However, recent economic and financial crises in many South Asian countries have spurred a renewed interest in regional integration. This chapter explores how economic crises in various countries, such as Sri Lanka, Bangladesh, the Maldives, Nepal, Bhutan and Pakistan, have influenced regional cooperation and economic integration, highlighting the role of trade, connectivity and energy exchanges in this process.

Economic crises often act as catalysts for regional integration. In South Asia, countries that have engaged in economic cooperation have experienced significant benefits, while those unable to do so have witnessed suffering and instability. Cooperation has led to a virtuous cycle of economic and political gains, while isolation has resulted in chaos.

Economic Crisis in Sri Lanka and Regional Integration

Sri Lanka's economic crisis, driven by a combination of poor government policies, mounting Chinese debt (estimated at \$7 billion), the COVID-19 pandemic and the Russia–Ukraine war, has created a unique opportunity to enhance

economic ties between Sri Lanka and India. In response to the crisis, India, under its Neighbourhood First policy, provided significant humanitarian assistance, totalling \$4 billion, between January and July 2022 (*The Print*, 2023). This assistance included credit lines, currency swaps, deferred import payments and the delivery of essential medicines via warship.

The crisis has prompted both nations to explore deeper economic cooperation. Central to this effort is the ongoing discussion to upgrade the Indo-Sri Lankan Free Trade Agreement (ISFTA) into a comprehensive economic and technological partnership (CETP). The then Sri Lankan President Ranil Wickremesinghe advocated for trade integration as a critical step in rebuilding Sri Lanka's economic foundation in September 2022. He believed that enhanced economic ties with India would not only stabilise Sri Lanka but also have positive ripple effects on regional security and political relations, reshaping India's broader engagement with neighbouring countries.

Sri Lanka is now focused on accelerating previously delayed Indian projects, particularly in the northern region. One key area of collaboration involves developing power grid connections through undersea cables, aimed at addressing Sri Lanka's energy deficits. With the island nation prioritising renewable energy, this initiative has gained further importance. Projects, such as the 100 megawatt (MW) solar power plant in Sampur and wind energy ventures in Mannar, spearheaded by India's Adani Group, are vital components of Sri Lanka's energy transition. Additionally, Sri Lanka is working with India to develop the Trincomalee Harbour into a major port, while creating new industrial zones and energy hubs, all of which are integral to the country's recovery (Srinivasan, 2022).

Indian investments have become pivotal to Sri Lanka's resurgence, with over \$1 billion worth of projects under negotiation, spanning critical sectors, such as energy, infrastructure and logistics. The proposed undersea power grid and a fuel pipeline linking southern India to northern Sri Lanka represent key pillars of this partnership. Sri Lanka is also keen on encouraging Indian higher education institutions to establish campuses in regions like Jaffna, further strengthening bilateral ties and fostering local development.

Recently, in the pursuit of regional stability, India urged Sri Lanka to cancel a Chinese renewable energy project near its borders, underscoring India's broader strategic concerns (*The Economic Times*, 2022). India's assistance during Sri Lanka's crisis has far outpaced that of other donors, leading some to view it as an effort

to reassert its influence over a strategically positioned neighbour located along vital shipping routes between Asia and Europe (Rising and Saaliq, 2022). However, India's primary objective has been to stabilise Sri Lanka's economy and ensure peace in its immediate neighbourhood. Without India's timely intervention, Sri Lanka's crisis could have escalated into a far more severe breakdown.

Sri Lanka's economic crisis has ultimately fostered a deeper economic partnership with India, underscoring the importance of regional economic integration for long-term recovery and stability. The crisis has highlighted the growing strategic interdependence between the two nations, particularly in certain sectors, such as energy, logistics and trade, signalling a new phase in their bilateral relationship.

Cooperation Averts Economic Crisis in Bangladesh and Strengthens Regional Integration

South Asia's intra-regional trade has long struggled due to poor connectivity and infrastructure challenges, making it one of the least economically integrated regions globally. Despite a solid trade relationship between India and Bangladesh, this partnership has yet to reach its full potential. However, in recent years, both nations have made significant strides in boosting trade, connectivity and economic collaboration—efforts that have been accelerated by the COVID-19 pandemic and shifting geopolitical dynamics.

Political stability and strong leadership in both India and Bangladesh have played a critical role in not just strengthening bilateral ties but also advancing broader regional aspirations for connectivity and economic integration. Bangladesh's deepening economic relationship with India has helped it navigate economic challenges, especially during its dollar crisis. Improved connectivity has also opened Bangladesh as an expanding market for Indian automotive companies. In addition, trade in electricity between the two countries has surged, with Indian power proving more affordable than Bangladesh's diesel-generated electricity.

India's Neighbourhood First policy has extended crucial support to Bangladesh, particularly during economic hardships. As a key supplier of essential commodities, such as wheat and onions, India has also helped alleviate shortages during Bangladesh's dollar crisis. One of the most noteworthy developments is the ongoing shift towards settling trade in Indian rupees, helping ease Bangladesh's

financial pressures. A commercial agreement between the National Payments Corporation of India and the Bangladesh Bank to introduce the Unified Payments Interface (UPI) also marks a major step towards financial integration between the two nations.

Boost to Connectivity

The COVID-19 pandemic forced countries worldwide to reconsider their trade and connectivity frameworks. In South Asia, this resulted in increased use of railways for India–Bangladesh trade. Indeed, with road transport disrupted and perishable goods stranded at the border, railways became a critical mode of transportation during the crisis; and its role has continued to grow since the pandemic.

A World Bank report, *Connecting to Thrive: Challenges and Opportunities of Transport Integration in Eastern South Asia*, has highlighted the significant economic impact of improved connectivity between India and Bangladesh (Herrera Dappe and Kunaka, 2021). According to the report, seamless bilateral transport integration could increase Bangladesh's national income by 17 per cent and India's by 8 per cent. A free trade agreement (FTA) could boost Bangladesh's exports to India by 182 per cent and India's exports to Bangladesh by 126 per cent. Such connectivity improvements have the potential to increase Bangladesh's exports by 297 per cent and India's by 172 per cent.

Bangladesh's strategic location as a gateway to India, Nepal, Bhutan and East Asian countries positions it as a potential economic powerhouse in the region. Presently, Indian trucks cannot transit through Bangladesh, increasing transportation costs to India's north-eastern states. Investing in regional transport, railways and inland waterways could transform the eastern subregion into an economic hub. One prime example of this potential is the reduction of travel distance between Agartala and Kolkata, from 1,600 kilometre (km) to just 450 km, with the opening of transit routes. Another major connectivity milestone has been the inauguration of the 'Maitri Setu', a 1.9 km bridge over the Feni River, giving India's Tripura state access to Bangladesh's Chittagong Port (Ali, 2021).

Railway links severed during the 1965 India–Pakistan War are being restored. Currently, three passenger trains operate between India and Bangladesh, and more connections are in the works. During Prime Minister Sheikh Hasina's visit to India in June 2024, a memorandum of understanding (MoU) was signed to

further enhance railway connectivity, with new train services launched between Rajshahi and Kolkata. India has also agreed to extend transit facilities for Bangladeshi goods to Nepal and Bhutan via rail.

Boosting Eastern India and Bangladesh's Economy

The connectivity projects between India, Bangladesh and the Association of Southeast Asian Nations (ASEAN) countries are set to spur significant economic growth for eastern India, particularly West Bengal and the north-eastern states. The India–Myanmar–Thailand Trilateral Highway, now under construction, will be extended to Cambodia, Laos and Vietnam. Bangladesh has expressed interest in joining this initiative, which could turn the eastern subregion into a major economic hub.

Food Security in Bangladesh

In the aftermath of the COVID-19 pandemic, the Russia–Ukraine conflict further disrupted global economies, particularly affecting food supply chains. As two of the world's largest wheat producers, Russia and Ukraine were unable to meet their usual export commitments, leading to a shortage of wheat in European and international markets. In response, the Indian government implemented a temporary ban on wheat exports to ensure food security not only for India but also for its neighbours in South Asia and other vulnerable countries. This measure was aimed at preventing unregulated exports that could lead to hoarding, or fail to address the urgent food needs of nations in crisis.

India also acted to curb 'speculative' trading in wheat, ensuring that its supplies were distributed to those most in need. As a key supplier of wheat to its neighbouring countries, India's decision had significant implications for regional food security. Afghanistan, for instance, recently received large consignments of wheat from India on humanitarian grounds. Similarly, Bangladesh, a major importer of Indian wheat, has benefitted from India's proactive measures to stabilise wheat supplies in the region.

By prioritising its neighbours and vulnerable nations, India has played a crucial role in safeguarding food security in South Asia, with Bangladesh being one of the primary beneficiaries.

Boost to Energy Connectivity

Bangladesh has long faced a power deficit, with a portion of its electricity needs met by private producers. These private companies primarily generate power using diesel, receiving a fixed rate for production up to a certain threshold but charging higher rates when asked to produce more. To alleviate this energy shortfall, India began supplying power to Bangladesh several years ago, and the demand for Indian electricity has been steadily increasing. In 2020–21, Bangladesh imported 17.31 per cent more electricity from India, worth 4,712.91 taka (Rs 4,150.99 crore), compared to the previous year.

Bangladesh's reliance on diesel-based power generation comes with high costs, with the government providing substantial subsidies to private producers. Indian electricity offers a more affordable alternative. Indian power is supplied at 5.8 taka per kilowatt-hour, compared to 8 taka for coal-based power and a steep 52.8 taka charged by private diesel generators. The subsidies for local producers amount to about 30 per cent of Bangladesh's total electricity bill. By opting for cross-border electricity exchanges with India, Bangladesh stands to significantly reduce its subsidy burden.

In a major step forward, the Bangladesh government has decided to formalise its electricity trade with India through the Indian Energy Exchange (IEX). This cross-border exchange mechanism, already used by Nepal and Bhutan to buy and sell electricity with India, will enhance flexibility and allow Bangladesh to trade based on its supply and demand conditions in real time. Currently, Bangladesh imports Indian electricity on a contract basis, but joining the IEX would provide greater opportunities for efficient energy trade.

The attractiveness of cross-border electricity flows for Bangladesh has increased, particularly in the wake of the Ukraine war, which has driven up crude oil prices, raising concerns over the cost and supply of electricity. The exchange mechanism also presents an opportunity for Bangladesh to incorporate more green energy into its grid. Bangladesh could explore the use of solar power from India and hydropower from Bhutan, offering a more sustainable energy mix in the future.

Bangladesh aims to introduce Indian power gradually to avoid disrupting the viability of its local power producers. The country's current infrastructure can accommodate over 70 MW of additional electricity imports, allowing room for Indian power to flow without major upgrades. However, as cross-border electricity trade expands, infrastructure upgrades will be necessary.

During Prime Minister Sheikh Hasina's visit to India in June 2024, both nations agreed to deepen their power and energy collaboration, with a focus on intra-regional electricity trade. They plan to trade competitively priced, clean energy generated from projects in India, Nepal and Bhutan, using India's electricity grid. A key development in this collaboration is the construction of a 765 kilovolt high-capacity interconnection between Katihar (India), Parbatipur (Bangladesh) and Bornagar (India), which will be expedited with Indian financial assistance. This interconnection will serve as the foundation for enhanced grid connectivity. Additionally, both sides have agreed to begin exporting 40 MW of power from Nepal to Bangladesh through the Indian grid, further integrating the region's energy markets.

Bangladesh Emerges as a Hub for Indian Auto Industry Expansion

During the economic downturn caused by the COVID-19 pandemic, while most global markets struggled, Bangladesh emerged as a bright spot for Indian auto companies. As Sri Lanka grappled with its own economic crisis, Indian original equipment manufacturers (OEMs) shifted their focus to Bangladesh, considering it to be on the cusp of an economic boom. This growth attracted major Indian auto companies, positioning Bangladesh as the next hub for their operations.

Accordingly, Indian auto giants, such as Tata Motors, Ashok Leyland, Mahindra and Bajaj Auto, began making substantial investments in joint ventures and assembly operations in Bangladesh (Philip, 2022). These moves not only catered to the increasing demand in the country but also aligned with the Bangladesh government's 'Make in Bangladesh' initiative, promoting local manufacturing.

Currently, Tata Motors leads the market in Bangladesh, controlling two-thirds of the commercial vehicle segment, including small and heavy commercial vehicles and buses. Ashok Leyland, through its partner, IFAD Auto, has also secured 65 per cent of the market for locally assembled light and medium commercial trucks and buses. Meanwhile, Mahindra has partnered with the Karnaphuli Group and Rancon Group for product distribution, and is exploring opportunities in the agri-tech space to boost farmers' productivity.

Bangladesh's relatively lenient emission standards compared to India and other developed nations make it an attractive market for Indian OEMs. The

similarity of the Bangladeshi market to India's further simplifies operations, allowing companies to adapt and cater to local demand efficiently.

Despite the dominance of Japanese reconditioned vehicles, Indian passenger vehicles, two- and three-wheelers and light commercial trucks and buses have seen an impressive average sales growth of 15–20 per cent over the past two to three years. As Indian auto companies capitalise on Bangladesh's economic rise, the pandemic has accelerated their entry into this rapidly growing market.

Comprehensive Economic Partnership Agreement (CEPA) on the Horizon

In the post-COVID era, Bangladesh is on track to finalise a CEPA with India, its second-largest trading partner, by 2025. The pandemic, along with Bangladesh's upcoming graduation from least developed country (LDC) status, has pushed the country to strengthen its regional economic ties. In addition to India, Bangladesh is seeking deeper trade relationships with Sri Lanka, Indonesia and the broader Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) region.

In the last fiscal year, India exported goods worth US\$ 9.7 billion to Bangladesh, while importing goods over US\$ 1.4 billion. Experts predict that a CEPA or an FTA could significantly boost this trade volume to US\$ 25 billion.

Recently, during Prime Minister Sheikh Hasina's visit to India in July 2024, several agreements have been signed, including an MoU on maritime cooperation and the blue economy, along with the renewal of an MoU on fisheries. The two countries have also agreed to the construction of an Inland Container Depot (ICD) at Sirajganj under grant assistance from India.

The economic crisis triggered by the pandemic has paradoxically acted as a catalyst for deeper regional integration, particularly between India and Bangladesh. Enhanced connectivity, growing trade and energy cooperation are setting the stage for a more integrated and resilient South Asian economy. As both countries continue to invest in infrastructure and finalise trade agreements like the CEPA, the future for economic growth and regional cooperation looks promising, with India and Bangladesh at the forefront of this transformation.

Post-Pandemic Recovery and Integration of the Maldives

The Maldives experienced a severe economic downturn during the pandemic as its tourism industry—the backbone of its economy—collapsed. At the time,

India played a critical role in the country's recovery, providing key support in various areas. One of India's major contributions was offering priority access to COVID-19 vaccines, which helped the Maldives navigate the health crisis and revive its tourism sector. India donated 100,000 COVID-19 vaccine doses in January 2021, marking India's first and largest vaccine aid initiative to any country. India also extended \$250 million in financial assistance to provide budgetary support, stabilising the economy which relies heavily on tourism.

In fact, India's creation of an air travel bubble with the Maldives was a significant factor in revitalising the tourism sector. As a result, India became the largest source of tourists to the Maldives in 2020, and it has continued to hold this position for several years. Currently, over 45 flights operate weekly between the Maldives and seven Indian destinations, further boosting tourism. The then Maldivian Foreign Minister Abdulla Shahid acknowledged that the influx of Indian tourists played a crucial role in the Maldives' post-pandemic recovery.

In addition to tourism, India has provided broader development support. The country is involved in 45 development projects in the Maldives, including the Greater Male Connectivity Project, which seeks to enhance infrastructure and internal connectivity. These collaborative efforts have deepened bilateral relations and contributed to regional integration.

India's support continues to be vital for the archipelago. In September 2024, India extended emergency financial assistance by subscribing to the Maldives' \$50 million treasury bill, helping the country avert a potential debt default. This came in the wake of a ratings downgrade and concerns over the Maldives' ability to service its debt, including the risk of defaulting on its 2026 *sukuk* (Islamic sovereign bond) (*The Economic Times*, 2024). India's timely assistance reflects its ongoing commitment to supporting the Maldives in times of crisis.

Nepal's Economic Cooperation and Energy Partnerships

India has played a vital role in supporting Nepal's economy, particularly during the COVID-19 pandemic. During COVID-19, India supplied over 23 tonnes of medicines and medical equipment to Nepal on a grant basis during the first wave. More than 9.5 million doses of vaccines were also sent to Nepal on both grant and commercial terms. India's assistance included the installation of a medical oxygen plant at the B.P. Koirala Institute of Health Sciences in Dharan, with the capacity to serve 200 patients. In total, India's COVID-19 assistance to Nepal was valued at over US\$ 7 million; and the country's efforts to ensure

uninterrupted medical oxygen supplies and maintain trade flows during the pandemic were highly appreciated (Ministry of External Affairs [MEA], 2022a).

During former Prime Minister Pushpa Kamal Dahal's visit to India, seven agreements were signed across various sectors, such as trade, energy and infrastructure. Among these agreements, the most significant included the import of hydropower from Nepal to India and the construction of a petroleum pipeline between Siliguri and Jhapa to enhance energy supply. Additionally, discussions started about exporting Nepal's hydropower to Bangladesh through Indian territory, reflecting growing energy interdependence in the region.

Currently, India is a major investor in Nepal, accounting for 33.5 per cent of the total foreign direct investment stock in Nepal, worth nearly US\$ 670 million. Bilateral trade between the two countries reached US\$ 8.85 billion during 2022–23, with Nepal exporting goods worth US\$ 839.62 million to India and India exporting goods worth US\$ 8.015 billion to Nepal. Nepal's main exports to India include edible oil, coffee, tea and jute, while its major imports from India include petroleum products, iron and steel, cereals, vehicles and machinery. Indian firms are also active in Nepal, with around 150 ventures engaged in different sectors, like manufacturing, banking, education, telecom, power and tourism (MEA, 2022b).

Development Partnership

India provides substantial financial and technical assistance to Nepal for the implementation of large infrastructure and connectivity projects, as well as smaller community development initiatives in key areas, such as education, health, irrigation and rural infrastructure. Even during the pandemic, despite the challenges, work on the ongoing connectivity and developmental projects continued to progress. Notable achievements include: the completion of 13 Terai region road projects with Indian assistance of Rs 400 crore; and the inauguration of high-impact community development projects, such as the Fateh Bal Eye Hospital in Nepalgunj, Rapti cold storage building in Lamahi Bazar; and a rehabilitated small hydropower plant in Jumla district.

Cross-border connectivity has been strengthened through various initiatives, such as rail links, road projects and integrated check posts. India is funding the construction of two broad gauge cross-border railway links between Jaynagar–Bardibas and Jogbani–Biratnagar. An agreement signed between India and Nepal

enables all authorised cargo train operators, including private operators, to carry Nepal's container and other freight.

Power Cooperation

India and Nepal have developed strong cooperation in the power sector, with several cross-border transmission lines facilitating energy trade. India supplies approximately 600 MW of power to Nepal, helping the country overcome energy shortages. The recently completed Koshi corridor double-circuit transmission line, constructed under India's line of credit, is a key component of this collaboration. Additionally, India has permitted the Nepal Electricity Authority to sell surplus energy in the IEX, boosting regional energy trade.

Through its ongoing cooperation in trade, energy and development, India continues to play a key role in boosting Nepal's economic growth and fostering greater regional cooperation in South Asia.

Bhutan's Economic Challenges and Integration Initiatives

Bhutan's economy, predominantly dependent on hydropower and tourism, has faced significant challenges due to the COVID-19 pandemic and the effects of global climate change. The outflow of educated youth seeking better opportunities abroad has further strained Bhutan's economy, highlighting the need for domestic economic reform. To mitigate these challenges, Bhutan is pursuing new initiatives, such as the establishment of a special economic zone (SEZ) near its southern border with Assam and the construction of an airport in Gelephu, aimed at enhancing connectivity and economic diversification (Haidar, 2024).

Bhutan's participation in India's energy exchange programme, which includes Nepal and Bangladesh, is a key opportunity for regional energy integration. This initiative could accelerate the inclusion of Bhutanese and Nepali hydropower into the regional grid, facilitating energy distribution to Bangladesh and, potentially, Sri Lanka. By boosting the export of surplus hydropower, Bhutan stands to benefit from increased regional demand and enhanced economic cooperation across South Asia.

Bhutan's trade relationship with Bangladesh has also strengthened through the preferential trade agreement signed in 2020, which is expected to bolster Bhutan's exports of local produce. This agreement creates additional markets for Bhutanese goods and fosters deeper trade ties among Indian and Bangladeshi producers, enhancing regional economic collaboration.

Efforts to improve connectivity with neighbouring countries are underway. A feasibility survey for the Kokrajhar–Gelephu rail link, connecting Assam to Bhutan, has been completed, and discussions for another rail link between Bhutan and West Bengal are ongoing. Additionally, a proposed rail link to facilitate Bhutan–Bangladesh trade is being explored. Upgrading checkpoints along the India–Bhutan border is also in progress, aimed at streamlining trade and travel.

Beyond hydropower cooperation, Bhutan’s development partnership with India has expanded into emerging areas, notably in the digital and financial sectors. The successful implementation of the RuPay digital payment system in Bhutan, with full interoperability, is a significant achievement. Bhutan is also the second country to launch India’s BHIM app, further integrating the financial systems of both nations. In addition, India is supporting Bhutan’s ‘Digital Drukyl’ project, which involves the development of an optical fibre backbone across all 20 districts, enhancing digital connectivity at the village level (MEA, 2024). Other collaborative initiatives include a peering arrangement between India’s National Knowledge Network (NKN) and Bhutan’s Druk Research and Education Network (DrukREN), facilitating advancements in telemedicine, research and education, as well as India’s assistance in establishing Bhutan’s third international Internet gateway.

These efforts are part of India’s broader strategy to enhance economic integration in the region, particularly by bridging the economic gap with its north-eastern states. India’s initiatives in Bhutan also align with development projects supported by global partners, like the World Bank, and donor countries, such as Japan, contributing to the creation of a ‘subregional hub’ that can drive sustainable growth and cooperation across South Asia.

Bhutan is leveraging both regional partnerships and domestic initiatives to overcome its economic challenges, with India playing a pivotal role in advancing regional energy cooperation, digital connectivity and trade integration. These steps are vital for Bhutan’s long-term economic resilience and for fostering greater integration in South Asia.

Pakistan’s Worsening Economic Crisis and Stalled Integration

Pakistan is currently grappling with a severe economic crisis rooted in decades of corruption, mismanagement and political instability. The economic fallout of the Russia–Ukraine war has only accelerated its downward spiral. Key challenges facing Pakistan’s economy include skyrocketing inflation, plummeting foreign

exchange reserves, a widening current account deficit and a rapidly depreciating currency. At the end of 2022, Pakistan's total debt stood at \$126.3 billion. In 2023, debt servicing on external loans alone was estimated by the World Bank to be \$26.4 billion. By 2024, the country's external debt and liabilities had surged past \$130 billion, representing a 27 per cent increase from the previous year. Pakistan is also required to repay nearly \$29 billion in external debt over the next 12 months.

Pakistan's reliance on external loans from bilateral, multilateral and private creditors has increased, with China becoming a dominant lender. By 2021, China held 19.2 per cent of Pakistan's outstanding external debt, a stark contrast to the declining share of the Paris Club creditors as the United States interest in Pakistan has waned. Despite China's substantial support, the magnitude of Pakistan's economic crisis is such that it cannot solely rely on Chinese assistance for recovery.

Other Gulf nations, particularly Saudi Arabia and the United Arab Emirates (UAE), have also played crucial roles in preventing Pakistan's complete economic collapse (Manur, 2022). Saudi Arabia has regularly provided financial support, including deposits in Pakistan's central bank and an oil facility to ease the foreign exchange crisis. Similarly, the UAE has offered financial aid, including investments in Pakistani state-owned companies, through its sovereign wealth funds (*The Times of India*, 2022).

Pakistan has long relied on loans from the International Monetary Fund (IMF) to stabilise its economy, having taken 24 IMF loans since 1958. This heavy dependence underscores the country's prolonged economic struggles. In September 2024, the IMF approved a new \$7 billion loan to Pakistan, disbursing \$1 billion immediately, with the remainder to be provided over the next three years (Dayal, 2024). However, the IMF emphasised that the bailout would require Pakistan to implement stringent reforms, including tax broadening, energy sector reform and measures to stabilise its foreign exchange market (Rana et al., 2024). Though necessary, such reforms have historically placed a heavy burden on the Pakistani population, often resulting in higher energy prices and slower economic growth due to import restrictions (Hussain, 2024).

India–Pakistan Economic and Trade Relationship

Historically, trade between India and Pakistan has played a vital role in stabilising market prices during shortages. Pakistan's exports to India have included different products, like dates, leather and fabrics, while India has exported other items,

like tomatoes, onions, sugar and vegetables. The slightly different crop harvesting times between the two countries have allowed them to trade agricultural goods to offset seasonal shortages, such as cotton in Pakistan and potatoes in India.

Beyond agriculture, there is significant untapped potential for mutually beneficial trade between the two nations. A study estimated that the trade potential between India and Pakistan could be as high as \$37 billion, compared to the mere \$2 billion recorded in 2015 (Business Standard, 2018). Both countries could potentially export around \$18 billion worth of goods to each other, not including the substantial opportunities in services. Expanding trade to such levels could significantly impact employment and inflation, benefitting both economies.

Cutting off trade with a major neighbour like India has proven to be particularly detrimental for Pakistan, especially given its current economic turmoil. A resumption of trade could provide much-needed economic relief. However, Pakistan has so far resisted separating trade from political issues, which has further exacerbated its economic challenges. A more 'normal' trading arrangement with India—one based on non-discriminatory tariffs and fewer port restrictions—could open the door for broader economic cooperation. Additionally, opportunities in certain areas, like investment and tourism, could provide further economic integration, fostering dialogue on broader South Asian issues.

The Need for Closer Economic Integration

Despite support from China and its Gulf benefactors, Pakistan's economy continues to struggle, and its people are bearing the brunt of the crisis. The IMF's recent bailout package, while helpful, has not resolved the country's deep-rooted economic issues. A closer economic partnership with India and other South Asian nations could have provided a stronger foundation for recovery. However, Pakistan's reluctance to pursue regional integration has prolonged its economic woes, ultimately exacerbating the suffering of its citizens.

Conclusion

Economic crises in several South Asian countries have forced them to explore regional integration options that were previously overlooked. Various initiatives, such as power grid connections, energy exchanges, improved connectivity and liberalised trade norms, have the potential to benefit businesses and the general populace across the region.

South Asia is beginning to see the benefits of regional cooperation, but much work remains to be done. Black swan events, geopolitical conflicts and anti-globalisation trends are compelling regional groupings to become more cohesive. While South Asia has not yet achieved the level of cohesion seen in other regions, the recent economic crises present an opportunity to deepen regional integration for long-term stability and prosperity.

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*Revamping Innovation Infrastructure:
A Pathway to Overcome the Middle-Income Trap*

Amit Agrahari and Harshit Kacholiya

Introduction

The ‘middle-income trap’ is a developmental challenge faced by countries that experience rapid economic growth but then stagnate, unable to progress to higher-income levels due to structural barriers in innovation and productivity. India, with its vast population and rapidly evolving economy, now stands at a critical juncture. To avoid falling into this trap, the country must revamp its innovation infrastructure by aligning science and industrial policies with modern global trends. Historically, India’s approach to science and technology was rooted in a public sector-led model that prioritised state-controlled research institutions. While this model helped establish the country’s early scientific foundation, it now lags in the face of an increasingly competitive global landscape driven by public-private partnerships (PPPs) and corporate-led research and development (R&D).

This chapter examines the evolution of India’s science and industrial policies from the 1950s to the present, analysing the shift from a socialist-driven research model to a more liberalised, yet fragmented, innovation ecosystem. It explores how India’s industrial policy, especially after the economic reforms of 1991, has transformed, while its research infrastructure remains stuck in outdated models. The chapter highlights the limitations of India’s current research infrastructure and proposes a new pathway—one that emphasises PPPs, industry-led R&D

and strategic investments in emerging technologies, like artificial intelligence (AI) and quantum computing. By adopting these global best practices, India can not only overcome the middle-income trap but also emerge as a leader in the global knowledge economy.

Evolution of India's Science and Industrial Policies

India's current scientific infrastructure was established in the 1950s with the adoption of the *Scientific Policy Resolution of 1958*. This policy, developed under the influence of the *Industrial Policy Resolution of 1956*, aimed to align science and technology with the nation's socialist goals (Chenoy, 1985). In 1983, a significant update came with the *Technology Policy Statement*, which emphasised the development of indigenous technologies. This followed the *Industrial Policy Statement of 1980*, which marked a shift towards fostering domestic technological capabilities.

The subsequent *Science and Technology Policy of 2003* and the *Science, Technology and Innovation Policy of 2013* aimed to integrate science and technology, while also emphasising increased investment in R&D (Sattiraju and Janodia, 2023). These policies also sought to align India's scientific efforts with the broader liberalisation goals of the *New Industrial Policy of 1991*.

In recent years, India's industrial policy has taken a new direction. For the first time, the government has openly subsidised both domestic and foreign private industries. Notably, in 2020, the *Department of Science and Technology* introduced five drafts of the *National Science, Technology and Innovation Policy* for public consultation, although none have been officially adopted. Similarly, India has yet to formalise a new industrial policy, though a draft, titled '*Make in India for the World*', was circulated in 2022, but the final version remains unpublished (Kundu, 2023).

Over the past three decades, India's political economy has undergone fundamental changes since the adoption of the *New Industrial Policy*, 1991. India's trade to gross domestic product (GDP) ratio of 49 per cent (World Bank, 2022) is now higher than many other large economies, including China (38 per cent), Japan (47 per cent) and the United States (US; 27 per cent), and peers, like Indonesia (45 per cent).

Figure 16.1: Trade to GDP Ratio (India, Indonesia, China, Japan, the US)



Source: World Bank.

In the 1980s, India had extremely high tariff rates, with tariff revenue as a proportion of imports rising from 20 per cent in 1980–81 to 44 per cent by 1989–90 (Panagariya, 2004). By 1990–91, the average tariff rate was 113 per cent, with an import-weighted average of 87 per cent. However, by 2018, the share of customs and import duties had been reduced to just 4.9 per cent, with most items now subject to import duties of less than 10 per cent (World Bank). Government officials have since shifted their approach, no longer viewing import duties as a key revenue source in free trade agreement negotiations (Mishra, 2024).

Since the 1991 policy, the global political economy has embraced liberalisation, privatisation and globalisation (LPG), and India followed suit. However, by the 2020s, the world began reconsidering free trade through the lenses of equity and national security (Aiginger and Rodrik, 2020). Industrial policy has made a strong return as countries re-examine their approaches to trade and industrial development.

The industrialisation experiences of East and Southeast Asian countries, which used robust industrial policies, were initially dismissed by many until China successfully leveraged similar models to become a strategic and economic power. Apart from a few European countries benefitting from continental

integration, the East Asian economies are the most successful examples of post-World War II industrialisation (Hauge, 2020). With this success in mind, other countries, including India, are now seeking to replicate their industrial models.

Figure 16.2: Customs and Other Import Duties (% of tax revenue)



Source: World Bank.

India's recent version of industrial policy is reflected in certain initiatives, like the *Production Linked Incentive (PLI)* scheme and the *Atmanirbhar Bharat* (self-reliant India) initiative. For the first time, large sums, amounting to billions of dollars, are being provided as subsidies to both domestic and foreign private companies under various production and design-linked schemes. These national missions focus on emerging technologies, such as AI, quantum computing, green hydrogen and semiconductors, signalling a bold new direction for India's industrial policy.

The Disconnect between India's Science and Industry Establishments

India's political economy has undergone a significant transformation, shifting from a period when 'profit was a dirty word' (Adhia, 2013) and the private sector was demonised, to the current era where industries are receiving subsidies funded by taxpayers' money. However, this shift in political economy has not been mirrored by a corresponding change in the country's higher education and research infrastructure.

The foundation of India’s higher education and research system was laid in the 1950s, designed to align with the political and economic conditions of that time. In a public sector-led economy, institutions like the Indian Institutes of Technology (IITs) were intended to supply engineers; the Indian Institutes of Management (IIMs) were to train managers; the Industrial Training Institutes (ITIs) were to produce industrial workers; and research bodies, such as the *Council of Scientific and Industrial Research* (CSIR), *Indian Council of Medical Research* (ICMR) and *Defence Research and Development Organisation* (DRDO), were set up to conduct research aligned with industry needs. The placement of these institutes reflected this, with early IITs established near industrial hubs—Kharagpur, Bombay, Madras and Kanpur.

Despite the system’s early success, the cracks in the public sector-led model became evident by the 1970s. Attempts at correction began in the 1980s and culminated in the *New Industrial Policy of 1991*, which focused on LPG. Over the past three decades, India’s economy has moved decisively towards a private sector-led model. The government has transitioned from being a direct producer and distributor of goods and services to an enabler and regulator of the private sector, ensuring quality and fair competition.

Table 16.1: R&D Spending Distribution across Institutions

Country	Corporate (% of Total)	Public R&D Institutes	Universities
South Korea	80	10	10
China	77	15	7
India	36	56	7
France	65	13	22
USA	73	10	17
World	71	12	17

Source: Public data and Centre for Technology, Innovation and Economic Research (CTIER) calculations.

However, this shift in political economy has not been fully reflected in the country’s research infrastructure. The higher education institutions have adapted to the change—supplying human resources to private companies, multinational corporations and foreign employers. Many IIT and IIM graduates now pursue higher education or jobs abroad, with 70–80 per cent of some batches leaving the country. Yet, the research infrastructure remains largely government driven, with limited involvement from the private sector.

India's autonomous R&D laboratories (labs) model, under which over 200 government-funded labs operate across various sectors—such as defence (DRDO), agriculture (Indian Council of Agricultural Research [ICAR]), medicine (ICMR), space (Indian Space Research Organisation [ISRO]) and atomic energy (Bhabha Atomic Research Centre [BARC])—absorbs 57 per cent of the country's public research funding. While this model has succeeded in only a few cases globally—such as the *Max Planck Society* in Germany; *Industrial Technology Research Institute* in Taiwan; and *Electronics and Telecommunications Research Institute* in South Korea—it has not yielded significant returns in India.

For example, the DRDO alone has an annual budget of \$3 billion, yet much of its output is essentially 'white-labelled' research with limited commercial or technological breakthroughs. Despite the billions of dollars spent on these autonomous R&D institutions, their return on investment remains disappointingly low. A critical shift is needed—moving from a model where the government does the majority of research itself to one where it funds and regulates private sector and higher education institutions to conduct research, fostering innovation and improving outcomes.

Public Science and Technology Establishment in India

Globally, technology development is often driven through PPPs, where government funding is complemented by private sector management, or it is entirely publicly funded but managed privately. In contrast, India's key science and technology development institutions—the *Science and Engineering Research Board* (SERB; established in 2008) and the *Technology Development Board* (TDB; established in 1996)—are fully managed by government officials or academics, with limited involvement from the private sector.

An analysis of the Ministry of Science and Technology's budget reveals a significant imbalance: India spends eight times more on basic science than on technology development. This focus on basic science sets India apart from other developing nations. For instance, East Asian economies have successfully leveraged Western advancements in basic research and early stage technology to create consumer products, prioritising technology development over fundamental science. In India, however, Rs 800 crore is spent annually on basic science, while only Rs 100 crore is allocated for technology development. In contrast, East and Southeast Asian countries direct more resources towards technology development, seeing faster returns on their investments.

Table 16.2

<i>Particular</i>	<i>2020–21 Actuals</i>	<i>2021–22 BE</i>	<i>2021–22 RE</i>	<i>2022–23 BE</i>	<i>% Change from 2021–22 RE to 2022–23 BE</i>
Autonomous Bodies	1,375	1,488	1,488	1,500	1%
Institutional and Human Capacity Building	893	1,100	984	1,128	15%
Innovation, Technology Development and Deployment	630	952	701	813	16%
Statutory and Regulatory Bodies	751	950	975	903	-7%
<i>Science and Engineering Research Board</i>	741	900	900	803	-11%
<i>Technology Development Board</i>	10	50	75	100	33%
Research and Development	396	594	457	604	32%
Survey of India	423	531	472	524	11%
National Mission on ICPS	270	270	–	350	–

Note: BE = Budget Estimate; RE = Revised Estimate; ICPS = Interdisciplinary Cyber Physical Systems.

Source: Demand for Grants 2022-23 Analysis: Science and Technology at <https://prsindia.org/budgets/parliament/demand-for-grants-2022-23-analysis-science-and-technology>

This imbalance is particularly striking when compared to countries like the US, which funds basic research through organisations like the *National Science Foundation*, with a budget of around \$10 billion supporting non-medical fields (US Federal Budget Documents, 2024). Also, the *National Institutes of Health* (NIH), with a budget of \$45 billion, is the world’s largest public funder of biomedical and behavioural research. However, other countries, such as Taiwan, South Korea and even Japan, which became a wealthy nation nearly four decades ago, invest significantly less in basic science, focusing more on technology development.

Table 16.3

<i>Government Support to the US Research Establishment</i>	
Fundamental Research	National Science Foundation National Institute of Health
Industry-directed Research	DARPA, ARPA-E, ARPA-I, HSRPA, IARPA, ARPA-H
Industry Research	Departmental grants and soft loans
<i>Government Support to Taiwan Research Establishment</i>	
Industry-directed Research	Industrial Technology Research Institute, Automotive Research & Testing Center, Taiwan Textile Research Institute, Institute for Information Industry
Industry Research	Land, labour, capital subsidy

<i>Government Support to South Korea Research Establishment</i>	
Industry-directed Research	Electronics and Telecommunications Research Institute, Agency for Defense Development, Astronomy and Space Science Institute
Industry Research	Capital subsidy and infrastructure subsidy
<i>Government Support to Japan Research Establishment</i>	
Industry-directed Research	Hundreds of joint industry research associations directed under MITI in collaboration with industry for a short (5–8 years) tenure
Industry Research	Capital subsidy
<i>Government Support to Indian Research Establishment</i>	
Basic Research	Science and Engineering Research Board (SERB)
Industry-directed Research	CSIR, DRDO, ICAR, ICMR, Textile Research Associations, projects at academic institutions
Industry Research	PRATHAM R&D Fund, Technology Development Fund

Note: DARPA – Defence Advanced Research Projects Agency, ARPA-E – Advanced Research Projects Agency - Energy, ARPA-I – Advanced Research Projects Agency – Infrastructure, HSARPA- Homeland Security Advanced Research Projects Agency, IARPA – Intelligence Advanced Research Projects Activity, ARPA-H – Advanced Research Projects Agency for Health, MITI – Ministry of International Trade and Industry (Japan)

In India, the *Department of Science and Technology*, under the Ministry of Science and Technology, is responsible for non-medical technology development, while the *Department of Biotechnology* focuses on medical fields. The *technology readiness level* (TRL) scale illustrates the division of responsibilities in India's science and technology establishment: SERB oversees TRL 1–TRL 4 (early stage research), while the TDB handles TRL 5–TRL 9 (advanced technology development). However, both institutions have struggled to make a significant impact due to issues with implementation, often operating under a 'do-it-yourself' (DIY) model.

This lack of coordination and private sector involvement has contributed to India's relatively poor performance in certain areas, such as patent filings and commercialising research, limiting the effectiveness of the country's science and technology infrastructure.

Until the 1980s, India's public science sector operated primarily under a DIY model, where government institutions employed scientists in state-run laboratories instead of funding research at public and private universities. The establishment of the TDB in 1996 marked a significant shift, as it began funding R&D in private institutions. In 1999, under the leadership of Dr Raghunath Mashelkar, the *New Millennium Indian Technology Leadership Initiative* (NMITLI)

Figure 16.3: Public Science and Technology Establishment in India

Commercialisation Cycle	Development Cycle	Technology Readiness Level	Institution	Mandate	Illustration
Commercial Research	Commercialisation and Scaling	Product-market Fit	VCs and PEs	Scope of Private Institutions	VC and PE funded Product Start-ups and Companies
		TRL 9, Extensive Implementation	Technology Acquisitions	Scope of Technology Development Board	Foreign acquisitions by Companies and Consortiums
Pre-Commercial Research	Development Phase	TRL 7, TRL 8 Prototype Demonstrated Few Records of Implementation Versions Released	Industry Research Assistance Projects		Funding in-house research by Companies and collaborative research by Consortiums
		TRL 6, TRL 5 System/Subsystem Demonstration Component/Breadboard Validation in a relevant environment	Focused Research Organisations		Industry-directed Research by new institutions
		TRL4, TRL3, TRL2, TRL1 Technology Validated in a Lab Experimental Proof of Concept Technology Concept Formulated Basic Principles Observed	Universities	SHAKTI Processor 5G Testbed	
	Research Phase			Scope of Science and Engineering Research Board	

was launched under the CSIR, further opening the doors for public funding of private companies and universities.

These programmes were revolutionary for their time, but the bulk of government resources still support the outdated DIY model that was adopted after the 1956 Industrial Policy Resolution, which shaped subsequent science policies.

DIY Model and its Limitations

The DIY model, particularly in government-run science establishments, often results in inefficiencies. Even in the private sector, the concept of ‘*core competency*’, as popularised by academics like C.K. Prahalad and Gary Hamel (2009), emphasises the need for organisations to focus on what they do best to maintain efficiency. In the 1950s, the Indian state attempted to take on too much, which hampered its ability to deliver results. Since the 1990s, India has been slowly stepping back from this model, giving more space to the private sector. The shift since 2020 has been towards actively enabling private sector participation in technology and innovation.

The DIY model has created an inverted R&D spending structure in India. The government accounts for around 57 per cent of total R&D spending, whereas in most countries, including developing ones, the private sector drives more than half of R&D expenditure, with government support typically comprising about a quarter. In India, however, the government not only funds R&D but also insists on controlling programmes and making key decisions. This approach has led to poor returns on investment, particularly in government R&D programmes, where over 90 per cent of expenditures go towards salaries and administrative costs rather than research itself.

As a result, India lags significantly in terms of patent filings. In fiscal year 2023–24, India granted approximately 100,000 patents, a significant increase from just 6,000 in 2014. Despite this progress, India remains far behind countries like China (which grants over 1.6 million patents) and the US (600,000 patents). Additionally, India struggles to develop consumer applications, where it also underperforms.

However, there has been notable success in commercial research conducted in venture capital (VC)-funded or business-backed labs, especially in the private sector. Global technology companies are increasingly opening *Global Capability*

Centres (GCCs) in India, which are focused on product development for Western markets. India now has over 1,600 GCCs, and their growth has contributed to a surge in services exports, which reached \$342 billion in fiscal year 2024. These GCCs are responsible for around a quarter of India’s services export revenue, and the country’s services exports have nearly doubled in the past five years, thanks to the development of products for international markets by these centres.

PPP and Corporate Labs

Globally, the responsibility for technology development and implementation typically falls on government-backed institutions. These institutions are often funded and managed in a variety of ways. In some cases, they are jointly funded, such as the *Technology Development Foundation* in Turkey or *Enterprise Singapore*. In other cases, they are publicly funded but privately managed, as with *Innovate UK*, or operate under a PPP model.

India’s TDB, however, stands out as an exception. Unlike most other technology agencies worldwide, TDB is both publicly funded and publicly managed. Few other examples exist of this structure, with the *Agency for Innovation Systems* in Sweden being a rare parallel.

Table 16.4: Funding and Management Structures of Technology Development Agencies in Various Countries

Country	Year of Establishment	Model (Public, Private, PPP)	Innovation Agency
Singapore	2002	PPP	Enterprise Singapore
Thailand	2003	PPP	National Innovation Agency
Indonesia	2021	Research mothership	National Research and Innovation Agency
UK	2007	Publicly funded, privately managed	Innovate UK (earlier Technology Strategy Board)
India	1996	Publicly funded, publicly managed	Technology Development Board
Poland	2007	Publicly managed implementation agency	National Centre for Research and Development
Turkey	1991	Public-private funded, privately managed	Technology Development Foundation
Malaysia	1992	Sovereign wealth fund-owned subsidiary	Technology Development Corporation
Sweden	2001	Government agency	Agency for Innovation Systems

Source: Compiled by authors.

Publicly funded corporate labs in the US have played a significant role in shaping modern technological advancements. Many of the world's most groundbreaking inventions have emerged from American corporate labs, often supported by public research funds. These innovations include the development of the modern microcomputer, the jet engine, the electric fan, tungsten light bulb filaments and portable X-ray machines. The collaborative efforts between government funding and private corporate R&D in the US have contributed to the creation of some of the most influential corporations in history and continue to drive technological progress globally.

Table 16.5: American Corporate Labs and their Contributions

<i>Name</i>	<i>Notable Contributions</i>
Bell Labs	Transistor, laser, photovoltaic cell, information theory, Unix operating system and programming languages B, C, C++, S, SNOBOL, AWK, AMPL.
Xerox PARC	Laser printing, ethernet, PC, graphical user interface, computer mouse and very large-scale integration (VLSI) for semiconductors.
RCA Labs	Colour television, complementary metal-oxide semiconductor (CMOS) integrated circuit technology and electron microscopy.
GE Labs Research Lab	Jet engine, electric fan, tungsten light bulb filament, portable X-ray machine, CT scanner, auto-pilot system.
IBM Labs	Laser-eye surgery, magnetic storage, relational database, scanning tunneling microscope and high-temperature superconductivity.
Westinghouse Research Labs	First commercial pressurised water reactor, gyroscopic stabilisation, pioneered the use of alternate current and improved radar.
X Development (Google)	Augmented reality head-mounted display glass, self-driving cars, free space optical communication.
Microsoft Research	20% of global AI patents, computer vision, graphics and multimedia, human-computer interaction.
Amazon Labs	Amazon Echo, Alexa, Fire Stick TV and tablets.
HPC & AI Innovation Lab (Dell)	Zenith, one of the fastest supercomputers in the world.

Note: A quarter of the funding for corporates labs came through various federal government US agencies, like the Defense Advanced Research Projects Agency (DARPA).

Source: Compiled by authors

Fund it through the Sutradhar Model: Enhancing India's R&D Ecosystem

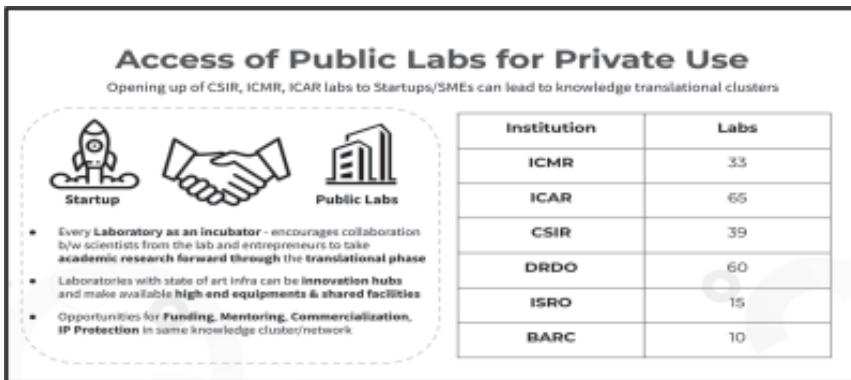
Case Study 1: BIRAC—A New Model for Research Facilitation

The Biotechnology Industry Research Assistance Council (BIRAC), established in 2012, marked a departure from the traditional government-driven research

model, where the state employed scientists to conduct research directly. Instead, BIRAC positioned itself as a facilitator of research, not a research institution itself. Its primary role was to support private players—academics, micro, small and medium enterprises and start-ups—by encouraging them to lead research efforts and retain ownership of the intellectual property and resulting profits.

Over the past decade, BIRAC has significantly enhanced the research ecosystem in India. By promoting innovation and value creation, it has delivered more impactful outcomes compared to older institutions, like the CSIR or the DRDO. Its approach of empowering the private sector to drive research has been instrumental in fostering innovation and growth.

Figure 16.4



Source: Compiled by authors from websites of respective organisations.

Case Study 2: iDEX—A Defence-driven Innovation Model

In the defence sector, Innovations for Defence Excellence (iDEX) has introduced a novel model that primarily utilises corporate social responsibility funds from Hindustan Aeronautics Limited (HAL) to operate the organisation and provide challenge grants. Similarly, BIRAC secures funding from international organisations, such as the Bill and Melinda Gates Foundation and Wellcome Trust, for its challenge grants.

The iDEX’s innovation model draws inspiration from the Defense Advanced Research Projects Agency (DARPA) and similar agencies across various sectors (Bonvillian and Van Atta, 2011). This approach is characterised by a lean operational structure that funds research based on the specific needs of user agencies, rather than conducting the research in-house. This new methodology

is encapsulated in the ‘Heilmeier Catechism’, which poses the following questions (Heilmeier, 2012):

1. What are you trying to do? Why is it hard?
2. How is it done today? What are the limits of current practice?
3. What is the new technical idea or approach?
4. Why do you think you will be successful?
5. Who cares? What is the impact if successful?
6. What are the risks and mitigations?
7. What will it cost? How long will it take?
8. What is your plan? How will the project be organised?
9. How will you measure your progress? How will intermediate results be generated?
10. What is your plan to commercialise the technology?

The trend of funding research and innovation based on user agency needs is gradually gaining traction in India. The Telecom Technology Development Board is also adopting a similar model, albeit with a smaller user base, primarily consisting of Bharat Sanchar Nigam Limited (BSNL). The philosophy behind funding start-ups and businesses for product development is rooted in the extensive private sector user base for telecom products. Additionally, the government maintains a significant Universal Service Obligation Fund (USOF) to support use cases, particularly those aimed at improving rural connectivity. This fund can also incentivise domestic companies to procure products from indigenous telecom manufacturers.

The Solution: Industry-directed R&D at Joint Research Laboratories

Given the broken state of India’s research infrastructure, a two-pronged approach is essential to fix it: one focused on basic research; and the other focused on technology development. The government has revamped the SERB and launched the National Research Foundation (NRF) to address basic research needs (TRL 1–TRL 4). However, the TDB, established in 1996 to foster consumer product innovation, remains ineffective.

The technology development ecosystem (TRL 5–TRL 9) is just as underdeveloped as the basic research infrastructure. The bottom-up approach taken by institutions like TDB could have succeeded if Indian corporations were

more willing to take risks and invest in R&D. Unfortunately, the lack of an R&D culture in Indian corporates—evident from their low private investment in innovation—has resulted in poor-quality proposals. Moreover, TDB's small budget of Rs 100 crore, which is only an eighth of SERB's Rs 800 crore budget, further limits its capacity. India remains one of the few developing countries that spends more on basic science than technology development.

Furthermore, institutions like the CSIR have shifted from industry-focused research to more abstract, blue-sky research, creating a gap in industry-led pre-commercial R&D. To address this gap, a multipronged strategy is required to tackle technologies at various stages of readiness:

1. Technology acquisitions (TRL 9 maturity).
2. Projects by companies or Focused Research Organisations (FROs) (TRL 7 and TRL 8).
3. The FROs for longer-term innovation.

A global example of this approach is Japan's success with joint projects in certain sectors, like very large-scale integration (VLSI) and optoelectronics. More recently, Japanese automakers (Honda, Nissan, Toyota and Suzuki) have come together to compete in the electric vehicle market. Indian industries have historically established similar institutions, such as the Ahmedabad Textile Industry's Research Association, though many of these efforts lost direction over time.

Funding and Process of R&D

The new joint research laboratories in India would not just respond to industry research proposals but also actively steer the country's R&D ecosystem towards specific strategic goals. These labs would adopt a top-down funding model, similar to successful projects, like the Rotavirus and COVID vaccine development, the 5G test bed and the SHAKTI microprocessor project. In these cases, the top management outlined clear goals and the academia and industry worked towards them, rather than the traditional approach of academia and industry generating projects and seeking government funding.

Human Capital for R&D

Post-World War II, technology transfer occurred in different ways across nations. According to the national learning framework developed by Viotti (2002):

1. American firms transferred technology to South Korean and Taiwanese companies.

2. Japan relied on both development and unauthorised technology acquisition.
3. Germany focused on innovation through its domestic companies, leveraging pre-World War II intellectual capital and research infrastructure.
4. China, on the other hand, acquired technology through various means, including unauthorised methods, from Japanese, South Korean and American firms.

The loss of intellectual capital can be more damaging than the loss of financial capital. Historian Richard Evans notes that German universities that lost human capital after World War II never fully recovered, while those that only suffered physical damage managed to rebuild. For example, after the Nazis came to power, they dismissed Jewish and ‘politically unreliable’ professors, severely impacting some academic departments.

In India’s case, the intellectual capital that migrated to the West in search of better opportunities is now showing a willingness to return, provided the right incentives are in place. Many highly skilled individuals who have studied at prestigious Western universities and have worked abroad are coming back to India to contribute to its growing technological and entrepreneurial ecosystem.

India can address its technology deficit by tapping into its vast and talented diaspora. Today, Indians are among the most prominent contributors to scientific and technological advancements in Western countries. By offering targeted incentives, India could attract some of this talent back home and foster the growth of domestic industries, much like Taiwan did with its semiconductor sector.

Conclusion

Most successful countries in the world have adopted a PPP model for funding and managing their technology implementation agencies. If India does not learn from these global technology development and implementation models, its current spending on science and technology—roughly 2 per cent of the total budgetary expenditure across all public R&D institutions—will not yield productive outcomes.

India’s public science establishments need to shift their approach. Rather than directly carrying out R&D, they must focus on funding and supporting

research in universities and corporate labs. This is not a new argument: eminent scientists like Meghnad Saha argued, as early as the 1950s, for R&D to be conducted in academic institutions and corporate labs rather than in autonomous labs (Kothari, 1960). Additionally, India needs far more corporate labs, funded by both private and public sectors, to drive the development of cutting-edge consumer products.

If India does not take the innovation economy seriously, it risks falling into the same middle-income trap that countries like Thailand, Brazil, Argentina and Chile have faced. These nations experienced initial growth—either through labour arbitrage (like Thailand) or by exporting commodities (like Argentina and Brazil). However, once commodity booms ended or their GDP per capita reached around \$10,000, their economies stagnated. Thailand, for instance, now faces the risk of growing old before it can grow rich (Chamchan, 2018). If India does not prepare for a science and technology-driven economy, a decade from now—when its per capita income reaches \$10,000—it could face similar challenges.

To avoid this, India must overhaul its research infrastructure and transition from a ‘DIY’ model to one that actively funds R&D in universities, start-ups and businesses, much like BIRAC and iDEX have successfully done. This shift is essential for India’s future growth and to ensure it does not become another middle-income trap economy.

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*Bay of Bengal Blue Economy Integration (B3Ei):
A Strategic Framework for Maritime Cooperation and
Sustainable Growth among Bay of Bengal Coastal
Countries (BBCC)*

Khin Maung Zaw

Introduction

The Bay of Bengal (BoB), located in the north-eastern part of the Indian Ocean, is the world's largest bay. It is bordered by India's eastern coast, Bangladesh's southern coast, Sri Lanka to the west, Myanmar to the east and the Andaman and Nicobar Islands to the south-east. As the basin of one of the most dynamic river deltas, the BoB holds much importance both globally and regionally, particularly for the geopolitics and geo-economics of South and Southeast Asia.

The countries bordering the BoB—such as India, Bangladesh and Myanmar—are emerging economies with shared interests in maximising the region's economic potential. The BoB is rich in offshore hydrocarbon resources, including oil and natural gas, and has abundant marine life, such as fisheries and corals. Effectively managing these resources is crucial for the economic development and energy security of the region. For example, fisheries are vital for employment and food security, while offshore energy reserves have the potential to drive socio-economic growth.

India has played a central role in regional organisations, like the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), the Bangladesh–Bhutan–India–Nepal (BBIN) initiative and the

Indian Ocean Rim Association (IORA). However, these organisations have yet to achieve the level of integration needed to position the region as a major player in the global economy. This raises the question: could a maritime-oriented regional integration among the Bay of Bengal Coastal Countries (BBCC) offer a more effective pathway for linking South and Southeast Asia?

A maritime-based integration framework, while complex, offers unique advantages over land-based initiatives. The strategic location of the BoB allows for seamless sea connectivity, which is vital for enhancing economic ties and security cooperation between South and Southeast Asia. Land-based initiatives, such as the East–West Corridor from India to Vietnam via Myanmar and Thailand, have encountered delays due to financial constraints and political instability. In contrast, sea routes remain vital for trade, offering an alternative to stalled rail and road projects in the region.

In this context, a BBCC-led economic belt focused on maritime cooperation and the blue economy holds great potential. The concept of blue economy refers to the sustainable use of ocean resources for economic growth, improved livelihoods and job creation, while preserving the health of ocean ecosystems. By fostering cooperation among the littoral states, this initiative could unlock the potential of coastal, island and delta economies, integrating them into a broader blue economy framework.

The underperformance of coastal economies in the BoB, compared to those in the Pacific Rim, is an area of interest in this study. Despite the region's rich marine resources, various factors, such as underutilisation, lack of expertise and the absence of a strategic vision, have hindered the development of a cohesive blue economy. Overcoming these challenges requires addressing issues related to urbanisation, industrialisation, infrastructure and the mobilisation of maritime resources.

Financial constraints are another major hurdle. While regional organisations in the Indian subcontinent struggle with funding, initiatives like the Lancang–Mekong Cooperation (LMC) and the Association of Southeast Asian Nations (ASEAN) have benefitted from more robust financial models. The success of BBCC economic integration will depend on the development of strategic financial models that can attract international investment and create a profitable, sustainable economic network across the region.

This chapter proposes the Bay of Bengal Blue Economy Integration (B3Ei)

as a strategic framework to foster economic collaboration among the BBCC. By leveraging maritime connectivity, a BBCC-led economic initiative could strengthen the ties between South and Southeast Asia, offering an alternative to land-based infrastructure projects, which are often hampered by political and financial constraints. This integration would capitalise on the region's coastal and maritime assets, facilitating sustainable economic growth while addressing governance and financial challenges.

Literature Review

Several scholars have contributed to the foundational development of the B3Ei concept. Their work provides valuable insights into the principles and challenges of this emerging framework. Some key contributors and their ideas are discussed in this section.

In his work, Abhijit Singh (Observer Research Foundation [ORF]) focuses on how the BoB states can harmonise their blue economy approaches to create a comprehensive, region-wide agenda for marine governance. Despite efforts by regional governments, Singh argues that no cohesive strategy exists yet. He advocates for collective investments in technology, innovation and governance systems to balance environmental sustainability with development needs. He also emphasises the importance of integrated spatial planning and sustainable maritime resource usage, highlighting that B3Ei must balance positive economic growth with normative environmental concerns.

Mohammad Rubaiyat Rahman (Bangabandhu Sheikh Mujibur Rahman University, Bangladesh) is another key scholar contributing to the B3Ei framework. His work traces the historical significance of the BoB as a region of cultural and economic exchange, with a long history of seafaring and trade among the littoral states. Rahman notes that despite this rich history, the region has not emerged as a cooperative transoceanic community in recent decades. However, he observes a positive shift, as countries in the region are now recognising the vast potential of their maritime resources.

Rahman also stresses the need for effective legal and governance frameworks to fully realise the benefits of the blue economy. He calls for the creation of a national ocean policy for Bangladesh that would position the country as a regional leader in the blue economy initiatives. His work highlights the importance of cooperation in a number of areas, such as regulation of coastal marine environments, establishment of marine protected areas, maritime safety and

securing ports and sea lanes. Rahman's emphasis on regulatory and security dimensions is critical to fostering cooperation among the BBCC.

Nafisa Yeasmin and Pavel Tkach of Lapland University, Finland, have also made significant contributions to the B3Ei concept through their research on regional management of the BoB's waters. Their work underscores the importance of cooperative governance and mandatory due diligence mechanisms to ensure sustainable blue economy cooperation in the region. Further, Yeasmin and Tkach point to the role of regional organisations, such as ASEAN, BIMSTEC and IORA, in facilitating this cooperation. They advocate for a more formalised structure for regional management to ensure that environmental and economic objectives are aligned. Their research highlights the need for improved governance frameworks to manage shared maritime resources and ensure the sustainability of the blue economy in the BoB.

The B3Ei concept, as developed by these scholars, calls for a more integrated and cooperative approach to managing the blue economy in the BoB. Through collective investment in technology, stronger governance frameworks and regional cooperation, the littoral states can unlock the vast potential of their maritime resources.

Conceptual Frameworks

The B3Ei initiative can be analysed through three key dimensions: the strategic advantages of maritime-based integration; the economic synergies between coastal economies; and the development of a strategic financial model to ensure long-term sustainability.

Advantages of Maritime-based Regional Economic Integration

Maritime connectivity offers distinct advantages over land-based integration projects, such as quicker and more cost-effective trade routes. The BoB's strategic location allows for uninterrupted sea connectivity, which is crucial for enhancing economic ties and security cooperation between South and Southeast Asian nations. In contrast, land-based initiatives, like the East–West Corridor, have faced delays due to political instability and financial constraints.

A comparative analysis of maritime versus land routes highlights the economic and logistical efficiency of sea-based trade. By prioritising maritime routes, the BBCC can better exploit their coastal advantages, promoting faster, more sustainable regional development.

Synergising Blue, Littoral, Delta and Island Economies

A successful B3Ei strategy will depend on integrating the diverse coastal economies of the region, including the blue economy (focusing on maritime resources), the littoral economy (coastal industries), the delta economy (agriculture and aquaculture) and the island economy (tourism and trade hubs). Each of these economic segments brings unique resources and opportunities which, when effectively aligned, can create a comprehensive economic network across the BBCC.

This integration would foster shared growth by harmonising these sectors. For example, the blue economy's focus on fisheries and maritime resources could complement the agricultural and industrial outputs of delta economies, while the island economies could boost tourism and trade. This chapter will explore how the underperformance of coastal economies in the BoB can be addressed by learning from more dynamic coastal regions, like the Pacific Rim.

Strategic Financial Model for B3Ei

For the B3Ei initiative to be successful, it must overcome financial constraints by developing a sustainable strategic financial model. This model will focus on: attracting international investment; promoting public–private partnership; and securing institutional financing for infrastructure, technological innovation and capacity building.

The chapter will evaluate the financial viability of the B3Ei framework by analysing projected returns on investment. The aim is to create a balanced financial strategy that supports economic integration while maintaining environmental sustainability.

This conceptual framework will serve as the foundation for assessing the potential of the B3Ei initiative. By focusing on maritime advantages, synergising diverse economic sectors and ensuring financial feasibility, this chapter aims to provide a clear road map for the successful realisation of B3Ei.

Technical Frameworks and Case Studies: Exploring the Blue Economy, Delta Economy, Littoral Economy, and Island Economy

In addition to the blue economy, various technical frameworks, such as the delta economy, the littoral (coastal) economy and the island (archipelago) economy, are integral to the development of the BBCC. Comparative studies on the

economic growth of coastal versus inland regions in BBCC are crucial for understanding regional development patterns.

The Blue Economy

Covering nearly 70 per cent of the Earth's surface, oceans play a crucial role in global trade, accounting for approximately 90 per cent of trade volume and 70 per cent of trade value. Oceans are abundant in both living and non-living resources, including around 30 per cent of the world's hydrocarbons, providing energy and supporting various industries, such as fisheries, tourism, ports, shipping and shipbuilding.

The term blue economy, also referred to as the ocean economy, encompasses economic activities related to oceans and seas. A Belgian entrepreneur popularised this concept in a book, *The Blue Economy: 10 Years, 100 Innovations, and 100 Million Jobs* (Pauli, 2010). At the 2012 Rio+20 Summit, the United Nations Environment Programme highlighted the blue economy's potential for sustainable development. The World Bank too defined the blue economy as the 'sustainable utilization of ocean resources to enhance economies, livelihoods, and ocean ecosystem health' (World Bank, 2017).

Activities under the blue economy include maritime shipping, fishing, aquaculture, coastal tourism, renewable energy, seabed mining, marine biotechnology and undersea cabling. The global blue economy is valued at over \$1.5 trillion annually, supporting 30 million jobs and providing essential protein for over 3 billion people. While global interest has primarily focused on land-based activities through the 'green economy', renewed attention is being directed towards the blue economy. The Organisation for Economic Co-operation and Development (OECD) has projected that the ocean economy could double in value to \$3 trillion by 2030 (OECD, 2016).

The growth of the blue economy in the BoB region has significantly contributed to rising gross domestic product (GDP) of both littoral and non-littoral states. However, in comparison to the South Asian Association for Regional Cooperation (SAARC) nations, countries of the ASEAN, the EU and North America seem to have benefitted more (Karim, 2021). Thus, countries with more robust economies are capitalising on the benefits of the BoB to a greater extent than the littoral states themselves. This makes regional cooperation critical to maximising the economic impact.

Challenges to the blue economy in the BoB region include weak domestic economies, corruption, rigid national policies and insufficient information exchange among countries (Rahman, 2017; Singh, 2020). Moreover, inadequate control over legal frameworks and a lack of funds for research and development further hinder the sustainable exploration of the BoB's economic potential. Certain efforts, like the IORA's Dhaka Declaration (2019) and the BIMSTEC's push for an intergovernmental expert group, offer pathways for future development.

The Delta Economy

River deltas are vital economic centres that support trade, agriculture, industry and human settlements. These areas, where rivers meet the sea, are critical for various sectors, like fisheries, shipping, tourism and energy. However, several challenges, like land subsidence, rising sea levels and human interventions, threaten the sustainability of deltas.

Major deltas, such as the Ganges–Brahmaputra Delta in Bangladesh, the Mekong Delta in Vietnam and the Ayeyarwady Delta in Myanmar, face unique economic and environmental challenges.

Ganges–Brahmaputra Delta

The Ganges–Brahmaputra Delta is one of the world's largest and most densely populated deltas, stretching across India and Bangladesh. Although the region has substantial economic potential, it faces vulnerabilities, like floods, cyclones and riverbank erosion. Poverty, infrastructure challenges and environmental degradation are prevalent, despite the delta's agricultural productivity and biodiversity. Sustainable development of this region requires a focus on disaster resilience, sustainable agriculture, infrastructure investment and poverty alleviation.

Mekong Delta

Known as Vietnam's 'rice bowl', the Mekong Delta faces severe threats from climate change, including rising sea levels, saltwater intrusion and water management issues due to upstream dams. Soil subsidence and environmental degradation also compound the region's challenges. Sustainable agriculture, infrastructure development and community engagement are essential to overcoming these difficulties. Collaborative regional efforts are crucial for the long-term sustainability of this vital delta.

Ayeyarwady Delta

Myanmar's Ayeyarwady Delta plays a significant role in agriculture and fishing, but it is highly susceptible to natural disasters, such as cyclones and floods. Limited infrastructure, environmental degradation and poverty hinder the economic growth. A concerted effort involving infrastructure improvements, sustainable farming techniques and poverty alleviation initiatives is needed to enhance resilience and promote sustainable development in this region.

Challenges and Cooperation for Sustainable Delta Development

The development of these deltas demands addressing common challenges, such as land loss, environmental degradation and the impact of human activities and climate change. The economies of these deltas are shaped by shared vulnerabilities, yet they also hold immense potential for regional economic growth.

Collaboration among governments, international organisations, non-governmental organisations and local stakeholders is critical. Joint development projects, data sharing, capacity building and infrastructure investments are vital to building resilience. International cooperation on climate change adaptation, ecosystem conservation and policy harmonisation will ensure sustainable management of these regions for future generations.

The Coastal Economy

A coastal economy is one that thrives on the resources and services provided by oceans and coastal regions. This economy encompasses a wide array of sectors, such as fisheries, aquaculture, tourism, shipping, energy and environmental conservation. Coastal economies play a pivotal role in local, national and global development, supporting millions of jobs, generating income and enhancing the well-being of billions of people worldwide—particularly in developing nations. However, these economies also face significant challenges, including climate change, biodiversity loss, pollution, overexploitation and governance issues (World Bank, 2023).

Economic Contributions

Coastal and ocean resources are major drivers of economic growth, contributing immensely to local, state and national economies (Office for Coastal Management, 2023a). Some key facts include:

1. Coastal countries produce over \$9.5 trillion annually in goods and

- services, employing 58.3 million people and paying \$3.8 trillion in wages (Office for Coastal Management, 2023b).
2. Globally, coastal populations generate an estimated \$1.5 trillion annually for the world economy, a figure projected to reach \$3 trillion by 2030 (United Nations, 2022).
 3. Coastal and marine tourism, a cornerstone of the blue economy, supports more than 6.5 million jobs—second only to industrial fishing (Brumbaugh and Patil, 2017).

Major Drivers of the Coastal Economy

The coastal economy is driven by several key sectors, including:

1. ***Fisheries and aquaculture:*** These industries provide food, income and livelihoods for millions, particularly in developing nations. Globally, around 58.5 million people are employed in fish production, with over 600 million livelihoods dependent on fisheries and aquaculture (World Bank, 2023).
2. ***Marine shipping and trade:*** As the backbone of global trade, marine shipping facilitates the exchange of goods across the world, driving trillions of dollars in commerce. Maritime trade is expected to grow by 3.8 per cent annually through 2030.
3. ***Ocean tourism and recreation:*** These activities attract millions of visitors and provide jobs and revenue for coastal communities. Globally, ocean tourism is valued in trillions of dollars, employing over 200 million people.
4. ***Offshore energy and mining:*** Emerging sources of energy, such as oil, gas, wind, wave, tidal and deep-sea minerals, hold great potential. By 2050, offshore energy is projected to supply up to 20 per cent of the global energy demand.
5. ***Coastal and marine conservation and restoration:*** Efforts to protect and restore coastal ecosystems, such as coral reefs, mangroves and wetlands, are vital. These ecosystems provide essential services, like carbon sequestration, coastal protection and biodiversity preservation, which in turn support fisheries and local economies.

Challenges Facing Coastal Economies

Despite their significance, coastal economies are under threat from various challenges that need immediate attention:

1. **Climate change:** Rising temperatures, ocean acidification, sea level rise, storms and erosion due to climate change threaten coastal communities, livelihoods and ecosystems. Coastal regions, already vulnerable due to ageing populations, transient workforces and isolation, are at heightened risk (World Bank, 2023).
2. **Biodiversity losses:** Human activities, such as overfishing, pollution and habitat destruction, have caused a sharp decline in marine biodiversity (Martínez-Vázquez et al., 2021). This reduces the productivity, diversity and resilience of coastal ecosystems, affecting their ability to provide food, income and other benefits.
3. **Pollution:** Coastal and marine ecosystems are increasingly polluted by plastics, chemicals, nutrients and pathogens from both land and sea. This pollution degrades the environment and threatens industries, like tourism, fisheries and aquaculture, which rely on clean water and healthy ecosystems.
4. **Governance issues:** Effective management of coastal resources is often hindered by poor governance. Challenges include lack of coordination among sectors, limited community involvement, weak enforcement of regulations and insufficient resources for planning and implementation. Without effective governance, sustainable development of coastal economies becomes difficult (Steven et al., 2020).

Coastal economies offer vast potential for economic growth and development, but they also face multifaceted challenges. Climate change, biodiversity loss, pollution and governance failures, all pose serious threats to the sustainability of these economies. Addressing these challenges requires a holistic approach, emphasising sustainability, community engagement and sound governance. By doing so, we can protect the coastal and ocean resources that are essential for the well-being and prosperity of billions of people around the world.

Coastal Economy along the BBCC

The **BoB** is a vast body of water that forms the north-eastern part of the Indian Ocean, bordered by several South Asian and Southeast Asian countries, collectively known as the ‘Bay of Bengal Coastal Countries’ (BBCC). These countries include **Bangladesh, India, Myanmar, Sri Lanka and Thailand**. The coastal economies of these nations vary significantly, shaped by local challenges and opportunities; yet, all are deeply reliant on the BoB for resources, employment and trade. An

overview of the coastal economies in each country and the issues they face is given next.

Bangladesh: Bangladesh, located at the northern tip of the BoB, relies heavily on the it for nutrition, shipping, energy and employment. The port of Chittagong, one of the busiest in the region, is a key hub, while BIMSTEC's headquarters in Dhaka underscores the nation's role in regional cooperation. Coastal activities account for about 25 per cent of Bangladesh's GDP, employing around 35 per cent of the labour force, with sectors like agriculture, fisheries, aquaculture, tourism and trade playing key roles. However, climate change, natural disasters, salinity intrusion, land erosion and poor governance pose significant challenges. To combat these, Bangladesh has made strides in disaster management, early warning systems and community-based adaptation programmes, thereby improving resilience in coastal areas (Hasan, 2022).

India: India's eastern coastline, covering the states of West Bengal, Odisha, Andhra Pradesh and Tamil Nadu, is vital for the nation's coastal economy. The ports of Chennai and Vizag are crucial to maritime trade, while the Andaman and Nicobar Islands play a strategic role in national security. India's coastal economy contributes approximately 15 per cent of its GDP and supports around 250 million people, driven by sectors like marine trade, fisheries, tourism, offshore energy and conservation. However, multiple challenges, like coastal erosion, habitat loss, pollution and stakeholder conflicts, persist. Various initiatives, such as the Coastal Regulation Zone Notification, Sagarmala project and International Solar Alliance, aim to address these issues and promote sustainable growth.

Myanmar: Myanmar's coastline along the BoB, including Rakhine State and its main port, Sittwe, remains underdeveloped, with vast potential for growth. The coastal economy, currently centred on fisheries, aquaculture, agriculture and forestry, is hindered by political instability, poverty and lack of infrastructure. Rakhine State, in particular, is beset by ethno-political conflict and climate vulnerabilities, further exacerbating economic challenges (United Nations Development Programme, n.d.). Despite these obstacles, Myanmar is working on reforms through the Myanmar Sustainable Development Plan and participation in the ASEAN Economic Community, aiming to attract investment and develop its coastal economy (Panda et al., 2022).

Sri Lanka: Sri Lanka's eastern coastline—including key ports such as Trincomalee, Hambantota and Jaffna—plays a critical role in the national

economy. The coastal economy accounts for 44 per cent of the country's GDP, employing 28 per cent of the labour force. Key industries include fisheries, tourism, trade and industry. However, the country faces serious threats from coastal erosion, sea level rise, pollution and overfishing. In response, Sri Lanka has implemented the Coastal Zone Management Plan and adopted a blue-green economy strategy to foster sustainable coastal development. Participation in regional bodies, like the IORA, also supports broader cooperation on marine issues.

Thailand: Thailand's western coastline is connected to the BoB via the Andaman Sea, encompassing provinces, such as Ranong, Phang Nga and Phuket. Thailand's coastal economy represents 19 per cent of its GDP and employs 14 per cent of the labour force, with major industries being tourism, fisheries and trade. The port of Ranong serves as a key trade gateway to Myanmar. However, Thailand faces several environmental challenges, including land subsidence, mangrove deforestation and coral reef degradation. In response, Thailand has adopted measures, like the Coastal Zone Management Act; developed the Eastern Economic Corridor; and also actively participates in the BIMSTEC to foster regional cooperation and sustainable coastal development.

The BBCC present diverse coastal economies, each with unique strengths and challenges. Bangladesh is heavily dependent on the bay for economic growth but struggles with climate vulnerabilities and governance issues. India boasts a highly diversified coastal economy but faces significant environmental and socio-economic challenges. Myanmar has untapped potential but is constrained by political instability and poverty. Sri Lanka's coastal economy is a major contributor to its GDP, though it is threatened by environmental degradation. Thailand, connected to the bay through the Andaman Sea, grapples with issues like land subsidence and marine pollution, but actively engages in regional cooperation initiatives like the BIMSTEC.

Sustainable development in the BBCC region will require tailored strategies that prioritise climate resilience, community engagement and integrated governance to safeguard both the economies and the fragile ecosystems of the BoB.

Archipelago Economy

Archipelagoes, composed of diverse islands of varying size, shape and topography, play a vital role in scientific research by showcasing unique ecosystems, biodiversity

patterns and the effects of human activities. This knowledge is crucial for developing conservation strategies. The islands range from low-lying reef islands to elevated volcanic islands, each presenting distinct economic opportunities and challenges. Many of the smaller outer islands are sparsely populated, with fewer than 1,000 inhabitants, while some of the larger islands have populations exceeding 100,000.

The economic prospects of outer islands are shaped by their geography. Low-lying reef islands have limited agricultural potential and are more vulnerable to the impacts of climate change, especially rising sea levels. Remote and smaller outer islands also face challenges related to public service delivery and connectivity, making sustainable development efforts more difficult compared to larger volcanic islands.

Malay Archipelago

The Malay Archipelago is the world's largest archipelago, comprising more than 25,000 islands. This includes over 17,000 islands in Indonesia and approximately 7,000 islands in the Philippines. Also referred to as the *Malay World* or *Indo-Australian Archipelago*, it lies between mainland Southeast Asia and Australia, between the Indian and Pacific Oceans.

The archipelago's population is predominantly Malay, speaking various Austronesian languages. Despite housing major cities like Manila and Jakarta, the economy remains largely rural and agricultural. Most inhabitants are cultivators, growing various crops, such as rice, maize, yams and cassava. Commercial crops, such as rubber, tobacco, sugar and copra, and spices, like pepper and nutmeg, also contribute to the economy.

Mergui Archipelago

The Mergui Archipelago, located in the southernmost part of Myanmar, consists of over 800 islands spanning nearly 13,900 square miles of ocean in the Andaman Sea. The isolation of this archipelago has allowed it to preserve diverse flora and fauna, making it a prime location for ecotourism, especially for activities such as diving. Kadan Kyun is the largest island in the archipelago, covering 450 square kilometres.

Lampi Island is home to the Lampi Marine National Park, recognised as an ASEAN Heritage Park since 2003 for its biodiversity, including many endangered

terrestrial and marine species. The island serves as a vital resource for the Moken people, providing food, water and energy.

Tourism is a significant industry, with popular destinations, like Macleod Island, attracting visitors for diverse activities, including scuba diving, kayaking and hiking. The archipelago also supports livelihoods through fishing and trading, and the islands contribute to the mining of tin and tungsten. Additionally, the region is known for harvesting edible bird's nests, particularly in Dawei, Myeik and Kawthoung districts.

Pearl farming is another important economic activity in the Mergui Archipelago. Around 15 islands are involved in pearl cultivation, with the Myanmar pearl industry starting in 1954 as a joint venture with Japan. This industry has since expanded, with several international companies investing in the cultivation of South Sea pearls.

Maldives Archipelago

Located in the north-central Indian Ocean, south-west of Sri Lanka and India, the Maldives consists of 1,190 coral islands, of which 187 are inhabited. Classified as an upper middle-income economy by the World Bank, the Maldives ranks high on the Human Development Index and boasts a per capita income higher than most SAARC nations. However, its reliance on tourism presents vulnerabilities, especially in the face of external shocks, such as natural disasters, pandemics and rising sea levels.

The Maldives faces connectivity challenges, particularly with transportation and communication between islands, which can hinder economic activity and tourism. To mitigate these issues, the country could improve ferry services, seaplanes and domestic airports, along with enhancing Internet connectivity. Additionally, the Maldives is working to reduce its reliance on fossil fuels by promoting sustainable transport options, like electric vehicles and solar-powered boats.

Youth unemployment is another challenge in the Maldives. Vocational training programmes, internship opportunities and online platforms for job seekers could help address this issue. Diversifying the economy beyond tourism is essential for long-term stability, particularly in certain sectors, like information technology and green industries.

Integration of Archipelagoes for Economic Collaboration

The integration of archipelagoes for economic collaboration depends on geographical proximity, shared interests and political will. Several archipelagoes around the world, including the Caribbean, Southeast Asia, South Pacific and the Mediterranean, could explore synergies for economic cooperation. For example:

- ***Caribbean Archipelagoes:*** The Bahamas, Greater and Lesser Antilles share geographical and cultural ties.
- ***Southeast Asian Archipelagoes:*** Indonesia and the Philippines, with support from regional organisations like ASEAN, could benefit from enhanced collaboration.
- ***South Pacific Archipelagoes:*** Islands like Fiji and the Solomon Islands could leverage their shared location in the Pacific for joint development.
- ***Mediterranean Archipelagoes:*** The Balearic Islands, Aegean Islands and Maltese Islands could explore opportunities for cultural and economic cooperation.

In South Asia, countries like India, Bangladesh, Sri Lanka, Myanmar and Thailand share the BoB's coastal regions. These nations could collaborate on sustainable economic projects, leveraging their collective resources for tourism, fisheries, agriculture and more. With a focus on sustainable development, regional cooperation could drive synergies in many industries, like hospitality, marine activities, telecommunication and education, fostering a brighter and more prosperous future for the region.

Rationales for the Pragmatic Implementation of the B3Ei Concept

Economic Viability

To ensure the economic viability of the B3Ei concept, it is essential to develop network-based economic models that support viable investments and facilitate strategic financial access to international financial institutions. The integration of diverse economic systems, such as the delta, the archipelago and the littoral (coastal) economies, into the broader blue economy of the BoB region is central to this concept. These integrated economic systems, when aligned with the blue economy framework, will form the backbone of the B3Ei model. The creation of financially feasible and sustainable networks of business models will be a

fundamental element of the B3Ei framework. These networks will enable the region to unlock new opportunities for economic growth and development.

Geo-economic Viability

The BoB maritime region is a key part of the broader Indian Ocean Region and stands to benefit from the ongoing great power rivalries within this space. India, the dominant regional player, has effectively managed a balancing strategy between rival powers, maintaining its strategic independence. The B3Ei concept believes that maritime economic cooperation within the region can bring significant additional benefits to the BBCC, over and above those already derived from existing regional integrations, such as the BIMSTEC, the IORA and the BBIN. This geo-economic potential will inspire the BoB nations to embrace and implement the B3Ei concept, further enhancing regional cooperation and integration.

Geostrategic Viability

India's involvement in major international groupings, like the Quadrilateral Security Dialogue (Quad), alongside the United States, Japan and Australia, as well as its participation in the Shanghai Cooperation Organisation (SCO) and BRICS (Brazil, Russia, India, China and South Africa), highlights its balanced approach to international engagement. India adheres to the five principles of peaceful coexistence and carefully avoids alliances that may target specific countries. The Indian Ocean remains free from domination by any single superpower, with the Indian Navy playing a significant role in maintaining control over the region. As the Indian Navy rapidly expands its capabilities, the focus of power in the Indian Ocean is shifting towards more localised control rather than being influenced by external great powers. This geostrategic environment strengthens the B3Ei concept by creating a more stable and secure region for maritime cooperation.

Conclusion

The concept of B3Ei represents a transformative vision for regional cooperation, leveraging the maritime strengths and economic potential of the BBCC. While the concept is not entirely new, this chapter highlights the benefits of integrating various types of economies within the region. By focusing on the integration of the blue economy with the littoral, delta and island economies, B3Ei offers a

strategic framework that transcends traditional land-based economic models and aligns with global trends in sustainable development.

The potential benefits of B3Ei are significant. Maritime-based integration can unlock new economic pathways for the BBCC, ensuring shared prosperity through more efficient trade routes, enhanced marine resource management and promotion of sustainable growth. The unique geographical and economic characteristics of the region—ranging from coastal to island economies—offer a fertile ground for developing a vibrant, collaborative economic zone.

However, for B3Ei to succeed, the creation of a strategic and financially viable framework is essential. This includes establishing strong governance mechanisms, securing international financial support and fostering cooperation among the BBCC. Equally important is the need to address existing challenges that have hindered coastal and marine economic development in the region, such as inadequate infrastructure and governance issues.

The B3Ei concept, while still in its developmental stage, holds great promise for shaping the future of the BoB region. By fostering maritime cooperation, encouraging investment in blue growth and promoting the sustainable use of marine resources, B3Ei can emerge as a pivotal force in regional integration. The ultimate goal of this concept will be to realise a balanced, resilient and prosperous maritime economy for all the nations involved.

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