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SOUTH ASIA SUBREGIONAL ECONOMIC COOPERATION

SASEC VISION



MYANMAR





SOUTH ASIA SUBREGIONAL ECONOMIC COOPERATION

SASEC VISION

MYANMAR







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ABBREVIATIONS

ADB Asian Development Bank

ASEAN Association of Southeast Asian Nations

CMP cut-make-pack

FDI foreign direct investment

FOB free on board

GDP gross domestic product

GW gigawatt

MW megawatt

NES National Export Strategy

SASEC South Asia Subregional Economic Cooperation

TEU twenty-foot equivalent unit

UNCTAD United Nations Conference on Trade and Development

WTTC World Travel and Tourism Council

INTRODUCTORY NOTE

The SASEC Program

The South Asia Subregional Economic Cooperation (SASEC) Program was established in 2001 by Bangladesh, Bhutan, India, and Nepal. Maldives and Sri Lanka followed in 2014, and Myanmar joined in February 2017. SASEC focuses on resolving various development constraints through regional cooperation among its members, thereby complementing shared national aspirations for inclusive and sustainable growth. The Asian Development Bank (ADB) is the lead financier and supporter of SASEC and serves as its secretariat.

SASEC is project oriented and currently prioritizes transport, trade facilitation, and energy. The SASEC Operational Plan 2016–2025 delineates the program's priorities, including multisector economic corridor development and a pipeline of projects. Since 2001, SASEC has implemented 49 regional investment projects totaling around \$11 billion.

In April 2017, the SASEC Vision document—SASEC: Powering Asia in the 21st Century—was launched at the SASEC Finance Ministers Meeting in New Delhi, India.² This document identifies regional and subregional opportunities to harness natural and human resources, industrial potential, and infrastructure connectivity through regional cooperation.

Because Myanmar joined SASEC only 2 months before the vision document was launched, it was not included in the original version. This chapter, which was prepared in close consultation with the Government of Myanmar and the private sector, updates the SASEC Vision document.

¹ Asian Development Bank. 2016. https://www.adb.org/documents/sasec-operational-plan-2016-2025.

ADB. 2017b. https://www.adb.org/publications/sasec-vision-powering-asia-21st-century.

The SASEC Vision

SASEC countries envision playing a pivotal role in Asia's growth story. Rapid growth, progressive reforms, and demographic transitions could develop SASEC into one of the most economically vibrant areas in Asia. Fifteen years of fruitful collaboration among SASEC countries bodes well for this vision.

Three strategies to achieve this vision include

- leveraging natural resources and related industries with latent industrial demand (resource-to-industry links);
- developing and strengthening regional value chains and enhancing regional competitiveness (industry-to-industry links); and
- expanding trade and commerce by providing access to regional and global markets through enhanced connectivity and developing subregional gateways and hubs (industry-to-infrastructure links).

As embodied in the SASEC Operational Plan 2016–2025, the program's priorities will provide inputs during implementation of these strategies.

The relevance of these strategies to each member country will differ, challenging each to identify the most beneficial opportunities. The current vision document identifies opportunities only for six countries (Bangladesh, Bhutan, India, Nepal, Maldives, and Sri Lanka), as well as six flagship initiatives. The Myanmar Chapter of the SASEC Vision Document was thus developed at the request of the countries.

MYANMAR IN SASEC

A WEALTH OF OPPORTUNITIES

Development Context

Myanmar's participation in SASEC has opened a wealth of opportunities across the two most dynamic regions in Asia (i.e., South Asia and Southeast Asia). Economic reforms are making headway but remain far from complete. The Framework for Economic and Social Reforms 2012–2015 aimed to achieve (i) 7.7% average annual growth in gross domestic product (GDP), (ii) 26%–32% growth in the industrial share of GDP, (iii) increased services to reduce the currently high share of agriculture in GDP, and (iv) 30%–40% growth in per capita GDP to help reduce poverty by half during 2000–2015. The Government of Myanmar established its goals, strategies, and priorities in its National Comprehensive Development Plan 2011–2031.

The recent economic performance of Myanmar has been noteworthy. Although GDP growth slowed (6.4% in 2016 vs. 7.3% in 2015), ADB anticipates economic recovery in 2017 and 7.7%–8.0% growth in 2018.³ Despite this relatively favorable outlook, Myanmar still must overcome several macroeconomic risks to stable growth, including a narrow production base, lack of commodity diversification, vulnerability to natural disasters, and a low-skilled human capital base.

Myanmar has many strategic advantages. Geographically, it shares borders with two giant economies— India and the People's Republic of China (PRC). It serves as a land bridge between South Asia, Southeast Asia, and East Asia, sharing borders to the east with the Lao People's Democratic Republic (Lao PDR) and Thailand. Its long coastline provides naval access to the Straits of Malacca. Myanmar has rich natural endowments, including oil and natural gas, water, timber, gems and precious stones, and metallic minerals. Its working-age population is large and young, and the country is at the cusp of a transition toward reviving and modernizing agriculture and fostering internationally competitive manufacturing and services. However, more than 25% of its population is poor, and only 77% of its people have access to sanitation while only 84% have safe drinking water.⁴

Given Myanmar's geographic advantages, natural resource endowments, and highly encouraging economic performance, deeper regional integration will offer substantial growth opportunities. Membership in the Association of Southeast Asian Nations (ASEAN); the Greater Mekong Subregion Economic Cooperation Program; the Bangladesh, China, India, Myanmar Forum for Regional Cooperation; and the Bay of Bengal Initiative for Multi-sectoral Technical and Economic Cooperation gives Myanmar an opportunity to enhance its physical and market connectivity. After decades of isolation and sanctions, this connectivity has hastened Myanmar's reengagement with the rest of the world. SASEC opens even wider opportunities for close engagement between Myanmar and countries across the Bay of Bengal.

³ ADB 2017a.

⁴ ADB 2014.

AREAS OF OPPORTUNITY

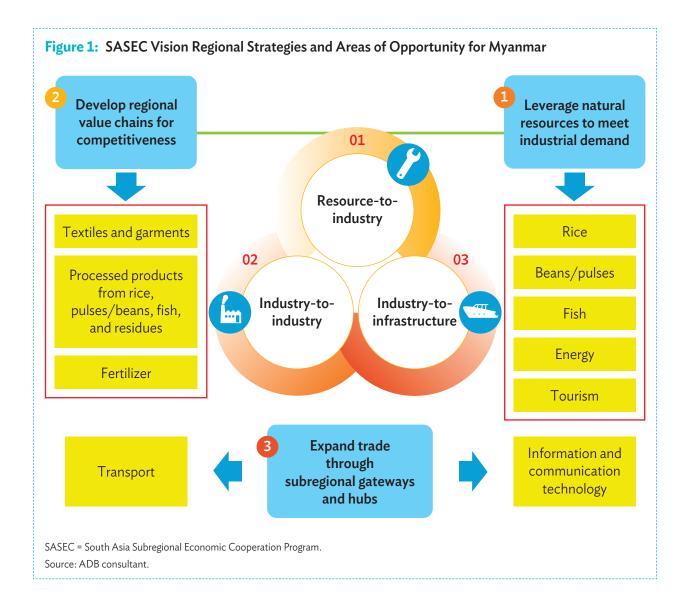
Areas of opportunity within SASEC focus on

- four priority export products (i.e., pulses and beans, rice, fishery products, and textiles and garments);
- tourism;
- energy;
- information and communication technology (ICT); and
- maritime transport.

The four priority export products are part of Myanmar's National Export Strategy 2015–2019 (NES). The NES also lists tourism as the only service sector with a trade surplus. Although current policy prioritizes domestic consumption, energy has dominated exports in the last decade. Participation in regional power-trading arrangements will allow Myanmar to optimize its energy resources for long-term stability and reliability. ICT and the drive to become a digital economy will benefit from access to technology and markets in the SASEC subregion. Finally, maritime connectivity was examined to better understand geographic constraints on maritime transport in the Bay of Bengal, recognizing that this is a critical enabler for realizing potential trade synergies between Myanmar and other SASEC countries.

The government identified products with high potential for increased trade based on value, growth, and price compared with competing suppliers. Import demand patterns and trends among SASEC countries suggest that Bangladesh and Sri Lanka can offer opportunities for significant trade with Myanmar. Based on 5-year averages (2012–2016), potential trade levels were benchmarked against current levels of demand and supply in partner countries and then projected into 2020 and 2025 according to the annual growth rate of imports. Despite decreases in some commodities, the magnitude of export volume still offers an opportunity for greater export potential.

Figure 1 shows the strategies that underpin each opportunity.



II TRADE IN RICE

Rice is the most important agricultural product in Myanmar, accounting for about half of all cultivated land and representing an estimated 13% of GDP. Domestic consumption comprises about two-thirds of total rice production, about 26.4 million tons in 2014–2015. The perennial rice surplus (about one-third of total production) more than tripled exports, from 750,000 tons in 2012 to 2.3 million tons in 2017. In 2016, rice accounted for about 3.8% of the country's total exports, placing Myanmar eighth in the world's top suppliers of rice, with a share of about 2.2%.

Husked (i.e., brown) rice accounts for almost 69% of all rice exports (Table 1). Myanmar exports about 78% of its rice to the PRC, largely via border trade (Figure 2).⁵

Table 1: Rice: Basic Export Data, 2012–2016

HS Code	Product	Average Composition ^a (%)	Average Value (\$ million)	Annual Growth in Value (%)	Annual Growth in Quantity (%)
100610	Paddy rice	0.0	0.0	30.0	33.0
100620	Brown rice	68.7	20.4	4.0	0.0
100630	Milled rice	4.6	76.0	-1.0	-32.0
100640	Broken rice	26.6	402.3	37.0	22.0
	Total		438.9		
	Average		516.2		

HS = harmonized system.

 $Source: International\ Trade\ Center\ database.\ https://www.trademap.org/Country_SelProductCountry_TS.aspx?nvpm=1|104||||1006|||4|1|1|2|2|1|2|1|1 (accessed\ 22\ September\ 2018).$

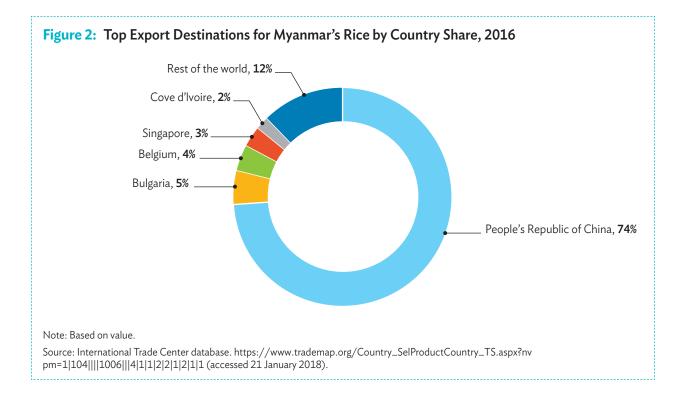
Myanmar's rice exports within SASEC are small, accounting for only about 1% of its total rice exports, and less than 2% of all rice imported by SASEC countries (Figures 3 and 4).

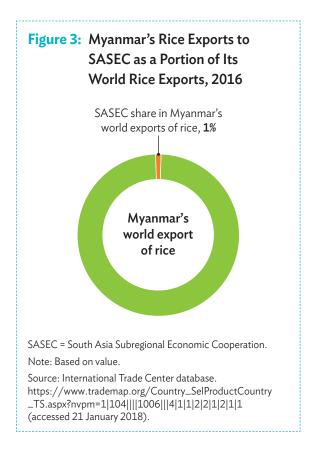
Within SASEC, India dominates in rice exports to Bangladesh (98%), Maldives (82%), Nepal (99%), and Sri Lanka (82%). In comparison, Myanmar exported only 2% of its rice to Bangladesh, India, and Sri Lanka in 2014–2016, averaging around \$9.7 million per year. The annual average of rice imported by all SASEC countries totaled nearly 1 million tons (about \$562 million), including 43% from Nepal, 30% from Bangladesh, and 23% from Sri Lanka.

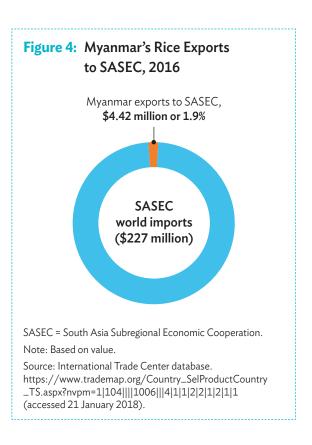
^a Based on quantity traded, 2012–2016.

Republic of the Union of Myanmar. National Export Strategy: Rice Sector Strategy, p. 1. Based on average value in 2014–2016. Source: International Trade Center database. https://www.trademap.org/Country_SelProductCountry_TS.aspx?nv pm=1|104||||1006|||4|1|2|2|1|2|1|1 (accessed 22 September 2018).

International Trade Center database. https://www.trademap.org/Country_SelProductCountry_TS.aspx?nv pm=1|104|||1006|||4|1|1|2|2|1|2|1|1 (accessed 21 January 2018).







Prospects for increasing rice exports, especially milled rice, to SASEC countries are favorable, particularly for Bangladesh, Sri Lanka, and Nepal. Myanmar exported less broken rice to Bangladesh (–34% per year in 2012–2016). In comparison, Bangladesh currently imports an average 294,000 tons of milled rice per year and volume has increased around 13% per year. Sri Lanka's import demand for milled rice has increased about 9% per year. Nepal's demand for milled rice has increased 29% per year, but its imports of other rice categories (mostly rice in husk) have decreased. In the short term (i.e., up to 3 years), Myanmar could continue to supply about 43,500 tons broken rice per year to Bangladesh, Nepal, and Sri Lanka and up to 84,300 tons in 2020, largely to Sri Lanka. On the other hand, projections suggest that the aggregate opportunity to supply these countries with milled rice is about 736,000 tons in 2020, and 1.67 million tons in 2025 (Figure 5). Improved milling and handling capacities and cost-efficient transport facilities would allow Myanmar to meet the high demand.

Table 2: Export Opportunities with SASEC Countries^a in Selected Rice Products (estimates)

Broken Rice ^b				Milled Rice	
Country/Year	Value (\$'000)	Amount (tons)	Country/Year	Value (\$'000)	Quantity (tons)
Bangladesh			Bangladesh		
2016	15	40	2016	129,000	300,000°
2020	1,229	3,277	2020	186,134	432,869
2025	1,952	5,206	2025	342,939	797,533
Nepal			Nepal		
2016	0	0	2016	61	162
2020	0	0	2020	54,335	200,553
2025	0	0	2025	194,154	716,437
Sri Lanka ^d			Sri Lanka		
2016	0	0	2016	0	0
2020	35,910	84,296	2020	88,327	102,230
2025	659,907	1,544,078	2025	135,901	157,293

SASEC = South Asia Subregional Economic Cooperation Program.

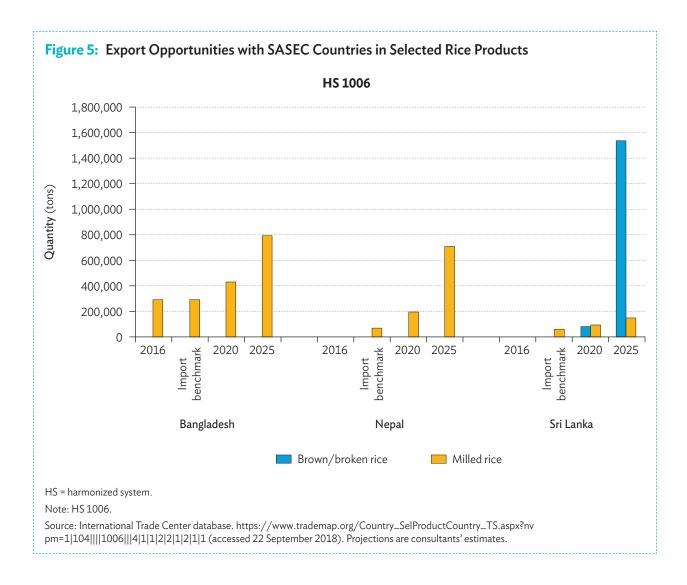
^a Based on selected rice products.

^b Brown rice exports to Bangladesh; broken rice exports to Sri Lanka.

^c Amount agreed in a memorandum of understanding between Myanmar and Bangladesh, September 2017.

d No trade in 2016, but Myanmar exported 40,357 tons of milled rice to Sri Lanka in 2014 and 9,475 tons in 2015. Unit value = \$348.

⁷ Broken rice has grains which have snapped or chipped during the milling process.

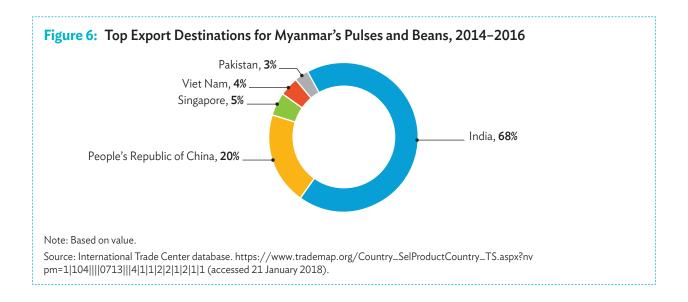


In the rice subsector, Myanmar needs more triple superphosphate fertilizer (TSP) to meet the increased demand for rice and other crops. Extraction of recoverable rock phosphate in Sri Lanka potentially could generate 23 million metric tons of TSP, and a value chain of TSP could link Myanmar with SASEC. The opportunity for another value chain involves rice bran oil, a fast-growing cooking medium in India. Myanmar could export rice bran oil in bulk or in retail packs to India and Bangladesh.

Ш

TRADE IN PULSES AND BEANS

Myanmar ranks seventh among countries that export pulses and beans, supplying 11.5% of exports worldwide in 2016.8 In the same year, exported pulses and beans totaled \$1.39 billion, about 12% of the country's total exports. Figure 6 shows the top destinations for pulses and beans exported by Myanmar.



In 2016, about 60% went to SASEC countries, nearly all to India; Bangladesh and Sri Lanka together accounted for less than 1% (Figure 7). During 2012–2016, altogether, SASEC countries imported an average \$3.6 billion worth of pulses and beans annually (more than 80% by India). Myanmar's export of pulses and beans to SASEC countries averaged \$778.5 million during 2012–2016, far below what the SASEC market, especially India, buys abroad. Myanmar's export to SASEC countries represents about 21% of global SASEC imports of pulses and beans. In 2016, Myanmar's export to SASEC countries amounted to 17% of SASEC's world imports (Figure 8).

Table 3 shows the composition of Myanmar's export of pulses and beans. More than two-thirds of its exports to India is comprised of black gram. India exerts an outsized influence on the price and production of pulses. When India virtually ceased importing chickpeas from Myanmar in 2013, Myanmar suffered a glut and the domestic prices of chickpeas slumped. In August 2017, India suspended its imports of pulses which caused another glut in Myanmar. Nonetheless, India remains an important market. Presently, the Government of Myanmar is negotiating a government-to-government trade arrangement with India. Additionally, Myanmar has developed a blueprint to help market expansion (i.e., growing other commercially viable crops and promoting local consumption of beans).

Product code HS 0713 ("dried leguminous vegetables, shelled, whether or not skinned or split"), which accounts for 97% of Myanmar exports under product group HS 07 (edible vegetables and certain roots and tubers).



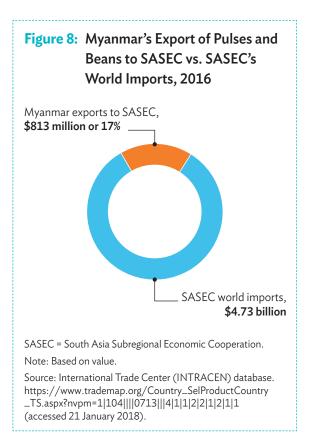


Table 3: Pulses and Beans: Basic Export Data, 2012-2016

HS Code	Product	Average Composition ^a (%)	Average Value (\$'000)	Average Annual Growth in Value (%)	Average Annual Growth in Quantity (%)
0713	Dried leguminous vegetables	100		7	
071320	Chickpeas/garbanzos	1	13.2	24	12.0
071331	Black gram	82	1,040.5	-3	-4.8
071333	Kidney beans	1	12.0	13	17.6
017360	Pigeon peas	11	133.1	-77	n.d.
071390	Green gram	5	66.0		49.0
071340	Shelled lentils	0	1.4	-41	-69.0
	Other	0	0.2		
	Total, 2016		1,390.0		
	Average, 2012-2016		1,266.4		

^{... =} data not available, HS = harmonized system.

Source: International Trace Center (INTRACEN) database. https://www.trademap.org/Country_SelProductCountry_TS.aspx?nv pm=1|104||||0713|||4|1|1|2|2|1|2|1|1 (accessed 22 September 2018).

^a Based on quantity traded, 2012–2016.

The potential for increasing pulse and bean exports to Bangladesh and Sri Lanka is good. In 2012–2016, Myanmar likely could have increased its 5-year average of exports to Bangladesh, from about 18,700 tons to about 31,000 tons. Based on 2016 values, projections suggest that, by 2020, chickpea exports to Bangladesh could reach 31,124 tons (about \$30.2 million) and black gram exports, 37,188 tons (about \$36.2 million). Sri Lanka could have increased its imports of black gram and chick peas from an average 7,810 tons to about 28,800 tons. Thus, projected imports in 2020 could reach about 65,500 tons (about \$80.1 million) (Table 4, Figure 9). Considering high demand and the prospect for exports, Myanmar may consider increasing its production of lentils, which is currently declining.

Table 4: Export Opportunities with Bangladesh and Sri Lanka in Selected Products of Pulses and Beans

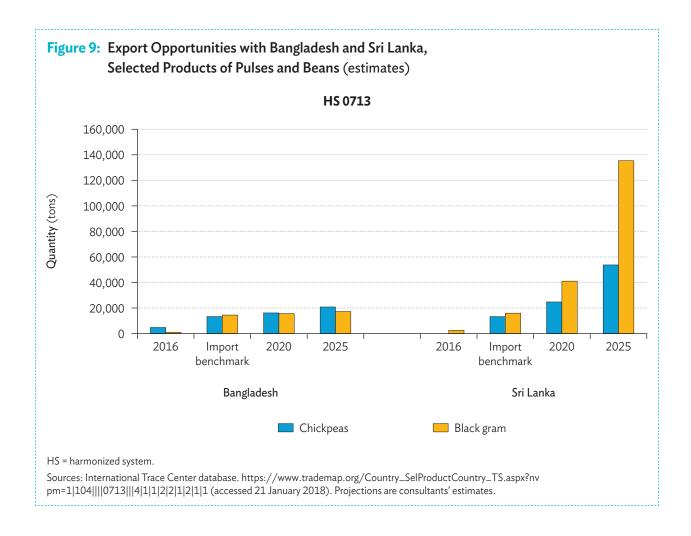
HS Code	Product	Country/Year	V alue (\$'000)	Quantity (tons)
071320	Dried shelled chickpeas	Bangladesh		
		2016	4,543	4,339
		2020	16,566	15,822
		2025	21,143	20,193
		Sri Lanka		
		2016	36	39
		2020	22,026	24,392
		2025	48,292	53,479
071331	Dried shelled beans	Bangladesh		
		2016	365	413
		2020	13,607	15,392
		2025	15,023	16,994
		Sri Lanka		
		2016	5,127	1,859
		2020	58,721	41,063
		2025	194,006	135,668

HS = harmonized system.

Sources: International Trace Center (INTRACEN) database. https://www.trademap.org/Country_SelProductCountry_TS.aspx?nv pm=1|104||||0713|||4|1|2|2|1|2|1|1 (accessed 21 January 2018). Projections are consultants' estimates.

Pulses and beans show potential for a resource-to-industry value chain. Larger volumes of milled rice and processed feed could help meet the demand for oilcake and animal feed. Myanmar currently imports residues and waste from the food industry and prepared animal fodder, valued at \$184.6 million in 2016.

⁹ In 2016, the unit price for Myanmar exports to Bangladesh was \$1,047 for shelled chickpeas and \$884 for black gram.

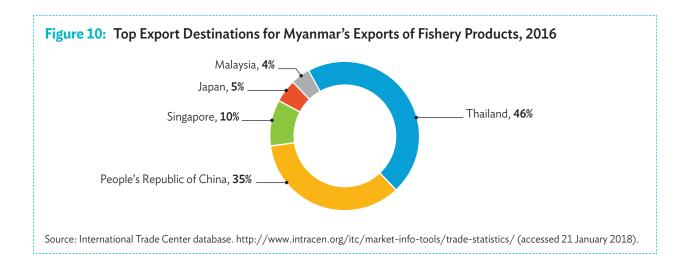


India exported about 22% to Myanmar in 2012–2016, but only about 6% in 2016; other suppliers included the United States (23%), Singapore (11%), Brazil (10.6%), and Viet Nam (10.2%). Since 2012, the quantity and value of such imports have increased in Myanmar by 98% and 46%, respectively. Given India's advantage in lower unit prices, Myanmar could import more selective types of oilcakes and animal feed preparations from India, potentially saving about \$6.8 million on oilcake compared with supplies from other sources. Additionally, Myanmar may explore the possibility of establishing a re-export trade with India for processing its pulses and beans into oilcakes for domestic consumption. Moreover, processing and exporting extruded pulses (e.g., pastas and meat substitutes) and other food preparations (e.g., dough mixes, dried and canned soups, packaged snacks, etc.) rather than whole or split beans and pulses could help establish another industry link. In 2016, SASEC countries traded \$110 million of cereal-based food preparations (e.g., flour, pastas, etc.) among themselves.

¹⁰ Replacing supplies for 52% of oilcakes from extracts of soya residues and 62% of oilcakes from extracts of vegetable fats/oils.

Fishery products (i.e., fish, crustaceans, mollusks, and other aquatic invertebrates) ranked sixth to seventh among Myanmar's top exports in 2014–2016. In 2016, fishery exports totaled 388,115 tons valued at \$538 million (about 0.5% of all exports). This reflects the annual average in 2012–2016. During the same period, world imports of fishery increased 2% per year, led by the United States, Japan, and the People's Republic of China (PRC). However, values for Myanmar decreased 7% per year, partially due to diminishing supplies caused by production issues and a financial crisis a few years ago. 12

Top destinations for Myanmar's exports of fishery products include Thailand, the PRC, Singapore, Japan, and Malaysia (Figure 10).



On average, fishery exports to SASEC countries totaled around \$9.2 million in 2012–2016 before increasing to \$11.5 million average in 2014–2016, accounting for about 2% of Myanmar's global exports and only about 3.7% of SASEC global imports of fish and crustaceans (Table 5, Figures 11 and 12).

Due to import demand patterns and trends within SASEC, Bangladesh, India, and Sri Lanka offer significant export opportunities for Myanmar. In 2016, Myanmar could have increased its fishery exports (especially fresh, chilled, and frozen fish; processed fish; and molluscs) to Bangladesh from 5,859 tons to about 39,000 tons. Except for processed fish, unit values for Myanmar products are higher compared to other suppliers. Thus, market penetration efforts may require Myanmar to reconsider current price points for similar products.

Harmonized System (HS) 03. Source: International Trade Center database. http://www.intracen.org/itc/market-info-tools/trade-statistics/(accessed 21 January 2018). For production by species, see Republic of the Union of Myanmar. National Export Strategy: Fisheries Sector Strategy, p. 14.

Myanmar Fisheries Federation. Reviews on Myanmar Fisheries and Sub-Sectors Developments. Note provided to the ADB consultancy team, December 2017.

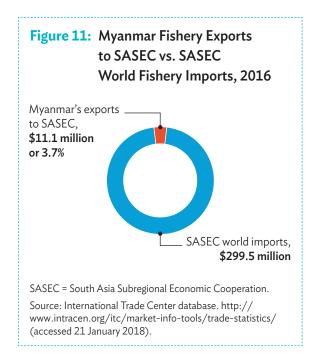
Based the level of Bangladesh world imports, provided that it is within Myanmar's capacity to supply this amount.

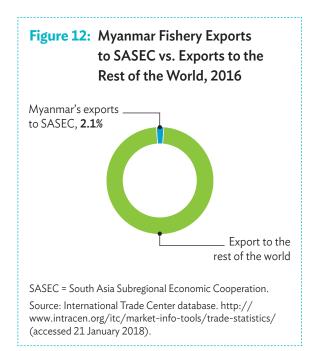
Table 5:	Fishery Products:	Basic Export	Data, 2012-2016
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HS Code	Product	Composition ^a (%)	Average Value (\$ million)	Annual Growth (%)
03	FISH AND CRUSTACEANS	100.0		7.0
0301	Live fish	13.6	73.3	-15.0
0302	Fresh or chilled fish	50.2	270.0	-10.0
0303	Frozen fish	1.3	6.8	114.0
0304	Fish fillets	0.1	0.8	6.07
0305	Processed fish food	5.0	26.7	5.0
0306	Crustaceans	28.0	149.8	-3.0
0307	Mollusks	1.8	8.8	156.0
0308	Aquatic invertebrates	0.0	0.0	167.0

HS = harmonized system.

Source: International Trade Center database. http://www.intracen.org/itc/market-info-tools/trade-statistics/ (accessed 3 October 2018).





Historically, Myanmar has conducted almost no fishery trade with Sri Lanka. However, Sri Lanka is a huge potential export market due to import quantity averaging \$124 million in 2012–2016 and accounting for half of all fishery imports in SASEC. Myanmar can anticipate exporting up to 44,500 tons of fishery products to Sri Lanka, mostly processed fish for table consumption and frozen fish. Compared to other suppliers, the unit value for processed fish from Myanmar is low and thus offers an import advantage for Sri Lanka. Although Sri Lanka is importing less processed fish, Myanmar still has an opportunity to export up to about 12,900 tons (\$15.5 million) of processed fish in 2020 (Table 6, Figure 13).

^{*} Based on average quantity exported in 2012–2016.

Table 6: Myanmar Export Opportunities with SASEC Countries in Selected Fishery Products

HS Code	Product	Country/Year	Value (\$'000)	Quantity (tons)
0302	Fish, fresh or chilled ^a	Bangladesh		
		2016	1,646	1,012
		2020	12,543	18,806
		2025	11,929	17,884
		India		
		2016	0	0
		2020	0	0
		2025	0	0
		Sri Lanka		
		2016		
		2020	0	0
		2025	0	0
0303	Frozen fish ^a	Bangladesh		
		2016	2,896	1,807
		2020	12,425	13,723 ^b
		2025	13,718	15,151
		India	,	
		2016	429	184
		2020	171,473	39,455
		2025	171,473	39,455°
		Sri Lanka ^d	,	,
		2016	0	0
		2020	102,601	77,028
		2025	102,601	77,028
0304	Fish fillets, and other	Bangladesh	,	,
0304	fish meat	2016	0	0
		2020	0	0
		2025	0	0
		India	Ŭ	
		2016	0	0
		2020	38,262	24,765
		2025	136,684	88,469
		Sri Lanka	150,007	00,402
		2016	0	0
		2020	0	0
		2025	0	0
		2023	U	U

continued next page

Table 6: Continued

HS Code	Product	Country/Year	V alue (\$'000)	Quantity (tons)
0304	Fish fillets, and other	Bangladesh		
	fish meat	2016	0	0
		2020	0	0
		2025	0	0
		India		
		2016	0	0
		2020	38,262	24,765
		2025	136,684	88,469
		Sri Lanka		
		2016	0	0
		2020	0	0
		2025	0	0
0305	Fish, fit for human consumption, dried, salted, or in brine; smoked fish, fit for human consumption	Bangladesh		
		2016	2,437	2, 823
		2020	18, 019	19,468
		2025	183,116	197,835 ^d
		India		
		2016	8	10
		2020	2,621	3,275
		2025	5,271	6,589
		Sri Lanka		
		2016	0	0
		2020	15,540	12,939
		2025	2,908	2,421

HS = harmonized system, SASEC = South Asia Subregional Economic Cooperation.

Sources: International Trade Center (INTRACEN) database. http://www.intracen.org/itc/market-info-tools/trade-statistics/ (accessed 21 January 2018). Projections are consultants' estimates.

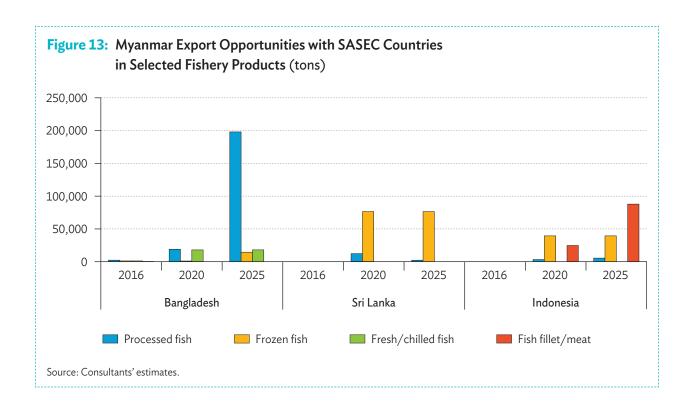
^a Excluding HS 0304 (Fish fillet and other fish meat...).

^b At 82% growth per year, projected imports in 2025 total 787,884 tons, possibly exceeding the limit of export supply in Myanmar. Projections suggest that values in 2025 will remain at the 2020 level.

^c Unit values based on Myanmar's world export price: processed fish = \$1,201; frozen fish = \$1,332.

^d Sri Lanka: estimated growth rates for HS 0303 and HS 0305 and total 57% and –18% per year, respectively. Because limited supply in Myanmar may not support the projection for HS 0303 (734,764 tons in 2025), the quantity projection was maintained at the 2020 level. Myanmar's total export in 2016 was 388,115 tons.

^e Estimate of compounded annual growth rate for quantity based on 2012–2016 data is 59% per year. The projection for 2025 is quite high and could strain supply limit.



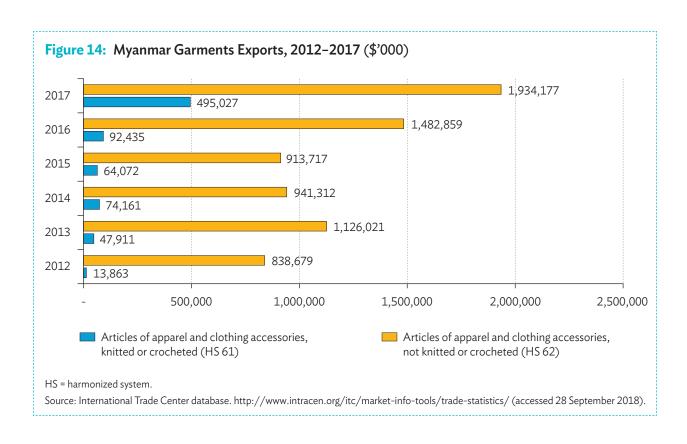
Fishery trade with India mostly comprises fresh or chilled fish (54%) and live fish (34%). However, India has decreased its imports of fresh or chilled fish significantly, both in quantity and value (-12% and -11% per year, respectively). Products with high positive growth include processed fish, fish fillets, and frozen fish. Myanmar has an opportunity to fill this demand with products that coincide with its export strategy. Based on the 5-year average of India's imports and Myanmar's exports, projections suggest that Myanmar can supply about 67,500 tons (\$212.4 million) of fishery products across the three categories, but mostly frozen fish.

Envisioned to include food and seafood processing, a planned industrial node in Dawei will boost the fishery value chain. Fishery is the main economic activity in the Tanintharyi region, particularly in Dawei and Myeik.

Myanmar may also consider supplying fish to the fish processing industry in Maldives during May–September, when its facilities are underutilized. An opportunity identified during preparation of the SASEC Vision document in February 2017 suggests that Maldives may import about 3,700 tons of fresh fish per month.

V TEXTILES AND GARMENTS

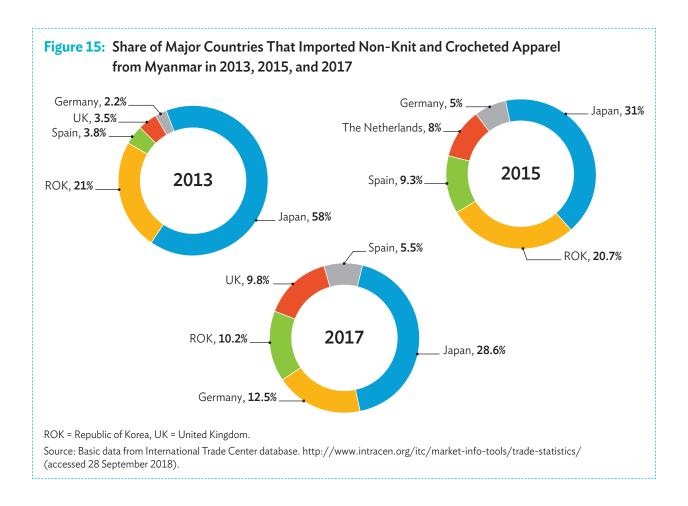
Textiles and garments are future drivers of growth in Myanmar, and garments represent the only type of exported manufactured goods that connect Myanmar with other global and regional production networks. The share of garment exports increased from 9.4% in 2012 to 13.5% in 2016 and 17.5% in 2017. Apparel exports increased an average 32% during 2012–2017. Myanmar garment exports mainly comprised knit (HS 61) and non-knit (HS 62) apparel and clothing accessories. During 2012–2017, non-knit apparel accounted for 86% of garments exports on average compared to 12% for knitted and crocheted apparel (Figure 14).



Major export markets for non-knit apparel include Japan, the Republic of Korea, Germany, the United Kingdom (UK), and Spain (Figure 15). Exports to Europe have increased in recent years. In Asia, Myanmar competes with the PRC and Bangladesh, which are among the top garment exporters worldwide. During 2012–2016, the PRC supplied around 33% of world exports vs. around 6% from Bangladesh. Other top Asian exporters include Viet Nam (4.8%); India (4.1%); and Hong Kong, China (around 4%). 14

Share of world exports in 2012–2016.

In comparison, Myanmar is a very small player, with less than 1% share of world apparel exports and ranking 76th worldwide. Although India, Bangladesh, and the PRC are among the top global exporters of garments, their major products and markets differ from those of Myanmar's garment industry, which has substantial leeway to diversify both its product mix and export markets.



The NES aims to (i) export more than \$10 million of garments to 12 of the top 25 markets, (ii) exceed 1% market share in five markets, (iii) export more than \$50 million worth of garments to the US, and (iv) quadruple the value of garments exports by 2020. To achieve these targets, Myanmar can use trade opportunities in SASEC by (i) sourcing raw materials from India, and (ii) leveraging labor costs and availability to attract regional investments.

A. Sourcing Imported Materials from India

In 2012–2016, major export markets for Myanmar garments were Japan (40%) and the Republic of Korea (27%). Although India, Bangladesh, and the PRC are among the top global exporters of garments, their major products and markets differ from garments produced by Myanmar, which has substantial leeway to diversify both its product mix and export markets.

Myanmar's short-term strategy for garment exports (2015–2019) involves penetrating current markets by expanding existing products; in the medium- to long-term, it aims to shift to new "mega" markets (e.g., the US and the European Union). Myanmar also contemplates a shift from non-knit products to knit products that would cater to these markets. The strategy also plans to transition from cut-make-pack (CMP) manufacturing to free on board (FOB). FOB requires competitively priced raw materials. However, domestic capacity for manufacturing textiles and textile articles (i.e., yarns and fabrics) is very limited due to long-term domination by state-owned enterprises and a focus on the domestic market.

Independent sourcing of fabrics, fibers, and other textile articles will gain importance as Myanmar transitions to FOB manufacturing. In 2016, most imported textiles and textile articles were made from artificial staple fibers (63%) and cotton (12%).

Table 7: Imported Textiles and Textile Articles, 2012–2016

HS Code	Product	Cumulative Value (\$'000)	Share of Product Imports (%)	Annual Growth in Value (%)
50-60	IMPORTS	2,803,706	100.0	
50	Silk	2,055	0.1	1
51	Wool; fine or coarse animal hair; horsehair yarn; woven fabric	105,446	3.8	58
52	Cotton	348,184	12.4	10
53	Other vegetable textile fibers; paper yarn; fabrics woven from paper yarn	1,951	0.1	74
54	Artificial filaments; strip and the like of artificial textile materials	207,742	7.4	42
55	Artificial staple fibers	1,775,652	63.3	4
56	Wadding, felt, and nonwovens; special yarns; twine, cordage, ropes and cables and articles thereof	84,925	3.0	16
57	Carpets and other textile floor coverings	21,173	0.8	21
58	Special woven fabrics; tufted textile fabrics; lace; tapestries' trimmings; embroidery	189,705	6.8	19
59	Impregnated, coated, covered, or laminated textile fabrics; textile articles of a kind suitable	39,536	1.4	18
60	Knitted or crocheted fabrics	27,337	1.0	9

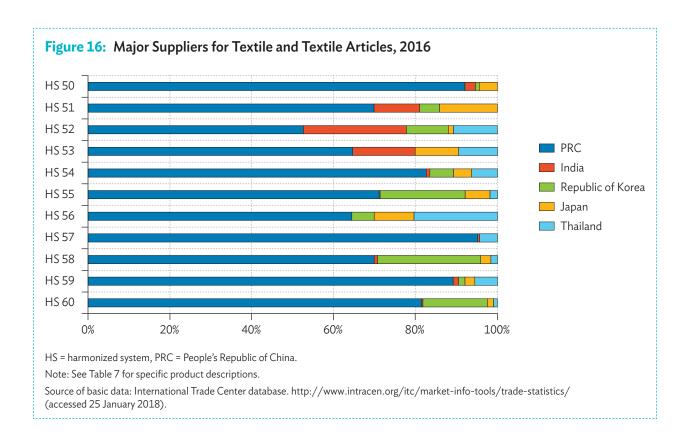
HS = harmonized system.

Source: International Trade Center database. http://www.intracen.org/itc/market-info-tools/trade-statistics/ (accessed 15 February 2018).

Republic of the Union of Myanmar. National Export Strategy Textiles and Garments Sector Strategy 2015–2019.

¹⁶ In CMP, buyers procure fabrics and other materials for assembly in Myanmar and subsequent re-export. In FOB, manufacturers independently procure raw materials from international vendors.

The PRC currently supplies most of these imports (50%–80% in most categories). The PRC is the major source of artificial fibers (i.e., filaments, staple fiber, and special woven). In 2016, the PRC supplied 46.7% of Myanmar's cotton imports, followed by India (22%). During 2012–2016, annual growth in the value of cotton imports from India was 36% compared with 12% for the PRC. Although India is the sixth leading exporter of artificial fibers, Myanmar imported less than 1% of such products from India in 2016 (Figure 16).



Already a major source of cotton imports, India offers further possibilities as a source of artificial staple fibers. Compared to the PRC, India's unit prices are lower for 12 product categories broadly classified as cotton and 4 product categories broadly classified as artificial staple fibers. Although such differences suggest a price advantage, Myanmar should consider transport and other trade costs because most of its trade with the PRC is cross-border. Potentially, however, importing artificial staple fibers and cotton from India could reduce costs.¹⁷

Based on projected imports, historical growth rates suggest estimated cost savings for cotton products totaling \$10.3 million per ton by 2020 and \$61.3 million per ton in 2025. For artificial fibers, cost savings are estimated at \$55.2 million per ton in 2020, and \$383 million in 2025 (Table 8, Figures 17 and 18). Based on its medium-term strategy to tap new markets in the US and Europe, Myanmar's increasing focus on knit apparel will probably alter the current import structure for textile and textile articles.

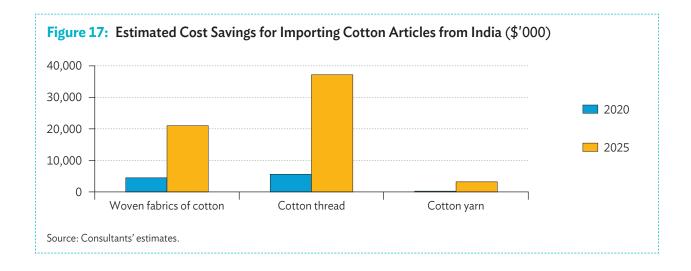
Savings represent the difference between the unit values of imports of a given product imported from India and the unit value of the same product imported from the PRC.

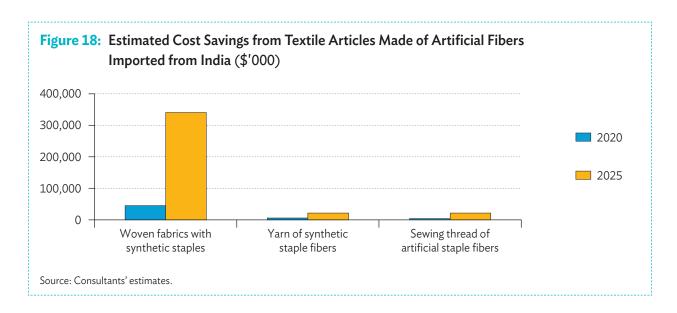
Table 8: Estimated Cost Savings of Importing Cotton and Artificial Fibers from India

Cotton (\$'000)			Artificial Staple Fibers (\$'000)				
Product	2016	2020	2025	Product	2016	2020	2025
Woven cotton	1,293	4,477	21,006	Woven fabrics with synthetic staples	9,142	45,144	340,628
Cotton thread	1,244	5,604	37,178	Yarn of synthetic staple fibers	2,180	6,038	21,570
Cotton yarn	53	228	3,177	Sewing thread of synthetic staples	1,049	4,030	21,676
Total	2,590	10,309	61,361	Total	12,371	55,212	383,874

Note: Cost savings are estimated by multiplying the difference in unit values between India and the People's Republic of China in product categories where unit values for India are lower, with the projected value of imports using annual average growth rate from 2014–2016.

Source: Consultants' estimates.





B. Leveraging Labor Cost and Availability to Attract Regional Investments

Given present weaknesses in the domestic finance and capacity limitations of private enterprises, achieving the garments target set by the NES will require substantial foreign direct investments (FDI). Likely sources of FDI include (i) major (i.e., Japan and the Republic of Korea) and potential markets (i.e., the US and the European Union) for CMP production; and (ii) major exporters, particularly in Asia, who are either moving up the value chain or losing competitiveness due to rising costs. The first group includes Bangladesh, India, the PRC and Sri Lanka, which are experiencing rising wage costs and are likely to outsource to Myanmar due to proximity. Geography also provides competitive space for investors who want to tap the PRC and Southeast Asian markets. The US, European, and East Asian investors in Bangladesh are prospective investors in Myanmar. The NES refers to potential increases in garment FDI originating in Bangladesh and the PRC.

The Myanmar Garment Manufacturers Association valued total investment in garments at \$1.7 billion in 2015, representing an 8.7% year-on-year increase. In 2016, total investment was \$2.2 billion. FDI in the garment industry grew from 26.5% total inward FDI in 2013 to 27.4% in 2014 and 29% in 2015.

The association estimates that achieving targeted export revenues (\$8 billion-\$10 billion) will require around 800 firms. Assuming an average of 1,200 workers per firm, local and foreign investment in 300 additional firms would create 360,000 jobs and generate \$428 million by incremental employment earnings in 2020.



Tourism has grown dramatically in Myanmar. In 2015, international visitor arrivals peaked to 4.68 million, up 129% from 2013. However, tourist arrivals declined to 2.9 million in 2016. Asians comprised around 68% of visitors in 2016, mostly from Thailand (19%), the PRC (14%), and Japan (8%).

The World Travel and Tourism Council (WTTC) placed tourism's direct contribution ¹⁹ to GDP at 3.0% in 2016, up 1.6% in 2013, and projected a 3.2% increase in the sector's contribution to GDP in 2027. In its long-term forecast (2017–2027), the WTTC projected 7.4% growth per year for Myanmar, second highest among 185 countries. Spending by foreign tourists generated \$2.257 million (26.4%) of total exports in 2016 and was forecast to reach \$5.2 billion in 2017 (37.6 of total exports). ²⁰ The sector directly supported 804,000 jobs (2.7% of total employment) in 2016. By 2027, tourism is estimated to generate 1.3 million jobs (3.9% of total employment).

Table 9: Tourism Growth Forecast

	2	2016	2027	
	Value	Shares	Value	Shares
International tourist arrivals	2.907 million	NA	16.7 million	NA
Direct contribution to GDP	\$2.1 billion	3.0% of GDP	\$4.5 billion	3.2% of GDP
Visitor exports	\$2.26 billion	26.4% of total exports	\$5.2 billion	37.6% of total exports
Employment generated	804,000	2.7% of total employment	1,296,000	3.9% of total employment

GDP = gross domestic product, NA = not applicable.

Sources: For international tourist arrivals, 2015: Myanmar Tourism Statistics 2016. https://tourism.gov.mm/wp-content/uploads/2017/08/Myanmar-Tourism-Statistics-2016-1.pdf.

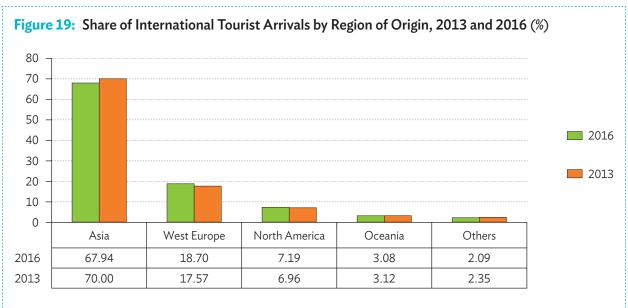
All other data: World Travel and Tourism Council. Travel and Tourism Economic Impact 2017. Myanmar Country Report. https://www.wttc.org/-/media/files/reports/economic-impact-research/countries-2017/myanmar2017.pdf.

Although Asia continues to send the most tourists to Myanmar in absolute terms, the share of Asian tourists has declined and been outnumbered by European and North American tourists since 2013. In 2013–2016, the West European tourists increased by 50% and the North American tourists by 46% (Figure 19).

¹⁸ Myanmar Tourism Statistics 2016. https://tourism.gov.mm/wp-content/uploads/2017/08/Myanmar-Tourism-Statistics-2016-1.pdf.

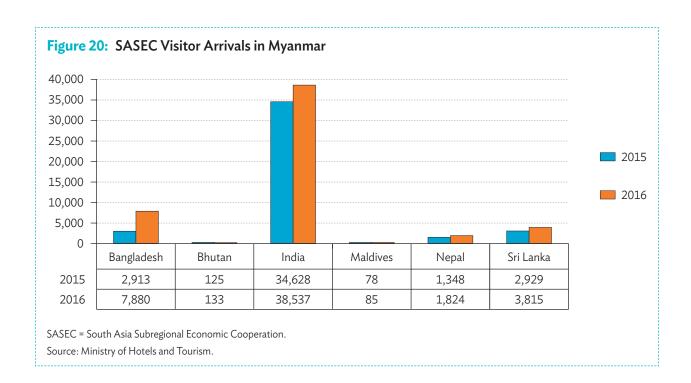
The direct contribution of travel and tourism to GDP reflects "internal" spending on visitor exports by residents and nonresidents for business and leisure purposes as well as "individual" spending by government on services directly linked to visitors, such as cultural (e.g., museums) or recreational (e.g., national parks). World Travel and Tourism Council. Travel and Tourism Economic Impact 2017. Myanmar Country Report. https://www.wttc.org/-/media/files/reports/economic-impact-research/countries-2017/myanmar2017.pdf.

Visitor exports indicate money spent by foreign visitors. This is a key component of the direct contribution of travel and tourism to GDP. World Travel and Tourism Council. Travel and Tourism Economic Impact 2017. Myanmar Country Report. https://www.wttc.org/-/media/files/reports/economic-impact-research/countries-2017/myanmar2017.pdf.



 $Sources: Myanmar\ Tourism\ Statistics, 2013.\ http://www.tourism.gov.mm/wp-content/uploads/2017/06/myanmar-tourism-statistics-2013.\ pdf; Myanmar\ Tourism\ Statistics\ 2016.\ https://tourism.gov.mm/wp-content/uploads/2017/08/Myanmar-Tourism-Statistics-2016-1.pdf.$

Although SASEC countries presently comprise only a small share of the Myanmar tourism market, tourists from the region have increased, notably those from Bangladesh, Sri Lanka, and Nepal. In 2015–2016, SASEC visitors increased 24%, to 52,274 in 2016 (Figure 20). Tourists from India accounted for 3.03% of international arrivals to Myanmar in 2016, up from 2.34% in 2013. The National Tourism Strategy includes India as a target market. Interestingly, Myanmar visitors to India are also increasing, from 25,043 in 2011 to 55,341 in 2015 (a 120% increase over 5 years).



Myanmar can leverage its vast tourism potential by actively participating in SASEC's flagship initiative, which identifies three theme-based circuits for Myanmar: religious tourism, ecotourism, and sea and river cruise tourism. These products broadly coincide with new products under development in the NES. Participating in these circuits and developing new circuit-related products and destinations can provide opportunities to create synergies with the region's vast tourism potential. While themed circuits generally cater to the varied interests of global tourists, they could also attract more SASEC visitors, potentially reaching around 123,500 and translating into an incremental tourist spending totaling \$114.2 million by 2020. Such projections assume an annual increase of 24% in SASEC tourist arrivals.

Products and destinations that could be covered by the SASEC flagship initiative for tourism²¹ include

- religious sites such as Yangon, Mandalay, Bagan, Mrauk U, and the three Pyu city states (Beikthano, Hanlin, Sri Kestra), which offer landmark temples and pagodas. The city states date to prehistoric times. Yangon, Mandalay, and Bagan attract the greatest number of tourists and serve as entry points to other places of interest within the country. For ecotourism, Myanmar is currently promoting Nat Ma Taung National Park and Mt. Victoria in Chin State;
- sea and river tourism in collaboration with SASEC countries. In 2015, 26 cruise ships docked in Myanmar, carrying 26,776 tourists. International tourist arrivals via cruise ships increased 118% between 2012 and 2015. Mergui (or Myeik) Archipelago is a popular destination for cruise travelers. Tourist arrivals by riverine cruises have increased 42% between 2012 and 2015; and
- destinations along the Bay of Bengal (e.g., beaches in Ngapali and Ngwe Saung) and farther south near the Andaman Sea (e.g., Kawthaung and Chuang Tha) are among the top destinations in Myanmar.
 These can be promoted to tourists from SASEC countries.

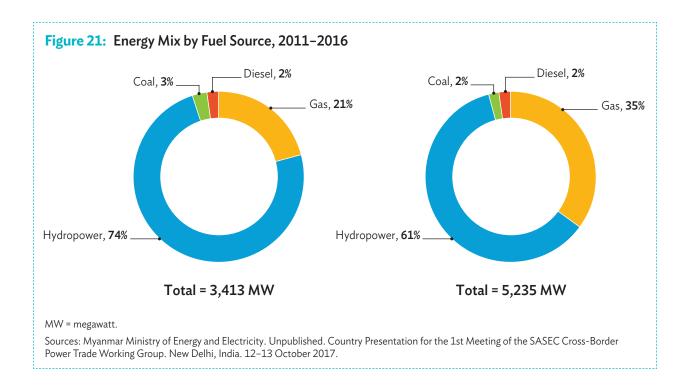
Transport connectivity will be a vital part of realizing the potential synergies of regional tourism in SASEC. Tourists in Myanmar increasingly arrive by land, likely because the PRC and Thailand are the largest tourist markets. Myanmar will need greater air connectivity if more of its visitors are to come from Western Europe and North America. Improved connectivity will also link tourism markets within the SASEC subregion. Based on data from 2013, there are fewer scheduled flights to Myanmar from South Asia than from other parts of Asia.

²¹ ADB 2017b.



A. Potential Role in Regional Power Trade

Myanmar has abundant energy resources, particularly hydropower and natural gas. Its hydropower potential can yield up to 100 gigawatts (GW) of installed capacity. In 2010–2016, gas and hydropower plants dominated Myanmar's power mix, ranging from 95% to 96% of all resources; however, gas share rose (from 21% to 35%) and hydropower's share declined (from 74% to 61%) (Figure 21).



Robust economic growth and rapid expansion in construction, manufacturing, and services has increased the demand on Myanmar's power system from 1.6 GW in 2011 to 2.62 GW in 2016. Forecasts indicated further growth to 3.8 GW–4.5 GW by 2020 and 5.9 GW–8.1 GW by 2025 (Table 9). Presently, Myanmar exports power to the PRC and imports a small amount of power from India.

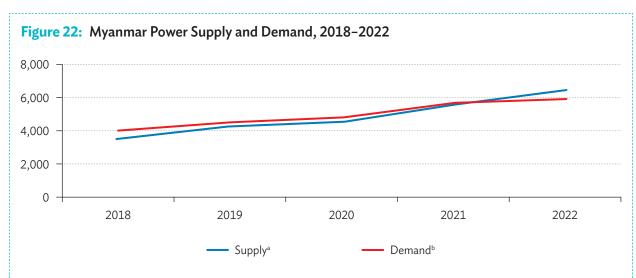
Table 10: Electricity Demand (MW)

Actual Demand		Projected Demand			
Year	MW	Year	Low MW	High MW	
2011	1,600	2018	3,173	3,587	
2012	1,850	2020	3,862	4,531	
2013	2,055	2025	5,930	8,121	
2016	2,617	2030	9,100	14,542	

MW = megawatt.

Source: Myanmar Ministry of Energy and Electricity. Unpublished. Country Presentation for the 1st Meeting of the SASEC Cross-Border Power Trade Working Group. New Delhi, India. 12–13 October 2017.

At the same time, rapid socioeconomic development in SASEC has increased the demand for reliable and stable energy supply. Consequently, some SASEC countries anticipate energy deficits. By tapping hydropower from Bhutan, Nepal, and eventually Myanmar, cross-border trade can help solve the risk of energy deficits and promote the reliability and stability of the energy supply that is necessary for higher growth, productivity, and access. However, the government's priority of meeting domestic demand may make pursuing these opportunities unfeasible in the short to medium term (Figure 22).

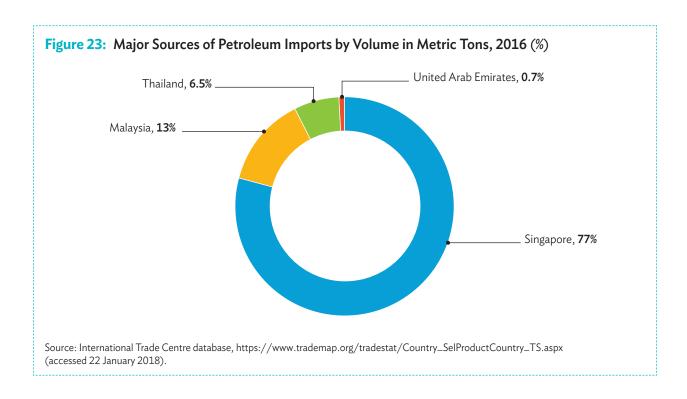


- ^a Previous year's generation, plus supply from new projects.
- ^b Demand plus possible additional power requirement.

Source: Myanmar Ministry of Energy and Electricity (Unpublished, 12–13 October 2017). Country Presentation for the 1st Meeting of the South Asia Subregional Economic Cooperation (SASEC) Cross-Border Power Trade Working Group. New Delhi, India.

B. Procuring Refined Petroleum Products

Although Myanmar was among the earliest oil producers worldwide, its crude production and refining capacity have not kept pace with the growing demand for petroleum products. Rapid growth and below-capacity operation of local refineries has made Myanmar a net importer of petroleum products. Imported petroleum products, mainly from Singapore, Malaysia, Thailand, and the United Arab Emirates (Figure 23) comprised 10.5% of total imports in 2016.



In the medium term and before planned investments in oil refineries begin to produce the required volume of petroleum products, Myanmar may consider importing such products from India. India's Northeast region, which borders Myanmar, and its East Coast Economic Corridor (ECEC) have developed significant refining capacity (over 7 million metric tons [MMT] per year in 2015), and planned capacity expansion will yield 10 MMT per year by 2025. India already ships diesel from the Numaligarh Refinery in Assam to northwestern Myanmar via tankers. Development of the Imphal–Moreh Road and the Trilateral Highway will boost the supply of refined petroleum products from northeastern India to Myanmar.

Importing refined petroleum products via pipelines from India's Northeast region to northern Myanmar could be cost-effective, but it would require investment in a pipeline passing through challenging topography toward the populous middle and southern regions of Myanmar. Detailed studies are needed to determine the feasibility of importing petroleum products via pipelines or through ports in the ECEC.

ACCESSING TECHNOLOGY FOR A DIGITAL ECONOMY

Myanmar envisions establishing itself as a knowledge, digital, and innovation hub to enable multisector digital transformation as a means toward inclusive growth. Under the oversight of the Digital Economy Development Committee, the Digital Economy Development Master Plan aims to develop and regulate the country's booming digital economy. The Ministry of Transport and Communications estimates that Myanmar has 46.39 million internet users, with internet penetration reaching 89% of the population. The population is relatively young and very adaptive to technological innovation.

Beneficiaries will include key sectors (e.g., healthcare, education, agriculture, and trade) as well as the country's burgeoning small and medium-sized enterprises, making them more competitive with neighboring countries and the larger international community. An e-Governance Master Plan, which includes promotion of e-commerce, ensures that Government to Government, Government to Business, and Government to Citizen services will meet the utility needs of citizens and businesses. The overarching goal is to provide universal access and ensure that all people are able to use telecommunication services, particularly in rural and remote areas and poorer households.

SASEC provides an opportunity for Myanmar to connect westward for digital technology, complementing its current participation in ASEAN ICT initiatives. Apart from the national fiber backbone and submarine cables, Myanmar is working to develop cross-border fiber networks with India, the Lao PDR, the PRC, and Thailand. India is working on projects with ASEAN countries, including Myanmar, to develop digital connectivity infrastructure and increase broadband penetration in Cambodia, the Lao PDR, and Viet Nam. Additionally, India is working to establish the Centre of Excellence for Software Development and Training in some ASEAN countries. Cybersecurity, big data, and cloud computing solutions could benefit from India's expertise. Myanmar can also expand e-commerce platforms for Business to Business (B2B) transactions with SASEC countries, thus enhancing market connectivity.

Geographically, Myanmar's long coastline (2,228 kilometers [km]) dominates the Bay of Bengal and provides the closest and most direct points of maritime connection between South Asia and Southeast Asia. Seaborne (82%) and land-based (15%) trade accounts for 82% of Myanmar's import cargo. For exports, 32% of trade is transported by sea, another 41% (primarily exports of natural gas) transported via pipelines; and 23% by land (Table 11).

Table 11: Myanmar Trade by Transport Mode, 2014–2015

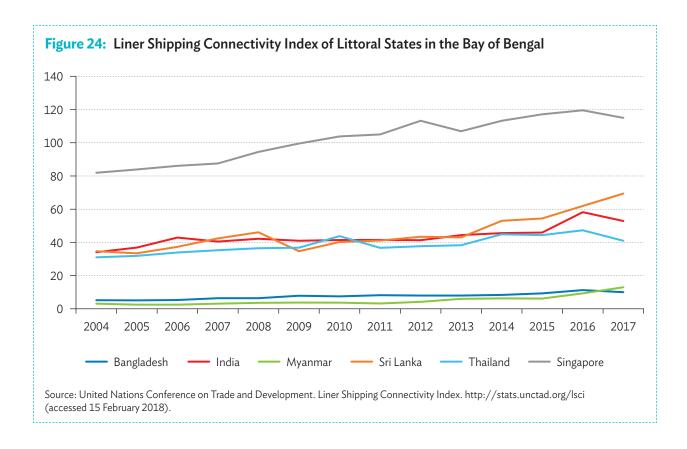
	Imports		Exports		Total Trade	
Mode	Value (\$'000)	Share of total imports (%)	Value (\$'000)	Share of total exports (%)	Value (\$'000)	Share of total trade (%)
Sea	13,610	82	3,993	32.0	17,717	60.4
Land	2,492	15	2,822	23.0	5,352	18.2
Air	528	3	531	4.2	1,066	3.6
Pipeline ^a	0	0	5,178	41.0	5,219	17.7
Total	16,630	100	12,524	100.0	29,354	100.0

^a Exports of natural gas via pipelines.

Source: Myanmar Statistical Yearbook 2015. http://www.csostat.gov.mm/csocd.asp.

However, connectivity among the littoral states is limited and faces several constraints, including (i) draft restrictions; (ii) capacity limitations; (iii) vessel-related conditions; (iv) weaknesses in port interfaces (i.e., road, rail, inland waterways, and coastal shipping links to ports); and (v) low-level performance of port operations. SASEC provides Myanmar with an opportunity to establish maritime transport links in the Bay of Bengal, which has the strategic potential to increase cargo traffic in its ports and enable port cities to develop and prosper. On a larger scale, development of the maritime market in the Bay of Bengal can contribute to participation by South Asia and Southeast Asia in regional production networks, thus increasing competitiveness.

Among the littoral states in the Bay of Bengal, Myanmar is the least connected to international shipping networks. Based on UNCTAD's liner service connectivity index, Myanmar's index was lower than those of India, Sri Lanka, and Bangladesh, and unchanged from 2004 to 2014. However, the index increased twofold between 2004 (3.1) and 2015 (6.2) and climbed further in 2016 (9.3) and 2017 (13.0) (Figure 24).



Current plans for developing maritime transport focus on (i) developing inland water and seaports by enhancing port handling facilities, including building container terminals and inland container depots; and (ii) improving port linkages with the hinterlands through support infrastructure (i.e., roads and rail); and (iii) developing adjacent special economic zones. Investments in such activities can benefit further from tapping opportunities in SASEC through collaborative improvements in connection between domestic shipping and regional and international services.

A. Linking Domestic Shipping with Regional and International Services

A central issue for shipping in the Bay of Bengal involves policies on trade or transport in cabotage (i.e., domestic coastal waters). All four countries around the Bay of Bengal have varying cabotage regulations and enforce them in different ways. Myanmar reserves its inland waterways and domestic trade for ships, barges, and craft registered and operated by domestic owners. However, its share of coastal cargo to total traded cargo volume remained at less than 10% for exports and less than 5% for imports during 2010–2015, partially due to insufficient cargo to motivate expansion of coastal shipping.

SASEC could provide the regional platform for coastal shipping. Discussions about a regional coastal shipping framework agreement are already ongoing under the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation Program, where Myanmar is a participating member. The framework agreement aims to facilitate coastal shipping in the region, thereby boosting trade between the member countries. As Bangladesh and India work to implement a bilateral agreement on coastal shipping, India has proposed a similar agreement with Myanmar. Myanmar would like to conclude the regional framework agreement before discussing any bilateral agreement.

B. Promoting Direct Liner Services for Container Cargo

Lacking low-cost containerized shipping linkages with global and regional industrial nodes in Southeast Asia and East Asia, Myanmar cannot achieve its goal of integrating with global production networks. Most containers in the major ports of the Bay of Bengal are transshipped through Colombo, Sri Lanka; Singapore; and Port Klang and Tanjung Pelepas in Malaysia. Despite limitations in port container capacity, the volume of container cargo handled in Myanmar ports increased significantly, averaging 20.3% in 2010–2017 (Table 12).

Table 12:	Volume of Genera	I and Container Cargo	Handled in Myann	nar Ports, 2010–2017
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Fiscal Year	General Cargo (tons)	Container Cargo (TEU)	Increase in General Cargo (%)	Increase in Container Cargo (%)
2010-2011	4,512,484	346,642	_	-
2011-2012	10, 207,255	413,377	56.0	19
2012-2013	10,160,527	478,341	-0.5	16
2013-2014	12,249,952	613,571	17.0	28
2014-2015	11,137,409	744, 789	-10.0	21
2015-2016	12,302,779	893,201	10.0	20
2016-2017	9,913,797	1,057,888	-19.0	18
Average	8,610,993	543,289	8.9	20.3

TEU = twenty-foot equivalent unit.

Source of cargo data: Myanmar Port Authority. Presentation made during ADB consultations in November 2017.

In the absence of direct liner calls, foreign vessels provide feeder services for transshipment that can significantly increase trade costs and affect port competitiveness. For instance, transshipment costs from Yangon to Chittagong via Singapore could increase \$510–\$560 per TEU compared to direct shipment.²² Attracting direct liner calls will require additional measures to realize ports' full effective capacity to generate greater volume.

²² Consultant's estimates based on data in http://worldfreightrates.com/freight (accessed 26 December 2017).

Several important factors affect maritime connectivity, including (i) route planning to leverage liner services, (ii) integrating the services of smaller ports with major hub ports to further cargo agglomeration, (iii) planning port investments to accommodate vessels that service the same routes, and (iv) developing new business and logistic services. However, such factors are beyond the control of national policy-makers and would require regional collaboration.

Wigmall and Wigmall estimate cost savings from direct liner calls at \$100–\$500 per TEU.²³ The prospects of attracting direct liner calls can realize cost savings for traders by avoiding the cost of transshipment and feeder lines. Applying these parameters to the projected volume of container cargo in Myanmar ports, estimates suggest aggregate cost savings ranging from \$170 million to \$993 million by 2020 and from \$306.4 million to \$2,007 million by 2025 (Table 13).

Table 13: Estimated Cost Savings^a from Direct Liner Calls

Year		Volume of er Cargo ^b EU)	Estimated Cost Savings at \$100 per TEU (\$ million)	Estimated Cost Savings at \$500 per TEU (\$ million)
2020	Minimum	1,700,000	170.0	850
	Maximum	1,986,000	198.6	993
2025	Minimum	3,064,000	306.4	1,532
	Maximum	4,014,000	401.4	2,007

TEU = twenty-foot equivalent unit.

^a Based on consultant's estimates.

^b Based on estimates by the Japan International Cooperation Agency, as reflected in a presentation by the Myanmar Port Authority during ADB consultations in November 2017.

Wigmall, D., and M. Wigmall. 2014. Seaborne Trade Between South and Southeast Asia. *ADBI Working Paper Series* No. 508. Tokyo: Asian Development Bank Institute. Savings are achieved by removing transshipment costs and feeder line costs and increasing competition between shipping lines. These savings can account for 20%–50% of total container shipping costs into ports around the Bay of Bengal.

X THE ROLE OF TRANSPORT AND TRADE FACILITATION

SASEC focuses on three priority sectors—transport, energy, and transport and trade facilitation. This focus provides key levers that could help unleash the economic potential of its member countries. Better physical connectivity through transport infrastructure and the requisite systems, standards and coordinating mechanisms to facilitate its use will contribute significantly to the promotion of trade, commerce, and overall competitiveness in the SASEC subregion. The SASEC Operational Plan 2016–2025 and its updates reflect the operational priorities in these three areas and in economic corridor development. The Operational Plan also contains a list of priority projects for implementation. These projects provide the necessary hardware and software to better connect markets toward greater integration of the SASEC economies.

Key SASEC-connected infrastructure projects in Myanmar include construction of the India–Myanmar–Thailand Trilateral Highway, a 1,360 km highway between Moreh and Tamu on the India–Myanmar border to the Mae Sot, Thailand border. Supported by ADB and the governments of India, Myanmar, and Thailand, components of the project are in various stages of implementation. The trilateral highway will share some sections with Asian highway routes, forming a comprehensive road network that will connect 32 Asian countries. The link to this Asia-wide road network adds significance to the project.

Supported by the Government of India, the Kaladan Multi-Modal Transport Project includes 158 km of waterways along the Kaladan River, from Sittwe to Paletwa in Myanmar, and a 109 km road from Paletwa to Zorinpui on the India-Myanmar border in Mizoram State. The waterways component comprises Sittwe Port, inland water transport terminals, back-up facilities, and navigational channels.

Myanmar's participation in SASEC is expected to add momentum to the expansion of SASEC's current work on trade facilitation for ports and maritime connectivity. While the SASEC Operational Plan 2016–2025 covers customs-related measures for land-, air- and sea-based operations, activities thus far have focused on land-based operations. Given the importance of maritime connectivity in the Bay of Bengal, Myanmar's participation in SASEC can help generate momentum for cooperation in maritime and ports, thus catalyzing synergies with land-based trade facilitation for maritime connectivity to benefit from a larger hinterland for seaports and to capture additional cargo from neighboring countries.²⁴ The development of intermodal transport networks and logistics infrastructure will require comprehensive facilitation initiatives to ensure the seamless flow of goods across all modes.

Shepherd, B., R. Serafica, A. Bayhaqi, and Hao Jing. The Trade Impact of Enhanced Multimodal Connectivity in the Asia-Pacific Region. Journal of Economic Integration 26(4). 624–650. https://www.jstor.org/stable/41330830.

XI CONCLUSION

SASEC presents a wealth of opportunities to Myanmar. Realization of the indicative opportunities (Table 14) will not happen automatically, but rather will depend on the complex interplay of national factors, including the scope and pace of reforms, engagement of the private sector, availability of human and financial resources, availability of infrastructure, and the presence of well-functioning governance institutions, among others.

The opportunities identified in this chapter are only an indicative and initial list; many more could emerge as participation in SASEC evolves and deepens. The benefits of reforms in Myanmar can multiply when such reforms are achieved in synergy with neighboring countries and in a regional context. This is particularly true for Myanmar because it straddles the vibrant and burgeoning economies of South Asia, Southeast Asia, and East Asia. Communication, interaction, and collaboration among SASEC countries and their development partners would need strengthening through government-led trade missions, investment forums, product fairs and exhibits, and private partnerships among chambers of commerce and industry. Not only can Myanmar generate synergies with other SASEC countries by tapping their latent potential, but it also can stimulate greater interaction between the vibrant subregions in Asia. Indeed, Myanmar has a key role in realizing SASEC's vision of "powering Asia in the 21st century."

Table 14: Summary of Myanmar's Trade Opportunities in SASEC

Country	Trade Opportunity for Rice
Bangladesh	 Continue exports of brown and broken rice. Brown rice exports could add \$1.2 million by 2020, and \$1.85 million by 2025. Shift exports focus to milled rice, with improvements in milling capacity. Exports of milled rice could reach 433,000 tons (\$186 million) by 2020, and 797,533 tons (\$343 million) by 2025.
Nepal	 Continue to export brown rice. Shift focus to milled rice, with potential exports of 200,500 tons (\$54.3 million) by 2020 and 716,400 tons (\$194 million) by 2025.
Sri Lanka	 Continue to supply broken rice to meet demand up to 8,000 tons or more (\$3.5 million or higher) Shift focus to milled rice, with potential exports of 102,230 tons (\$88 million) by 2020 and 157,300 tons (\$135 million) by 2025.
	Trade Opportunity for Pulses and Beans
Bangladesh	• Increase exports of lentils, chickpeas, and black gram. Exports could reach 30,173 tons (around \$31.2 million) by 2020 and 37,188 tons (around \$36.2 million) by 2025.
India	 Increase imports of oilcake and animal feed preparations. In the short to medium term, imports from India could reach up to 2.25 million tons (\$500.8 million) by 2020, with import savings estimated at least \$6.8 million per year due to lower unit values in India.
Sri Lanka	 Increase exports of lentils, chickpeas, and black gram. Exports could expand up to 65,455 (\$80 million) by 2020 and 189,000 tons (\$242 million) by 2025.

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Table 14: Continued

	Trade Opportunity in Fishery Products
Bangladesh	Increase exports of fresh, chilled, and frozen fish; processed fish; and mollusks.
	• For fresh or chilled fish, potential exports could reach up to 18,806 tons (\$12.5 million by 2020) and 18,000 tons (\$11.9 million) by 2025.
	 For higher-valued processed fish, potential exports could reach 13,723 tons, valued at \$12.4 million by 2020, and 15,151 tons valued at \$137 million by 2025.
India	• Increase exports of frozen fish. Export potential for frozen fish could reach as much as 39,500 tons by 2020 with a value of \$171.5 million. For fish fillet and fish meats, export potential is as much as 24,765 tons valued at \$38.3 million by 2020, and 88,469 tons by 2025 valued at \$136.7 million.
Sri Lanka	Increase exports of processed and frozen fish.
	• For processed fish, export potential could reach up to 12,939 tons of processed fish valued at \$15.5 million by 2020.
	 For frozen fish, export potential could reach up to 77,028 tons by 2020 valued at around \$102 million.
	Opportunities in Textile and Garments
India	Diversify sources of imported cotton, fabrics, and textile articles by tapping into the Indian import market
	 Potential imports of artificial staple fibers and cotton from India, which has lower unit values, can reduce import costs with potential savings estimated at \$10.3 million by 2020 and \$61.3 million by 2025 for cotton and \$55 million by 2020, and \$383 million by 2025 for artificial fibers.
Bangladesh, India, and Sri Lanka	 Leverage availability of labor and low labor cost to attract potential investors in Bangladesh, India, and Sri Lanka, as well as the People's Republic of China that are experiencing rising wage costs or moving up the value chain.
	• New investments (both local and foreign) in 300 additional firms (i.e., the additional number of firms required to achieve the revenue target of \$8 billion–\$10 billion) could generate additional 360,000 jobs (at an average of 1,200 workers per firm) that could bring \$428.0 million in incremental employment earnings by 2020.
	Opportunities in Tourism
All SASEC countries	 Promote Myanmar as a tourist destination in conjunction with other destinations in SASEC countries through theme-based tourism products (religious tourism, ecotourism and cruise tourism) under the SASEC tourism flagship initiative in the SASEC vision document.
	• While these themed circuits generally would cater to the varied interests of global tourists, they also could attract more SASEC visitors to Myanmar which could reach up to more than 123,500 in 2020 (assuming an annual increase of 24%) and translate into an incremental tourist spending of \$114.2 million.
	Opportunities in Energy
Bangladesh and India	 Procurement of petroleum products from Northeast India may be considered in the medium term, when planned investments in oil refineries have yet to materialize, subject to the feasibility of importing petroleum products from India directly using pipeline or through ports in the East Coast Economic Corridor.
	 Potential over the long term to participate in regional power trade once national self-sufficiency in energy/electricity demand has been attained and surpluses are available.
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Table 14: Continued

	Opportunities for Accessing Digital Technology
India	 Opportunity for Myanmar to connect westwards in terms of access to digital technology and markets to complement its current participation in initiatives in information and communication technology by the Association of Southeast Asian Nations. Possibility of cooperation with India to develop digital connectivity infrastructure, technology and
	capacity building (e.g., cybersecurity, big data and cloud computing solutions)
	Possibility of expanding e-commerce platforms for B2B transactions with SASEC countries.
	Opportunities in Maritime Transport
India, Bangladesh, and Sri Lanka	 Link domestic shipping with regional and international services through coastal shipping arrangements; and promote direct liner services for container cargo to reduce trade costs. Greater agglomeration of cargo can attract direct liner calls that can realize cost savings on the part of traders through avoidance of transshipment costs and feeder line costs.
	 Estimates of aggregate cost savings could range from \$170 million to \$993 million by 2020, and from \$306.4 million to \$2,007 million by 2025.

B2B = business to business, SASEC = South Asia Subregional Economic Cooperation Program.

REFERENCES

myanmar-tourism-statistics-2013.pdf.

- Asian Development Bank (ADB). 2014. Myanmar: Unlocking the Potential. Country Diagnostic Study. p. 3. Manila.
 ——. 2016. South Asia Subregional Economic Cooperation Operational Plan 2016–2025. Manila.
 ——. 2017a. Asian Development Outlook 2017: Transcending the Middle-Income Challenge. Manila.
 ——. 2017b. South Asia Subregional Economic Cooperation Vision: Powering Asia in the 21st Century. Manila.
 International Trade Center database. http://www.intracen.org/itc/market-info-tools/trade-statistics/(accessed 3 Oct 2018).
 ——. https://www.trademap.org/tradestat/Country_SelProductCountry_TS.aspx (accessed 3 Oct 2018).
 Myanmar Statistical Yearbook 2015. http://www.csostat.gov.mm/csocd.asp.
 Myanmar Tourism Statistics 2013. http://www.tourism.gov.mm/wp-content/uploads/2017/06/
- Myanmar Tourism Statistics 2016. https://tourism.gov.mm/wp-content/uploads/2017/08/Myanmar-Tourism-Statistics-2016-1.pdf.
- Republic of the Union of Myanmar. *National Export Strategy Textiles and Garments Sector Strategy 2015–2019*. https://www.myantrade.org/files/2018/9/5b9783179f30e9.56747063.pdf.
- Shepherd, B., R. Serafica, A. Bayhaqi, and Hao Jing. The Trade Impact of Enhanced Multimodal Connectivity in the Asia-Pacific Region. *Journal of Economic Integration* 26(4): 624–650. https://www.jstor.org/stable/41330830 (accessed 15 February 2018).
- United Nations Conference on Trade and Development. Liner Shipping Connectivity Index. http://stats.unctad.org/lsci (accessed 15 February 2018).
- Wigmall, D., and M. Wigmall. 2014. Seaborne Trade Between South and Southeast Asia. *ADBI Working Paper Series* No. 508. Tokyo: Asian Development Bank Institute.
- World Travel and Tourism Council. 2017. *Travel & Tourism: Economic Impact 2017 Myanmar*. https://www.wttc.org/-/media/files/reports/economic-impact-research/countries-2017/myanmar2017.pdf.

SASEC Vision

Myanmar

This publication identifies regional and subregional opportunities for Myanmar to harness natural and human resources, industrial potential, and infrastructure connectivity. It updates the Vision document of the South Asia Subregional Economic Cooperation (SASEC) program since Myanmar joined as the seventh official member in February 2017. Myanmar shares borders with the giant economies of India and the People's Republic of China, and serves as a land bridge between southern, southeastern, and eastern Asia. Its rich natural endowments, including oil and natural gas, and large and young labor force are also strategic advantages for regional cooperation and inclusive and sustainable growth.

About the South Asia Subregional Economic Cooperation Program

The South Asia Subregional Economic Cooperation (SASEC) program brings together Bangladesh, Bhutan, India, Maldives, Myanmar, Nepal, and Sri Lanka in a project-based partnership that aims to promote regional prosperity, improve economic opportunities, and build a better quality of life for the people of the subregion. SASEC countries share a common vision of boosting intraregional trade and cooperation in South Asia, while also developing connectivity and trade with Southeast Asia through Myanmar, to the People's Republic of China, and the global market.

About the Asian Development Bank

ADB is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty. Established in 1966, it is owned by 67 members—48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.



