

# SASEC POWERING ASIA IN THE 21ST CENTURY

A graphic illustration featuring a city skyline with various buildings and a large crane. A stylized, light blue 'S' shape is superimposed over the skyline, passing behind the word 'ASIA' in the main title.

# SASEC

POWERING ASIA IN THE 21<sup>st</sup> CENTURY





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Printed in the Philippines.

ISBN 978-92-9257-783-4 (Print), 978-92-9257-784-1 (e-ISBN)  
Publication Stock No. TCS178708-2  
DOI: <http://dx.doi.org/10.22617/TCS178708-2>

#### Cataloging-In-Publication Data

Asian Development Bank.  
South Asia Subregional Economic Cooperation powering Asia in the 21st century.  
Mandaluyong City, Philippines: Asian Development Bank, 2017.

1. South Asia Subregional Economic Cooperation.      2. Regional cooperation and integration.      3. Trade.
- I. Asian Development Bank.

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#### Notes:

1. In this publication, “\$” refers to US dollars.

2. For this version of the document, SASEC countries will refer to Bangladesh, Bhutan, India, the Maldives, Nepal, and Sri Lanka. This document does not cover Myanmar, which became a SASEC member in February 2017.

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## JOINT MINISTERIAL STATEMENT\*

SASEC Finance Ministers' Meeting  
3 April 2017, New Delhi, India

### Powering Asia in the 21st Century

We, the Minister of Finance of the People's Republic of Bangladesh; the Minister of Finance of the Kingdom of Bhutan; the Minister of Finance, Defence and Corporate Affairs of the Republic of India; the Deputy Prime Minister and Minister of Finance of the Federal Democratic Republic of Nepal; the Minister of Finance and Planning of the Democratic Socialist Republic of Sri Lanka; the Permanent Secretary of the Ministry of Finance and Treasury of the Republic of Maldives; and the Director General of the Ministry of Planning and Finance of the Republic of the Union of Myanmar, met in New Delhi, India on 3 April 2017 to discuss the imperatives of a new way forward for subregional economic cooperation among our countries under the South Asia Subregional Economic Cooperation (SASEC) program.

We recall the shared purpose, which laid the foundation for SASEC in 2001 when four countries—Bangladesh, Bhutan, India, and Nepal—agreed to a program of cooperation to accelerate economic growth in the subregion. Adhering to the same purpose, the Maldives and Sri Lanka joined SASEC in 2014, spurring economic cooperation further along strategic sea routes.

We welcome Myanmar, which recently joined the SASEC family. We recognize Myanmar's important role in linking South Asia, Southeast Asia, and East Asia—a vital imperative in boosting economic activity in Asia in this time of subdued global growth.

We take pride in the significant gains achieved under the SASEC program over the past 16 years, especially in transport, trade facilitation, and energy. Infrastructure connectivity has improved our countries' access to key markets and gateway ports and improved prospects for participating in regional and global value chains. Trade processes and procedures are becoming more efficient. Electricity trade is making steady progress and helping to promote energy security. To further align and focus our interventions, we adopted the SASEC Operational Plan, 2016–2025, which defines the strategic objectives and operational priorities in transport, trade facilitation, and energy, as well as for economic corridor development.

Notwithstanding the gains we have made so far, we want SASEC to become better, stronger, and faster. South Asia is forecast to be one of the fastest growing subregions in the world. SASEC stands at the threshold of a demographic dividend that can be harnessed to create more employment opportunities and enhance productivity. Progressive reforms are ongoing. More importantly, we all share the common aspiration for sustainable and inclusive growth, which will ultimately improve our people's well-being.

We envision SASEC to be powering Asia in the 21st century. We will accelerate and sustain the growth momentum of recent years by unlocking the hitherto untapped potential of the subregion's natural resources, industry and infrastructure through subregional cooperation. We will leverage natural resource-based industries by tapping into latent industrial demand within the subregion. We will promote subregional industry-to-industry links to develop regional value chains and enhance the subregion's competitiveness. We will enhance the connectivity within countries and between countries to improve the productivity of economic activities, including trade and tourism. We will take

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\* The Joint Ministerial Statement was adopted in the meeting of the SASEC Finance Ministers held on 3 April 2017 in New Delhi, India to launch the Vision document.

advantage of our common heritage and cultural ties to improve people-to-people contact. We will develop gateways and hubs to expand the subregion's trade and commerce to regional and global markets. We believe that these synergies can generate annually, an estimated \$70 billion in incremental gross domestic product and 20 million in incremental aggregate employment by 2025.

We are pleased that our SASEC vision and strategy has identified potential flagship initiatives, which could unleash new opportunities in various sectors across natural resources, industry, infrastructure, and tourism. We instruct the SASEC nodal officials to undertake the necessary consultations on the potential synergies identified by the SASEC vision document with the view to formulating a road map for implementing the SASEC Vision.

We applaud recent efforts to contribute to the SASEC Vision. SASEC road connectivity projects in Bangladesh, Bhutan, India, and Nepal are under way to help strengthen transborder trade; and industrial, social, and cultural exchange among them. India and Nepal are also exploring to pilot an electronic cargo tracking system to improve transit facilitation between them. We are encouraged to know that several capacity building activities are ongoing and planned to improve the capacity of customs officials in accordance with international standards and best practices using the expertise in the subregion and within the framework of South-South Cooperation. We hope that ongoing efforts to promote mutually beneficial exchanges of gas and petroleum between our countries would succeed to realize significant savings and help ensure energy security.

We will ensure that SASEC's pursuit of becoming Asia's economic powerhouse will also be a journey to achieving the Sustainable Development Goals. Our investments in infrastructure will reach not only to trade gateways, but also to the hinterlands to help improve people's access to economic opportunities, increase productivity and variety of the goods and services, and provide them with better access to social services. Connectivity between our countries will help promote inclusive and environmentally sustainable economic growth by connecting remote and landlocked areas to economic centers and providing opportunities for low-income populations. Economic synergies leveraged by the countries in the subregion can potentially create additional employment opportunities and augment government revenue that can support more social expenditures.

We recognize and appreciate the important role that has been played by the Asian Development Bank (ADB) in supporting SASEC as secretariat, advisor, and lead financial supporter since 2001. We look forward to further strengthening this fruitful collaboration with ADB as our key development partner to implement the SASEC Vision. We will continue our active engagement with other regional cooperation programs, especially, the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), the Association of Southeast Asian Nations (ASEAN), and the South Asian Association for Regional Cooperation (SAARC). This would complement our efforts and promote other beneficial linkages to hasten the process of South Asia's wider integration with other subregions of Asia.

We greatly appreciate Government of India for the excellent arrangements made for this Meeting, and the gracious hospitality extended to all of us.

We believe that now is the time to reinvigorate and deepen SASEC as a key means to accelerate sustainable and inclusive growth, build economic resiliency, and promote shared prosperity. We reaffirm our strong commitment to regional cooperation and integration. Through mutual understanding, enduring goodwill, and unwavering commitment, we are confident that together, we can realize our vision of powering Asia in the 21st century.



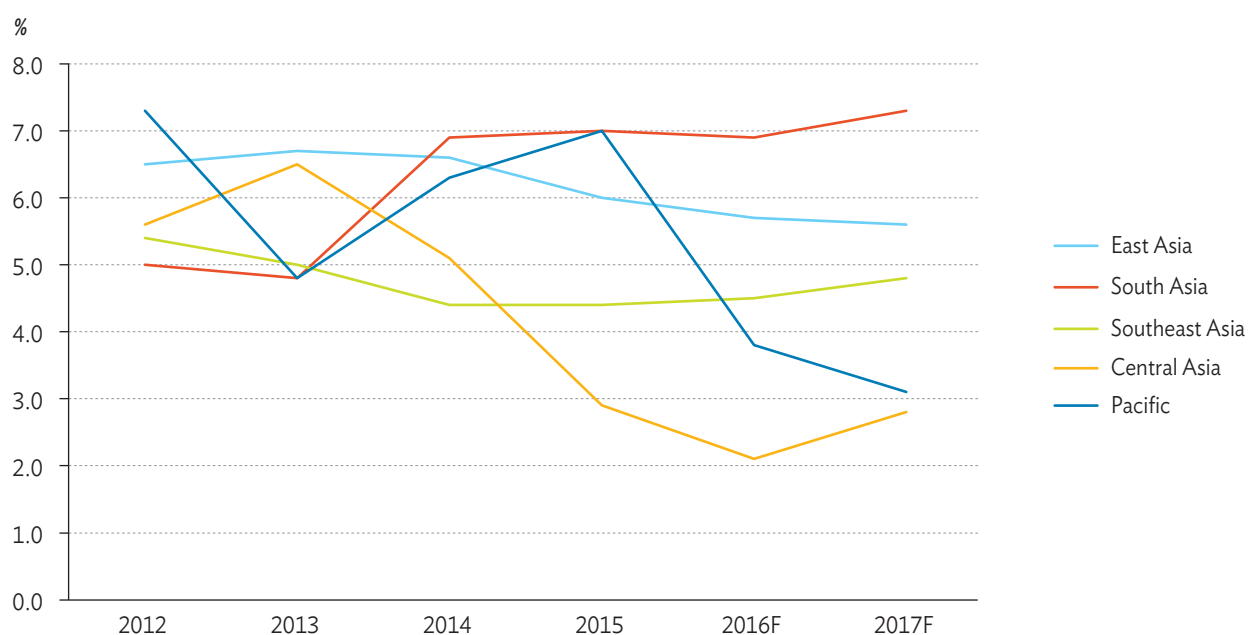
# Abbreviations

ADB	Asian Development Bank
GDP	gross domestic product
GW	gigawatt
LPG	liquefied petroleum gas
MMPA	million metric tons per annum
SAARC	South Asian Association for Regional Cooperation
SASEC	South Asia Subregional Economic Cooperation

# The Development Context

South Asia's economic performance has shown encouraging signs in recent years.<sup>1</sup> Significant reforms in the region have resulted in an impressive average growth rate of more than 8% per year during the period 2003–2007. This impressive growth tapered off during the financial crisis period of 2008–2009, and despite a rebound in 2010, economic growth in the region had been moderate until 2014. In 2014, however, South Asia started to regain momentum (Figure 1). The Asian Development Bank (ADB) has forecast that it could become the fastest growing subregion in Asia.<sup>2</sup>

**Figure 1: Historical Gross Domestic Product Growth and Future Outlook for Asian Subregions (%)**



F = forecast.

Source: ADB. 2016a. *Asian Development Outlook*. Manila.

High growth rates during the precrisis period have helped South Asia reduce poverty rates and raise living standards. But despite gains in alleviating poverty, the number of poor people in the region continues to be high. It was estimated that as of 2012, about 294 million people, or approximately 21% of the combined population of Bangladesh, Bhutan, India, the Maldives, Nepal, and Sri Lanka—the six countries comprising the South Asia Subregional Economic Cooperation (SASEC) Program—live on less than \$1.90 a day.<sup>3</sup> Addressing pervasive poverty will be particularly challenging for South Asia as it strives to sustain its growth momentum and, more importantly, ensure that this growth is inclusive.

<sup>1</sup> South Asia is defined as comprising Afghanistan, Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan, and Sri Lanka.

<sup>2</sup> ADB. 2016a. *Asian Development Outlook*. Manila.

<sup>3</sup> Estimates based on ADB. 2016b. *Key Indicators for Asia and the Pacific 2016*. Manila.

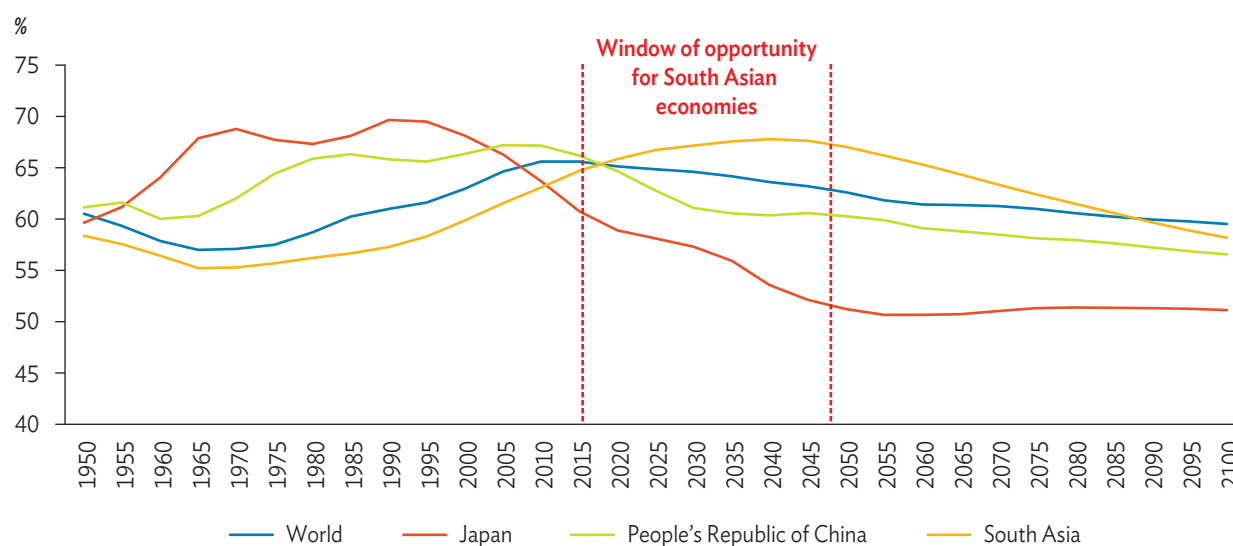
South Asia's demographic transition will be an important factor in accelerating and sustaining economic growth. Over the next 20 years, approximately 1.45 billion people in South Asia are expected to enter the productive age group seeking better opportunities and economic security.<sup>4</sup> By 2025, the population in the age group of 15–64 years in the SASEC countries is expected to be in the range of 66%–70% of the total population before the profile starts stabilizing (Figure 2 and Table 1). Since the window of opportunity is short, this demographic resource may turn out to be a dividend or liability, depending on the countries' abilities to provide avenues for growth. The full realization of this demographic dividend will therefore hinge on a wide range of policies, including those for labor markets, agriculture, industry, services, and trade. In order to sustain the pace of socioeconomic development, countries may evaluate ways to boost trade, develop industries, and create global presence. In the context of these objectives, and considering the significant economic and geopolitical developments happening in Asia and the rest of the world, the role of regional cooperation and integration is expected to assume increasing importance.<sup>5</sup>

**Table 1: Population Under 15–64 Age Group by Country**

Country	Population in the age group of 15–64 (in 000) in 2025	Percentage of current labor force (%)
Bangladesh	123,999	69.2
Bhutan	606	70.7
India	984,741	67.4
Maldives	287	68.6
Nepal	21,273	67.0
Sri Lanka	14,046	65.6

Source: United Nations Development Programme.

**Figure 2: Proportion of South Asian Population in 15–64 Age Bracket (%)**



Source: <https://esa.un.org/unpd/wpp/DataQuery/>

<sup>4</sup> UN Department of Economic and Social Affairs. 2015 Revision of World Population Prospects. <https://esa.un.org/unpd/wpp/> (accessed 10 December 2016).

<sup>5</sup> ADB. 2016c. *South Asia Subregional Economic Cooperation Operational Plan, 2016–2025*. Manila.

# The SASEC Program

In 1996, four members of South Asian Association for Regional Cooperation (SAARC)—Bangladesh, Bhutan, India, and Nepal—formed the South Asian Growth Quadrangle.<sup>6</sup> This subregional initiative was endorsed in 1997 at the SAARC Summit held in Malé. At the request of the South Asian Growth Quadrangle, ADB launched the SASEC Program in 2001. Since then, ADB has been supporting SASEC countries in strengthening regional ties for growth and promoting cooperation, and providing financial and technical support to improve connectivity, strengthen institutions and trade links, and enhance human capital. In 2014, the Maldives and Sri Lanka joined the program, thereby expanding opportunities for enhancing economic linkages in the subregion. Myanmar became the newest member of SASEC in 2017. Myanmar's strategic location as a land bridge between South Asia and Southeast Asia will enhance the prospects of establishing economic links between the two subregions.

The SASEC Program focuses currently on three priority areas: (i) transport, (ii) trade facilitation, and (iii) energy. The SASEC Operational Plan, 2016–2025, endorsed in May 2016, contains the strategic objectives and operational priorities in these three sectors as well as for economic corridor development. Transport infrastructure across all modes are being upgraded and expanded to address critical bottlenecks and support trade routes to cater to the region's growing economies. A trade facilitation strategy—the SASEC Trade Facilitation Strategic Framework, 2014–2018—is also being implemented to complement infrastructure connectivity. This strategy includes reforming policies, regulations, and institutions to modernize customs consistent with international best practices, strengthening standards and conformity assessment, improving border infrastructure, and making practical arrangements for cross-border transport and transit. SASEC is also working to improve energy access and security in the region by developing energy infrastructure, promoting intraregional power trade to reduce costs and import dependence, and developing clean energy resources.

## SASEC Progress Through the Years

Since its inception in 2001, the SASEC program has achieved significant progress. As of January 2017, 46 projects in the transport, trade facilitation, energy, and information and communication technology worth \$9.17 billion have been approved for which ADB has extended loans and grants amounting to \$ 5.9 billion. ADB has also provided technical assistance worth \$65.39 million to SASEC countries.

## The SASEC Operational Plan 2016–2025: Strategic Objectives

- Enhancing physical connectivity through multimodal transport systems aligned more closely with the development of markets.
- Adopting a comprehensive approach to transport and trade facilitation that will expand the current focus from land-based to seaborne facilitation, to complement investments in multimodal networks.
- Enhancing electricity trade, which will lead to an expanded and diversified energy supply to meet energy needs and secure power reliability.
- Promoting synergies between economic corridors being developed in individual SASEC countries, and optimizing development impacts of these economic corridor investments through improved cross-border links.

<sup>6</sup> SAARC is an organization of eight countries located in South Asia. Initial members of the SAARC were Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan, and Sri Lanka. Later, Afghanistan became a full member of this regional group. Some other countries were also given observer status. The objective of SAARC is to develop member economies, promote collective self-reliance, and step up social and cultural development in the South Asian region.

To enhance the outcome of regional collaboration, SASEC countries decided that a vision should be developed to frame the SASEC Program in the larger context of the collective growth and development objectives of the participating countries. The SASEC Vision would reflect the countries' shared aspiration and set the path to achieve this through regional collaboration. In this manner, the present initiatives could be energized by unleashing the latent potential of hitherto underleveraged sectors, opening up possibilities for regional cooperation to move into a new plane, and providing synchronization and convergence of purpose for national and regional level actions.

## Motivation for a Shared Vision

SASEC countries have individually set a road map for growth based on their unique circumstances. Although different in their development strategies, all SASEC countries aspire to achieve sustainable growth with equity over the long term. The ultimate goal of faster and sustained growth is to provide the opportunities to reduce poverty and improve the quality of life. Economic diversification is key, not only to expanding these opportunities, but also to building resilience against external vulnerabilities. Likewise, energy security is considered essential to fuel growth and stimulate economic activities, including in rural areas. Environmental sustainability, as a prerequisite for economic growth and poverty reduction, is also an important strategic development agenda.

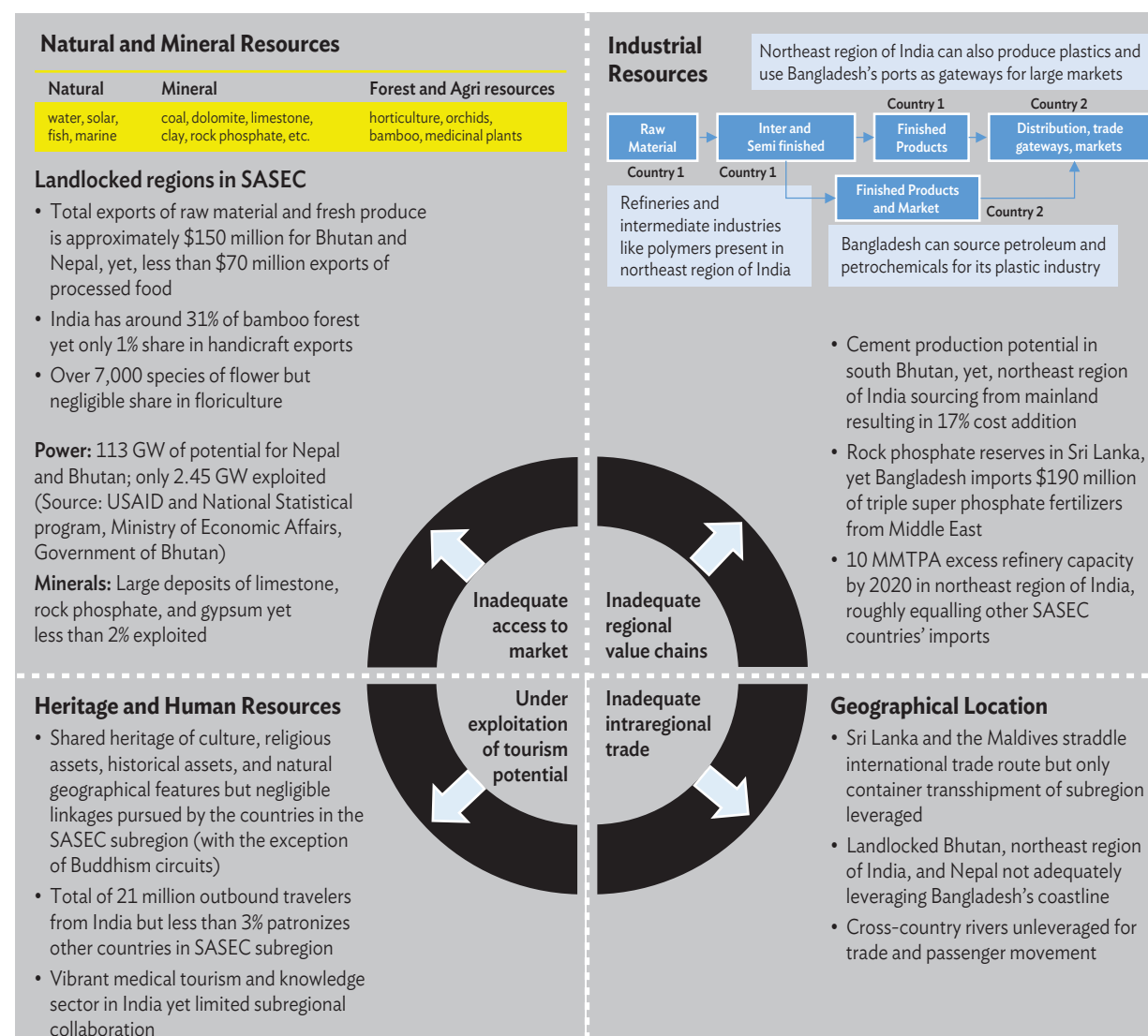
SASEC countries however, face difficult challenges: (i) low productivity levels and insufficient investment; (ii) lack of job opportunities; (iii) macroeconomic and structural vulnerabilities; (iv) the problem of lagging regions and poor social service delivery to these areas; (v) vulnerabilities to fluctuating international markets in energy and food, and vagaries of climate change's effects; and (vi) constraints to faster integration, such as the high cost to trade and transit, low quality of infrastructure, regulatory mechanisms, and institutions. These challenges are compounded by wide diversity among SASEC countries in terms of market size, geography, resource endowments, and institutional capacities, thus resulting in highly uneven growth patterns.

While SASEC countries can cope individually with some of the binding constraints, they could, from a strategic collaborative standpoint, leverage their strengths with opportunities that the region offers to overcome constraints more effectively. For instance, countries in the SASEC subregion like Bhutan, Nepal, and India's northeast region, are rich in natural and mineral resources. However their resources are currently not adequately utilized (Figure 3).

### Why a SASEC Vision?

A shared vision would frame the SASEC Program in the larger context of the subregion's collective growth and development objectives. It would

- articulate the shared aspirations of the SASEC countries into a collective vision for the SASEC subregion;
- identify regional and subregional opportunities and synergies that can better harness the countries' natural and human resources, industrial potential, trade and commercial prospects, and physical connectivity;
- provide a strategic framework at the subregional level that can complement the attainment of national development goals; and
- provide an integrated and holistic perspective that defines the link between sectoral and spatial priorities at national and regional levels.

**Figure 3: Impediments in Leveraging the SASEC Subregion's Resources**

GW = gigawatt, MMTPA = million metric ton per annum, SASEC = South Asia Subregional Economic Cooperation.

Source: Asian Development Bank.

Better access to trade gateways and connectivity to global markets could stimulate better utilization of resources and support further industrial growth (Figure 3). The connectivity can be enhanced by developing and improving multimodal transport infrastructure (air, sea, road, river, and rail) within the subregion. Similarly, the participation of the subregion in regional value chains is very limited. For example, Southeast Asian economies source more than 30% of their intermediate inputs from within the region whereas the same ratio is significantly lower (around 7%) in South Asia.<sup>7</sup> Improved collaboration in areas such as trade facilitation and infrastructure development may help the

<sup>7</sup> Organisation for Economic Co-operation and Development. 2015. *Participation of Developing Countries in Global Value Chains: Implication of Trade and Trade-Related Policies*. <http://www.oecd.org/countries/mali/Participation-Developing-Countries-GVCs-Summary-Paper-April-2015.pdf>

countries in the SASEC subregion to develop intra-subregional value chains and benefit from each other's comparative advantage (Figure 4). Further, based on its natural resources, the subregion has potential for developing small and medium-sized enterprises in sectors like agrofood processing, floriculture, medicinal and aromatic plants, essential oil, bamboo. In addition to focusing on improving infrastructure and economic linkages, collaboration in knowledge-based areas such as science and technology, innovation, and research and development may also be considered to realize the development potential of these sectors. The subregion's rich cultural and ecological resources and common heritage and cultural ties have the potential of attracting more tourists if thematic sites are linked as multicountry circuits, through the development of infrastructure and facilities of common standards.

Impediments in terms of inadequate market access, absence of regional value chains, and underutilization of geographical advantages to tap into global trade may be mitigated through mutually beneficial collaboration (Figure 4). A collective SASEC Vision would provide a strategic framework for aligning actions at the national level with regional initiatives.

**Figure 4: Challenges Faced by SASEC Countries**

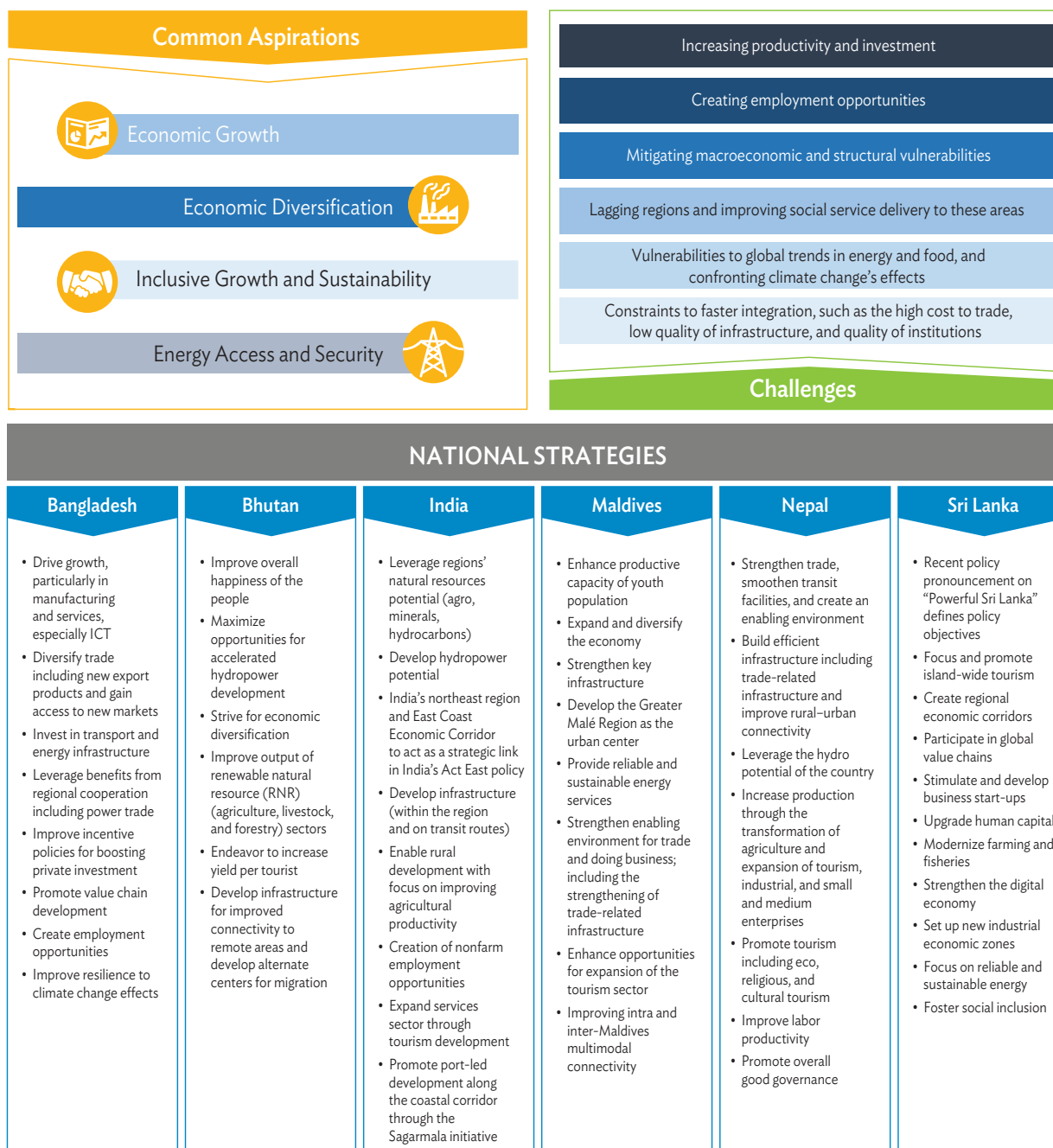


SASEC = South Asia Subregional Economic Cooperation.

Source: Asian Development Bank.

The SASEC Vision is inspired by the subregion's common aspirations and challenges (Figure 5) that charts pathways for countries to achieve their goals through regional collaboration.

**Figure 5: SASEC Subregion's Common Aspirations and Challenges**



ICT = information and communication technology, SASEC = South Asia Subregional Economic Cooperation.

Sources: Progressive Party of Maldives Manifesto 2013–2017; Bangladesh Perspective Plan 2021 and 7th Five-Year Plan of Bangladesh; 11th Five-Year Plan of Bhutan and Bhutan 2020 Vision; Nepal Trade Integration Strategy 2016, Approach Paper to 14th Plan, Sustainable Development Goals National (Preliminary) Report; North Eastern Region Vision 2020.



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# SASEC

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POWERING ASIA IN THE 21<sup>st</sup> CENTURY

Economic  
Diversification



Accelerated  
Economic Growth



Inclusive and  
Sustainable  
Growth



Positive  
Externalities  
and Reduction  
in Poverty



Energy Access  
and Security



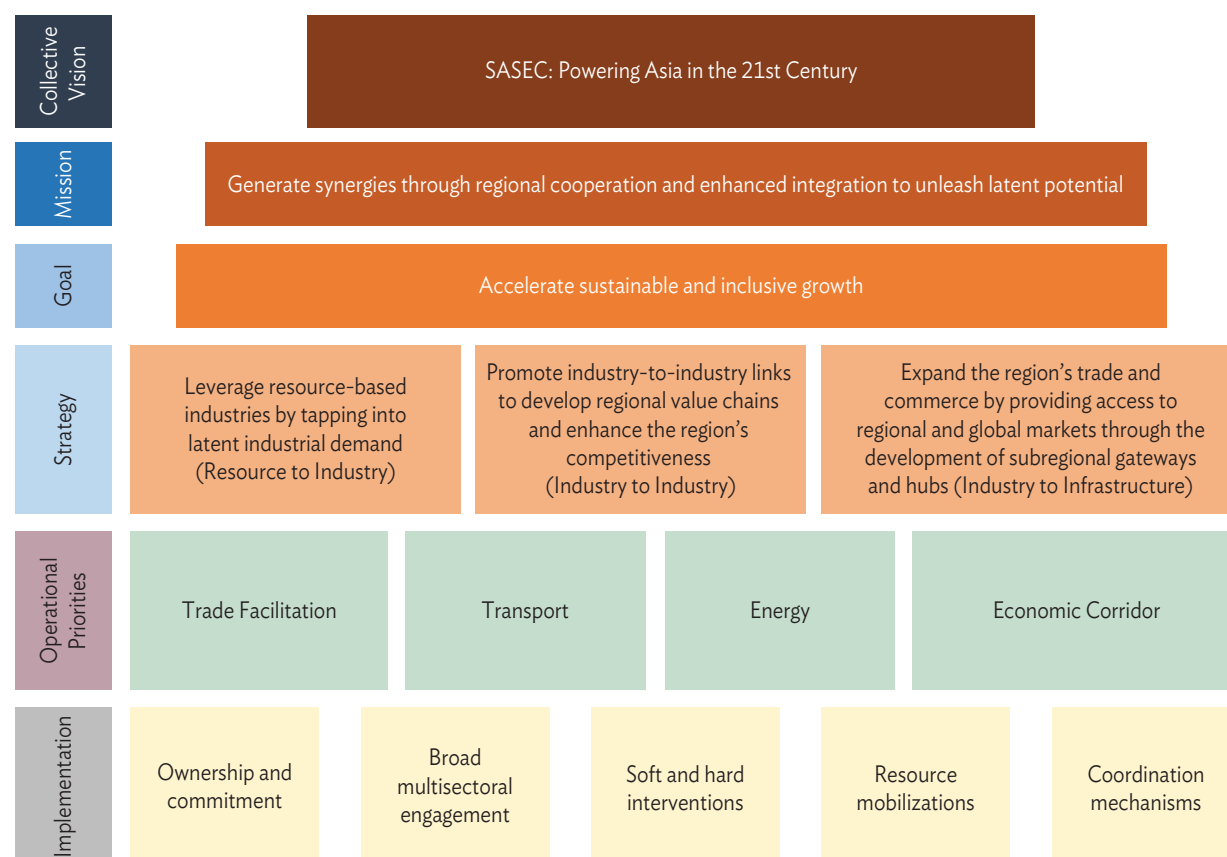
# The SASEC Vision

By 2025, SASEC countries envisage the subregion to play a pivotal role in Asia's growth story. A confluence of factors augurs well for the realization of this collective vision—"SASEC: Powering Asia in the 21st Century"—such as the subregion's rapid growth, progressive reforms, and demographic transition, among others. These factors combined create a highly favorable environment for the SASEC countries to become Asia's most vibrant economic space in the next decade. Moreover, the reservoir of goodwill built over 15 years of fruitful cooperation among SASEC countries bode well for enhanced collaboration, which could further unleash latent synergies among the countries.

This collective vision would be achieved through regional cooperation that focuses on generating synergies between three levers—natural resources, industrial potential, and connectivity (Figure 6):

- leveraging natural resource-based industries in a SASEC country by tapping into latent industrial demand within the subregion (resource to industry links);
- promoting industry-to-industry links within the subregion to develop and strengthen regional value chains and enhance the region's competitiveness (industry to industry links); and
- expanding the region's trade and commerce by providing access to regional and global markets through the development of subregional gateways and hubs (industry to infrastructure links).

**Figure 6: Framework for SASEC Vision**



SASEC = South Asia Subregional Economic Cooperation.

Source: Asian Development Bank.

**Leveraging natural resources** to unleash industrial potential in the SASEC subregion can be a transformative opportunity. The sustainable extraction of oil, gas, and other minerals, and export of value-added products can increase trade, inward investment, and government revenues. Some examples of resource-to-industry collaboration in SASEC include the development of phosphate based fertilizer in Sri Lanka to supply markets in Bangladesh, improved productivity of natural rubber plantations in Sri Lanka to cater to Bangladesh's demand for rubber products, and supply of cement from Bhutan to India's northeast region. Leveraging natural resources will require a strong system of governance in the source country if it is to support sustainable and inclusive development and value addition.

**Promoting subregional industry-to-industry links** can contribute to the development of regional value chains and the overall competitiveness of the SASEC subregion. For instance, the presence of an industrial value chain in the petrochemical industry in India's northeast region can support the development of the plastics industry in Bangladesh. Bangladesh has an opportunity to develop a car assembly industry by sourcing component parts from India. Industry-to-industry links in the SASEC subregion, however, are still at a nascent stage and will require policy, technical, business, and financial support both at the national and regional levels.

**Leveraging industry to infrastructure** across national borders can unleash the potential of small and landlocked economies like Bhutan and Nepal, or island economies like the Maldives, to gain access to key markets and provide opportunities to integrate into regional value chains. The development of port infrastructure in Bangladesh can improve connectivity of Bhutan and Nepal to global markets. Similarly, improving internal connectivity in the Maldives can allow it to service global markets efficiently. By increasing the virtual size of the economy as trade with neighboring economies increases, substantial benefits can be generated from scale and network effects, thus raising the unit values of exports.

Several synergies can emerge from the three collaboration levers, but their realization would need to be guided by collective planning, development of shared blueprints, and effective coordination and monitoring mechanisms. The strategies for achieving the vision will depend on a number of key enablers such as institutional, policy, investment at national and subregional levels and, in turn, may also guide SASEC program's operational priorities in the coming years. The current operational priorities of the program—transport, trade facilitation, energy, and economic corridors—would continue to provide key inputs for the realization of the vision.

Transport to enhance connectivity, both between participating countries and to the external markets, is the centerpiece of the SASEC program complementing other initiatives in SAARC and the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation. Recognizing the fact that transport systems in South Asia are largely developed in the national context with little consideration to cross-border connectivity in terms of conformity and uniformity of standards, collaboration on transport infrastructure will be essential for meaningful realization of synergies. Initiatives for enhancing multimodal linkages (air, river, sea, rail, and road), improving access, reducing congestion, and enhancing logistics efficiency will be important focus areas for implementing vision initiatives.

Facilitation of cross-border trade will also be a critical supporting strategy that would enable the synergies to happen across the three levers. Initiatives in customs modernization and harmonization, standards and conformity assessment strengthening, cross-border facilities improvement, through-transport facilitation, and institution and capacity building—the five pillars under the SASEC Trade Facilitation Framework, 2014–2018—will be important instruments to ensure the successful implementation of vision initiatives.

In addition, harnessing latent opportunities along with rising per capita consumption in the subregion is expected to sharply increase the power demand over the next decade. Given the projected energy demand and supply situation and considering the key energy development issues facing the SASEC countries, energy collaboration through improved generation, transmission, and distribution infrastructure, and climate change mitigation through energy efficiency measures will continue to be important development areas for realizing the vision.

The pathway to becoming Asia's economic powerhouse is also a journey to achieving the Sustainable Development Goals. Investments in infrastructure connectivity can help reduce poverty by improving poor people's access to economic opportunities, lowering the cost of the goods and services that they consume, and providing better access to essential infrastructure services such as electricity. Connectivity can help promote inclusive and environmentally sustainable economic growth by connecting isolated and landlocked areas to economic centers<sup>8</sup> and providing opportunities for low-income populations, thus narrowing the development gap in the SASEC subregion. Investments in energy such as in gas and hydropower can provide opportunities for more efficient use of regional resources that permit regional environment-friendly energy trade. Economic synergies leveraged by the countries in the subregion can potentially create additional employment and augment government revenue that can be channeled to social expenditures.

## Potential Synergies and Benefits

By harnessing these three levers, SASEC countries could accelerate the growth trajectory reflected in their respective development plans. This section discusses collaboration possibilities on the three levers for individual SASEC countries based on their geographic, resource, and industrial advantages.

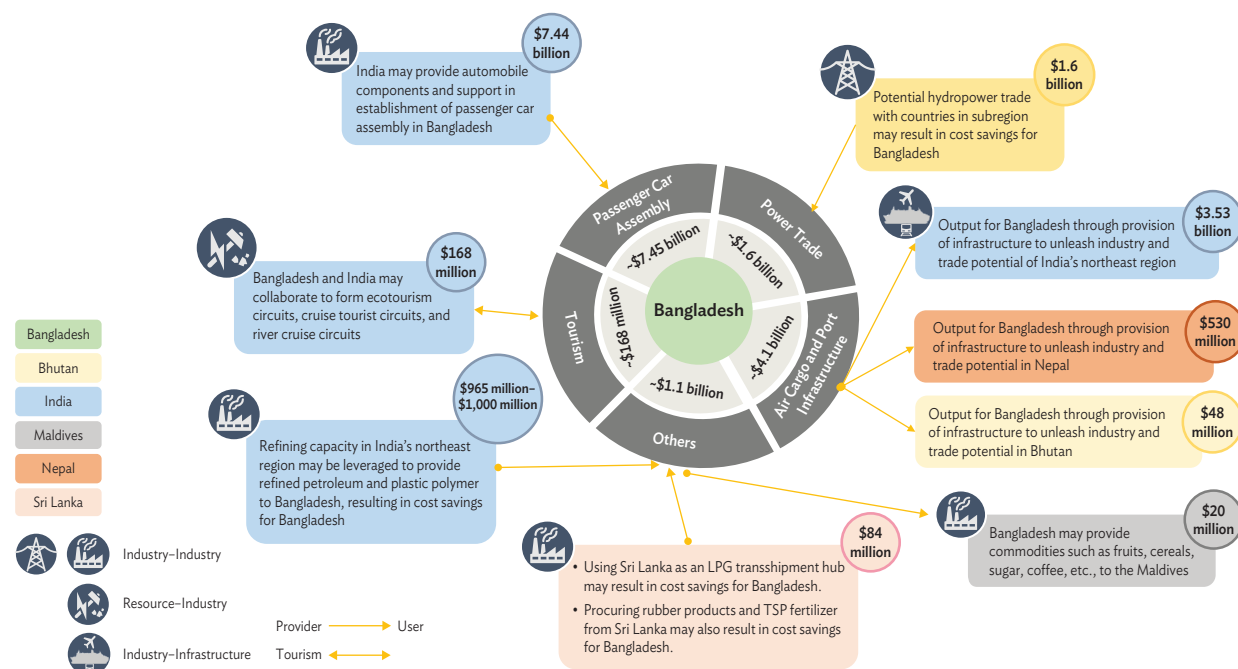
### BANGLADESH

Bangladesh's geographic location provides a unique opportunity for the country to act as a gateway and benefit from expanded trade within the subregion, and with the world at large. Additional seaports and aviation gateways in Bangladesh could support landlocked SASEC countries in further developing the potential of their agriculture, forestry, and industrial sectors in areas such as food processing and floriculture, for which access to ports is needed to tap into the huge global demand for these products. It is estimated that the use of such enabling infrastructure, coupled with improved multimodal connectivity, could generate an additional gross domestic product (GDP) of over \$4 billion annually to Bangladesh.<sup>9</sup>

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<sup>8</sup> Asian Development Bank Institute (ADBI). 2015. *Connecting South Asia and Southeast Asia*. Japan: ADBI.

<sup>9</sup> Provision of ports and airport infrastructure to the cargo of SASEC subregion shall generate additional revenue for Bangladesh.

**Figure 7: Summary of Subregional Synergies in Bangladesh**

~ = approximately, LPG = liquefied petroleum gas, TSP = triple super phosphate.

Source: ADB consultant's estimates.

Bangladesh could also benefit from strengthening its trade and industrial collaboration with India, particularly in refined petroleum products and plastics. This would result in an annual savings from reduced import costs of approximately \$965 million to \$1,000 million.<sup>10</sup> Imports of automotive parts and components from India could also help make viable the planned automotive assembly industry in Bangladesh, resulting in an estimated additional GDP of around \$8 billion annually by 2025.<sup>11</sup>

Power trade is another area of mutually beneficial collaboration in the subregion. Bangladesh currently depends primarily on natural gas to meet its energy demand. In the absence of any new gas field discoveries, the existing gas reserves may get significantly depleted in the next decade. This necessitates a shift to alternative fuels for power generation such as imported coal and gas. The subregion could play a significant role in catering to Bangladesh's energy demand. Bangladesh may participate in possible power trading arrangements under SASEC, thereby reducing its vulnerability resulting from overdependence on a single source of energy. By sourcing alternative and cheaper source of energy through power trade, Bangladesh may realize an annual savings of over \$1.6 billion.

Overall, Bangladesh is expected to generate an annual additional GDP of around \$12 billion and savings of around \$3 billion by leveraging the subregional synergies in energy, industry, and trade (Figure 7).

<sup>10</sup> These savings include direct and multiplier effect in the economy; direct savings of about \$638 million–\$667 million (\$617 million–\$646 million from import of refined petroleum and \$21 million from import of plastic polymer), and multiplier has been considered as per Organisation for Economic Co-operation and Development matrix.

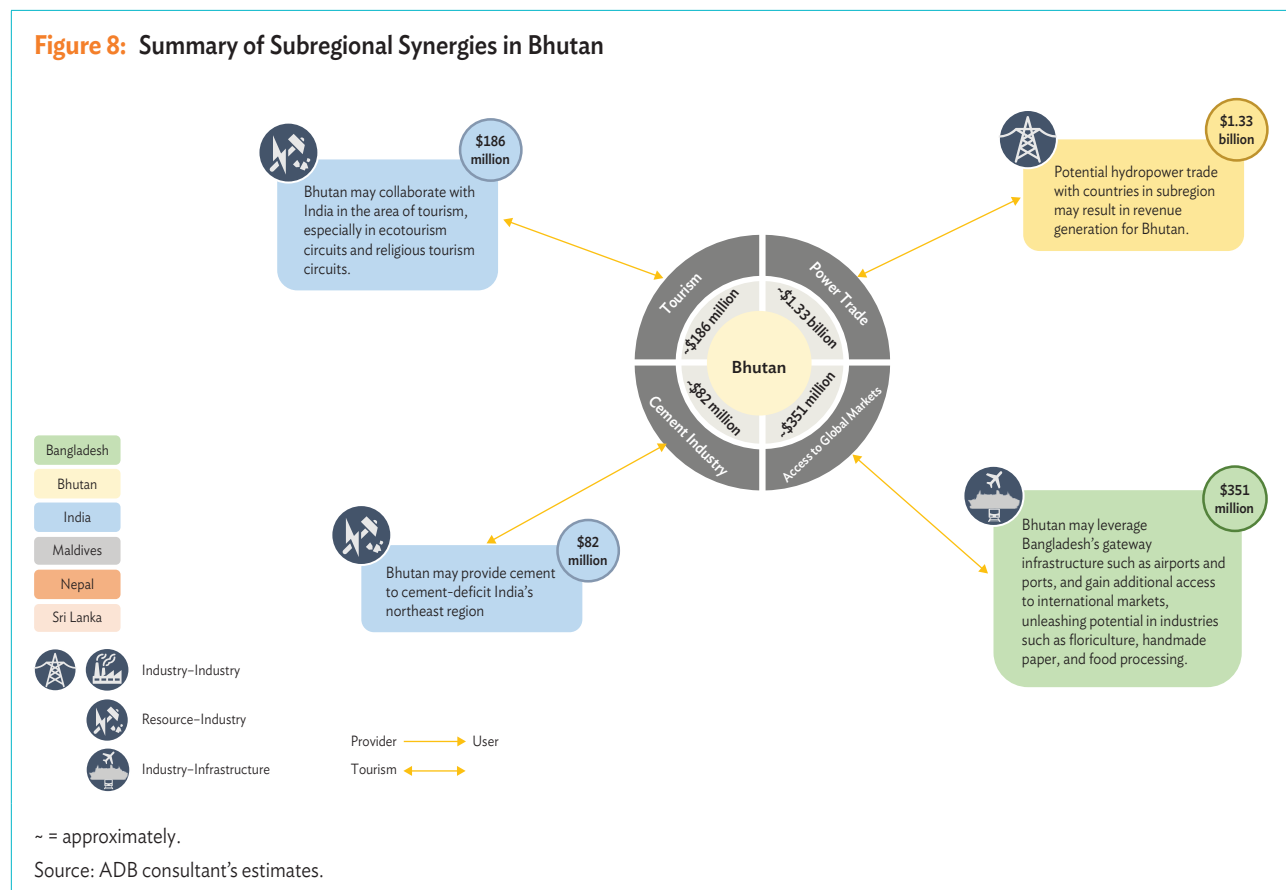
<sup>11</sup> In terms of revenues by serving the domestic passenger car market and exports to global markets like the European Union.

## BHUTAN

Natural resources in Bhutan, such as limestone, can be effectively utilized to supply cement to India's northeast region, which is a cement-deficit region. Additionally, the inherent economic potential of Bhutan in certain sectors such as horticulture, floriculture, medicinal and aromatic plants, and handmade paper may be developed further by leveraging the gateway infrastructure of the other SASEC countries. For instance, the setting up of an air cargo hub in Bangladesh, and gaining access to Bangladesh's ports (including road and river transport through India's northeast region and Bangladesh) through appropriate protocols, may provide additional avenues for Bhutan to tap into the world market for these products.

Being a major tourist destination, with biodiversity-rich national parks and wildlife reserves, Bhutan and India may also collaborate to form ecological tourist circuits, feeding and receiving tourists from one country to the other, thus leading to more optimal realization of their tourism potential. In the area of energy, Bhutan may further strengthen its collaboration with countries in the subregion in the cross-border trade of electricity, utilizing Bhutan's hydropower potential effectively. These areas have the potential to offer Bhutan an additional GDP of approximately \$1.3 billion for synergies explored with Bangladesh, and approximately \$660 million for synergies explored with India, aggregating to an additional GDP of approximately \$2 billion annually by 2025 (Figure 8).

**Figure 8: Summary of Subregional Synergies in Bhutan**

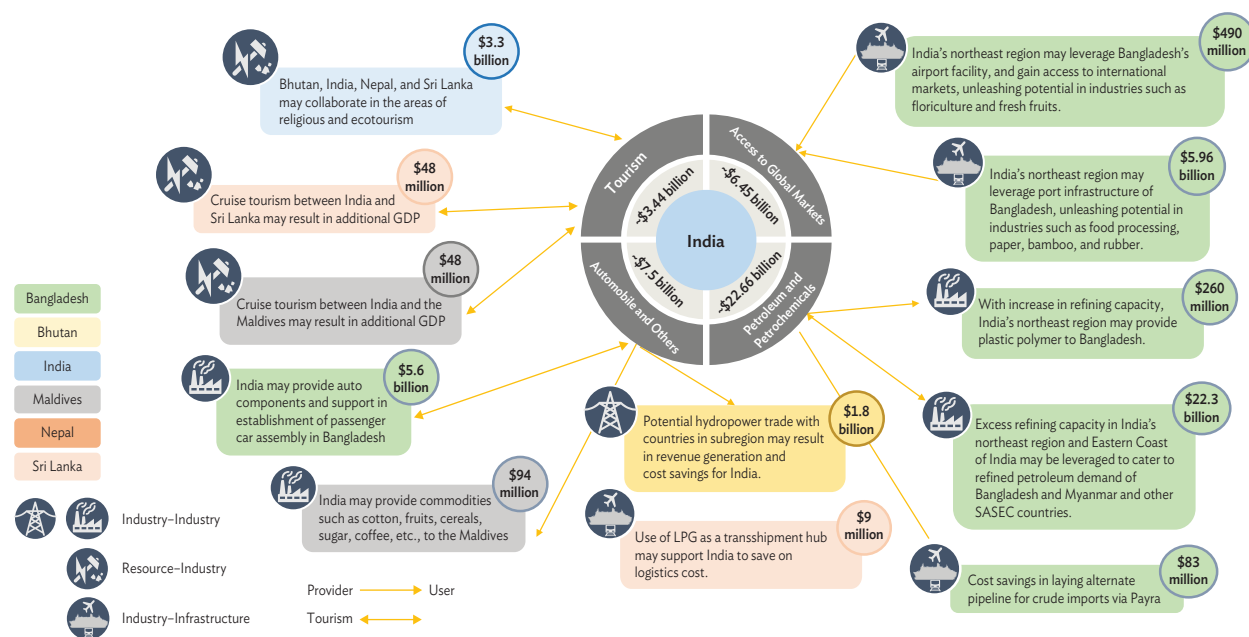


## INDIA

India's northeast region is rich in natural resources but isolated from the rest of country, with circuitous access to sea routes for commerce and trade. Inaccessibility of this region has limited investment and growth in the area when compared to other parts of India.

With enhanced connectivity and access to gateway ports in Bangladesh, India's northeast region may witness high growth in industries and trade within SASEC as well as with other parts of the world. Access to gateway ports in Bangladesh may cultivate the potential of agro- and forest-based industries in India's northeast region, estimated to contribute \$6.4 billion annually to India's GDP.<sup>12</sup> India may also export refined petroleum and petrochemical polymers to the neighboring SASEC countries, helping the states to expand their limited market potential and generate a yearly incremental GDP output estimated at \$22.3 billion. Further, exploring trade synergies with SASEC countries may augment India's GDP by \$7.6 billion in terms of exports of auto components, essential commodities, and power trade. In addition, India may also collaborate with other SASEC countries to develop theme-based tourist circuits, thereby generating additional annual incremental economic output of \$3.4 billion by 2025 (Figure 9).

**Figure 9: Summary of Subregional Synergies in India**



~ = approximately, GDP = gross domestic product, LPG = liquefied petroleum gas, SASEC = South Asia Subregional Economic Cooperation.

Source: ADB consultant's estimates.

Overall, India is expected to generate an additional annual GDP of approximately \$40 billion and an annual savings of around \$360 million through the identified synergies.<sup>13</sup>

<sup>12</sup> In terms of exports to global markets.

<sup>13</sup> Around \$8 million–\$9 million of savings are expected from LPG transshipment; about \$80 million are expected through transporting crude oil from an alternate pipeline as suggested in this exercise (refer next section on prominent synergies); about \$280 million from power trade.

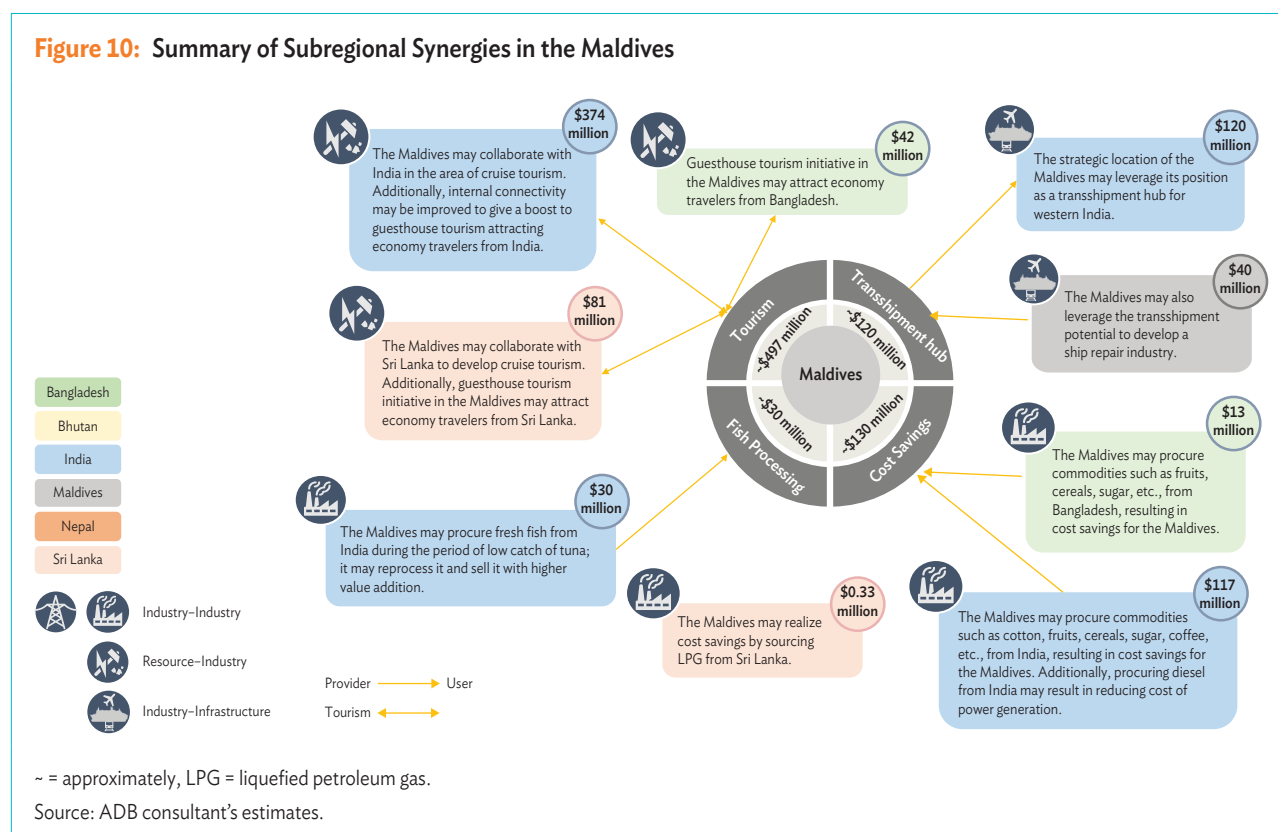


## MALDIVES

The Maldives' economy is driven by tourism, which directly contributes to around 24% of the country's GDP.<sup>14</sup> In recent years, the Maldives has been experiencing some changes in tourist arrival pattern. The market, once dominated by European tourists, has been experiencing an increasing number of Asian tourists, primarily East Asian tourists. Given this change in pattern, the Maldives may cooperate with other SASEC countries to develop tourism products, which can attract tourists visiting neighboring countries such as Bangladesh, India, and Sri Lanka to also visit the Maldives. The Maldives may target to increase the proportion of tourists from the subregion particularly in affordable guesthouses.

In parallel, the Maldives may explore other tourism products (e.g., cruise tourism), which cater to different market segments. These tourism initiatives may generate an annual incremental GDP of over \$500 million for the Maldives. In addition, the Maldives may also leverage its strategic location to attract cargo traffic from India to position the proposed port in Ihavandhipolhu (iHavan) on the global transshipment radar. Handling this cargo traffic could generate an additional annual GDP of approximately \$120 million. Leveraging the transshipment business, the Maldives may develop other value-added services such as ship repair which may translate to additional GDP of around \$40 million by 2025. Overall, with the region's tourism potential, and internal connectivity to augment the country's industry and revenues from handling the region's transshipment cargo, the Maldives may realize an additional GDP of approximately \$700 million and cost savings of \$130 million annually through closer subregional collaboration (Figure 10).

**Figure 10: Summary of Subregional Synergies in the Maldives**



<sup>14</sup> Government of the Maldives, Ministry of Finance & Treasury, National Bureau of Statistics. 2016. *Statistical Pocketbook of Maldives*. Malé.

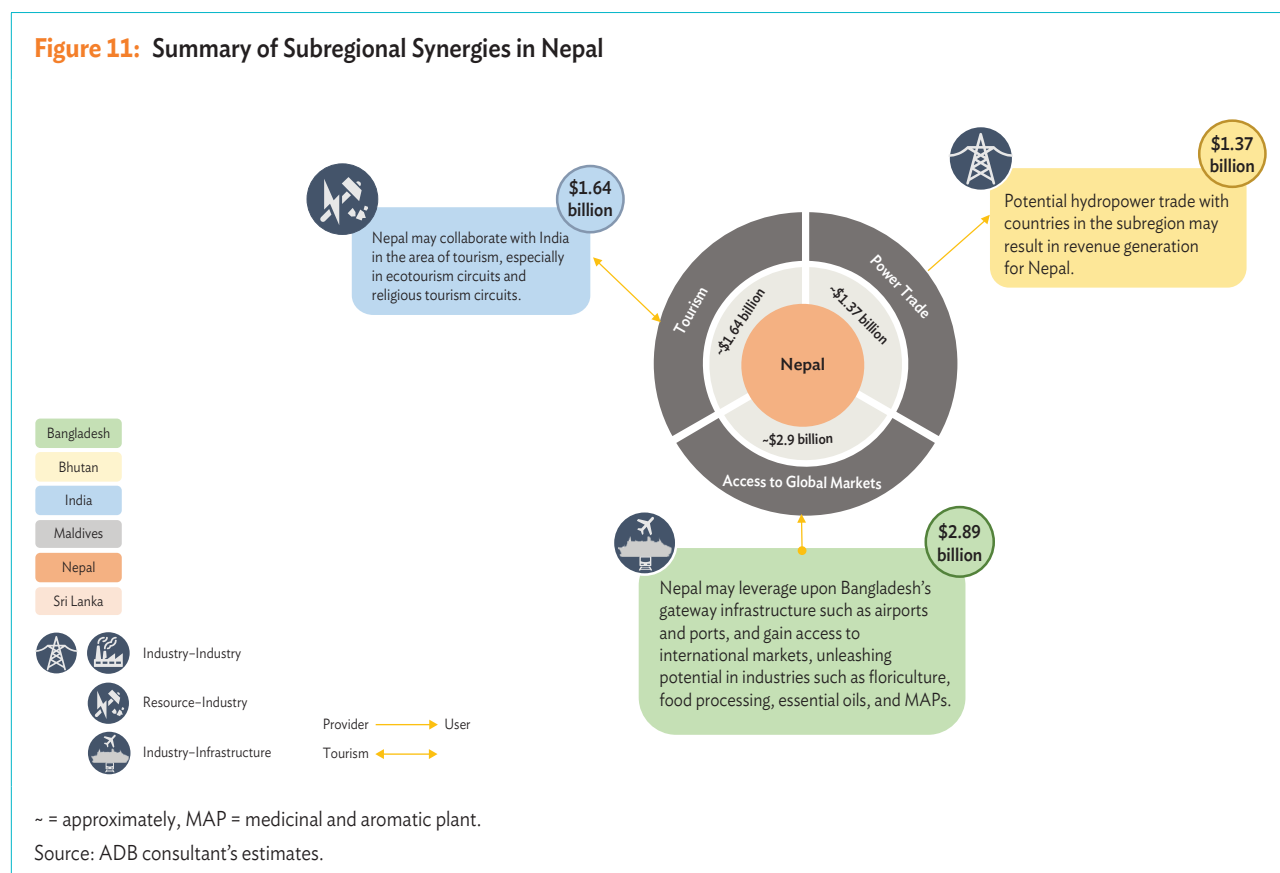


## NEPAL

Trade and integration with global markets is recognized as a critical enabler for Nepal to achieve its goal of reaching middle-income status by 2030. To achieve trade-centered growth, the government has introduced a new trade policy in 2015 and revised the national trade integration strategy. The major objectives of the strategy include expanding trade, enhancing institutional capacity, and strengthening trade negotiation and interagency coordination. It also identifies a number of crosscutting issues in 12 priority export sectors. Improving internal connectivity and accessibility to gateway ports in other SASEC countries, as well as trade facilitation, may support Nepal in growing its trade exponentially, particularly in sectors such as agrofood processing, floriculture, handmade carpet, Pashmina, leather and footwear, handicrafts, and medicinal and aromatic plants. It is estimated that regional cooperation and integration may support Nepal to generate an additional annual trade of approximately \$3.4 billion by 2025. Nepal may also gain significantly through collaboration in areas such as tourism which would not only generate significant economic output but also expand employment opportunities. Further, Nepal may leverage its hydropower potential to meet its current deficit and export any surplus to the subregion.

Enhancing trade and export opportunities through collaboration across regional synergies, Nepal is expected to realize approximately \$5.9 billion of additional GDP annually (Figure 11).

**Figure 11: Summary of Subregional Synergies in Nepal**



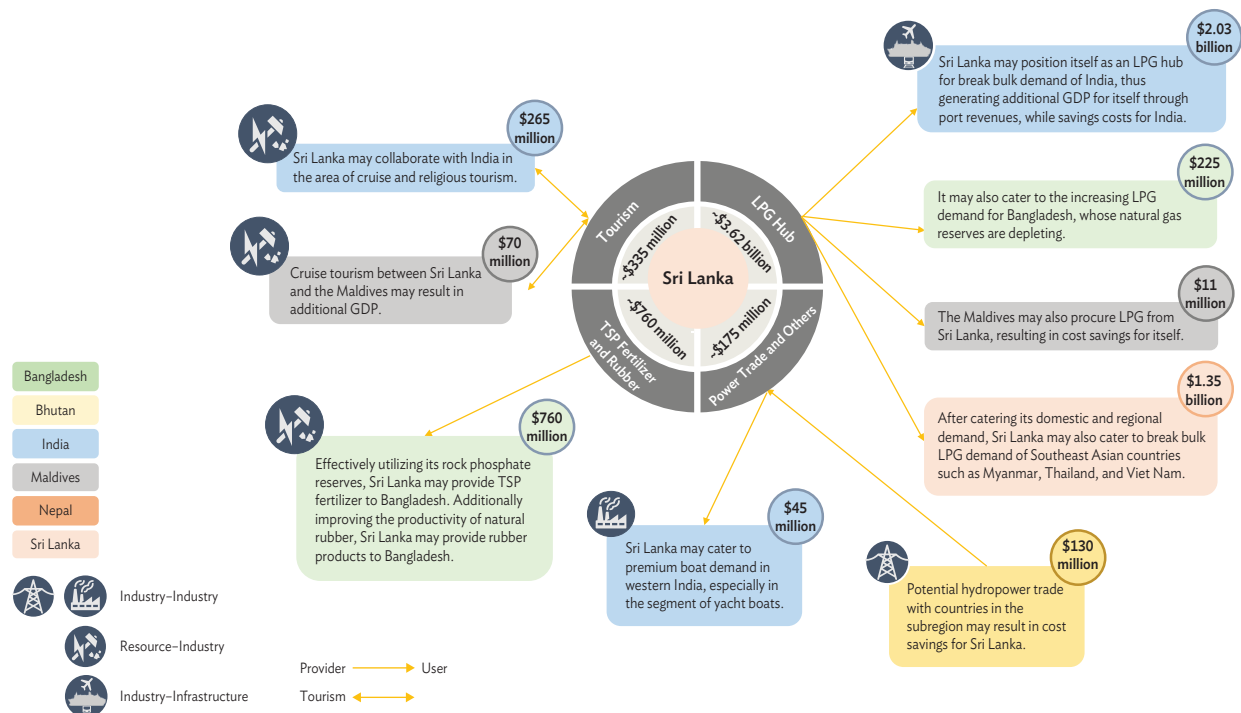
## SRI LANKA

The subregion offers a catalytic platform for Sri Lanka to go beyond its role as a container transshipment hub and become a liquefied petroleum gas (LPG) transshipment center to cater to increasing LPG demand from Bangladesh, India, and the Maldives. Sri Lanka may also leverage its strategic location to meet the demand for such products and services from Southeast Asian countries such as Myanmar, Thailand, and Viet Nam. An LPG transshipment hub in Sri Lanka may bring an additional annual GDP contribution of \$3.6 billion resulting from increased break bulk cargo traffic from South Asia and Southeast Asia.

With its proven phosphate reserves of 30 million metric tons, Sri Lanka may venture into domestic production of triple super phosphate fertilizer to cater to domestic as well as external demand, such as from Bangladesh. In addition, by improving the productivity of natural rubber plantations, Sri Lanka may also export rubber products to Bangladesh, as well as other products such as articles of vulcanized rubber in which Sri Lanka has a cost advantage. Bangladesh may, in turn, realize cost savings by procuring triple super phosphate fertilizer and rubber products from Sri Lanka. In addition, India, the Maldives, and Sri Lanka may collaborate to promote cruise tourism that could cater to more than 600,000 potential cruise tourists in the subregion. SASEC countries may also leverage on existing religious assets to promote theme-based Hindu and Buddhist tourist circuits.

Overall, Sri Lanka may realize an additional annual GDP of around \$5 billion and annual cost savings of about \$130 million by 2025 (Figure 12).

**Figure 12: Summary of Subregional Synergies in Sri Lanka**



~ = approximately, GDP = gross domestic product, LPG = liquefied petroleum gas, TSP = triple super phosphate.

Source: ADB consultant's estimates.

## Summary

The identified synergies described are expected to generate for SASEC countries combined an additional annual output of approximately \$70 billion and additional cumulative employment of around 20 million by 2025; of which, around 9 million is direct employment in the subregion.<sup>15</sup> Table 2 summarizes the outcomes of the synergies identified earlier.

**Table 2: Summary of Benefits Resulting from Subregional Synergies**

Countries	Direct Output (\$ billion)	Indirect and Induced Output (\$ billion)	Savings (\$ billion)	Total Output (Direct + Indirect + Savings) (\$ billion)	Direct Employment (million)	Total Employment (including indirect and induced) (million)
Bangladesh	5.75	6.00	2.70	~15.0	3.00	7.50
Bhutan	1.70	0.30	–	~2.0	0.10	0.10
India (NER)	11.70	14.10	0.08	~26.0	2.80	4.80
India (ECEC)	7.50	6.40	0.28	~14.2	0.75	5.50
Maldives	0.40	0.30	0.13	~0.8	0.04	0.05
Nepal	3.80	2.10	–	~6.0	2.30	3.40
Sri Lanka	2.50	2.20	0.13	~5.0	0.12	0.30
<b>Total</b>	<b>~33</b>	<b>~32</b>	<b>~3.4</b>	<b>~68–70</b>	<b>~9</b>	<b>~20–21</b>

~ = approximately, – = not applicable, ECEC = East Coast Economic Corridor, NER = northeast region.

Source: ADB consultant's estimates.

Further exploring such economic opportunities and infrastructure linkages across industries and power has the potential to nearly double the share of subregional trade over the next decade.

## Potential Flagship Initiatives

The subregion offers several partnership opportunities in various sectors across resource, industry, infrastructure, and tourism. The approach to developing potential synergies in each SASEC country would vary. In a number of cases, an interrelated set of policy, regulatory, and institutional measures, as well as investments in physical assets would be required. In some cases, policy measures would have to take precedence to allow market forces to signal investment choices. Still, in other cases, industry players on their own can take advantage of market opportunities. Six prominent potential synergies are discussed in detail below for a better appreciation of the factors to be considered in further developing them.<sup>16</sup>

- Pipeline corridor between Bangladesh and India for crude oil import and product supply
- LPG transshipment and storage hub in Sri Lanka

<sup>15</sup> Output is defined as summation of additional GDP and savings.

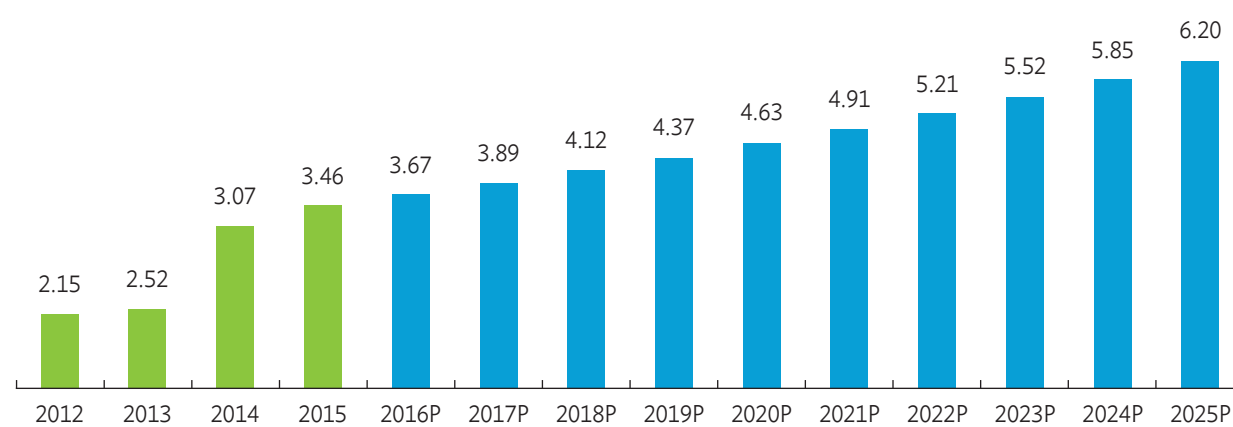
<sup>16</sup> While preliminary economic rationale for these identified synergies has been developed, there is a requirement for a detailed techno-economic feasibility assessment for any future decisions.

- Passenger car assembly in Bangladesh
- Internal connectivity for enhanced tourism and trade in the Maldives
- SASEC as a tourist destination
- Cross border power trade between countries of the subregion

## Pipeline Corridor between Bangladesh and India for Crude Oil Imports and Product Supply

Bangladesh is a net importer of refined petroleum products with its imports growing at a compound annual growth rate of 7%<sup>17</sup> in the last 5 years and projected to increase at a compound annual growth rate of 6% to reach 6.2 million metric tons per annum (MMTPA) by 2025 (Figure 13).<sup>18</sup>

**Figure 13: Refined Petroleum Product Import in Bangladesh** (in million metric tons per annum)



P = projection.

Source: Projected based on International Trade Centre trade map and Bangladesh GDP.

India's northeast region has oil refineries at Numaligarh, Bongaigaon, Digboi, and Guwahati with a cumulative refining capacity of 7 MMTPA in 2015. The capacities of some of these refineries are being expanded:

- Numaligarh, from the current 3 MMTPA to 9 MMTPA by 2020; and
- Bongaigaon, from the current 2.4 MMTPA to 4.5 MMTPA by 2023.<sup>19</sup>

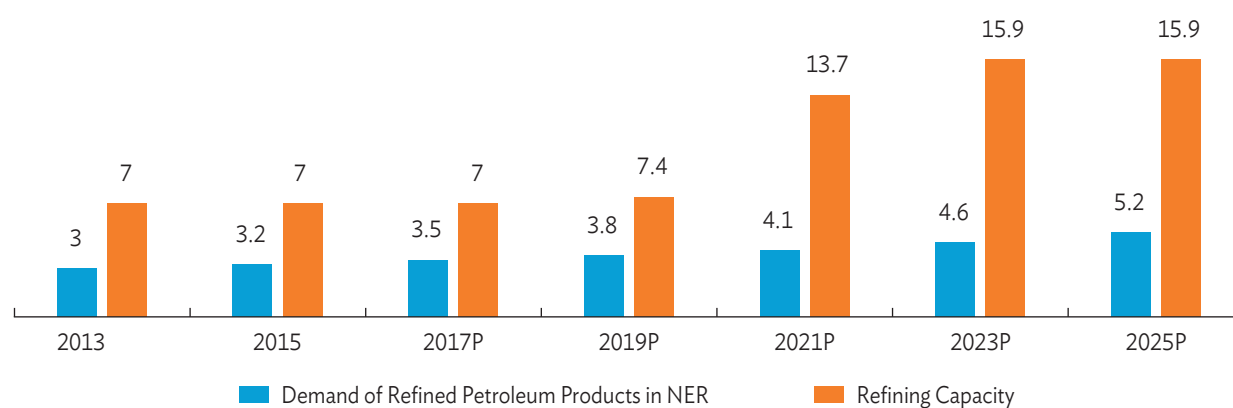
<sup>17</sup> Bangladesh Petroleum Corporation. <http://www.bpc.gov.bd/contactus.php?id=46>

<sup>18</sup> Projection based on International Trade Centre trade data and increase in Bangladesh's real GDP growth.

<sup>19</sup> Hydrocarbon Vision 2030 for North East Region India. <http://petroleum.nic.in/docs/visiondoc2030.pdf>

With the demand for refined petroleum products in India's northeast region growing at 3.4% over the last 5 years, the planned capacity expansion is expected to create excess refining capacity of about 10 MMTPA over the next decade (Figure 14).<sup>20</sup>

**Figure 14: Refining Capacity and Projected Demand in India's Northeast Region** (in million metric tons per annum)



NER = northeast region, P = projection.

Source: Hydrocarbon Vision 2030 for North East Region India.

This increase in refining capacity will require import of additional quantities of crude, for which refineries in India's northeast region are evaluating the possibility of sourcing through a pipeline from Paradip port in Odisha State, India.

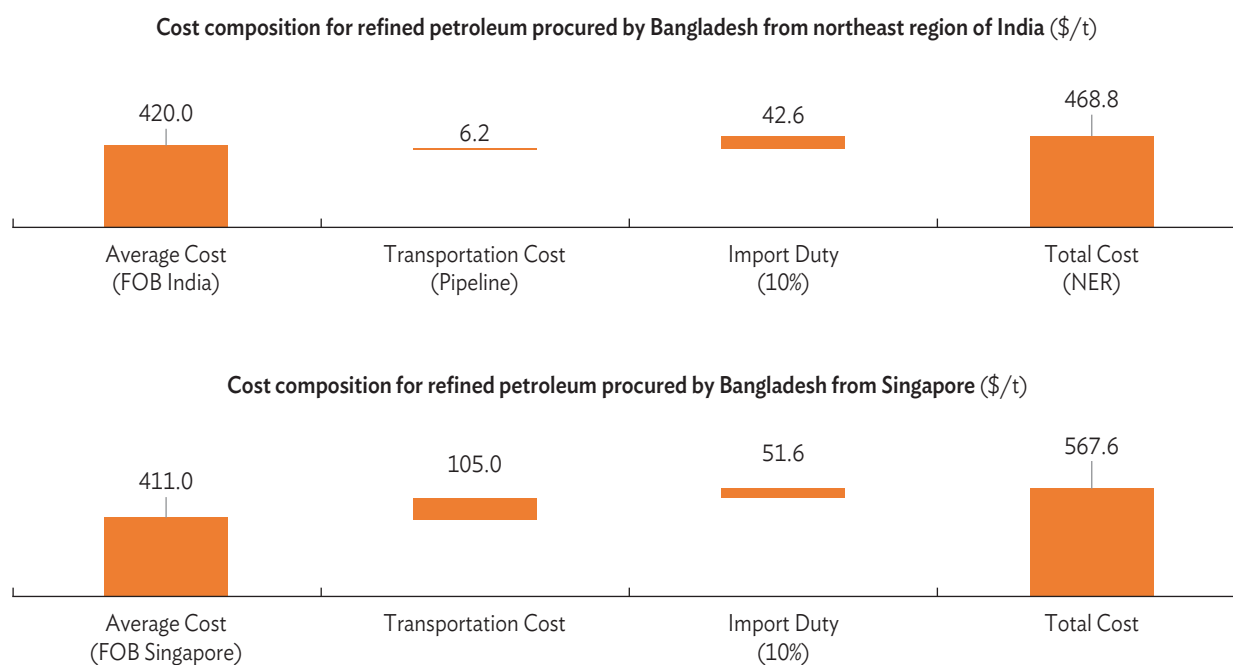
The operating cost of transporting crude to the refinery at Numaligarh through a pipeline from Paradip is estimated at between \$14/metric ton to \$15/metric ton.<sup>21</sup> However, crude oil import through pipeline from the Payra port in Bangladesh to Numaligarh could reduce the cost to around \$9/metric ton. The same pipeline corridor could also be leveraged to set up a product pipeline for the supply of refined products from Numaligarh refinery to Dhaka and the larger Bangladesh market.

Transport of crude through a pipeline from Bangladesh to India's northeast region may result in savings of \$83 million annually for India (at around \$5/metric ton). On the other hand, sourcing of refined petroleum products by Bangladesh from the proximate Numaligarh refinery can potentially result in savings of around \$100/metric ton for Bangladesh when compared to current supply centers (Figure 15).

To realize the synergy, both countries need to invest in the pipeline infrastructure and agree on the transit fee for the transport of crude oil and petroleum products. Decision on the transit fee may be determined based on the cost-benefit analysis conducted by the two countries. Depending on the transit fee arrangement, the estimated savings for India and Bangladesh are shown in Table 3.

<sup>20</sup> Footnote 18.

<sup>21</sup> Footnote 18. Operating costs of pipeline is Rs0.54/ton/kilometer; \$0.009/ton/kilometer; distance 1663 kilometers; total operating costs \$14.9/ton.

**Figure 15: Cost Comparison for Refined Petroleum Procurement**

\$/t = dollar per ton, FOB = free on board, NER = northeast region.

Note: This analysis has been undertaken for Kerosene.

Source: ADB consultant's estimates based on primary interactions with Strait Ship Brokers- Singapore, Platts.com, and North East Region Vision 2030.

**Table 3: Savings for India for One Metric Ton of Crude Transport and Savings for Bangladesh for One Unit of Refined Petroleum Imported from India (\$ per metric ton)**

Transit fees	\$0 per metric ton	\$1 per metric ton	\$2 per metric ton	\$3 per metric ton
Total savings to Bangladesh	617 million	626 million	636 million	646 million
Total savings to India	83 million	73 million	63 million	54 million

Source: ADB consultant's estimates.

In summary, this bilateral project has significant benefits for both Bangladesh and India:

- **Bangladesh.** Through imports of refined petroleum from India's northeast region, Bangladesh may potentially realize annual savings in the range of \$617 million–\$646 million when compared to procuring from Singapore. Bangladesh will also earn from transit fees for the supply of crude oil from Payra port to India's northeast region.
- **India.** India could expand its market for refined petroleum products and generate an additional GDP estimated at \$9 billion annually.<sup>22</sup> In addition, the pipeline through Payra port may also generate cumulative cost savings of about \$830 million over 10 years.

<sup>22</sup> With an average price of \$600/metric ton and estimated demand of 6.2 MMTA, the total output estimated for India is \$9.2 billion (including direct impact of \$3.7 billion, induced and indirect impact of the petrochemical industry).

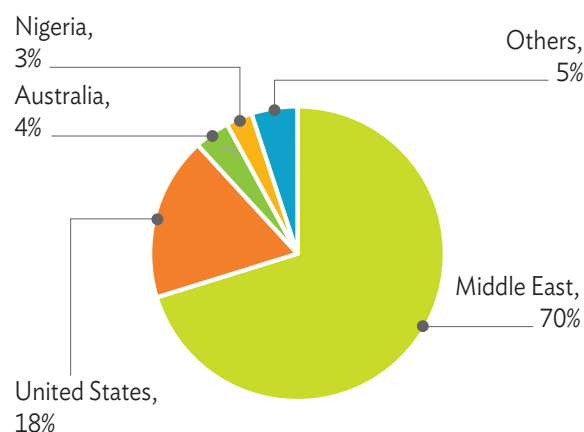
The following key issues however, will need to be addressed to realize this synergy:

- **Product specifications.** The refineries in India would have to produce the grade(s) of petroleum, oil, and lubricant products that are consumed in Bangladesh.
- **Nature of demand.** Bangladesh currently imports refined petroleum products from traders in Singapore who offer flexible contracting arrangements, while refineries in India are known to prefer entering into long-term contracts.

## Sri Lanka as an LPG Transshipment and Storage Hub

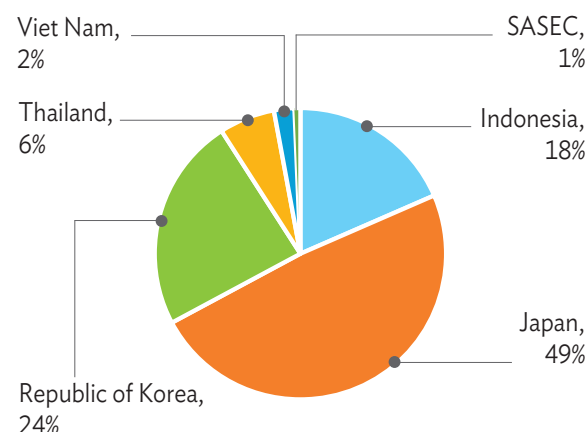
Around 47% of the world's LPG exports originate from countries in the Arabian Gulf region with significant proportion of the movement to the Asia Pacific region (Figure 16 and Figure 17).<sup>23</sup>

**Figure 16: Major Suppliers to Asian Markets (%)**



Source: International Trade Centre trade map.

**Figure 17: Major Demand Centers in Asian Markets (%)**

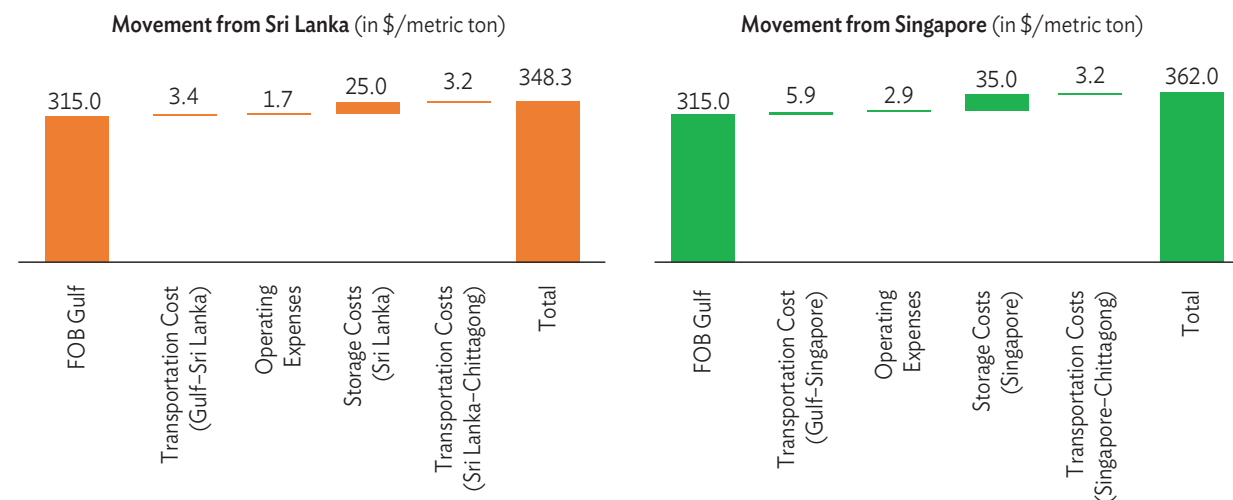


Source: International Trade Centre trade map.

At present, Bangladesh and the Maldives procure their LPG supplies through transshipment from Singapore. However, the increasing challenge of waterfront availability and high cost of land in Singapore opens a window of opportunity for Sri Lanka to establish itself as a regional LPG storage and transshipment hub.<sup>24</sup> This would also help SASEC countries save on logistics cost. This is illustrated for Bangladesh in Figure 18.

<sup>23</sup> US Securities and Exchange Commission. Electronic Data Gathering, Analysis, and Retrieval System. [https://www.sec.gov/Archives/edgar/data/1596993/000110465914017586/a14-7648\\_1f1.htm](https://www.sec.gov/Archives/edgar/data/1596993/000110465914017586/a14-7648_1f1.htm) (accessed 17 December 2016).

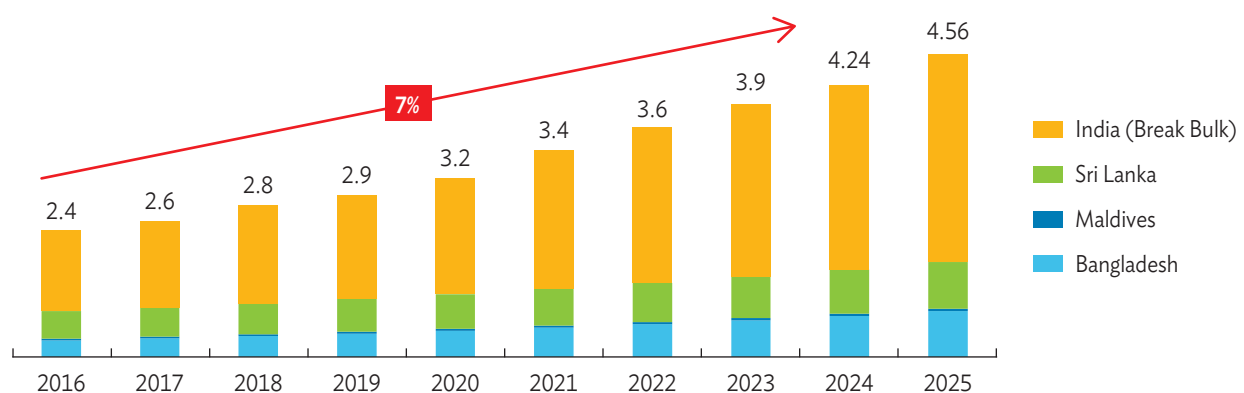
<sup>24</sup> Platts. 2014. *FOB Singapore Beyond Singapore—Towards FOB Straits*. <https://www.platts.com/IM.Platts.Content/InsightAnalysis/IndustrySolutionPapers/sr-oil-fob-singapore-straits.pdf>

**Figure 18: Cost Comparison of LPG Movement from Sri Lanka and Singapore to Bangladesh (Chittagong)**

FOB = free on board.

Source: ADB consultant's estimates.

Hence, Sri Lanka's strategic geographic location may be leveraged to promote it as an LPG transshipment and logistics hub for the region. This facility may not only cater to Sri Lanka's demand, but can also be used to transship and supply to other countries in the subregion whose LPG demand is increasing (Figure 19). Currently, LPG imports in Sri Lanka are around 0.2 MMTPA and are expected to grow at a rate of 6.1%.<sup>25</sup>

**Figure 19: SASEC LPG Demand Forecast (in million metric tons per annum)**

LPG = liquefied petroleum gas, SASEC = South Asia Subregional Economic Cooperation.

Sources: Indian Port Statistics, trade map, Energy & Power – Bangladesh; ADB consultant's estimates.

<sup>25</sup> Based on real GDP growth rate.

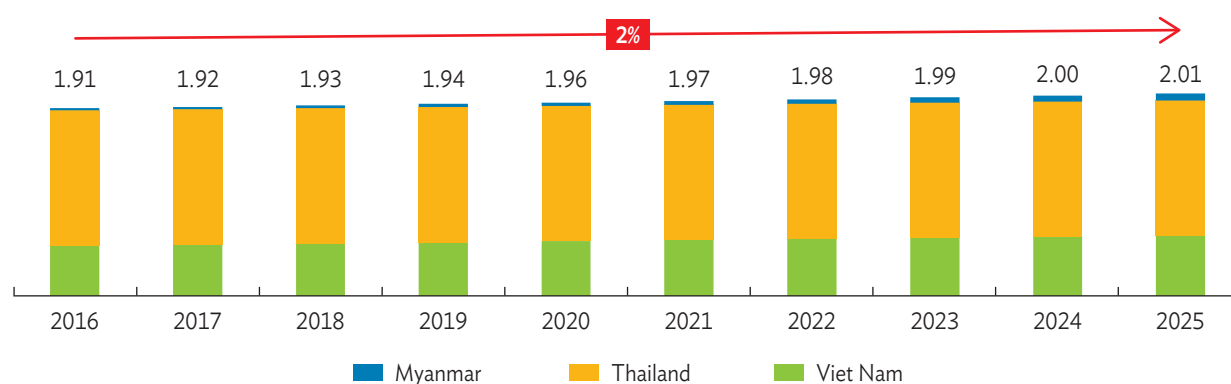


LPG currently provides only about 6% of the Maldives's total energy demand. LPG demand is expected to increase rapidly, with imports projected to reach about 0.021 MMTPA by 2025. Similarly, with depletion of gas reserves in Bangladesh, demand for LPG is expected to increase at a rate of 12% reaching about 0.4 MMTPA–0.5 MMTPA by 2025.<sup>26</sup>

Sri Lanka may also capture the break bulk LPG demand of India. It is estimated that the demand for LPG in India is likely to reach up to 35 MMTPA by 2025, with continued imports of around 21 MMPTA until 2025. Sri Lanka can serve the break bulk requirement of India, particularly for the ports at the eastern coast such as Haldia, which are estimated to be importing break bulk LPG of around 1.9 MMTPA.

Sri Lanka can also position itself to cater to LPG demand of Southeast Asian countries like Myanmar, Thailand, and Viet Nam whose demand is increasing at a rate of about 2% annually (Figure 20) and which primarily rely on Middle East suppliers. In addition, land availability in Sri Lanka is likely to be a competitive advantage when compared to other trading hubs like Singapore. Sri Lanka may leverage this advantage through the creation of LPG storage facilities and setting competitive storage prices to capture the transshipment demand of both the SASEC and Association of Southeast Asian Nations. This could offer countries savings on the total landed cost to the tune of around \$3–\$4 per metric ton of LPG.<sup>27</sup>

**Figure 20: Southeast Asia LPG Demand Forecast** (million metric tons per annum)



Servicing an estimated demand of around 6.6 MMTPA by 2025, the LPG transshipment and storage hub in Sri Lanka may contribute an additional GDP of \$3.7 billion annually, and generate an aggregate employment of around 130,000 over the next decade.

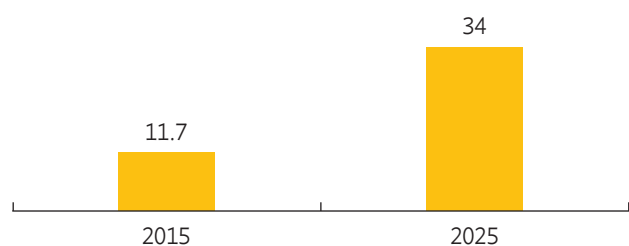
<sup>26</sup> Based on stakeholder consultations and Bangladesh's aspired per capita consumption of 4 kilograms.

<sup>27</sup> Based on primary interactions, it was assessed that typical storage cost in the region ranges between \$13–\$35 per metric ton per month. For the purpose of assessing savings on the total landed cost, storage charges of \$25 per metric ton per month and a storage period of 15 days have been assumed.

## Passenger Car Assembly in Bangladesh

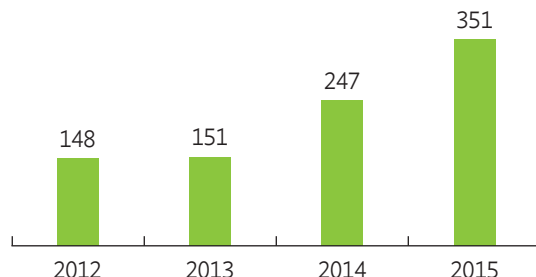
Bangladesh is experiencing a surge in demand for automotive passenger cars resulting from a rising middle class and affluent population (Figure 21).<sup>28</sup> Its passenger car demand is largely serviced through imports which have grown at a rate of 33%–35% (in value) over the last 3 years (Figure 22).

**Figure 21: Size of Middle and Affluent Class of Bangladesh (million); increasing at a rate of 10.5%**



Note: Middle and affluent class with monthly household income of \$401 or more.  
Source: Boston Consulting Group 2015.

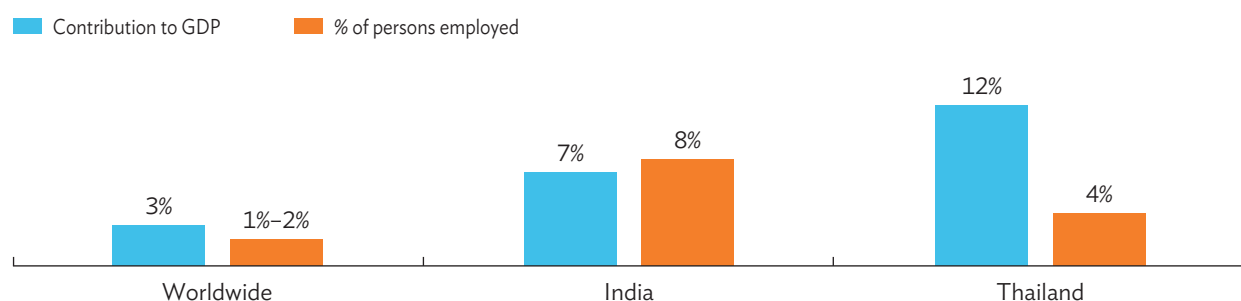
**Figure 22: Increase in Import of Passenger Cars in Bangladesh (\$ million)**



Source: ITC trade map.

Currently, majority of the passenger car imports consist of refurbished cars or used cars that are reconditioned in Bangladesh with the contribution of this industry negligible in the country's economy.<sup>29</sup> Globally, the automobile industry has been observed to be a major pillar of manufacturing sector growth, and is estimated to contribute approximately 3% of the world's GDP (Figure 23). Generally, the passenger car assembly industry is the starting point for a new country venturing into the automobile sector, as unit factor payments for both labor and technology are lowest in assembling. Subsequently, with the right set of interventions, the country may gradually evolve into an end-to-end manufacturing base across the entire auto industry value chain.

**Figure 23: Share of Automobile Sector in GDP and Employment by Country**

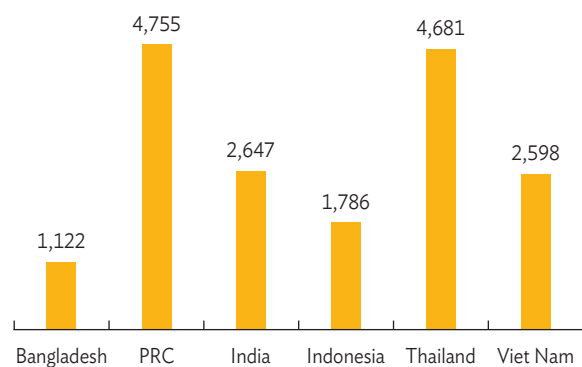


GDP = gross domestic product.

Sources: Organisation for Economic Co-operation and Development report on automobile industry beyond the crisis (<https://www.oecd.org/eco/outlook/44089863.pdf>); AT Kearney Report on the Contribution of the Automobile Industry to Technology and Value Chain.

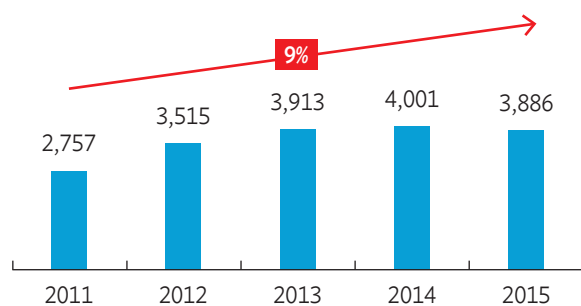
<sup>28</sup> Z. Munir, O. Muehlstein, and V. Nauhbar. 2015. Bangladesh: The Surging Consumer Market Nobody saw coming. *Boston Consulting Group*. 22 October. <https://www.bcgperspectives.com/content/articles/center-customer-insight-go-to-market-strategy-bangladesh-surg-ing-consumer-market/#chapter1>

<sup>29</sup> International Trade Centre trade map Harmonized System codes 8703 (for automobiles) and 8708 (for auto components).

**Figure 24: Annual Average Wages (\$/year)**

PRC = People's Republic of China.

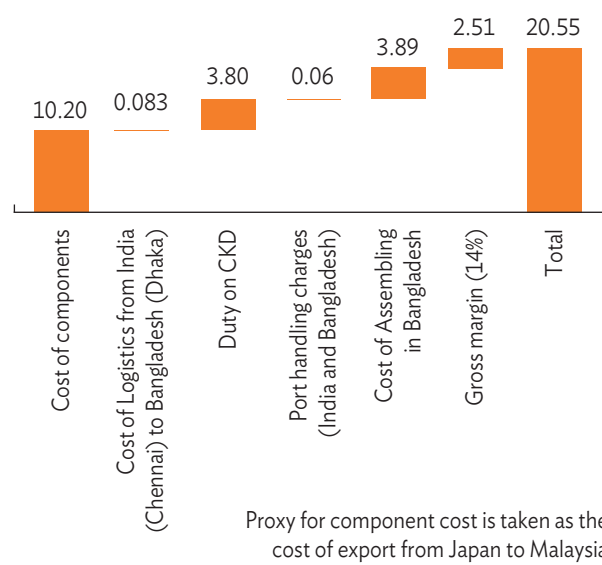
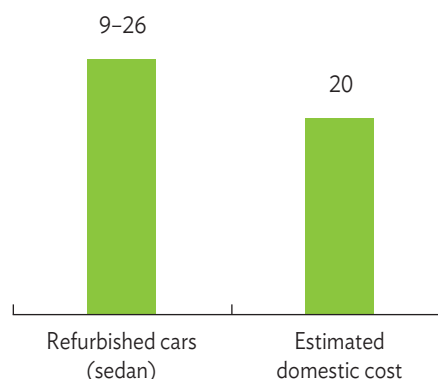
Source: Trading Economics.

**Figure 25: Exports of Auto Components (including those used in passenger cars) by India (\$ million)**

Source: ITC Trade Map data. 2016 (accessed December 2016).

By leveraging its cost-efficient labor force (Figure 24) and access to gateway ports, as well as its sizeable domestic market, Bangladesh may establish a passenger car assembly industry. It may source the automotive components from India which has emerged as a global supplier of automotive components (including those used in passenger cars), with exports growing at a compounded annual growth rate of 9% (Figure 25) and a share of 1.1% in world exports. Bangladesh can thus reduce its dependence on imported new and refurbished cars (Figure 26 and Figure 27), while creating additional economic output and employment opportunities in the country.

### DOMESTIC MARKET

**Figure 26: Cost of Assembling Car in Bangladesh with Import of CKD of India (\$ thousand)****Figure 27: Cost Comparison of Domestic Manufacturing when Compared to Refurbished Cars (\$ thousand)**

CKD = completely knocked down.

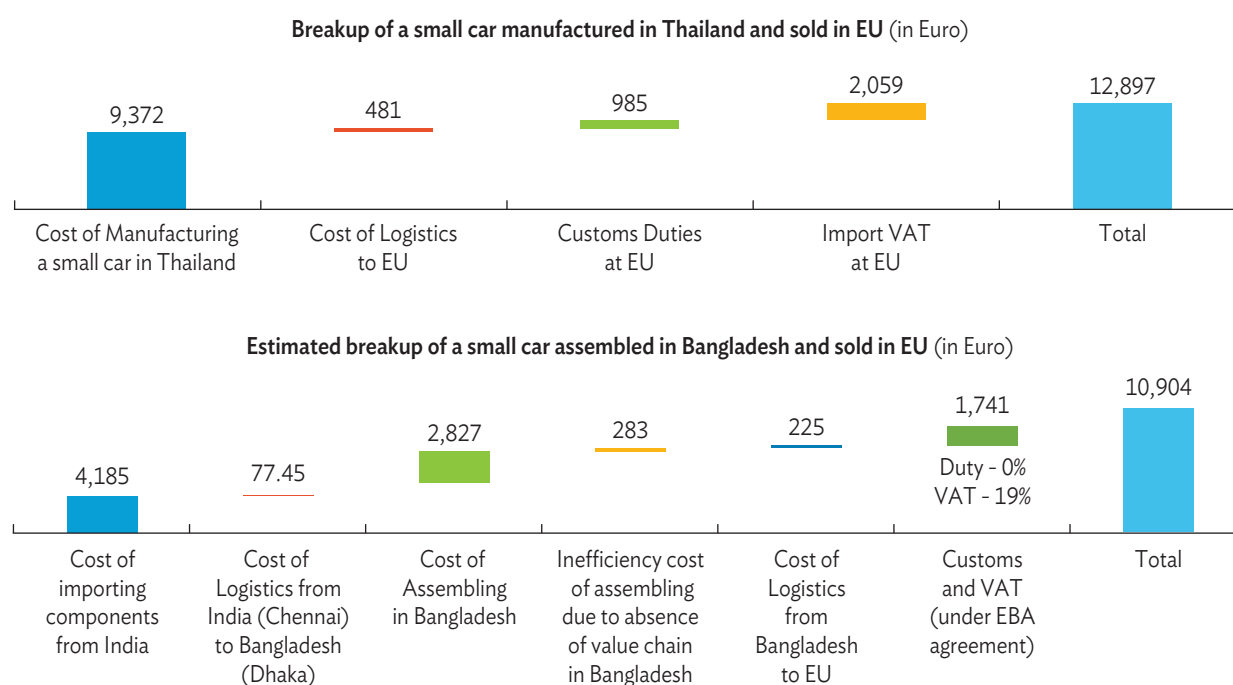
Note: Assembling car at a price point of around BDT16 lakh (\$20k) is competitive to reconditioned cars (which are at around BDT7 – BDT20 lakhs or about \$9k – \$26k\*) (Figure 26 and Figure 27).

\* Estimated based on average price of refurbished cars in Bangladesh as per primary interactions.

Source: ADB consultant's estimate.

In addition to catering to domestic demand, Bangladesh may also leverage the passenger car assembly industry to penetrate the European Union market where it currently enjoys preferential duty-free, quota-free access, under the “Everything but Arms” arrangement. This preferential access is likely to continue for a few more years and given Bangladesh’s cost structure for manufacturing of passenger cars, there is a potential for a 15%–20% cost advantage over other passenger car manufacturing hubs such as Thailand, which are currently large suppliers to European Union (Figure 28).

**Figure 28: Cost Comparison for Passenger Car Manufacturing in Bangladesh vs. Thailand (Hatchback segment)**



EBA = everything but arms, EU = European Union, VAT = value-added tax.

Source: ADB consultant's estimate.

Given the current supply–demand dynamics, the passenger car assembly industry has a potential to generate additional GDP for Bangladesh of approximately \$4.6 billion in direct economic output and total output of \$7.5 billion annually including indirect and induced impacts, with corresponding additional aggregate employment for around 7 million people over the next decade.<sup>30</sup>

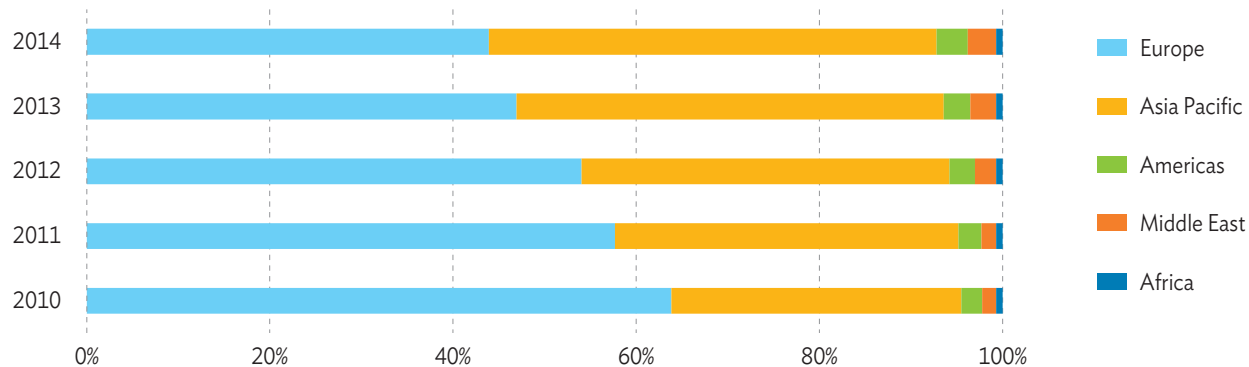
<sup>30</sup> Both domestic and export markets have been considered for estimating Bangladesh’s potential in the automobile industry. For the domestic market, the number of passenger cars have been projected to be about 98,000 units by 2025 (a growth rate of 13% over the current market of 30,000 units) with a price point of Tk3,500,000. For the export market, western markets such as the European Union have been considered to which Bangladesh has duty-free, quota-free access under the “Everything but Arms” arrangement; the total market size of small cars in these countries is about \$585 billion, of which Bangladesh can target a share of 0.6%, the current market share of Thailand in these countries. Furthermore, the manufacturing sector of Bangladesh directly employs 655 people and has a total employment of 933 people per million dollar of output (ADB and International Labour Organization. 2016. *Bangladesh: Looking Beyond Garments*. Manila). With \$4.54 billion of direct output and \$7.45 billion of total output (including multiplier effect) envisaged in the automobile industry, Bangladesh has potential to generate direct employment of about 3 million and total employment of about 7 million by 2025.

At the same time, India is also expected to gain in this collaborative arrangement through automotive component exports to Bangladesh for assembly. The incremental GDP for India is estimated at approximately \$3.4 billion of direct economic output and total output of \$5.6 billion annually including indirect and induced impacts with an incremental aggregate employment of 4.9 million people over the next decade, resulting in a mutually beneficial relationship.

## Supporting the Tourism Sector in the Maldives through Improved Connectivity and Services

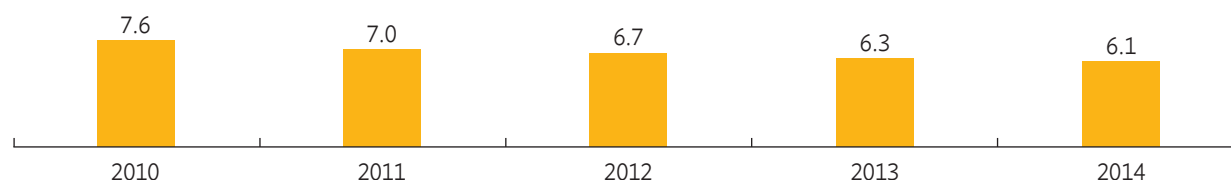
Tourism is the Maldives' primary sector, directly contributing around 24% of GDP<sup>31</sup> and providing almost 60% of total employment.<sup>32</sup> Recently, the tourism sector has been witnessing some changes with the decreasing share of European tourists and an increasing share of Asian tourists, primarily East Asian tourists (Figure 29).<sup>33</sup> A steady decline has also been observed in the average stay of tourists, which has gone down from 7.6 days in 2010 to 6.1 days at the end of 2014 (Figure 30), resulting from the shift in traditional market segments of the Maldives from Europe to Asia. While the European tourists are found to spend on average of 8 days during the holidays, the Asian tourists tend to stay for shorter periods of 4 to 5 days.<sup>34</sup>

**Figure 29: Changing Tourist Arrival Patterns in the Maldives—Market Share by Region**



Source: Maldives Tourism Yearbook 2015.

**Figure 30: Average Duration of Tourist Stay in the Maldives (days)**



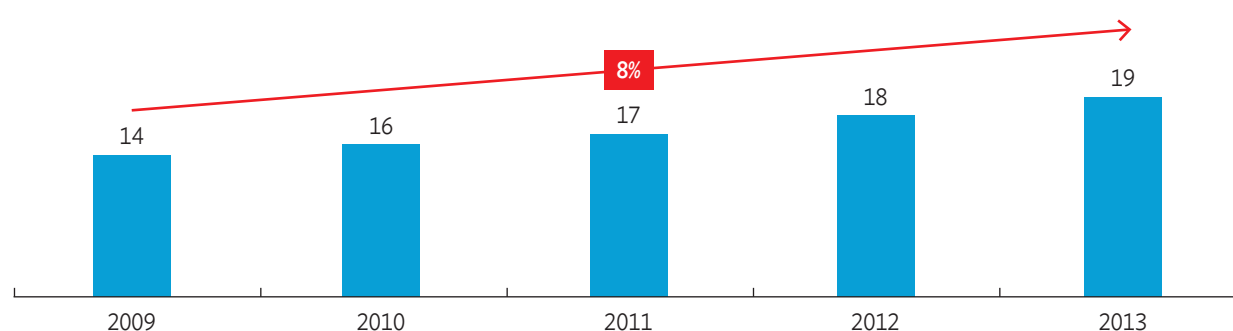
Source: Maldives Tourism Yearbook 2015.

<sup>31</sup> Government of the Maldives, Ministry of Finance & Treasury, National Bureau of Statistics. 2016. *Statistical Pocketbook of Maldives*. Malé.

<sup>32</sup> World Travel and Tourism Council. 2016. *Travel & Tourism Economic Impact, Maldives*.

<sup>33</sup> Government of the Maldives, Ministry of Tourism. 2015. *Maldives Tourism Yearbook 2015*. Malé.

<sup>34</sup> Footnote 33.

**Figure 31: Outbound Tourist Departures from the Subregion (million)**

Source: World Development Indicators, The World Bank.

The People's Republic of China has the largest market share in tourist arrivals in the Maldives accounting for more than 30% in 2014 and with an average stay of 4 to 7 days. India too remains in the top 10 tourism markets for the Maldives growing at almost 25% in the last 5 years with around 45% Indian tourists staying for 1–3 nights. With the number of subregional tourists going abroad increasing by around 8% during 2009–2013 (Figure 31), there is potential for the Maldives to further increase the share of subregional tourists.<sup>35</sup> Recognizing shifts in tourist patterns, the Maldives government has developed consecutive tourism master plans aimed at defining the strategic agenda and action plans for the sector.

The Maldives recognizes the need to invigorate the tourism sector and adapt to the preferences of the changing tourism demographic. To attract a wider pool of tourists (especially budget travelers) and make the travel to the Maldives more affordable, the government has introduced guesthouse tourism initiatives. The number of guesthouses increased from 25 with 476 beds in 2010 to 220 with 3,199 beds at the end of 2014. This huge increase has been due to the government policy being eased on guesthouses, allowing guesthouses to be built on all local islands.<sup>36</sup>

The introduction of guesthouse tourism is expected to positively benefit the country and have a transformative impact on local communities with increased participation, employment, and exploration opportunities to some previously unexplored atolls.

Poor interisland connectivity (including air, sea, and physical connectivity) is an important factor impacting guesthouse business.<sup>37</sup> Most resorts have invested in their own ferry and/or boat infrastructure to receive guests arriving at Velana International Airport and transport them to the resort. However, guesthouses may not have the capacity to provide this facility due to lower average number of rooms (less than 20) when compared to resorts (more than 200). Hence, guesthouses often rely on public or private transport (ferry, plane, and speedboats) to facilitate

<sup>35</sup> The World Bank, World Development Indicators, International Outbound Tourist, 2013. <http://data.worldbank.org/indicator/ST.INT.DPRT> (accessed 5 February 2017).

<sup>36</sup> Footnote 32.

<sup>37</sup> ADB. 2015. *Maldives: Overcoming the Challenges of a Small Island State*. Manila. Poor transport infrastructure and connectivity is recognized as a major constraint on investment, particularly impacting micro-, small-, and medium-sized enterprises and private individuals on the atolls. Infrequent sea transport services delay the transport of goods, thus constraining the growth and profitability of enterprises in the islands and discouraging new investments in potentially profitable areas.

tourist movement. There is a need to improve internal connectivity within the Maldives. It is estimated that the cost of interisland transport may reach up to \$400, which may make reaching guesthouses in outer atolls unaffordable for budget travelers.<sup>38</sup> Thus, if the Maldives wishes to cater to a wider segment of Asian tourists particularly from the SASEC subregion, it is important to improve internal connectivity to drive the cost of transport down. Improved interisland connectivity may also positively contribute to increasing the average duration of stay through the provision of cost-effective transport facilities between the islands. As guesthouses are primarily owned and operated by local Maldivians, greater occupancy may help the economy through higher earnings and employment opportunities. In parallel, improved internal connectivity may also positively contribute to the development of other tourism products (such as biodiversity parks).

## SASEC as a Tourist Destination

The tourism sector in SASEC has shown significant growth in recent years, with average contribution to GDP ranging from approximately 5% to as high as 24%, and witnessing a growth rate of about 8.4% in the last 10 years, albeit with wide variation in growth rate among the countries (Table 4).<sup>39</sup> Despite high growth, the subregion's share in world tourism has remained stagnant at about 1.5% of world tourist arrivals.<sup>37</sup>

**Table 4: Tourism Sector Contribution to SASEC**

Country	Tourist Arrivals (2015)	Growth (2010–2015) (%)	% Contribution to GDP
Bangladesh	119,161 <sup>a</sup>	–9 <sup>b</sup>	4.1
Bhutan	155,121	31	6.0
India	8,027,133 <sup>c</sup>	7	6.7 <sup>d</sup>
Maldives	1,234,248	9	23.6
Nepal	538,970	7 <sup>e</sup>	8.9
Sri Lanka	1,798,400	22	11.0

% = percent, GDP = gross domestic product, SASEC = South Asia Subregional Economic Cooperation.

<sup>a</sup> 2014.

<sup>b</sup> 2010–2014.

<sup>c</sup> For the northeast region, the foreign “tourist footfall” is 118,644 and for the East Coast Economic Corridor the foreign “tourist footfall” is 8,674,111.

<sup>d</sup> Pan-India.

<sup>e</sup> Pre-earthquake.

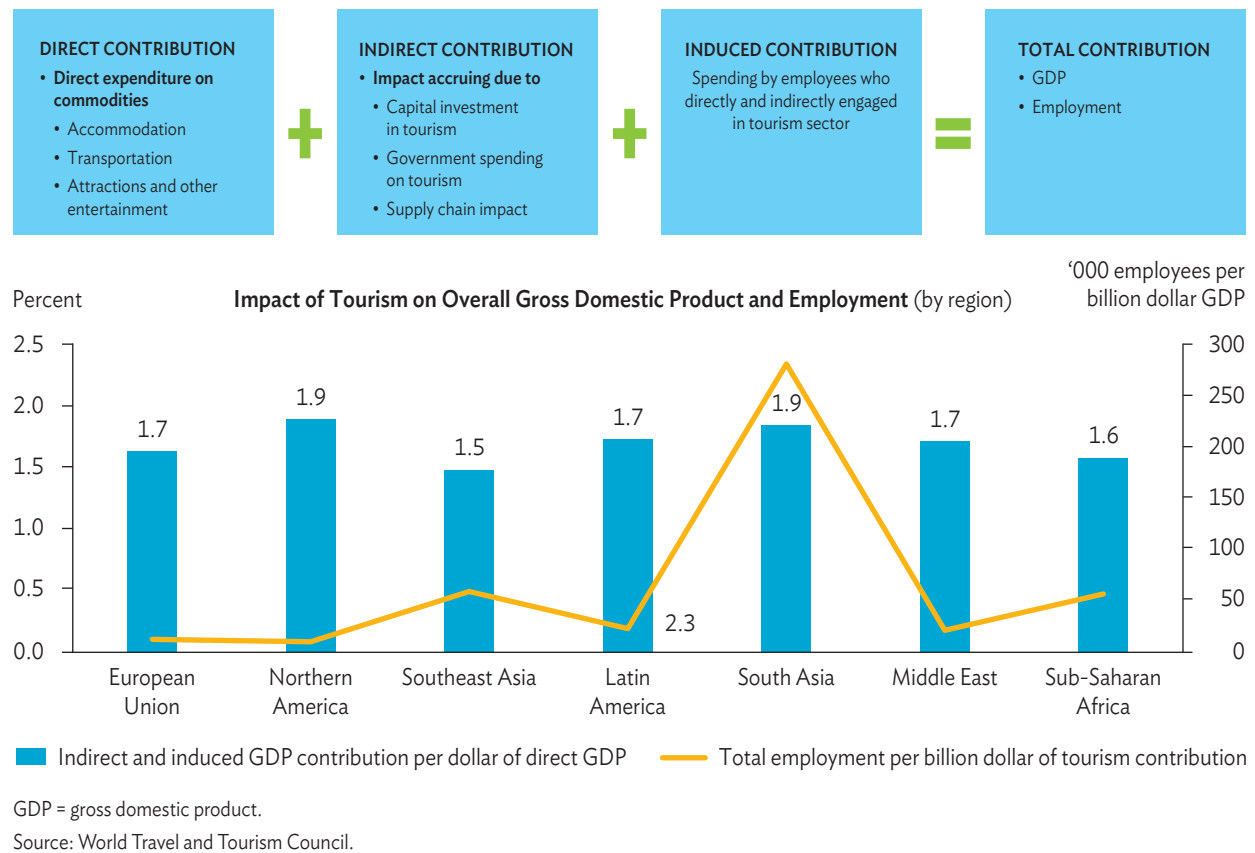
Note: The metric “tourist footfall” is different from the metric “tourist arrival” in that the tourists are accounted for multiple times in the metric “tourist footfall” since the data furnished is state-wide.

Source: World Travel and Tourism Council country statistics.

Tourism is globally recognized as a sector with high multiplier effect and a catalyst for economic growth and employment generation (Figure 32).

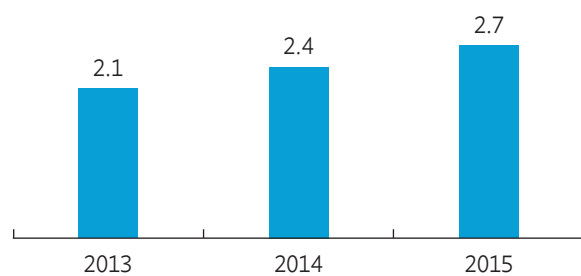
<sup>38</sup> Based on primary discussion.

<sup>39</sup> UN World Tourism Organization. 2016. *Tourism Highlights 2016 Edition*. <http://www.e-unwto.org/doi/pdf/10.18111/9789284418145>

**Figure 32: Tourism Sector's Contribution to Gross Domestic Product**

SASEC countries have common heritage, culture, and tourism assets across historical locations, geographic features, and ecology, among others. But despite this commonality, the extent of tourist traffic contribution by one SASEC country to another is limited to 2.7 million arrivals per year (in aggregate across the 6 countries) (Figure 33).

Despite annual tourist arrivals in SASEC of approximately 12 million tourists per year, the low percentage of multi-country tourist travel suggests the need for strategic initiatives that may mutually benefit and add resilience to the tourism sector in the SASEC countries. The inclination to travel across more than one country while visiting a SASEC country has been also brought out in a survey conducted by Bhutan (Figure 34).<sup>40</sup>

**Figure 33: Tourist Movement within SASEC Countries** (million)

Source: Tourism documents of respective countries.

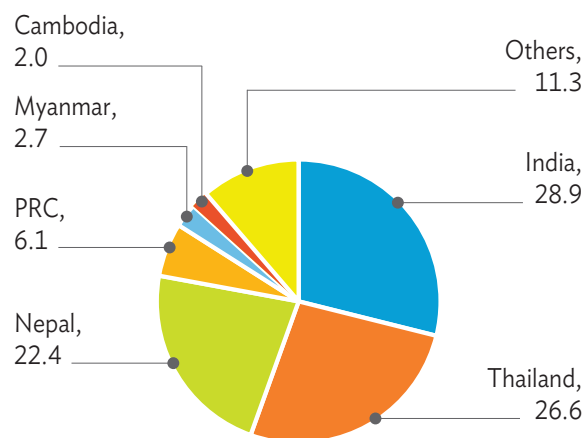
<sup>40</sup> Government of Bhutan, Tourism Council. 2015. *Bhutan Tourism Monitor Annual Report 2015*. Thimphu.



There is a need to position SASEC as a tourist destination through joint development of tourism products, joint marketing, standardization of services and facilities, and seamless accessibility.

One initiative to support this strategy is the development of theme-based tourist circuits between two or more SASEC countries. These circuits may revolve around themes like ecological and religious destinations or destinations connected by river or sea (providing opportunities to develop river and sea cruises). By capitalizing on these themes, the subregion may target improvements in tourist inflows and also promote the movement of tourists across the SASEC countries. Some of the illustrative circuits around ecotourism, Buddhist and Hindu pilgrimage, and cruise and river tourism themes that may be considered in the subregion are shown in Table 5.

**Figure 34: Foreign Tourist Visiting Bhutan Expressing Desire to Visit Other Countries in the Subregion (%)**



PRC = People's Republic of China.

Source: Tourism Council of Bhutan. 2016. *Bhutan Tourism Monitor – Annual Report 2015*. Thimphu.

**Table 5: Illustrative Tourism Circuits for SASEC Subregion**

#### Religious circuits

Ayodhya (I) – Chitrakoot (I) – Varanasi (I) – Buxar (I) – Patna (I) – Darbhanga (I) – Sitamarhi (I) – Janakpur (N) – Kathmandu (N) – Colombo (SL) – Negombo (SL) – Chilaw (SL) – Matale (SL) – Sita Kotuwa (SL) – Nuwara Eliya (SL) – Bandarawela (SL) – Kataragama (SL) – Ussangoda (SL) – Colombo (SL)

Kathmandu (N) – Pokhara (N) – Butwal (N), Tanakpur (I) – Jageshwar Dham (I) – Haridwar (I) – Rishikesh (I) – Char Dham (I) (Gangotri, Yamunotri, Kedarnath, Badrinath)

Kapilavastu (N) – Lumbini (N) – Kathmandu (N) – Paro (B) – Thimphu (B) – Punakha (B) – Bumthang (B) – Trashigang (B) – Paro (B) – Amaravathi (I) – Chandavaram (I) – Guntupallli (I) – Bhattiprolu (I) – Colombo (SL) – Kataragama (SL) – areas around Monaragala (SL) – areas around Badulla (SL) – Kandy (SL) – Anuradhapura (SL) – Colombo (SL)

#### Ecotourism circuits

Cherrapunji Mawsynram RF (I) – Shillong (I) – Narpuh Reserve Forest (I) – Sylhet (Ba)

Jim Corbett National Park (I) – Dudhwa National Park (I) – Shukla Phanta Wildlife Reserve (N) – Bardiya National Park (N)

Mumbai (I) – Colombo (SL) – Malé (M) – Baa Atoll Biosphere Reserve (M) – Ari Atoll (M) – Malé (M)

#### River Cruise and Sea Cruise tourism circuits

Kolkata (I) – Cox Bazar (Ba) – Teknaf (Ba)

Murshidabad (I) – Kalna (I) – Bandel (I) – Kolkata (I) – Sunderbans (I and Ba)

Kochi (I) – Kumarakom (I) – Alapuzha (I) – Kovalam (I) – Colombo (SL) – Malé (M) – HDh (Hanimandhoo) (M) – Lakshadweep islands (I) – Kochi (I)

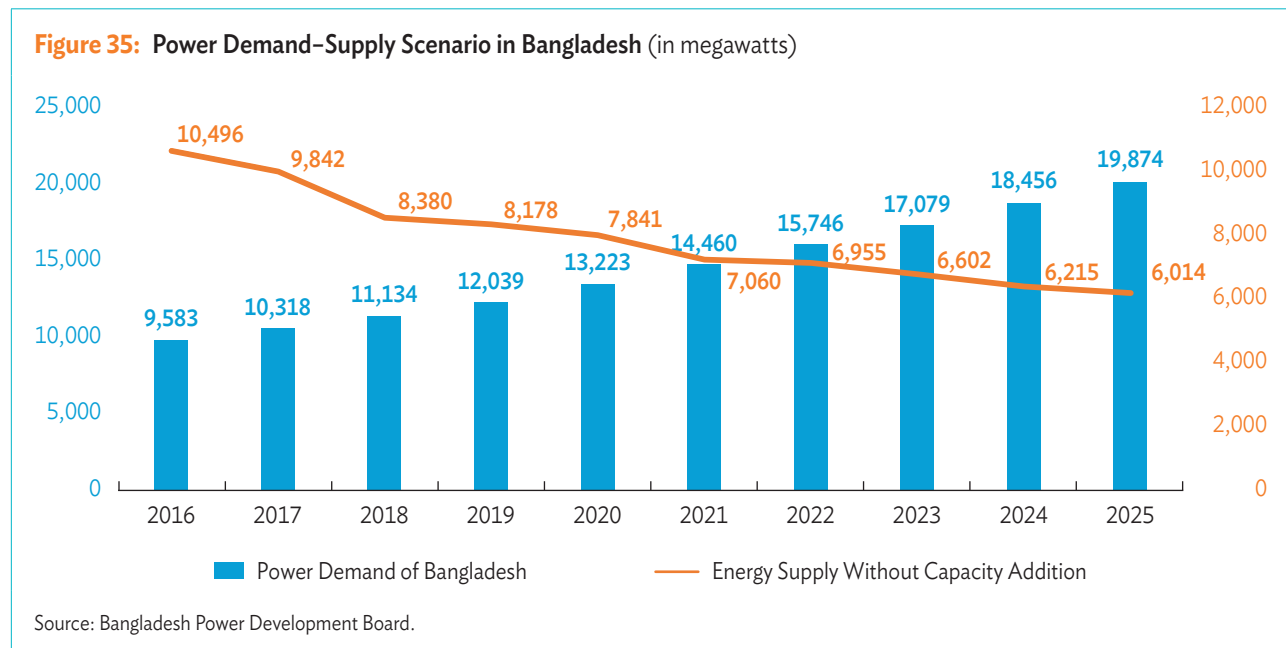
Ba = Bangladesh, B = Bhutan, I = India, M = Maldives, N = Nepal, SASEC = South Asia Subregional Economic Cooperation, SL = Sri Lanka.

Source: Prepared by ADB consultant.

The development of the tourism circuits in SASEC subregion is estimated to have a potential to generate an additional GDP of approximately \$6.25 billion and an aggregate employment potential of around 2.77 million in the subregion. However, to realize this potential, there is a need to overcome concerns of security and safety, develop better and standardized tourism products and facilities, address the gaps in tourists' information, and develop the necessary protocols, accreditations, facilities, and infrastructure to enable seamless movement of tourists across these circuits.

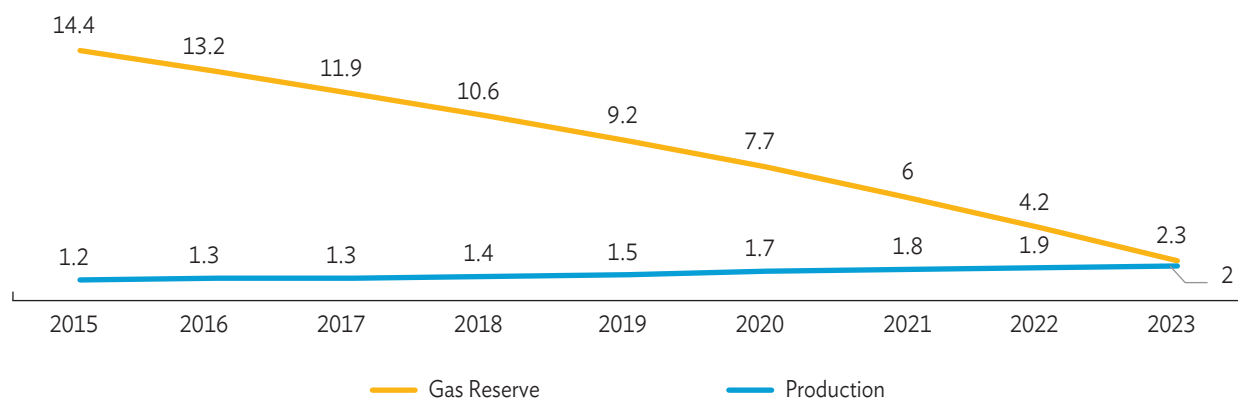
## Cross-Border Power Trade Between Countries of the Subregion

Rapid socioeconomic development and industrialization of SASEC translates into higher requirements for reliable and stable power supply. Some SASEC countries are currently facing a power shortage. For instance, with growing population and expansion of economic activities, the peak demand for electricity in Bangladesh increased by 8%–9% in the last 5 years. By 2025, the total power demand of Bangladesh is expected to be around 20,000 megawatts which is almost twice its demand in 2016 (Figure 35).<sup>41</sup> Despite the almost doubling of power supply during the Sixth Plan period (2011–2015), Bangladesh still requires more power. Moreover, the fuel mix for power generation is currently dominated by natural gas and in the absence of discovery of new gas reserves, the country may witness gas reserves depletion by 2023 (Figure 36).<sup>42</sup>



<sup>41</sup> People's Republic of Bangladesh, Ministry of Power, Energy and Mineral Resources, Bangladesh Power Development Board. 2016. *Survey on Power System Master Plan*.

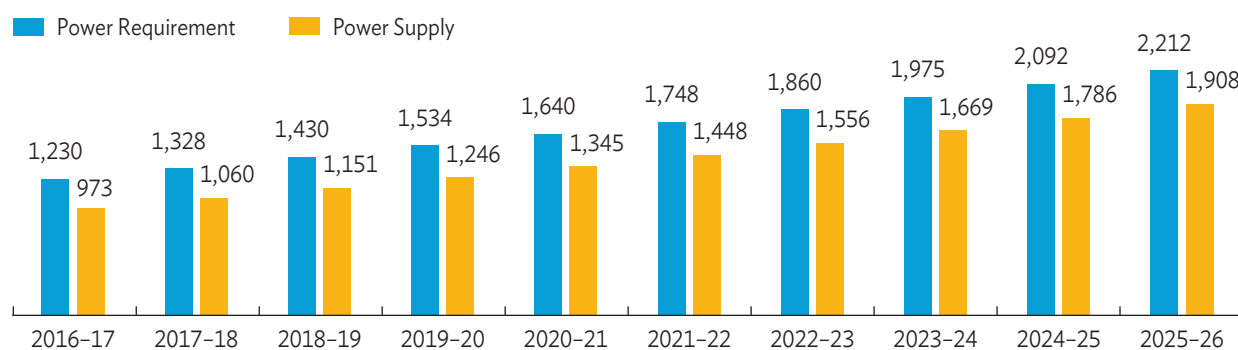
<sup>42</sup> Government of Bangladesh, Planning Commission. 2015. *Seventh Five-Year Plan, 2016–2020*. Dhaka.

**Figure 36: Gas Reserve Depletion Scenario in Bangladesh** (in trillion cubic feet)

Source: Government of Bangladesh. Seventh Five-Year Plan, 2016–2020.

This indicates an urgent need for Bangladesh to secure alternate power supply sources.

Similarly, although India is expected to augment its generation capacity to meet its power requirements, the need for alternative generation sources of electricity is also envisaged (Figure 37). India's power demand is expected to be around 360 gigawatts (GW)<sup>43</sup> by 2025.<sup>44</sup> With depleting natural resources, increased cost of generation is expected to drive average electricity prices up to about Rs6.52/kilowatt-hour (almost 70% higher than 2015 prices) by 2030. In order to drive cost efficiencies, there is a strong case for India to also explore alternate power supply sources.

**Figure 37: Power Demand and Supply of India** (in billion units of power)

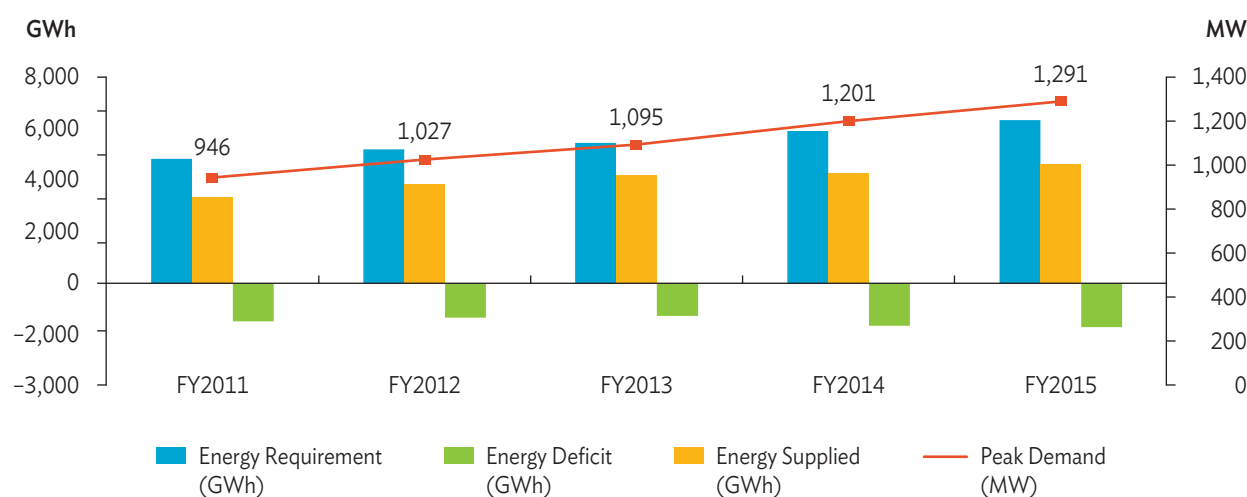
Source: Government of India, Ministry of Power, Central Electricity Authority. 2016a. *Draft National Electricity Plan (Volume 1)—Generation*.

<sup>43</sup> Assuming 70% plant load factor since the fuel mix is dominated by thermal.

<sup>44</sup> Government of India, Ministry of Power, Central Electricity Authority. 2016a. *Draft National Electricity Plan*. New Delhi; Government of India. Ministry of Power, Central Electricity Authority. 2016b. *Executive Summary Power Sector*. New Delhi.

While the resource crunch and high demand are factors accounting for lack of energy security in India and Bangladesh, Nepal's energy deficit is high in spite of its abundant hydropower resources because of its difficult terrain. This has limited investments in additional generation capacity, resulting in a supply deficit of around 20%. Investments in generation, transmission, and distribution have not been able to keep up with the growth in demand, and, consequently, full access to power in remote regions of Nepal is constrained (Figure 38). By 2025, peak demand is expected to almost double creating an immediate need for investment in power generation, transmission, and distribution infrastructure.

**Figure 38: Demand–Supply Gap Analysis for Nepal (historic)**



FY = fiscal year, GWh = gigawatt-hour, MW = megawatt.

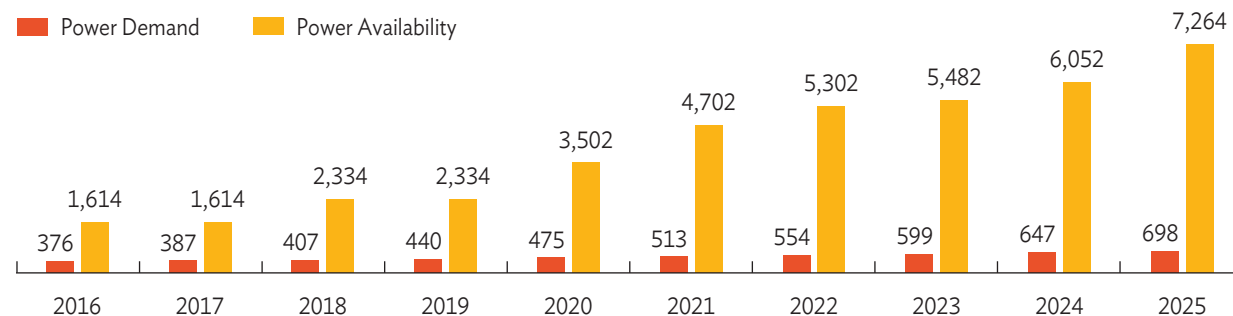
Sources: Nepal Electricity Authority; Christian Aid. 2014. *Low-carbon South Asia: Nepal*. London.

While Bangladesh, India, and Nepal are dealing with electricity deficits, other SASEC countries are or have the potential to be in energy surplus.

Bhutan, with abundant hydropower resources, has excess energy potential that may be traded with other countries in the subregion (Figure 39). With relevant investments, Nepal also has the potential to transform from an energy-deficient country to a net energy exporter. Based on Nepal's current plans, it is estimated that 7 gigawatts of additional capacity is expected to be commissioned by 2025.<sup>45</sup> Enabling regional power trade may be a commercially attractive option to bridge the demand–supply gap among the SASEC countries and benefit Nepal and Bhutan through additional GDP contribution. Overall, around 17 gigawatts of power trade potential has been estimated between the SASEC countries (Table 6).<sup>46</sup>

<sup>45</sup> R. Ratna Panda. 2016. Accelerating the Development of South Asian Power Sector through Cross-Border Electricity Trade. Paper presented at the Nepal Power Investment Summit. Kathmandu. 31 May–3 June. <http://sari-energy.org/wp-content/uploads/2016/05/Brief-Report-on-SARI-El-Participation-in-Nepal-Power-Investment-Summit-2016-the-future-battery-of-South-Asia-31st-May-3rd-June2016-1-.pdf>

<sup>46</sup> Assessment of total generation potential of Bhutan, India, and Nepal based on national generation plans and comparing the same with demands of individual countries for identification of excess generation available for export.

**Figure 39: Bhutan Power Demand Supply Scenario (megawatts)**

Source: Druk Green Power Corporation and National Transmission Plan.

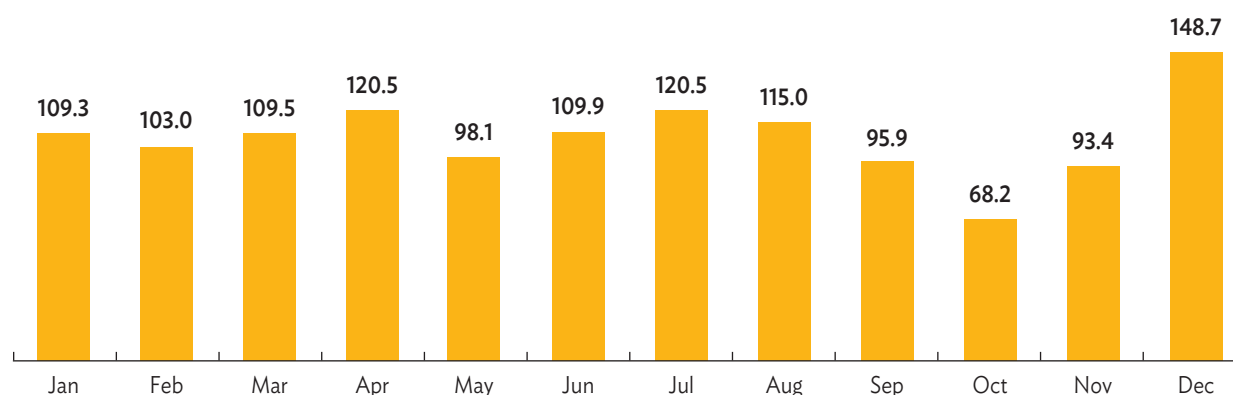
Subregional power trade can provide cheaper renewable power (mainly hydropower) from power surplus countries like Bhutan (short to medium term) and Nepal (medium to long term) to power deficit countries like Bangladesh and India. In addition, power swap agreements may be undertaken to meet the seasonal variation in power demand.<sup>47</sup> For example, there is a significant opportunity for India to export around 500 megawatts of power annually to Nepal to bridge the supply demand deficit in the country during the winter season (Figure 40).<sup>48</sup>

**Table 6: Power Trade Potential in SASEC Subregion**

Provider	Subregional Power Trade Potential (MW)
Bhutan	6,800
India	3,560
Nepal	7,000

MW = megawatts.

Source: ADB consultant's estimates.

**Figure 40: Nepal Power Import from India from January–December 2015 (million units of power)**

Source: Power System Cooperation Limited National Load Despatch Centre, 2015–2016. Operational Performance Reports for Months January to December 2015.

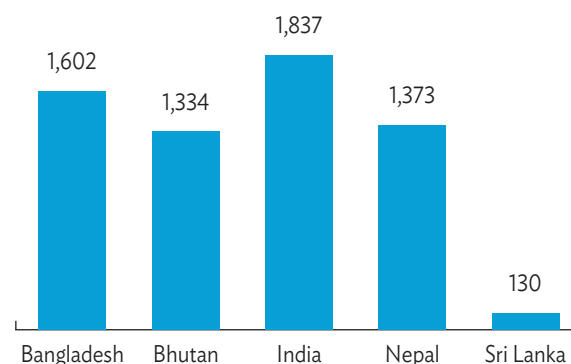
<sup>47</sup> Through cross-border trade with India, while on one hand India may be able to import cheaper hydroelectricity from Bhutan during summer periods, on the other hand India may also be able to play a critical role in meeting the seasonal (winter) power deficit requirement of Bhutan through power swap agreements (Source: Power System Operation Corporation).

<sup>48</sup> Based on monthly maximum export quantum from India to Nepal recorded by Power System Operation Corporation.

Optimum utilization of the power resources in the subregion can help address the energy deficit risk in the region and create a foundation for sustainable economic growth. On the whole, power trade may help generate revenues for some countries, while for others, it may help both meet power supply deficits as well as realize cost savings (Figure 41). However, to realize these opportunities, significant investments are required to supplement generation capacity (about \$14 billion in Nepal and Bhutan by 2025).<sup>49</sup> The physical power flow in SASEC trade arrangement would be through India by virtue of its geographic position. This would necessitate investment in development of transmission infrastructure (\$10 billion by 2025).<sup>50</sup> Such investments could create

an additional 12,000–14,000 employment opportunities cumulatively across the SASEC countries by 2025. In order to facilitate the cross-border power trade in the region and to ensure maximum benefit accruing to the subregion it is imperative to put in place adequate institutional, policy, and regulatory mechanisms.

**Figure 41: Potential Benefits to SASEC Members from Power Trade (\$ million)**



Source: ADB consultant's estimates.

## Expected Outcomes of the Vision

The outcomes of SASEC Vision complement the participating countries' aspirations and enable harnessing of economic opportunities in the subregion across sectors that are currently latent or underleveraged. The vision focuses on defining the economic dimensions and outlines the benefits that can be achieved through collaboration between participating countries.

### ECONOMIC DIVERSIFICATION TO REDUCE VULNERABILITY

The economies of most countries in SASEC are currently dependent on a few economic sectors, making them vulnerable to external market shocks. For instance, Nepal has traditionally been an agriculture-driven economy, contributing 33% to its GDP.<sup>51</sup> However, slow growth and low job opportunities in the last decade has resulted in rampant emigration and increased reliance on remittance income (accounting for around 28% of the GDP in 2013).<sup>52</sup> Likewise, the tourism sector dominates the economic output of the Maldives, with around 24% share in GDP.<sup>53</sup>

<sup>49</sup> Central Electricity Regulatory Commission capital cost benchmark.

<sup>50</sup> Estimates based on ratio of fixed asset base of Power Grid Corporation of India and the energy transmitted by the company.

<sup>51</sup> Footnote 3; World Travel and Tourism Council. 2015. *Travel and Tourism Economic Impact 2015: Nepal*. <http://sp.wttc.org/-/media/files/reports/economic-impact-research/countries-2015/nepal2015.pdf>

<sup>52</sup> A. Portugal and E. Zildovic. 2016. *From Evidence to Policy—Supporting Nepal's Trade Integration Strategy: Policy Note 1*. Washington, DC: World Bank Group.

<sup>53</sup> Government of the Maldives, Ministry of Finance & Treasury, National Bureau of Statistics. 2016. *Statistical Pocketbook of Maldives*. Malé.

On the other hand, Sri Lanka's and Bangladesh's manufacturing and export output is driven by the garment sector (accounting for 20% of Sri Lanka's manufacturing output and 53% of Bangladesh's manufacturing output)<sup>54</sup> and hydropower generation accounts for around 15% of Bhutan's GDP.<sup>55</sup>

Assessment of the subregion's current resource and manufacturing base highlights the potential for developing manufacturing value chains in multiple sectors such as petrochemicals, refined petroleum, fertilizer, floriculture, rubber, plastic, and food processing, among others. The estimated potential includes high-end manufacturing (e.g., automobile assembly) as well industries dominated by small and medium-sized enterprises such as floriculture, handmade paper, bamboo, etc. Countries in the subregion may cooperate to develop these sectors and/or provide infrastructure support, including providing gateway access to capitalize on the latent potential.

**Table 7: Manufacturing Sector Output (\$ billion)**

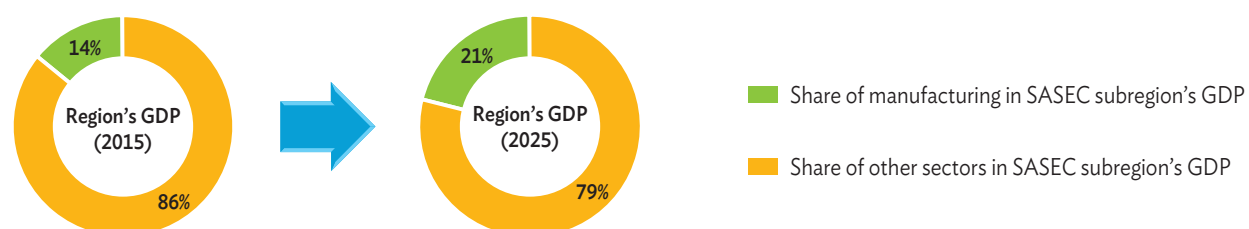
Country	2015	Additional Manufacturing Output Through Regional Synergies by 2025
Bangladesh	32	8.4
Bhutan	0.2	0.3
India (NER)	3.4	20
India (ECEC)	81	12
Maldives	0.1	0.1
Nepal	1.2	2.2
Sri Lanka	15	0.8
<b>Total</b>	<b>133</b>	<b>44</b>

ECEC = East Coast Economic Corridor, NER = northeast region.

Source: ADB consultant's estimates.

Development of these sectors is expected to result in an incremental manufacturing output of approximately \$44 billion by 2025 (Table 7), thus taking the share of manufacturing in the subregion's economy to about 20%–21% of GDP from its current share of 14% (Figure 42).<sup>56</sup>

**Figure 42: Share of Manufacturing in Subregion's Gross Domestic Product**



GDP = gross domestic product, SASEC = South Asia Subregional Economic Cooperation.

Source: ADB consultant's estimates.

<sup>54</sup> Government of Bangladesh, Bangladesh Bureau of Statistics. 2015. *Statistical Yearbook of Bangladesh 2015*; Central Bank of Sri Lanka. 2016. *Economic and Social Statistics of Sri Lanka 2016*.

<sup>55</sup> Footnote 3.

<sup>56</sup> Note: This increment in manufacturing share excludes India's East Coast Economic Corridor.

## ACCELERATED ECONOMIC GROWTH

Enhanced collaboration among the countries of the subregion may enable creation of regional value chains and support countries' development plans. This may become possible by leveraging the subregion's resources, developing industry-to-industry linkages for enhanced competitiveness or enabling access to the larger global markets through improved connectivity. By realizing the synergies across manufacturing, tourism, and energy sectors, the subregion may generate higher economic benefits to accelerate its growth through an annual incremental GDP of approximately \$68 billion–\$70 billion in the next decade (Table 8).

**Table 8: Estimated Outcome of SASEC Collaboration on Economy**

Country	Industry/Trade Gateway (\$ billion)	Tourism (\$ billion)	Energy (\$ billion)	Total (\$ billion)	Percentage over Current GDP (%)
Bangladesh	13	0.2	1.6	15	8
Bhutan	0.4	0.2	1.4	2	96
India (NER)	22.5	3.5	2.0	26	53
India (ECEC)	13	0.1		14.1	2
Maldives	0.2	0.5	0.1	0.8	25
Nepal	3	1.6	1.4	6	30
Sri Lanka	4.5	0.35	0.15	5	6
<b>Total</b>	<b>57</b>	<b>6.5</b>	<b>6.7</b>	<b>~68–70</b>	<b>7</b>

~ = approximately, ECEC = East Coast Economic Corridor, GDP = gross domestic product, NER = northeast region.

\* numbers rounded off.

Source: ADB consultant's estimates.

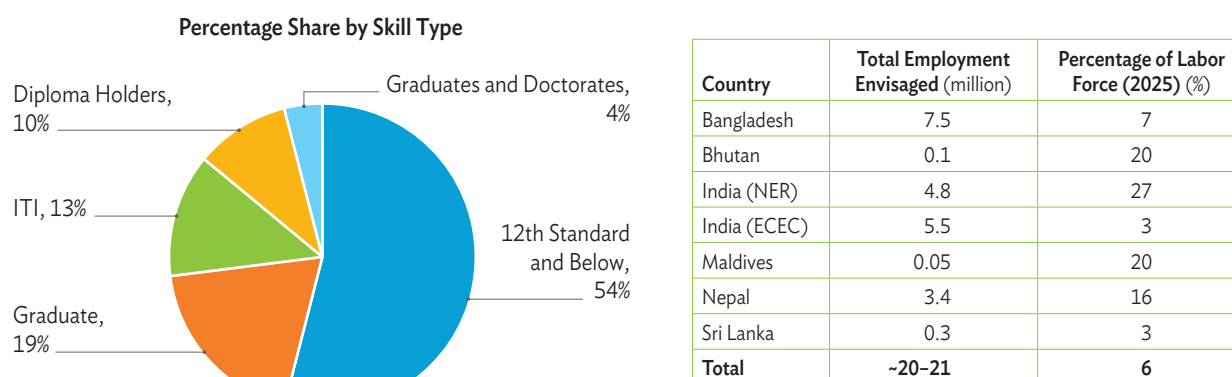
Exploring economic opportunities and infrastructure development across industries and power has the potential to nearly double the share of subregional trade over the next decade.

## INCLUSIVE AND SUSTAINABLE GROWTH

Economic synergies leveraged by the countries in the subregion may potentially create additional aggregate employment opportunities in the range of about 20 million by 2025. This additional employment opportunity would be approximately 6%–7% of the subregion's labor force by 2025 (Figure 43). The employment generated is envisaged to be across different skill sets. Development of appropriate skills is imperative for achieving these outcomes.

Moreover, enhanced economic collaboration in SASEC is expected to increase employment opportunities for women by about 3 million additional jobs in sectors such as tourism, food processing, and floriculture.



**Figure 43: Estimated Employment Generation through Collaboration**

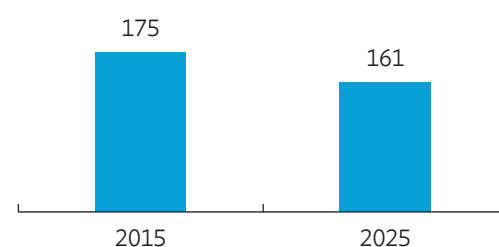
~ = approximately, ECEC = East Coast Economic Corridor, ITI = industrial training institute, NER = northeast region.

Source: ADB consultant's estimates.

## REDUCTION IN POVERTY AND POSITIVE EXTERNALITIES IN SOCIAL SECTORS

Employment creation can lead to social upliftment, poverty reduction, and improved standards of living for the people of the subregion (Figure 44).

Estimates show that a 10% increase in a country's average income can potentially reduce poverty by up to 20%–30%.<sup>57</sup> As of 2012, around 21% of SASEC's population live below the international poverty threshold of \$1.90 per day.<sup>58</sup> Through sustained economic cooperation in SASEC, an estimated 14 million people may be lifted above the poverty line by 2025, representing an 8% reduction from the number of people living below poverty level as of 2012.

**Figure 44: SASEC Population Living Below Poverty Line (million)**

Note: In the case of India, only northeast region and East Coast Economic Corridor have been considered.

Source: ADB consultant's estimates.

Economic expansion can increase the headroom for increased government spending in the social sectors (education, health, and social security and welfare) by an estimated annual \$3 billion–\$5 billion by 2025, thus contributing to the goal of inclusive and sustainable growth in the subregion.<sup>59</sup>

<sup>57</sup> Department for International Development. 2008. *Building Jobs and Prosperity in Developing Countries*. <http://www.oecd.org/derec/unitedkingdom/40700982.pdf>

<sup>58</sup> Footnote 3.

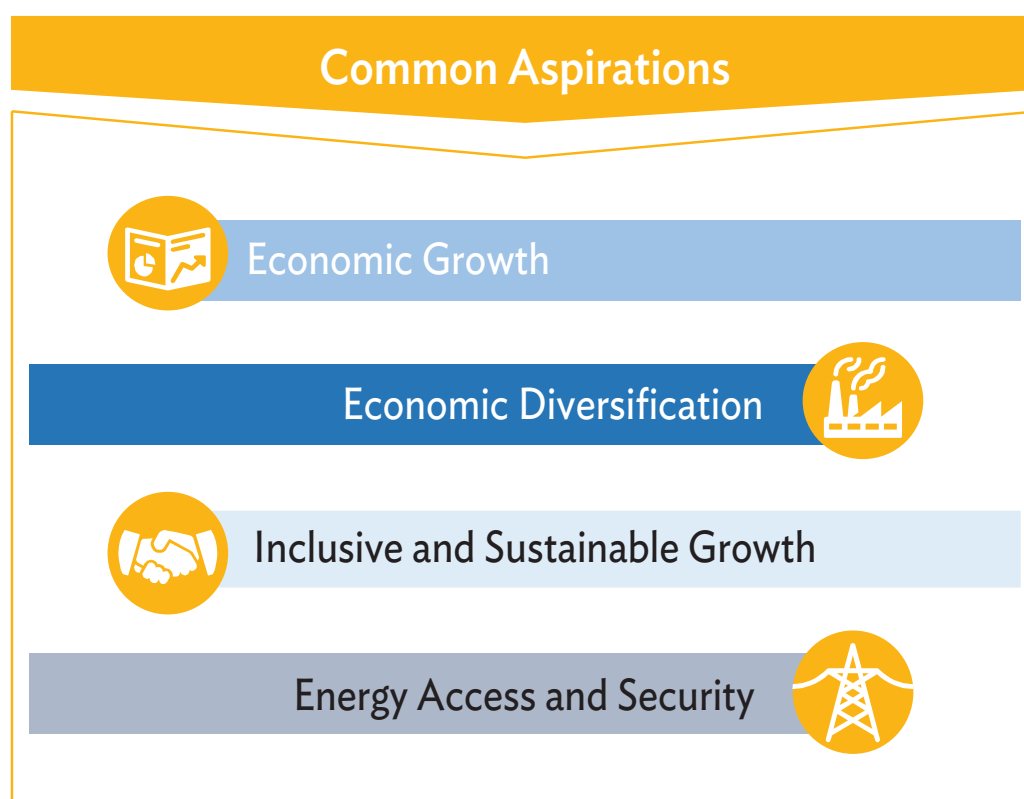
<sup>59</sup> The additional investment has been estimated assuming the current share of investment in these sectors (as percentage of GDP for each country and region in SASEC) remaining unchanged over the next decade.

## ENERGY ACCESS AND SECURITY

Successful implementation of the vision initiatives would depend on availability of reliable and adequate power. Addressing the issue of energy security would also boost economic growth in countries with untapped energy generation resources. To achieve the goal of energy access and security, one of the important envisaged outcomes of SASEC Vision is to augment subregional power trade by around 17 GW by 2025, of which approximately 14 GW of hydropower capacity is expected to be provided by Bhutan and Nepal.

The estimated outcomes from realizing SASEC's collective Vision is are summarized in Figure 45.

**Figure 45: Estimated Outcomes from Realizing SASEC's Collective Vision**



- Realizing regional synergies may augment the subregion's current GDP by **7%** through creating additional annual output of approximately **\$68 billion–\$70 billion** over the next decade
- Increase in region's manufacturing share in GDP from **14% in 2015 to 21% by 2025** with enhanced contribution from sectors like petrochemicals, auto and auto components, triple super phosphate fertilizers, floriculture, horticulture, etc.
- Generate aggregate employment opportunities of around **20 million** across skill sets, gender, and geography by 2025
- **14 million** people lifted above the poverty line
- Power trade of **over 17 GW** between the SASEC countries with focus on renewable energy resources

GDP = gross domestic product, GW = gigawatt, SASEC = South Asia Subregional Economic Cooperation.

Source: ADB consultant's estimates.

## Implementing the SASEC Vision

The SASEC countries' ownership of, and commitment to, the SASEC Vision is key to its realization. This, combined with long years of gainful experience in working together, and given their recent economic growth momentum, makes the subregion well poised to realize its collective aspiration of powering Asia in the 21st century. The potential synergies identified in this report are starting points; many more can emerge over time. The possibilities are limitless and just waiting to be tapped.

The path toward the SASEC Vision is both dynamic and challenging and requires broad engagement with multiple stakeholders. The first step would be for the SASEC governments to conduct advocacy forums to promote ownership of the vision and its supporting strategies, as well as discuss with concerned stakeholders, the potential synergies included in, but not limited to, those identified in the vision document. The manner of conducting these advocacy forums may vary among the SASEC countries, depending on the potential synergies at stake, and the likely complexities of the interventions required.

Among others, the objective of these advocacy forums is for each SASEC country to filter projects with short-term gestation as well as long-term strategic initiatives it wishes to pursue. In determining the potential synergies, governments and other stakeholders must have realistic expectations on the timing, resource implications, and the policy interventions required. A sustained focus on achievable goals is crucial to keep policy makers on track as they work through the sequence of policy decisions that would enable markets to work better and guide both public and private sectors in making investment decisions. From the list of vision initiative(s) that it wishes to pursue, individual SASEC countries would determine for itself the vision initiative(s) where it would take a lead role. Each SASEC country is envisaged to take a lead role in a vision initiative of its choice, acting as convener of the consultation processes, and possibly as coordinator for the ensuing downstream activities. It is recognized, however, that some initiatives, particularly those involving industry-to-industry links, may involve primarily the private sector; in which case, they should also be able to take the lead, with only a limited role for government.

The lead country will be responsible for convening SASEC-wide consultations with concerned SASEC countries with the objective of building consensus on the elements and interventions of a given vision initiative. At the end of the consultation processes, the concerned SASEC countries should be able to agree on an institutional arrangement or mechanism for moving the vision initiative forward. The agreed mechanism, which is envisaged to be informal and focused, could be in the form of a task force or ad hoc experts group which would further refine the interventions and come up with an action plan to guide the implementation of the vision initiative.

Innovative coordination mechanisms that may evolve in the course of implementing the SASEC Vision will continue to adhere to the principles underpinning the SASEC program's institutional framework, which is informal, project-focused, and institution light. Flexibility and adaptability, rather than structural rigidity, are the norms that will guide the establishment of new institutional mechanisms, where deemed necessary. This implies that the new mechanisms will be primarily expertise-based, task-specific, and time-bound. Specific interventions on transport, trade facilitation, and energy that are part of a vision initiative will continue to be the responsibility of existing SASEC working groups, without prejudice to additional working groups being established later on by the SASEC countries.

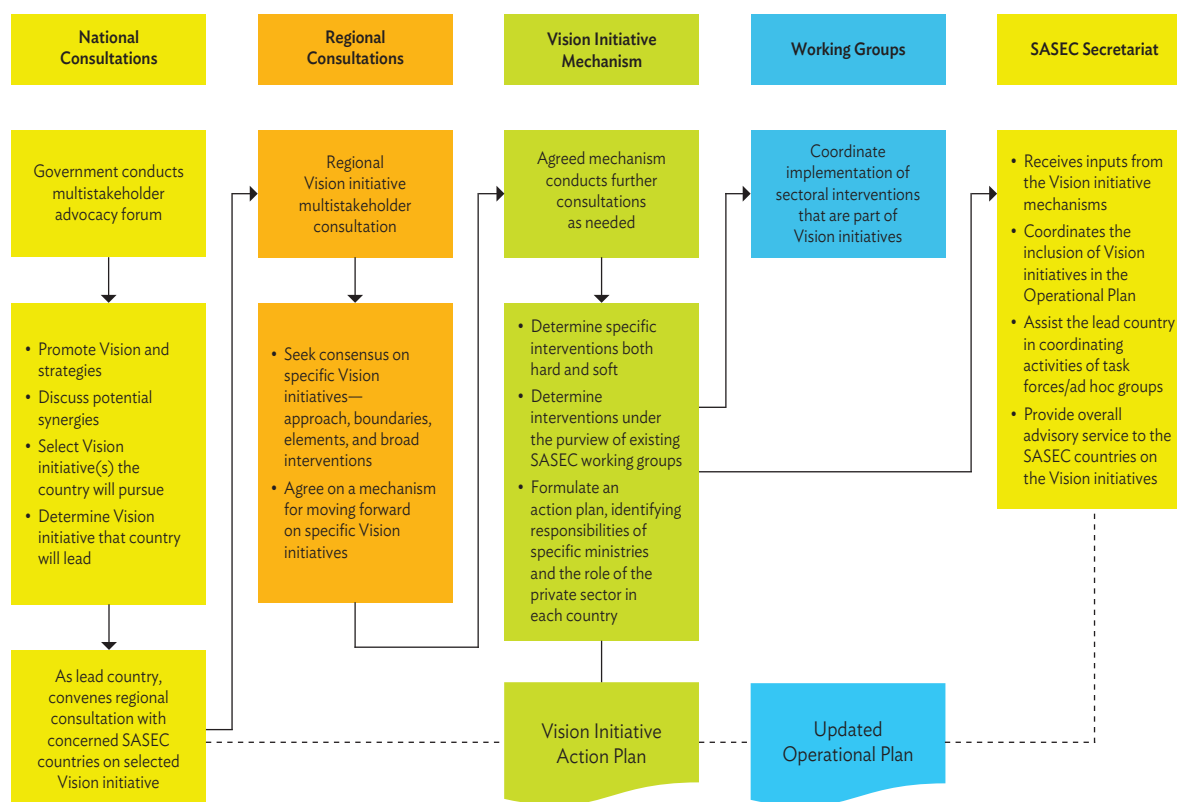
**Box 1: An Example of a Vision Initiative Mechanism**

A lead country, in collaboration with concerned SASEC neighbors may establish a mechanism (e.g., an ad hoc group or task force) with the specific mandate to define the boundaries, specific interventions, and action plan for the supply of auto parts and components from India to Bangladesh to help the latter develop its car assembly industry. The ad hoc group or task force can be composed of ministries responsible for industrial policy, tariffs, trade facilitation (including Customs), traders, logistics providers, and investors in the car industry. Once the task force has defined the specific interventions, it can refer those pertaining to trade facilitation to the SASEC Customs Subgroup. Subject to the agreement of concerned countries, the task force can be retained and continue to serve as the coordinating platform for the Vision initiative. An alternative would be to have the lead country (e.g., Bangladesh) to take responsibility for the overall coordination of the Vision initiative, with the flexibility to convene issue-focused meetings or experts groups (e.g., on tariff policies) from time to time.

Vision initiatives can involve both hard and soft interventions. Soft interventions involve policy, regulatory, and institutional measures, which will mostly underpin investment decisions of both the public and private sectors. In most cases, these would constitute the set of critical success factors for a vision initiative to materialize. It is important, therefore, for the SASEC countries to manage the risks of having to put in place the requisite soft interventions given unique political economy environments. Hard interventions on the other hand, involve public spending on infrastructure, or its public–private partnership variants. Apart from securing finance, due diligence for detailed planning and design, efficient construction management, and the long gestation period for implementing infrastructure projects can pose institutional and capacity challenges. This can be compounded by the need to ensure proper sequencing and synchronization of the mix of soft and hard interventions for a given vision initiative when two or more countries are involved (Box 1).

Specific project interventions for vision initiatives involving the public sector will be included in the SASEC Operational Plan in the course of its regular update by the SASEC working groups and/or nodal officials. Over time, the objectives and priorities of the SASEC Operational Plan may need to be updated to reflect new priorities. A comprehensive and integrated presentation of SASEC’s priorities and funding needs can help in mobilizing resources from various official and private sources. It will also help in tracking the progress of implementing the SASEC operational priorities, including the vision initiatives. The lead country will be primarily responsible for reporting on the progress of the vision initiatives to the SASEC nodal officials.

Given its long years of engagement with SASEC, ADB will be requested to continue its role as Secretariat for the program and as a provider of financial and technical resources to implement the SASEC Operational Plan. These roles will become more critical as the SASEC Program broadens and deepens its reach through the vision initiatives. ADB may be requested by the lead country to help in coordinating the activities of the task force and/or working groups and assist in providing expertise and advice to facilitate implementation (Figure 46). ADB’s participation and active engagement in other regional cooperation programs, such as the South Asian Association for Regional Cooperation, the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation, and Association of Southeast Asian Nations initiatives can provide a broader perspective on other beneficial linkages that are possible for South Asia in the context wider integration in Asia.

**Figure 46: Institutional Arrangements for Implementing the SASEC Vision Initiatives**

SASEC = South Asia Subregional Economic Cooperation.

Source: Asian Development Bank.

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## **SASEC Powering Asia in the 21st Century**

The South Asia Subregional Economic Cooperation (SASEC) vision provides the premise that SASEC countries—Bangladesh, Bhutan, India, the Maldives, Myanmar, Nepal, and Sri Lanka—which have grown robustly in recent years, can tap each other's strength to realize their potential of propelling Asia's future growth. They can harness their individual comparative advantages by cooperating better in facilitating trade and enhancing connectivity, and providing the subregion's produce, better access to global and regional markets. The SASEC Vision demonstrates how enormous benefits can be achieved through regional cooperation, by leveraging opportunities and synergies between three levers—natural resources, industrial potential, and connectivity.

### **About the South Asia Subregional Economic Cooperation Program**

The South Asia Subregional Economic Cooperation (SASEC) program brings together Bangladesh, Bhutan, India, the 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's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to a large share of the world's poor. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.



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