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Research Report 4
Value Chains in BIMSTEC Region
Current Status, Possibilities and Challenges

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Acronyms

AFTA	ASEAN Free Trade Area
ASEAN	Association of Southeast Asian Nations
BBIN	Bangladesh, Bhutan, India and Nepal
BIMSTEC	Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation
CLMV	Cambodia, Lao DPR, Myanmar and Vietnam
ECOWAS	Economic Community of West African States
EU	European Union
EPB	Export Promotion Bureau
FDI	Foreign Direct Investment
FTA	Free Trade Agreement
GSP+	Generalised Scheme of Preferences Plus
GVCs	Global Value Chains
GDP	Gross Domestic Product
GNI	Gross National Income
IDA	International Development Association
LDCs	Least Developed Countries
LMIC	Lower Middle Income Country
NAFTA	North American Free Trade Agreement
OBOR	One Belt One Road
PTA	Preferencial Trade Agreement
RVCs	Regional Value Chians
SMEs	Small and Medium-sized Enterprises
SAARC	South Asian Association for Regional Cooperation
UK	United Kingdom
US	United States
UMIC	Upper Middle Income Country
WB	World Bank
WDI	World Development Indicators
WTO	World Trade Organization

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Section I. Introduction

Efforts to deepen economic cooperation and integration among countries of a region or sub-region have been gaining increasing importance over the past several decades. Indeed, more than 450 regional trading arrangements (RTAs) of various types have been notified to the WTO till 2018. The idea is to undertake various measures to incentivise trade and investment flows within the region. The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) is a collaborative effort along these lines, with an aim to stimulate and broaden cooperation among the member countries Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka and Thailand. The BIMSTEC region include countries situated along the rim of the Bay of Bengal and also two land locked with outreach through the gateway of the Bay of Bengal (BIMSTEC 2018). BIMSTEC was established with the mandate to spur economic cooperation and business to business collaboration through targeted measures and by developing land and maritime connectivity between South and Southeast Asian countries (BIMSTEC 2018). It is an irony that, economies of BIMSTEC are more integrated with global market now than was the case twenty years back when BIMSTEC was established in 1997. Over this period, while BIMSTEC's role as a regional trading bloc was to a large scale, rather weak, individual economies of the group has been pursuing significant trade reforms which led to their increasing global market integration (Chakravarty 2017). Indeed, intra-regional trade has improved only by a few percentage points[1]; it was primarily the trade flows to members of European Union (EU) and North American countries (e.g. United States of America and Canada) which contributed to accelerating the overall trade in this region. A notable increase of trade with Australia is visible over the corresponding period. It is reckoned that multilateral trading arrangements and trade preferences, rather than regional initiatives, have helped these countries to improve their trade outside of the region. It is to be noted that four out of the seven BIMSTEC members (Bangladesh, Bhutan, Myanmar and Nepal) are Least Developed Countries (LDCs) and receive LDC-specific trade and non-trade preferences. In addition, Sri Lanka gets preferential benefit in EU market under the Generalised Scheme of Preferences Plus (GSP+).

No doubt, rule-based multilateral trading system under the WTO has benefited the LDCs and other lower income countries in the past. However, as was mentioned earlier, multilateral trading system as embodied in the WTO is losing traction under the changing global trading regime (McBride 2018). In contrast, bi-lateral, sub-regional and mega regional trading arrangements are receiving increasing prominence and attention in the global trade negotiations (McBride 2018). In this vein, BIMSTEC was conceived to broaden and deepen collaboration in a few key areas and engage more effectively with regional production and value chains in Southeast and East Asia.

[1] According to authors' calculation intra-regional trade as percentage of the region's global trade has increased from 3.3 per cent in 1997 to 5.9 per cent in 2016.

Several factors had given added impetus to the BIMSTEC initiative: (a) political uncertainty about the future of the region's only active regional trade body, the South Asian Association for Regional Cooperation (SAARC) (Bhattacharjee 2018); (b) with land boundary deal signed between India and Bangladesh being in place and the peaceful settlement of the maritime boundary between Bangladesh and Myanmar, member countries are now more favourably positioned to promote the BIMSTEC integration (De 2017); (c) all four LDCs in BIMSTEC are expected to graduate out of the LDC group over the next few years (UNCTAD 2016). These economies have an added interest to be more productively engaged in regional platform of the BIMCTEC type; (d) there is a broad consensus among the partners that reducing cost of doing business will be critical to remaining competitive by improving all modes of connectivity (e.g. infrastructure, investment, transport, people to people connectivities) and promoting seamless connectivity.

One key strategy that is being pursued in various RTAs, to enhance share of intra-regional trade, is to be more proactively engaged in global value chains (GVCs) and the regional value chains (RVCs). GVCs are generally defined as international division of labour through which businesses try to optimise production processes by allowing product and market fragmentation (Sturgeon 2001). In the process, companies, multinational in the breadth of their business, assign production of parts and intermediate products and services to various countries, based on comparative advantages, mutually exporting and importing them among those countries (Sturgeon 2001). Indeed, East and Southeast Asian countries, particularly members of the Association of Southeast Asian Nations (ASEAN) grouping, have been able to integrate their economies in the GVCs in effective ways and also to improve RVCs within the ASEAN region (IDE-JETRO & WTO 2011). A key strategy of the BIMSTEC is to connect countries of South Asia (e.g. Bangladesh, Bhutan, India, Nepal, Sri Lanka) with the Southeast Asia (via Thailand and Myanmar) through greater economic cooperation. Accordingly, development of RVCs and GVCs with proactive participation of BIMSTEC member countries ought to be seen as major instruments in deepening economic cooperaton in the region. In this backdrop a lot can be learned from the rich experience of East and Southeast Asian region.

This paper is an attempt to understand and assess the state of cooperation among the BIMSTEC members, review the lessons from the experience of EAST and South-East Asian regions in developing GVCs and RVCs and examine the status, challenges and opportunities concerning GVCs and RVCs from the vantage point of the BIMSTEC region. The above mentioned areas have been dealt separately in separate sections of this report.

Section II. BIMSTEC: Selected Stylised Facts

The specific advantage of the BIMSTEC was perceived to be its potential to serve as a bridge between South Asia and Southeast Asia. Establishing a free trade area (FTA) and deepening connectivity were seen as the core of BIMSTEC-wide cooperation. However, broadly, fourteen areas were identified where concrete steps were to be undertaken towards closer cooperation among the BIMSTEC members. These are: (i) trade and investment, (ii) transport and communication, (iii) energy, (iv) tourism, (v) technology, (vi) fisheries, (vii) agriculture, (viii) public health, (ix) poverty alleviation, (x) counter-terrorism and transnational crime, (xi) environment and disaster management, (xii) people-to-people contact, (xiii) cultural cooperation and (xiv) climate change (BIMSTEC 2018). However, inspite of some of the initiatives undertaken by member countries (each member was to lead a number of the aforesaid fourteen areas), BIMSTEC's promise, after two decades, remain largely unfulfilled. There have been some renewed efforts in recent times to instill some vigour and life into the BIMSR+TEC process (Chakravarty 2017).

While the emerging political economy in the region, with its shifting priorities, has deflected some of the early enthusiasm for the initiative, there is a general consensus that BIMSTEC has considerable potential to emerge as an effective platform of regional cooperation. However, there are conscious policy choices to be made, appropriate policies to be pursued and concrete measures to be undertaken if the potentials of BIMSTEC are to be fully realised. It is in this context that the BIMSTEC members have a position to take – whether to pursue the business as usual model, or take conscious policies to incentivise development of GVCs and RVCs which will deepen their trade and economic relations, and enable BIMSTEC to emerge as a viable regional entity. In view of this, the following sub-sections highlight some of the salient features concerning the BIMSTEC economies and the state of trade and investment connectivity in the region.

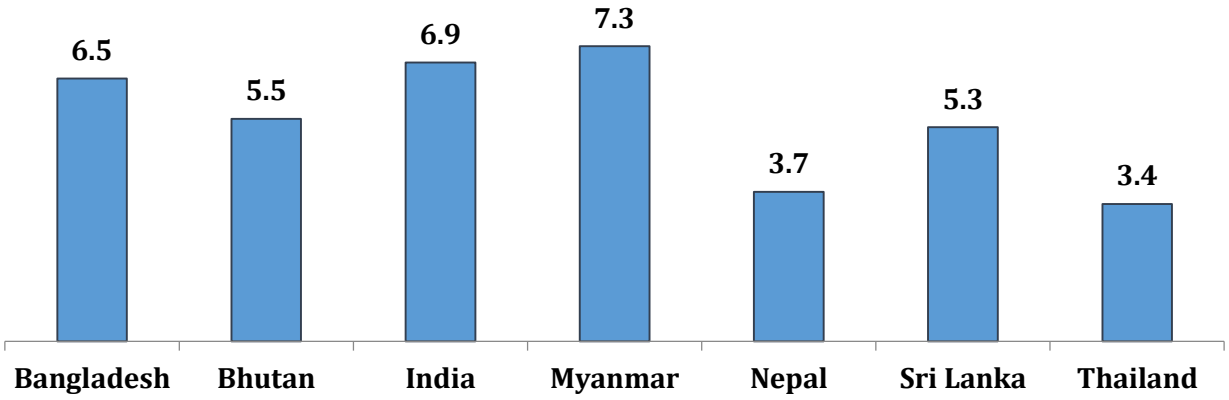
Members are at different stages of development

Among the seven BIMSTEC members, Thailand with a per capita gross national income (per capita GNI) of USD 5,640 is the only upper middle-income country (UMIC). According to the World Bank (WB) country classification, other members excepting Nepal belong to the lower-middle income countries (LMIC). Of the members, Bangladesh, Bhutan and Myanmar ad Nepal are LDCs. In terms of GNI per capita there are wide variations.[2] In general BIMSTEC is a region where the density of economic activities is high. Per square kilometer GDP of Bangladesh and Sri Lanka was about USD 4.0 million in 2016.[3] The corresponding figures for India and Thailand were USD 2.7 and USD 2.3 million (Annex Table 9).

[2] According to the WB Atlas method, GNI per capita for Sri Lanka, Bhutan, India, Bangladesh, Myanmar and Nepal were respectively USD 3,780, USD 2,510, USD 1,670, USD 1,330, USD 1,190 and USD 730 in 2016 (World Bank 2017).

[3] In the course of 20 years, the economic activities in both these countries have increased four times when compared to 1997, the year when BIMSTEC was founded (Annex Table 9).

Figure 1: Average GDP Growth Rate for 2012-16 (*in percentage*)



Source: Authors calculation from World Development Indicators (WDI) 2018

All BIMSTEC members barring Nepal posted impressive economic growth record over the past two decades (Figure 1 and Annex Table 10). A common developmental thread of BIMSTEC member countries is their transitional phase. Thailand has embarked on the journey to graduate into a developed country by avoiding the middle income trap. Four relatively smaller member economies are poised to graduate out from the LDC status by 2024. India is emerging as a major regional and global power, and on its transitional journey from LMIC to UMIC.

BIMSTEC has lowest share in intra-regional trade

Despite the fact that intra-regional trade among BIMSTEC members has increased from 3.3 per cent in 1997 to 5.9 per cent in 2016, the grouping remained one of the least integrated regimes in terms of trade cooperation (Table 1). Intra-regional export and import have risen from 3.0 to 5.6 per cent and 3.6 to 6.3 per cent respectively over the corresponding period (Annex Table 11 and 12). When compared to its South East Asian neighbours such as ASEAN or ASEAN plus three, BIMSTEC's trade share is significantly low. An effective FTA, and developed regional value chains have helped ASEAN countries to post higher shares in intra-regional trade. Indeed, even when compared to West African regional cooperation entities, BIMSTEC's trade share is lagging considerably behind (Table 1).

Table 1: Region Wise intra-regional Trade as Share of the Region's Global Trade (in percentage)

Economic Grouping	1997	2007	2016
BIMSTEC	3.3	4.7	5.9
BRICS	4.3	10.3	9.8
ASEAN	21.4	25.5	23.5
ASEAN plus China, Japan and Republic of Korea	36.7	39.5	38.7
Economic Community of West African States (ECOWAS)	9.2	9.2	10.0
SAARC	4.4	5.2	5.9

Source: Authors' calculation from UNCTADSTAT Database (2017)

Country-wise trade analysis suggests that, barring the two major BIMSTEC economies (India and Thailand), rest of the members have significant import share within the BIMSTEC region. Share

of trade within the region is significantly high for countries such as Bhutan, Nepal and also, to some extent, Myanmar. In particular, in 2016, 90 per cent of Bhutan's global trade took place within the BIMSTEC region while it was about 68 per cent for Nepal (Table 2). Corresponding figures for Myanmar was more than one-fourth of its global trade while for Sri Lanka it was 18 per cent (Table 2). For smaller economies in the region, trade exposure is primarily focused within the region. Market and product – concentration of these countries are relatively high (Annex Table 13).

Table 2: Intra-regional Trade Among BIMSTEC Member Countries in 1997, 2007, 2016 (in million USD)

BIMSTEC Countries	1997			2007			2016		
	Intra-regional Trade	World Trade	per cent	Intra-regional Trade	World Trade	per cent	Intra-regional Trade	World Trade	per cent
	a	b	a/b	c	d	c/d	e	f	e/f
Bangladesh	1,031.0	11,277.8	9.1	3,126.4	31,873.1	9.8	7,625.7	82,938.2	9.2
Bhutan	35.1	70.5	49.8	480.4	612.7	78.4	690.7	767.4	90.0
India	3,461.1	83,647.4	4.1	15,572.6	409,552.7	3.8	29,431.8	624,051.6	4.7
Myanmar	757.7	4,177.7	18.1	4,354.2	10,074.1	43.2	8,874.7	33,816.9	26.2
Nepal	305.8	1,245.2	24.6	1,839.6	3,047.7	60.4	5,057.9	7,423.2	68.1
Sri Lanka	725.6	10,103.0	7.2	3,452.9	19,990.4	17.3	5,392.9	29,823.0	18.1
Thailand	1,353.7	123,135.4	1.1	7,692.4	304,195.0	2.5	14,196.3	422,674.2	3.4
Total	**7,670.0**	**233,657.0**	**3.3**	**36,518.5**	**779,345.7**	**4.7**	**71,270.0**	**1201,494.5**	**5.9**

Source: Authors' calculation from UNCTADSTAT database (2017).

Investment connectivity, both within and outside the region, is weak

Compared to other regional groups, BIMSTEC members have not been successful in attracting FDIs, from within as also outside. As share of the GDP, FDI has increased by only few percentage points for Bangladesh, Bhutan, India, Myanmar and Nepal. On the country, Sri Lanka and Thailand have experienced quite significant drop (Table 3). Myanmar was the only outlier with FDI's share being about 4.3 per cent of the GDP for the 2012-16 period (Table 3). Corresponding FDI inflows for India, Thailand and Bangladesh were USD 35 billion, USD 9.2 billion and USD 2.3 billion respectively (Table 3).

Table 3: Foreign Direct Investment, Net Inflows to BIMSTEC Countries (per cent of GDP)

BIMSTEC Countries and China	1997-01		2002-06		2007-11		2012-16	
	FDI inflow (in million USD)	per cent of GDP	FDI inflow (in million USD)	per cent of GDP	FDI inflow (in million USD)	per cent of GDP	FDI inflow (in million USD)	per cent of GDP
Bangladesh	173.6	0.3	397.3	0.6	1,075.5	1.0	2,293.2	1.3
Bhutan	0.2	0.0	5.4	0.7	40.3	2.9	18.5	1.0
India	3,418.6	0.8	8,323.7	1.1	33,622.2	2.4	35,038.7	1.7
Myanmar	285.5	3.0	224.3	2.1	1,214.7	3.0	2,625.1	4.3
Nepal	12.0	0.2	0.8	0.0	45.4	0.3	70.9	0.4
Sri Lanka	228.9	1.5	282.0	1.3	638.5	1.4	869.0	1.1
Thailand	5,149.1	4.1	6,313.4	3.5	8,165.5	2.7	9,160.3	2.2

Source: Authors' calculation from WDI database (2017).

By any measure, BIMSTEC region has performed poorly in attracting FDI if its favourable geographical location, population size, domestic market and stage of economic development of

its member countries are taken into consideration. Evidence bears out that FDI flows play an important role in developing GVCs and RVCs as business relations are established and production networks are set up with help of the FDI. Experiences also suggest that successful FTAs play a catalytic role in attracting FDI and developing GVCs (Büthe and Milner 2008; Moon 2016). BIMSTEC has suffered from weak FDI flows primarily because of lack of institutional efficacy, infrastructure deficit, administrative inefficiency, shortage of electricity, port inefficiency and political uncertainty.

Growing domestic market without presence of LDCs

As was highlighted earlier, four BIMSTEC member countries (Bangladesh, Bhutan, Myanmar and Nepal) are slated for graduation from the LDCs group by 2024 subject to positive consideration at upcoming triennial reviews by the Committee for Development Policy - CDP (UNCTAD 2016). This had several implications for the future of BIMSTEC cooperation. Firstly, the need for two-track (LDCs and developing countries) negotiation will lose importance. Secondly, this speak of rising domestic power in BIMSTEC with positive consequent implications for developing GVCs and RVCs. Thirdly, even low income BIMSTEC members will have increasing capacity to take part in the regional production networks. On the other hand, the market access advantages enjoyed by the LDCs, in markets of developed countries, will be significantly eroded. To that extent there is likely to be adverse impact on export. For example, Bangladesh will face an additional duty of 6.7 per cent in countries from which it receives LDC specific market preference. This could induce a potential export loss of 8 per cent as share of its global export (Rahman and Bari 2018). The cost of borrowing and, consequently, cost of doing business will also go up as the graduating LDCs make the second transition, from LIC to LMIC status. India, though not an LDC, will also face the consequence of the phasing out of the concessional finance. In terms of GNI per capita criteria, India has crossed the thresholds of International Development Association (IDA) and blended type of development finance. The net official development assistance (ODA) received by BIMSTEC countries showing declining trends in recent years. All these will call for new strategies to stimulate investment in the region. Development of GVCs and RVCs should be seen as appropriate counter measure to compensate for the likely losses on both the above counts. The proposed BIMSTEC-FTA could be an important vehicle to create a conducive environment for establishing these value chains.

Diversity could be an advantage

There are historical cultural and linguistic homogeneities among South Asian countries and it has been highlighted across generation. The soil quality at different parts of these economies were also found to be similar. Whilst the five South Asian countries in the BIMSTEC have a range of commonalities, in terms of culture, tradition and norms, presence of the two East Asian countries, Thailand and Myanmar, brings in a lot of diversity as well. Indeed, in terms of a variety of attributes BIMSTEC is a very heterogeneous region – language, religion, geography, size of the economy, type of governments and level of governance. Nepal and Bhutan are land-locked countries while Sri Lanka is a water-locked country. In terms of size of the economy, India dominates others by a significant margin. Majority of people of India and Nepal are Hindu. In contrast, majority of the people of Bhutan, Sri Lanka and Thailand follow Buddhism while majority of people of Bangladesh follow Islam. All these dimensions have some economic significance in order to shape the value chains and production networks in this region. Additionally, country concerns such as environmental degradation (e.g. for Bhutan), road congestion (e.g. for Bangladesh) will need to be factored into the pricing mechanism to operationalize connectivity initiatives. Partner countries will need to demonstrate sensitivity to

these concerns. Otherwise, it will be difficult to bring all the member countries on board to establish multi-modal, seamless connectivity across the region.

Section III. Value Chains: Role in Evolving Trade Structure and Relevance for the BIMSTEC Region

Generally speaking, there are two forms of GVC participation in which countries are involved at present. Participation is defined in terms of the value-added embodied in exports, from the perspectives of backward and forward linkage activities in reference to a particular country: backward when it comes to foreign value added embodied in exports, and forward when it refers to domestic value added that is used as an input to produce the exports for the destination country. Although both of these measures are expressed as shares of the reference country's exports, these actually refer to different forms of engagement. Countries that are predominantly dependent on assembling of items into final goods and subsequently geared to exporting those things, have a strong backward participation index but relatively weak state of forward participation. To compare, countries that predominantly supply intermediates to assemblers have a high forward participation index but relatively shallow backward participation measure.

Brief background on value chains

Value chain refers to an integrated process of production of goods and services from conception to end-use (Gereffi and Fernandez–Stark 2011). It involves generation of idea, research and development, planning, designing, financing, micro and macro management of technical (machinery, equipment) and non-technical issues (labour management, maintaining compliance, managing administrative and logistic issues), monitoring and controlling of production at manufacturing unit, packaging, labelling, advertising, distribution and finally servicing activities (IDE-JETRO & WTO 2011). Although the concept of value chains is not new[4], the idea of modern GVCs was mainly developed in North America and Europe during 1960s (Pomfret and Sourdin 2014). At the early stages of development, manufacturing businesses took advantage of labour cost differentials between the US and Mexico in North America, between Western Europe and Central and Eastern Europe in Europe (Yamaguchi 2018). At the same time, in Asia mostly vertical specialisation took place – Japan exported high value-added parts to South Korea and ASEAN countries which later on assembled those into finished goods. At present time, in the era of information and technology, businesses in developed countries can more readily combine their high-tech knowhow with lower-wage labour in developing countries to produce at relatively lower and competitive price. This has led to a growing redistribution of economic activities favouring the developing world, and Asia in particular. Since the beginning of 2000, East Asian economies and ASEAN economies have rapidly engaged in developing the GVCs. They have, in doing so, set a standard for participating in the value chains (IDE-JETRO & WTO 2011). Over time China has emerged as one of the major players in the GVC scenario, along with the traditional value chain hubs of US, EU and East Asia (particularly Japan) (IDE-JETRO & WTO 2011).

However, among the Asian countries West, Central and South Asian economies are lagging behind considerably in engaging in global value chains (Pomfret and Sourdin 2014). As majority of the South Asian economies are part of the BIMSTEC, the region have tended to lag behind in participating in the value chains. Although over time countries such as India, Bangladesh, Sri

[4] During the industrial revolution in 18th century African labour was brought to America to work in cotton plantation. Later on, it used to supply to British factories as an input or raw material for producing textiles for the global market.

Lanka have been able to improve their trade share especially in readymade garments (RMG) sector, with EU and US, in terms of domestic value addition their share is still relatively low. In absence of reliable data, the magnitude may not be quantified within a reasonable range for BIMSTEC as a region, beyond India and Thailand.

Regional dimension of value chains

Whilst in recent times the term GVC has gained more in popularity, previously there was a strong regional dimension to value chain activities (Pomfret and Sourdin 2014). In terms of value addition, in most cases, developed countries have made use of their respective comparative advantage in relatively low-wages labour available in their neighbouring countries. For instance, about 13 per cent of value of Chinese exports originated from its Asian trading partners; in the North America, Mexico 13 per cent valued addition from the US to export goods globally. The corresponding figure for Germany is 14 per cent which originated from relatively smaller European countries (Yamaguchi 2018). However, the distinction between regional dimensions of value chains and its global dimension is not a straightforward one. For instance, Germany is a big supplier of value added contents to many countries outside of the EU such as Turkey, South Africa, China, or South Korea. US supplies a significant part of products for value addition outside of North American countries such as Mexico and Canada. US, EU, Germany, Japan and, at recent times, China has emerged as global hub of value chains. Thus, separating their regional association from GVCs is often not linear in nature. In contrast, ASEAN countries have managed to shift their value chains from one of more global to a regional one (Baldwin and Lopez–Gonzalez, 2015). Keeping in view the dynamics of regional and global dimensions of value chains, BIMSTEC members should be able to identify which suits better in which context and pursue both the available options in a strategical manner. For this, the available backward and forward linkages should be thoroughly examined and viabilities established in terms of cost benefits and returns.

Measuring value chains help avoid double counting of export values

Development of GVCs has not only transformed the global trade structure but also had implication for the way trade data needed to be organized and recorded. Countries are now making greater effort to collect more disaggregated trade data to measure domestic value addition as part of total trade rather than merely keeping record of total export and import. The latter often leads to double counting of the values of parts and intermediate products (Yamaguchi 2018). According to the traditional approach, value of raw materials counts only once as a gross domestic product (GDP) contribution (in the source country); however, this gets counted number of times in the global export. This often mislead policymakers in lower income and developing countries where systematic and disaggregated data (or information) as regards each stage of value addition in the total production process are not available. Indeed, the international database on value chains that are readily available have information on only two BIMSTEC countries, India and Thailand. Therefore, tracking record of the changes in value chains in BIMSTEC region remains a daunting task which undermine the interests of business analysts, researchers and policymakers. This situation will need to be addressed if RVCs and GVCs are to be established and monitored adequately.

Section IV. GVCs and RVCs: Review of East Asian and ASEAN Experience

East Asian experience

In the early periods of modern GVC era during 1960s and 1970s, it was the US and the EU promoted the cause of the value chains in particular. For estimation purposes special tariff lines were introduced which subtracted the value of inputs from the value of imported goods. Policies were pursued to incentivise businesses to go for fragmentation of production processes, especially in the labour intensive industries such as textile and clothing (Pomfret and Sourdin 2014). Business firms from US and major European countries including Germany and United Kingdom (UK) started to offshore labour-intensive swing activities to Mexico in North America and in countries of Western and Central Europe. FTAs such as NAFTA and among EU members (free movement of goods and services) have stimulated proliferation of value chains in regional settings (Johnson and Noguera 2012). East Asian economies such as South Korea, Hong Kong, Taiwan, and Singapore have engaged in participation in GVCs, particularly in the backward textile and clothing components in value chains. On the other hand, Japan dominated the trade between Asia and US or Europe in value terms (Yamaguchi 2018; Pomfret and Sourdin 2014). Over time, the geographical distribution of value added trade between US and Europe on the one hand and their Asian partners, on the other, have started to change. The devaluation of dollar with respect to yen in response to the signing of the Plaza Accord in 1985 between Japan and US forced Japanese manufactures to move some of their production units to Southeast Asia to stay competitive in the GVCs (Dowlinga and Cheang 2000). It was possibly this window of diversion towards overseas production that eventually created the Asia-wide supply chains that exist today. In 1990s, Japan shifted production of low-value and intermediate –value goods to Southeast Asia, particularly to Thailand and Malaysia and, later on to Indonesia and China, and kept the high-value and high-tech production at home or shifted those to the more advanced Asian economies such as Taiwan and South Korea (Pomfret and Sourdin 2014). The rise of China and its emergence as the main trading partner of the US and key European countries was paralleled by the relative decline of Japan and some of the other countries such as Chinese Taipei and the South Korea. As a result, a substantial share of the supply chains producing for the US market relocated to China to take advantage of lower costs and the more favourable trade environment. Indeed, China's accession to the WTO in 2001 had played an important role in this regard (Lall and Albaladejo 2004).

China has a high ratio of GVC participation although the share has experienced some decline in the latter half of the 2000s! This is in part explained by increased local content share thanks to the policy of promoting domestic parts industry. However, between 1995 to 2010, China's increasing visibility in the global production network was accompanied by a higher share of intermediate exports, even though China's ratio of value added export of the intermediate goods with respect to value added induced by total exports (VSI) had been lower than that of Japan or South Korea (OECD.Stat 2018). Over the corresponding period, combined average GVC participation from Japan, South Korea, China, Hong Kong and Chinese Taipei has increased by 15.2 percentage points. Both forward and backward participation have increased respectively by 7.0 and 8.2 percentage points (authors' calculation from OECD.Stat 2018). These reveals that over time Asia has emerged as the major hub of GVCs and RVCs, both in terms of high-value and low-value added products.

ASEAN and Southeast Asian experience

As was pointed out earlier, the ASEAN Free Trade Agreement (AFTA) has helped ASEAN economies to deepen their GVC participation. ASEAN countries have engaged their participation in mostly backward GVCs, since 1990s. In the 1990s within the ASEAN economies it was Singapore which was one of the most advanced countries in terms of GVC participation, the rate of GVC participation stood at about 54.4 per cent in 1995. This was third among the countries with highest GVC participation rate. Between the period of 1995 and 2011, the average GVC participation of ASEAN countries increased by 13.3 percentage points; of this backward participation contributed 7.3 percentage points. Over the corresponding period, Cambodia's backward GVC participation increased from 12.7 per cent in 1995 to 36.8 per cent in 2011 (about 24 points). The corresponding figures for Thailand and Malaysia were 14.8 and 10.2 per cent respectively (OECD.Stat 2018).

Among the value added exports of ASEAN countries, as a collective, foreign value added exports increased by 12 times during the period between 1990 and 2013 while domestic value added increased by 10 times over the same period. The share of foreign value added in gross exports increased between 1990 and 1995, leveling off at around 40 per cent thereafter (Yamaguchi 2018). Observed changes in the ratio of foreign value added exports over the last two and half decades with respect to ASEAN countries reveal the followings: (a) rise in ratio for industries such as food and beverage, textile and clothing which traditionally had low foreign value added ratio; (b) CLMV countries (Cambodia, Myanmar, Lao PDR, and Viet Nam) which are ASEAN late comers used to have a high ratio in such exports. In recent times, however, these countries are attracting more FDI flows from Japan, South Korea and other neighboring ASEAN countries and as a result their participation in GVCs has been on the rise; (c) regional sourcing is also important and has been on the rise – for instance, Cambodia, and the Philippines rely on intra-regional sources for 22 per cent and 16 per cent of their total foreign value added used in their respective exports (Yamaguchi 2018).

Section V. GVCs and RVCs: State of Involvement of BIMSTEC Countries

During the period between 1995 and 2011, two BIMSTEC member countries, India and Thailand, have significantly increased their GVC participation. To be specific, India has nearly doubled its GVC participation during this period, from 22.9 in 1995 to 43.1 in 2011. Correspondingly, Thailand has increased its GVC participation by 1.5 times, from 36.2 to 54.3. Both the countries have higher backward GVC participation. More than 70 per cent of Thailand's GVC participation is backward in nature while it is 56 per cent for India. As a matter of fact, Thailand has significantly higher backward participation in GVCs than the global average (OECD.Stat 2018).

Table 4: Global Value Chain Participation Index

***GVC participation**	**India**			**Thailand**			**Developing Economics**	**Developed Economies**
Year	***1995***	***2003***	***2011***	***1995***	***2003***	***2011***	***2011***	***2011***
Forward	13.6	18.6	19.1	12.0	15.6	15.4	23.1	24.2
Backward	9.3	13.5	24.0	24.2	31.4	39.0	25.5	23.8
Total GVC participation	22.9	32.1	43.1	36.2	47	54.3	48.6	48.0

Source: OECD-TiVA database 2016, *Disaggregated data is not found for other BIMSTEC members

At the industry level, India's top three exporting industries involved in forward GVC are: wholesale and retail trade (18.7 per cent), transport and storage (14.2 per cent) and other business services (9.7 per cent). Thailand's top three exporting industries involved in forward GVC are: wholesale and retail trade (20.7 per cent), agriculture (9.5 per cent) and Chemical products (7.8 per cent). On the other hand, India's top three importing industries involved in backward GVC are: petroleum products (25.8 per cent); manufacturing machinery and equipment (12.1 per cent); transport and storage (9.1 per cent) while Thailand's top three importing industries involved in backward GVC are: computer and electronics (17.7 per cent), motor Vehicles (9.3 per cent), machinery and equipment (9.1 per cent).

In terms of trading partners, top three exporters of inputs from Thailand through the GVCs are China (27.3 per cent), Malaysia (9.4 per cent) and Japan (5.4 per cent) while top three foreign input providers to Thailand are Japan (15.4 per cent), China (10.4 per cent) and United States (6.9 per cent). On the other hand, top three exporters of inputs for India though the GVCs are China (14.7 per cent), Singapore (6.8 per cent) and Germany (6.5 per cent) while top three foreign input providers to India are US (9.2 per cent), Saudi Arabia (8.8 per cent) and China (8.5 per cent).

The above mentioned data reveals two points: (a) India's GVC participation is more global than regional while it is the opposite for Thailand; (b) Thailand's backward participation involves production of relative high-value added products and services while India is still limited to production of relatively low-value added products and services. Although data is not readily available for other BIMSTEC members, considering the value added trade dynamics of Thailand and India, few general points can perhaps be made: (i) Bangladesh and Sri Lanka are expected to be integrated more in backward participation as regards producing low-value added products.

The linkages are likely to be more global than regional; (ii) Nepal and Bhutan are expected to participate in the GVCs mainly through India whereas Myanmar was likely to remain significantly dependent of other ASEAN economies.

Potential Production Networks and possibility of RVCs in BIMSTEC

Readymade garments (RMG) represent a commodity in which majority of the BIMSTEC members have some stake. Bangladesh is the second largest exporter of RMG in the world. Similarly, India and Sri Lanka are also one of major exporters of RMG in the global market. As China, the leading RMG exporter in the world, is shifting its production to more sophisticated items in the context of the global value chain, it opens up an opportunity for BIMSTEC member countries to capitalise on this, and integrate more with the global RMG value chain. In this regard, capacity of production would be a concern, at least in the short run. RMG RVCs with participation of BIMSTEC members such as Bangladesh, India and Sri Lanka offer a possibility to reap the potential benefits. Concerned economies will be able to enjoy the benefits of trade in value added content.

Leather is another important industry in which BIMSTEC members could develop production networks. India has a surplus of cattle and small ruminants; however, in most states, cattle slaughtering has now been banned. Traditionally, Indian cows, imported legally or otherwise, had provided a large part of the raw-materials for Bangladesh's leather industry. Bangladesh itself also produces a significant amount of raw leather each year. Bangladesh discourages export of raw hides and encourages export of finished and semi-finished leather products and footwear. However, to get into GVCs much more attention will need to be given to international compliance and labour standards. Bangladesh is mostly participating in forward GVCs through export of leather and leather products. If adequate measures are taken, there are good possibilities to develop RVCs in leather sector with participation of BIMSTEC members, at reduced cost.

Table 5: Potential Production Networks and RVCs in BMISTEC

Product	Major producers	Possible production networks	Export
Garments	Bangladesh, India, Sri Lanka, Myanmar	Countries in region can go for high-value added production of garments through developing production networks covering various stages based on comparative advantages	Regional and Global
Leather	Bangladesh and India	Bangladesh can develop production networks particularly based on import from India of live animals and trade in semi-finished and finished products	North America, EU, Middle East, East Asia, Africa
Gems and Jewellery	Myanmar, Sri Lanka and Thailand	Cutting and polishing work based on imports from Myanmar may take place in Bangladesh and India	United States, EU, Middle East, East Asia
Bamboo and Wood	Northeast of India, Myanmar, Bhutan	Raw materials from Myanmar can be imported to produce furniture, hand-made products in Bangladesh and India	Global market
Medical Plants	Bhutan, Nepal, Myanmar	The regional production networks for producing pharmaceutical items with imports of raw materials from the Bhutan, Nepal and Myanmar	Countries in which export is allowed
Semi-finished Light Engineering products	Thailand	May export to Bangladesh, India and Myanmar	East Asia and also re-export to Thailand

Source: Authors Proposition.

Apart from these, there are opportunities for cooperation involving Myanmar, India, Bangladesh, Sri Lanka and Thailand in gems and jewellery production since Myanmar, Sri Lanka and Thailand produce very good quality gems. India, particularly and also Bangladesh have specialised capacities in cutting and polishing of gem stones as well as making gold, silver and studded jewellery. Similarly, in production of bamboo items such as furniture, fabrics and items of artefacts, there could be RVC with participation of North Eastern region of India, Bangladesh, Myanmar, Thailand and Bhutan. For herbal products, RVCs can be established among Nepal, India, Bangladesh and Bhutan. In summary, within the BIMSTEC region, RVCs may be possible for production of apparels, footwear, pharmaceutical and light engineering. There are also good potentials for assembling of electronic goods, toys and bicycle, herbal and cosmetics products. CKD and NKD type assembling opportunities can also be

developed if trade transactions and trade facilitation related costs can be brought down significantly through better connectivity and improved trade logistics.

Case Study: Major items of Bangladesh export to and import from BIMSTEC

In absence of concrete data on value chains at the product level involving countries of BIMSTEC region, case study analysis of possibilities of bilateral export and import product networks may prove helpful to get some direction on the potential scope of development of value chains within the region. In this regard, a case study that explores RVC opportunities based on the pattern of Bangladesh's trade with BIMSTEC members.

Products Exported from Bangladesh to BIMSTEC Members

Country	***Bangladesh's Major Items of Export to BIMSTEC Member Countries***
Bhutan	Agricultural and pharmaceutical products, aluminum articles thereof etc.
India	Vegetable textile fibers, apparels, light engineering, edible fruits and nuts etc.
Myanmar	Pharmaceutical products, apparels, plastics products, footwear etc.
Nepal	Vegetable textile fibers, Fresh veg, fruits, nuts, electrical and pharmaceutical products
Sri Lanka	Pharmaceutical and Electrical products, Edible Vegetable, roots and tubers, apparels
Thailand	Apparels, other textile articles, nuclear reactors, electrical products

Products Imported by Bangladesh from other BIMSTEC Members

Country	***Bangladesh's Major Items of Import from BIMSTEC Member countries***
Bhutan	Coffee and tea mate, spices, stone, lime and cement etc.
India	Cotton, parts of vehicles, nuclear reactors, boilers, and machinery appliances etc.
Myanmar	Wood and articles of wood, fish and crustaceans, coffee & tea mate, and spices etc.
Nepal	Edible vegetable, roots and tubers, edible preparations, inorganic chemicals etc.
Sri Lanka	Cotton, mineral fuels and waxes, albuminoidal substances and glues etc.
Thailand	Salt, sulphur, earths and stone, lime and cement plastics, man-made staple fibers

Source: Author's compilation from Bangladesh Export Promotion Bureau (EPB) database, 2018

- The analysis reveals that Bangladesh's export to BIMSTEC countries are limited to low-value added products. Trend analysis shows that, demand for Bangladesh's pharmaceuticals is increasing within the region especially to Bhutan, Nepal, Myanmar and Sri Lanka. There is an opportunity to integrate Bangladesh's pharmaceutical industry with regional as well as GVCs. In this particular case, Bangladesh may import some of the important medicine ingredients from India.

- Production networks involving agricultural items can be developed with participation of Bangladesh and other BIMSTEC countries in the areas of processed foods for export of the final products to markets of Europe, Middle-east and North America.

- Within BIMSTEC, the only notable value chain in which Bangladesh is involved is in the RMG sector. Cotton, yarn and fabrics are imported from India and, to a lesser extent, Sri Lanka to produce finished goods in Bangladesh.

Section VI. Opportunities of Developing RVCs within BIMSTEC Region

Majority of members have been pursuing strategic trade liberalisation

A review of trade policies indicates that, within the BIMSTEC region Thailand has been a leading member that pursued trade liberalisation policies rather aggressively. It has also developed better trade facilitation arrangements within the ASEAN region thanks to the AFTA. In the recent past Myanmar has opened up its erstwhile inwards looking economy. In between, the other BIMSTEC countries have liberalised their economies to various extent. Majority of these countries have started to undertake trade reforms in the early 1990s and has been pursuing those reforms over the years. The degree of openness of the BIMSTEC economies have tended to vary, depending on relative shares of exports and imports in respective GDPs, but the general direction is quite clear as is evidenced from Table 6. Global integration of BIMSTEC economies have been on a secular rise over the years. This emergent overall scenario offers a conducive policy environment to set up RVCs and GVCs in the BIMSTEC region.

Table 6: Trade Openness in BIMSTEC Region (as percentage of GDP)

BIMSTEC Countries and China	1997-01	2002-06	2007-11	2012-16
Bangladesh	28.8	31.2	41.6	43.8
Bhutan	79.6	91.8	110.2	95.2
India	25.1	37.5	50.4	48.1
Myanmar	1.0	0.3	0.2	39.2
Nepal	57.0	45.1	45.1	49.2
Sri Lanka	81.4	75.2	56.5	50.2
Thailand	107.5	126.2	131.3	130.7
China	35.9	56.9	52.7	43.6

Source: WDI database (2017).

China is moving up in GVCs by developing technologically sophisticated and advanced RVCs with East Asia and beyond. Rise in labour wages in China are forcing it to shift the production of textile and clothing from lower to more high-end products. This could potentially open up significant opportunities for countries such as Bangladesh, Vietnam, India, Sri Lanka, Pakistan and Cambodia within the Asia (Yang 2016). Some of China's labor-intensive GVCs are also relocating to lower-cost locations in the region (Yang 2016). If BIMSTEC economies are able to improve investment climate, implement reforms to deal with behind-the-border barriers, upgrade skills, enhance financing facilities for small and medium-sized enterprises, and invest in trade-related infrastructure and digital infrastructure, the current initiatives to deepen connectivities will create an entirely new possibility frontier to develop RVCs. With trade openness, which can attract FDI flows (Havranek and Irsova 2011; Du, Harrison, and Jefferson 2011) all these could help BIMSTEC to emerge as a RVC hub in Asia. Small and medium-sized enterprises (SMEs) could be an important component of such RVCs. Development of commercial and digital services will help the regional countries in this context.

FTAs could play a supportive role

While BIMSTEC-FTA is making only slow progress, individual members have started to take increasing interest in bilateral FTAs. In this respect they have been lagging behind. In recent times, India and Thailand have been more active in this regard. Both India and Thailand have

signed 13 FTAs each that are in effect now (Table 7). In addition, India and Thailand are negotiating another 28 FTAs and 23 FTAs respectively which are at different stages of maturity (Table 7). Among the smaller economies within the region, Myanmar and Sri Lanka have signed 6 and 5 FTAs respectively and 10 and 8 other FTAs are at different stages of negotiation (Table 7). In this backdrop, Bangladesh, Bhutan and Nepal are lagging far behind.

Table 7: Current State of Trade Negotiations in BIMSTEC Region

Economy	*Under Negotiation*			Signed but not yet in effect (d)	Signed and in effect (e)	Total expect (f=a+b+c)
	Proposed/ Under Study (a)	Framework Agreement signed (b)	Negotiations launched (c)			
Bangladesh	3	0	2	1	3	6
Bhutan	0	0	1	0	2	3
India	13	1	14	0	**13**	**28**
Myanmar	5	1	3	0	6	10
Nepal	2	0	1	0	2	3
Sri Lanka	5	0	3	0	5	8
Thailand	14	1	9	0	**13**	**23**

Source: Authors' counting from the database of Asian Development Bank, 2017

However, four members of BIMSTEC those are on course for graduation from the group of LDCs in next few years and loss of preferential treatment will create a new trading situation for these countries. In view of this they will need to seriously reconsider their trade strategies. Going for BFTAs could be one of the possible initiatives in this context. Regional integration experience of East and Southeast Asian countries indicate that increasing involvement in FTAs have acted as an impetus in deepening their participation in RVCs as well as GVCs (Havranek and Irsova 2011). For instance, in the early 1990s most of the Asian countries were reluctant or apprehensive in engaging in FTAs. However, over the last two decades that has drastically changed – the number of FTAs involving at least one Asian country (mostly East and Southeast Asian countries) has more than tripled from 70 in 2002 to 257 as of January 2013 (Asia Regional Integration Center 2018). The experience of ASEAN countries should induce those BIMSTEC members to rethink their trade strategies in favour of going for BFTAs, which then could serve as foundations for RVCs and GVCs.

Connectivity projects are making space in policy agenda

After many years of slow progression, in recent times the idea of developing transport connectivity as a critically important means to strengthen trade cooperation within the BIMSTEC region has been gaining traction. The BIMSTEC Ministerial Meeting held in Kathmandu in August 2017 (Yhome, 2017) may be considered a milestone in this connection. The finding of the BIMSTEC Transport Infrastructure and Logistics Study (BTILS) were presented at this meeting. The report has proposed implementation and monitoring guidelines for 165 projects in areas of connectivity, of which 66 are priority projects (Yhome, 2017). The report mentioned that there is a need for rail connectivity alongside the existing road connectivity between the two land locked countries of this region (Nepal and Bhutan) with countries such as India and Bangladesh. The railway project between Bangladesh and Nepal and Bhutan via India is already being planned. The traditional rail links between India and Bangladesh are being revived now. There are good cross border connectivity between Nepal and India but more needs to be done, and at a faster pace, to link roads and railway networks between the two countries. Developing closer connectivity between Nepal and India through waterways and the optical fibre has high

potentialities and needs to be explored also from the perspective of linking Bangladesh. In a welcome development initiatives to put in place India-Bangladesh multimodal transit facility via Asuganj has been put in place to connect mainland of India with Northeast part of India. A project has been undertaken to build the missing rail network between Akhaura and Agartala. The sub-regional BBIN-MVA agreement is making some progress, with Bhutan to join hopefully in near future. A BIMSTEC wide multi-model connectivity may be developed which could include an MVA as also sea and air routes considering the interest of Sri Lanka in particular (Yhome, 2017). As regards air connectivity, the concept of 'open sky' air service agreement among the BIMSTEC nations has also been suggested.

The Kaladan Multi Modal Transit Transport Project is also making tangible progress. A bilateral sea river-land project has been undertaken to develop transport infrastructure in western Myanmar and Northeastern India (Yhome, 2017). Once the multi-model transport becomes operational between Myanmar and Northeast states of India, it will significantly boost BIMSTEC transport connectivity. Apart from these, there are several other projects (construction of roads and bridges) that Indian government has initiated in Myanmar as part of their 'Act East Policy'. The aforesaid initiative are expected to strengthen BIMSTEC transport connectivity by plugging critical missing links in the India-Myanmar Thailand Trilateral Highway project. These could build the foundations for setting up RVCs and GVCs in the region, particularly by incentivising investment flows from within and outside the region and by taking the needed steps to improve trade and logistics facilitation.

Unexplored potentials of the blue economy

Within the BIMSTEC region except two land-locked countries, Nepal and Bhutan, all others have maritime boundaries. Among the BIMSTEC countries Thailand has multiple strategically located ports and a comparatively good port infrastructure. In 2015, Laem Chabang Port was the largest port of Thailand, the 4th largest in the ASEAN region, and the 22nd in the world. The port handles about 54 per cent of Thailand's total import and export. In addition to improve the capacity of this port, Thailand has made investments in infrastructure and development of the Eastern Economic Corridor (EEC), a strategically located economic zone through which could serve as the gateway to Asia. Myanmar has uninterrupted coastline of about 2,832 km, of which 713 km Rakhine coastline is the closest to Bangladesh, India and Sri Lanka. Among the five sea ports (Yangon, Sittwe, Pathein, Mawlamyine, and Myeik) of Myanmar only Yangon handles international cargo and container vessels (Chaudhury *et al.* 2018). Recently, China has shown interest to develop the Sittwe port which is located in Rakhine State as a part of their 'One belt One Road Initiative' (OBOR).

India has also a long coastline of 7,517 km and 7 major international sea ports. These ports handle majority of international trade of India. Among these ports, Kolkata port currently offers sea connectivity for two landlocked BIMSTEC countries – Nepal and Bhutan. Although Kolkata port has geographical proximity to Myanmar, it does not have any coastal shipping connectivity with Myanmar despite the huge potential (Chaudhury *et al.* 2018). However, this is within the purview of Kaladan–Multimodal–Transit Transport Project (KMTTP) plan which is led by India. Other ports including Kolkata handles cargo and container imports and exports from Bangladesh and Sri Lanka. The maritime ties between India and Sri Lanka are intertwined – about 30 percent outbound containers from India pass via Sri Lanka. Colombo port is the largest in Sri Lanka which handles 87 percent of all ships coming to Sri Lanka (Chaudhury *et al.* 2018). In Bangladesh, there are two active ports, Chittagong and Mongla handling all the international cargo and container.

Apart from this, Bangladesh is building ports at Payra and Matarbari. South Asian BIMSTEC countries often face difficulties in port management due to lack of land area, restricted draft, siltation and lack of adequate hinterland connections.

Experience show that, international maritime transport is the most cost and energy efficient mode of transportation for international trade among countries and regions of the world. Historically Bay of Bengal has played an important role as a key trade artery for South and Southeast Asian region. However, for years, traffic flows—both container and cargo—has been rather limited in the Bay of Bengal. Current initiatives could change the scenario and Bay of Bengal could reemerge as a major trading route for trade among countries in the region. Bay of Bengal could be an important conduit in the development of RVCs in the region.

Section VII. Developing RVCs: Challenges Facing BIMSTEC Members

Infrastructure bottlenecks are hindering economic performance

Whilst reduced tariffs are important, GVCs rely primarily on timely delivery of parts and components at every stage, with no unnecessary costs involved in crossing the borders. Evidence from global secondary literature suggests that countries with favourable trade condition– such as China, Singapore, South Korea, Thailand and Malaysia in East Asia, and the Czech Republic, Poland and Hungary in Europe – are more intensely involved in value chains than other emerging market economies with apparently similar factor endowments (Pomfret and Sourdin 2014). South, West and Central Asian countries are engaged in comparison because their economies are characterised by high costs of doing business, unnecessary border controls, and other obstacles (Pomfret and Sourdin 2014). Review of ASEAN economies reveals that these countries have been able to make good use of geographical proximity by developing strong rail and road networks (Kummritz, Taglioni and Winkler 2017). In contrast, South Asian economies have not been able to real benefit of geographical proximity because of lack of connectivity in general, and seamless connectivity in particular. In terms of sea and air port infrastructure, most South Asian countries are lagging far behind and failing to offer business friendly facilities. For instance, in Bangladesh, the capacity of cargo handling at both sea and airports has reached saturation point. Trade logistics and customs clearance leave much to be desired. All these lead to longer than necessary lead time which, as a consequence, undermines competitiveness (Table 8). On the other hand, establishment of RVCs and GVCs hinges critically on all these factors. BIMSTEC countries excepting Thailand are facing higher cost in terms of export and import of containers compared to for example countries in East, South East and Europe (Table 8).

Table 8: Comparison as regards Trading Environment of BIMSTEC with Other Countries

Country	*Cost to export ($ per container)	*Cost to import ($ per container)	*Lead time to export (days)	*Lead time to import (days)	Global** Competitiveness (0 to 7)	Logistic** Performance (1 to 5)
Bangladesh	1281	1515	28	34	3.9	2.7
Bhutan	2230	2330	38	37	4.1	2.3
India	1332	1462	17	21	4.6	3.4
Myanmar	620	610	20	22	-	2.5
Nepal	2545	2650	40	39	4	2.4
Sri Lanka	560	690	16	13	4.1	2.7
Thailand	595	760	14	13	4.7	3.3
Japan	829	1021	11	11	5.5	4.0
Singapore	460	440	6	4	5.7	4.1
Malaysia	525	560	11	8	5.2	3.4
China	823	800	21	24	5.0	3,7
Vietnam	610	600	21	21	4.4	3.0
Cambodia	795	930	22	24	3.9	2.8
Poland	1050	1025	15	14	4.6	3.4
Hungary	885	845	17	19	4.3	3.4

Source: WDI and WEF, Latest available data for year: * = 2014 and ** = 2017

Higher logistic performance index with regard to customs procedures, logistics, and overall values as well as shorter export and import lead time create added advantages in terms of going for economic upgrading through forward GVC links. Timely, reliable, and efficient customs and other administration procedures benefit, in particular, domestic value adding activities and which in turn incentivises inclusion in RVCs and GVCs. Thus, BIMSTEC members will have to address the bottlenecks at the border, behind the border and across the border.

Infrastructure and connectivity are the core elements of trade facilitation at the borders. Lack of telecommunication links, parking space, cold storages, facilities for truck drivers in transit, single window, harmonised customs and technical standards, interoperability of customs system are some of the trade-facilitation bottlenecks that will need to be addressed to promote the cause of RVCs in BIMSTEC. Altogether these factors are eroding the global competitiveness of the most of BIMSTEC members (Table 8) when compared to comparable countries from other regions. Implementation of WTO's Trade Facilitation Agreement (TFA) which came into force in 2017 could help BIMSTEC members in this context, although TFA is primarily concerned with customs facilitation.

Stalled negotiation on BIMSTEC FTA

There are several trade agreements and memorandum of understandings (MOUs) between and among the countries of BIMSTEC region. Bangladesh and India have undertaken various trade enhancing measures to increase trade flows. These include coastal shipping agreement, inland water transshipment agreement, multimodal transit agreement that covers rail, road and water

modes of transport. India shares an open border with Nepal. No visa is required between India and Bhutan. With Sri Lanka, India signed an FTA in 2005 which broaden to a comprehensive economic partnership agreement (CEPA) and then to the current economic and technological cooperation agreement (EDCA). Similarly, India has an FTA with Thailand. On the other hand, Thailand has a free trading relationship with Myanmar as part of AFTA.

The framework agreement for an FTA encompaning the BIMSTEC members (BIMSTEC-FTA) was signed in 2004. Although Trade Negotiating Committee (TNC) agreed on the following issues (e.g. tariff concessions on trade in goods; customs cooperation; trade in services; investment cooperation; and dispute settlement) back in 2004, since then no or little progress has actually been made. Over the more than one decade members were able to come up with only four draft agreements. These included such areas as: (i) trade in goods; (ii) rules of origin; (iii) dispute settlement; and (iv) customs (Senjupta 2017).

The evidence from North America, Europe and Southeast Asia shows that successful FTAs have been able to facilitate development of RVCs. Some estimates indicate that, a BIMSTEC FTA, by being just an FTA, may not be able to spur intra-BIMSTEC trade in the short term given existing trade preferences among the BIMSTEC countries (De 2017). However, the scenario will change significantly if the FTA is complemented by other supportive measures which then activate production networks among member countries and generate new value chains (De 2017). Reinvigorating the stalled negotiations on BIMSTEC FTA is a necessary precondition, if not sufficient, to help RVCs and GVCs to emerge in the BIMSTEC region.

Member countries are rather competitors than complementary partners

In the present context, BIMSTEC member countries tend to produce similar exportable products; these countries are competitors rather than allies in complimentary production (Sengupta 2018). Most enjoy comparative advantage primarily in the form of labour. Except Thailand, and to some extend India, exports of other member countries are highly concentrated both in terms of markets and products (Annex Table 13). Countries such as Bangladesh, India and Sri Lanka are producers (and exporters) of low-value added garments and textile products in the global market. Myanmar is also moving fast to develop the backward value chain in textile and clothing. These four economies compete with each other as well. However, there are opportunities to increase global market share in RMG exports for all these BIMSTEC member countries as China shifts to higher-valued products of garments. Regional collaboration could be a strategy that many be pursued in view of this, also because of the growing competition from countries outside the region such as Vietnam, Cambodia and Pakistan.

Whilst majority of the BIMSTEC members have similar products and services to offer to other countries within and outside of the group, economic history shows that comparative advantages can also be built in a strategic and dynamic way. Challenges were initially faced by the ASEAN members as well. While some producers resisted increased competition, others recognised a need for trade facilitation so that they could use supply chains to become more competitive (Pomfret and Sourdin 2014). There are important lessons to learn from the ASEAN countries, several ASEAN members undertook large unilateral tariff reductions; four have signed the WTO Information Technology Agreement (ITA); five original ASEAN members have improved border clearance through introduction of single windows and other measures. The benefits were reflected in the convergence of trade costs towards the regional best practice country of Singapore (Pomfret 2016). With time ASEAN countries have strengthened their competitive power and were able to established firm footing either in the backward or forward GVCs and

RVCs. BIMSTEC countries will also need to move forward in a strategic fashion and craft the needed policies to raise their competitive presence on a global scale.

Lack of data on value addition in the BIMSTEC region

True assessment of value chain in the BIMSTEC region is often compromised because of the poor state of the trade data for some of the countries (for instance, Myanmar). Data limitations severely constrains the ability to have a good understanding about the state of GVCs and RVCs in the BIMSTEC region, which in turn severely impedes the undertaking of any rigorous analysis in this context. At present there is dearth of adequate data to measure trade in value added products and services and this is true for almost all BIMSTEC members. The OECD TiVA database currently covers value added trade data for 63 countries, of which data are available on only two BIMSTEC countries India and Thailand. The input-output tables are also not available for all BIMSTEC members. Consequently, BIMSTEC countries must take energetic initiative to collect the required data, systematically and at disaggregate level to understand and analyse the valued-added trade in the BIMSTEC region in order to examine the potentials of putting in place RVCs and GVCs in the region, with a view to deepening regional integration.

Balancing productivity enhancement and employment generation

Considering that BIMSTEC is a region with significant size of labour force, it will be critically important to craft RVC/GVC strategies by keeping in mind the priorities in this connection. The relatively labour-intensive value-added activities are where BIMSTEC countries have comparative advantage. However, infusion of technology and skills have to be given due importance since in the near future BIMSTEC countries will have to graduate from factor-driven to technology-driven economies. BIMSTEC countries should also be able to specialise in niche segments in the value addition continuum where new technology and innovation will set the rules. In this backdrop, BIMSTEC members will have to strategise in such a way that they are able to take advantage of old economy and at the same time, be prepared to reap the advantages of the 'new economy'. BIMSTEC Secretariat can play an important role in helping the members devise such a forward-looking strategic plan.

Geopolitical concerns

Considering the size of its economy, population and strategic role, India is expected to be a key partner in any BIMSTEC-wide initiatives. But India can deal with the attendant issues from a win-win perspective as it has a lot to gain from a deeper BIMSTEC cooperation. Thailand, on the other hand, is a key player which can potentially play the role of a conduit between ASEAN and BIMSTEC. Both India and Thailand have started their (lower) middle income journey for some years now. The other members of the BIMSTEC, relatively much smaller economies, have started or are going to start their middle income journey only in recent times. If India and Thailand are to avoid falling into the so-called 'middle income trap' and other countries were to have a smooth middle income journeys, there is every reason to argue that a deepened relationship is to the economic-strategic and geo-strategic interests of all the BIMSTEC members. As was pointed out in the preceding sections, seamless transport connectivity could create mutual dependence, and this could generate a 'peace dividend' as well. Closer BIMSTEC-ASEAN collaboration will also help develop the 'blue economy' and build maritime silk routes, which in turn will help to keep the Bay of Bengal region as a zone of peace. Collective endeavours to resolve cross-border issues, exploit regional and sub-regional opportunities including those relating to development of hydro-energy, maritime resources and natural endowments could help create the conducive environment which can in turn help the development of GVCs and RVCs in the region.

The role of the BIMSTEC Secretariat

The BIMSTEC Secretariat could play an important role in harnessing the potentials of closer cooperation in the region. As is known 14 areas have been identified by the Secretariat, with members taking lead in specific areas. A number of concrete initiatives have been taken by the Secretariat to advance the cause of BIMSTEC-wise collaboration. However, the Secretariat is not being able to perform its mandate because of lack of human and financial resources. Only an adequately resourced Secretariat will be able to play the strategic role which it is mandated to carry out. If RVCs and GVCs are to be developed in the region, there is a need for the Secretariat to undertake a thorough examination of the state of intra-industry trade, the potential areas and what needs to be done to realise the potentials. The Secretariat's unique position allows it to undertake such a comprehensive study.

Section VIII. Concluding Remarks

BIMSTEC leaders have to be deeply convincing that the grouping could result in win-win outcomes, and then committed to advance the cause of collaboration, cooperation and integration. The Goa declaration of BIMSTEC leaders, in 2016, transmitted an unequivocal message, at the highest level, as regards commitment of the BIMSTEC member countries to forge closer alliance. The upcoming summit, to be held in the second half of 2018, should be seen as yet another milestone in this connection. The time has come to actually materialise the commitments on the ground, by completing the BIMSTEC negotiations as soon as possible and by undertaking the various connectivity, trade and logistic facilitation initiatives.

The preceding sections have made an attempt to identify in which area the BIMSTEC, as a regional initiative, should focus in the coming days, to help it graduate to the next level of cooperation. Whilst some progress has been made in a number of areas, the pace of implementing the much needed initiatives in many critically important other areas have been rather slow. BIMSTEC-FTA negotiations are stalling, many of the trade facilitation measures continue to remain on the drawing board and much-needed connectivity initiatives remain unaddressed.

As is known, India already has a bilateral FTA with AEAN. It is, thus, in the interest of the smaller countries to take the lead in the collective endeavour to deepen BIMSTEC-wide cooperation because it is in their particular priority interest. The smaller countries must be proactive in developing sub-regional and regional projects which can help them get integrated with sub-regional and regional markets. Accordingly, smaller BIMSTEC member economies should have an added geo-political-strategic-economic interest to pursue the cause of deeper BIMSTEC-wide cooperation. Smaller economies within the BIMSTEC such as Bangladesh, Nepal, Bhutan and Sri Lanka, thus, have a special interest in making the BIMSTEC work. As was pointed out in the text, BIMSTEC provides these countries an opportunity to get a foothold in the ASEAN market, and also closer cooperation within BIMSTEC can help them in their middle-income journey and maintaining a sustainable LDC-graduation pathway. On the other hand, BIMSTEC-wide cooperation, RVCs and GVCs could help the developing economies such as India and Thailand to avoid the middle income trap by taking advantage of establishing value chains within the region based on comparative advantages. As was pointed out in the text, development of such value chains will also help the BIMSTEC regional countries towards strengthened global integration of their economies. In fine, BIMSTEC provides in unique opportunity to member countries to forge deeper cooperation towards potentially win-win outcomes in many areas. Time has come to take concrete measures to realise BIMSTEC's potentials.

Appendix

Table 9: Economic Activity (in million USD per square kilometer)

BIMSTEC Countries and China	1997	2007	2016
	Within national boundary	Within national boundary	Within national boundary
Bangladesh	0.95	2.01	3.96
Bhutan	0.03	0.09	0.19
India	0.50	1.25	2.65
Myanmar	0.05	0.19	0.45
Nepal	0.16	0.30	0.49
Sri Lanka	1.03	2.09	3.99
Thailand	0.84	1.53	2.27
China	0.29	0.95	2.24

Source: Authors calculation from WDI database (2017).

Table 10: Average GDP Growth Rate (annual per cent)

BIMSTEC Countries and China	1997-01	2002-06	2007-11	2012-16
Bangladesh	4.9	5.4	6.0	6.5
Bhutan	6.9	7.7	9.8	5.5
India	5.5	7.6	7.8	6.9
Myanmar	9.5	13.2	9.6	7.3
Nepal	4.7	3.1	4.5	3.7
Sri Lanka	4.0	5.9	6.5	5.3
Thailand	0.4	5.8	3.0	3.4
China	8.3	10.7	10.7	7.3

Source: Authors' calculation based on WDI database (2017).

Table 11: Intra-regional Export Among BIMSTEC Member Countries in 2016 (in million USD)

BIMSTEC Members		Importer							
		Bangladesh	Bhutan	India	Myanmar	Nepal	Sri Lanka	Thailand	Export to BIMSTEC
EXPORTER	Bangladesh	0.0	3.1	759.1	26.3	44.2	27.8	47.3	907.8
	Bhutan	29.8	0.0	462.6	0.0	3.6	0.0	0.3	496.3
	India	5,668.8	374.2	0.0	1,141.2	4,526.2	4,118.3	2,962.4	18,791.0
	Myanmar	21.5	0.0	1,038.1	0.0	0.9	6.4	2,241.5	3,308.3
	Nepal	7.4	1.6	371.5	0.0	0.0	4.7	0.9	386.1
	Sri Lanka	118.9	0.0	753.5	1.5	1.3	0.0	36.3	911.5
	Thailand	928.1	0.0	5,092.6	4,129.5	65.9	426.5	0.0	10,642.6
	Total BIMSTEC Export	6,774.4	379.0	8,477.3	5,298.6	4,642.1	4,583.6	5,288.7	35,443.8
	Total World Export	44,495.5	442.0	353,292.8	22,050.7	6,666.5	18,748.7	182,767.3	628,463.6
	BIMSTEC's export as per cent of global export	15.2	85.7	2.4	24.0	69.6	24.4	2.9	**5.6**

Source: Authors' calculation based on UNCTAD Statistics, 2017

Table 12: Intra-regional Import Among BIMSTEC Member Countries in 2016 (in million USD)

BIMSTEC Members		Exporter							
		Bangladesh	Bhutan	India	Myanmar	Nepal	Sri Lanka	Thailand	Import from BIMSTEC
IMPORTER	Bangladesh	0.0	28.0	6,518.3	51.1	14.9	52.8	862.4	7,527.5
	Bhutan	3.3	0.0	871.0	0.0	3.6	0.0	15.1	893.0
	India	698.6	280.7	0.0	1,095.4	396.6	714.7	5,416.7	8,602.6
	Myanmar	19.4	0.0	1,094.7	0.0	0.0	0.1	1,985.9	3,100.2
	Nepal	44.0	3.1	6,036.2	8.8	0.0	1.1	113.0	6,206.2
	Sri Lanka	29.4	0.0	3,825.0	31.9	0.2	0.0	514.5	4,400.9
	Thailand	56.7	0.0	2,609.4	2,388.8	0.6	40.5	0.0	5,096.0
	Total BIMSTEC Import	851.3	311.7	20,954.5	3,576.1	415.8	809.3	8,907.6	35,826.4
	Total World Import	38,442.7	325.4	270,758.8	11,766.2	756.7	11,074.3	239,906.9	573,031.1
	BIMSTEC's import as per cent of global import	2.2	95.8	7.7	30.4	55.0	7.3	3.7	**6.3**

Source: Authors' calculation based on UNCTAD Statistics, 2017

Table 13: Export (product) Concentration

BIMSTEC Countries	1997-01	2002-06	2007-11	2012-16
Bangladesh	0.37	0.39	0.40	0.40
Bhutan	0.29	0.31	0.39	0.37
India	0.14	0.13	0.16	0.15
Myanmar	0.26	0.32	0.36	0.36
Nepal	0.30	0.15	0.14	0.14
Sri Lanka	0.24	0.22	0.21	0.21
Thailand	0.10	0.09	0.09	0.08

Source: Authors' calculation based on UNCTADSTAT (2017).

Table 14: Export to China as % of Share of Global Export by BIMSTEC Countries

BIMSTEC Countries	Export to China (in million USD)			Export to World (in million USD)			Export to China (as % of global export by BIMSTEC member countries)		
	1997	2007	2016	1997	2007	2016	1997	2007	2016
Bangladesh	54.3	114.2	869.4	4,913.5	14,538.4	38,442.7	1.1	0.8	2.3
Bhutan	0.0	0.0	0.1	25.7	482.1	325.4	0.0	0.0	0.0
India	897.2	14,617.2	11,764.1	42,394.4	171,899.8	270,758.8	2.1	8.5	4.3
Myanmar	73.4	378.1	4,097.7	1,168.7	4,974.6	11,766.2	6.3	7.6	34.8
Nepal	9.7	14.8	22.4	460.7	857.5	756.7	2.1	1.7	3.0
Sri Lanka	9.4	48.0	273.4	4,654.9	8,436.5	11,074.3	0.2	0.6	2.5
Thailand	2,013.8	22,665.7	38,532.3	63,508.5	171,906.0	239,906.9	3.2	13.2	16.1
Total	**3,057.8**	**37,838.0**	**55,559.6**	**117,126.5**	**373,095.0**	**573,031.1**	**2.6**	**10.1**	**9.7**

Source: Authors' calculation based on UNCTADSTAT Database.

Table 15: Import from China as % of Share of Global Import by BIMSTEC Countries

BIMSTEC Countries	Import from China (in million USD)			Import from World (in million USD)			Import from China (as % of global import by BIMSTEC member countries)		
	1997	2007	2016	1997	2007	2016	1997	2007	2016
Bangladesh	696.1	3,349.8	14,300.6	6,364.3	17,334.7	44,495.5	10.9	19.3	32.1
Bhutan	0.2	5.4	4.8	44.8	130.6	442.0	0.4	4.1	1.1
India	933.7	24,051.4	58,397.8	41,253.0	237,652.9	353,292.8	2.3	10.1	16.5
Myanmar	570.1	1,700.1	8,187.7	3,009.0	5,099.5	22,050.7	18.9	33.3	37.1
Nepal	58.1	386.4	866.1	784.5	2,190.2	6,666.5	7.4	17.6	13.0
Sri Lanka	245.6	1,389.8	4,286.9	5,448.1	11,553.9	18,748.7	4.5	12.0	22.9
Thailand	1,501.1	12,032.9	37,182.7	59,626.9	132,289.0	182,767.3	2.5	9.1	20.3
Total	**4,004.8**	**42,915.7**	**123,226.6**	**116,530.6**	**406,250.8**	**628,463.6**	**3.4**	**10.6**	**19.6**

Source: Authors' calculation based on UNCTADSTAT Database.

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