



# Action Plan for SASEC Initiatives 2022–2024

(Version of as 29 Nov 2022)

# **ACTION PLAN FOR SASEC INITIATIVES (APSI) 2022-2024**

## **Table of Contents**

### **EXECUTIVE SUMMARY**

#### **I. INTRODUCTION**

#### **II. PRIORITY PROJECTS UNDER SASEC CORRIDOR AND SECTORAL INITIATIVES**

##### **A. SASEC Corridor Initiatives**

- (i) SASEC Corridor 1
- (ii) SASEC Corridor 2
- (iii) SASEC Corridor 3
- (iv) SASEC Corridor 4
- (v) SASEC Corridor 5
- (vi) SASEC Corridor 6

##### **B. Sectoral Initiatives**

- (i) Trade facilitation
- (ii) Energy Sector
- (iii) Economic Corridor Development

##### **C. Priority projects/programs**

#### **III. SASEC KNOWLEDGE INITIATIVES**

##### **A. Transport Sector**

- (i) Advancing Cooperation in the Maritime Sector Studies
- (ii) Safe Mobility and Regional Connectivity
- (iii) Data Analytics for Assessing SASEC Logistics Movement Study
- (iv) India-Bangladesh Rail-based Cargo Movement Study

##### **B. Trade Facilitation**

- (i) Routes Initiative Studies
- (ii) Trade Facilitation Measures for e-Commerce
- (iii) Sanitary and Phytosanitary and Technical Barriers to Trade (SPS-TBT)

##### **C. Energy Sector**

- (i) Updating of Regional Transmission Master Plan
- (ii) Green Fuel Development Initiative

##### **D. Economic Corridor Development**

- (i) Supply Chain Study (Phase 1)
- (ii) Supply Chain Study (Phase 2)
- (iii) Scoping study on Strengthening Institutional Mechanism for tourism in SASEC

IV. COUNTRY INITIATIVES FACILITATED BY SASEC

- (i) Electronic Cargo Tracking Systems (ECTS)
- (ii) Motor Vehicle Agreements (MVAs)
- (iii) Cross-border Power Trade Framework Agreement

V. PROPOSED NEW INITIATIVES

APPENDIX – ACTION PLANS FOR SASEC KNOWLEDGE INITIATIVES

## EXECUTIVE SUMMARY

1. Action Plan on SASEC Initiatives (APSI) is developed to generate momentum for the SASEC Program for the medium-term period. APSI identified priority SASEC projects mostly from the SASEC Operational Plan for a more focused coordination and facilitation by SASEC member countries. APSI also summarizes knowledge initiatives undertaken by the SASEC program, and country initiatives facilitated by SASEC. Their current status and action plan for the knowledge initiatives are included for discussion on the next steps under the SASEC platform.
2. APSI 2022–2024 identified 53 priority projects with a total cost of \$34.54 billion and identified financing of \$18.48 billion (see Table 1 in the main report). The priority projects were selected based on their progress or state of preparation and financing, and their critical role in addressing the SASEC program's trade and connectivity objectives.<sup>1</sup> These are mostly in the six SASEC economic corridors comprising 42 projects costing a total of \$30.21 billion, with financing of \$16.45 billion. The rest (11 projects) are in trade facilitation, energy, and economic corridor development amounting to \$4.33 billion and with the financing of \$2.01 billion. Coordination among SASEC member countries for the implementation of these projects will ensure better leverage of their impacts.
3. SASEC knowledge initiatives are undertaken to support SASEC countries in providing analytical and knowledge work to strengthen the SASEC agenda and address various new challenges in the subregion. APSI 2022–2024 includes 14 knowledge initiatives at various stages in the form of studies and support for regional arrangements. Furthermore, three country initiatives which are facilitated by the SASEC program are included to update the status.
4. To address new challenges, emerging opportunities, and remaining problems in the SASEC region, strategic reorientation of the SASEC Vision and associated new SASEC initiatives will be proposed for endorsement at the SASEC Nodal Officials Meeting in 2022. Upon the endorsement, the new initiatives will be included in the APSI to monitor implementation.

### Priority Projects under SASEC Corridor and Sectoral Initiatives

5. **SASEC Corridor 1.** The Kathmandu–Kolkata via Birgunj route serves as the key trade route for landlocked Nepal linking it with India (its largest trading partner) as well as with other countries passing through Kolkata and Visakhapatnam ports. Birgunj is the major land customs port serving as a gateway to Nepal where 45% of its total trade go through this border point by road and rail.
  - **Recent Progress.** The ongoing construction of the Fast Track road (Kathmandu–Terai) in Nepal has been hampered by the coronavirus disease (COVID-19) pandemic challenges, thus target completion was moved from 2022 to 2024. The World Bank approved a \$450 million loan (June 2020) to develop road corridors in Nepal, which includes the Kathmandu–Naubise–Mugling section.
  - **Priority Projects.** Given that road and rail upgrades have been made for the Indian sections of the corridor, priority focus is on upgrading road sections in Nepal, e.g.,

---

<sup>1</sup> Criteria for project selection include: (i) advancement/progress of project preparation, approval, and implementation; (ii) identification of firm financing; (iii) spatial orientation or key role the project plays in meeting the sector's trade and connectivity objectives; and (iv) strong interest as a regional project by SASEC member countries.

Pathlaiya–Hetauda–Narayanghat and Kathmandu–Naubise–Mugling.<sup>2</sup> Other priority projects include the Nepal Kathmandu–Birgunj Railway and Nepal Tribhuvan Airport Capacity Expansion.

6. **SASEC Corridor 2.** This corridor links SASEC ports and consists of India East Coast Economic Corridor (ECEC) and Bangladesh Southwest Economic Corridor. It is a major trade route between India and Bangladesh covering 65% of road-based bilateral trade between India and Bangladesh.

- **Recent Progress.** In India, ADB recently approved the Tamil Nadu Industrial Connectivity Project to improve 590 kilometers (km) of state highways. Ports improvements are continuing under the Sagarmala program. In Bangladesh, the ongoing Padma bridge will improve road links between the northern and southwest regions, while the ongoing Jamuna Railway bridge will improve rail links between Dhaka and the northwest region.
- **Priority Projects.** Priority projects for the Indian side will address the congestion near Petrapole (Barasat–Bongaon Road) and improve links between Bangladesh and the northeastern region (NER) of India (Churaibari–Agartala). In Bangladesh, Priority projects comprise improving road access to Chattogram port, and dual gauging of various railway sections (e.g., Tongi–Bhairab, Bhairab–Akhaura, Laksam–Chattogram), and building Dhaka–Cumilla chord line rail connectivity. Dual gauging will establish future direct operations with Indian railways.

7. **SASEC Corridor 3.** The corridor serves as the main gateway for greater economic integration between SASEC countries and Southeast Asia and East Asia by connecting SASEC corridors with the Trilateral Highway linking India, Myanmar, and Thailand, and other ASEAN countries beyond. Within SASEC, the corridor links Bhutan and eastern Nepal with India’s East–West Corridor enabling Bhutan to use the Indian ports for third-country trade.

- **Recent Progress.** The Mechi River Bridge (connecting Nepal and India) and approach road was inaugurated in early 2019, supported by ADB under the SASEC Road Connectivity Investment Program, which also completed sections of the North Bengal–Northeastern Region international trade corridor used for land-based trade of Nepal and Bhutan (“Chicken Neck” corridor).
- **Priority Projects.** The focus shifts to furthering connectivity within NER India, with priority projects that include the Assam road network improvement, upgrading of Kohima–Mao, Mao–Imphal, and Krishnai–Guwahati–Jorabat road sections, and improving Tamu–Moreh bridge. The corridor’s priorities also include: improving road sections in Myanmar via the Bago Bypass and Bago–Thilawa and Thilawa–East Dagon road; and supplementing Bhutan’s land connectivity with better air connectivity via the proposed Gelephu airport improvement.

8. **SASEC Corridor 4.** This corridor provides landlocked Bhutan and Nepal access to the Bangladesh market for enhanced intra-subregional trade, and taps potential links to Bangladesh ports as another gateway for trade outside the SASEC region.

- **Recent Progress.** Upgrading of Kanchanpur–Kamala section in Nepal East–West Highway to four lanes commenced in 2020, and detailed engineering for upgrading

---

<sup>2</sup> This will continue to be monitored in APSI despite its ongoing status, for future follow-up projects.

Dhalkebar–Pathlaiya is ongoing. Construction of Mechi Bridge on the India–Nepal border has been completed. However, the Elenga–Hatikumrul–Rangpur section is only about 35% completed, due to resettlement, the pandemic, and other issues.<sup>3</sup>

- **Priority Projects.** These include upgrading of remaining road sections in Nepal (e.g., Naubise–Mugling and Kakarvitta–Laukahi) and upgrading of key road segments in Bangladesh’s northwest and southwest regions. India is promoting the development of National Waterways 1 (Ganga) and National Waterways 2 (Brahmaputra) as well as Indo–Bangladesh Protocol Routes (IBP) as alternate transit modes and links to ports. Supporting this in the APSI is the Eastern Waterways Connectivity Transport Grid project.

9. **SASEC Corridor 5.** This corridor will develop Bangladesh as a regional crossroad connecting the northeast region of India to Dhaka, and further to Bangladesh ports (via SC2 and SC4). Cargo transit arrangements will also link it with other areas of India. It will also allow the northeast area of Bangladesh to get connected to Myanmar and ASEAN through SC3. In India, upgrading of the Shillong to Guwahati (NH40) section to four-lanes (82 km) has been completed.

- **Recent Progress.** In the Bangladesh side, improvement of the Dhaka–Sylhet section started under ADB’s Dhaka–Sylhet Road Investment Project approved in 2021. Also supporting sections of this corridor are: Asian Infrastructure Investment Bank (AIIB) for Sylhet–Tamabil; and World Bank for Bangladesh portion of Sylhet–Sheola–Sutarkandi. The Northeast Bangladesh Economic Corridor study has been completed, which together with India’s Northeast Region Economic Corridor study, highlighted interlinkages of the two regions.
- **Priority Projects.** These include further upgrading of Dhaka–Sylhet Highway in Bangladesh and developing sections in NER of India to improve links to SC2, SC3, and SC4 (e.g., Dawki–Shillong, Shillong–Badarpur, Karimganj–Sutarkandi, and Paikan–Tura).

10. **SASEC Corridor 6.** The corridor aims to enhance connectivity between the main port in Colombo with its northern hinterland, as well as with its main port in the northeast (e.g., Trincomalee), thus promote the country’s export competitiveness and facilitate its participation in the global/regional supply chain, as proposed in the 2017 Colombo–Trincomalee Economic Corridor (CTEC) study.

- **Recent Progress.** To enhance Colombo port’s role as a regional maritime transshipment hub, access to the port is being improved through the ongoing ADB SASEC Port Access Elevated Highway Project with parallel financing from Japan International Cooperation Agency (JICA) to support the Kelanya bridge project.<sup>4</sup> The construction of the Central Expressway Stage II for Meerigama–Kurunegala–Ambepussa link was completed by end of 2021.
- **Priority Project.** Construction of the Central Expressway Stage 1 (Kadawatha to Meerigama) commenced in September 2020, but will be monitored in APSI for future extensions.

---

<sup>3</sup> ADB’s SASEC Dhaka–Northwest Corridor Road project (approved in 2017).

<sup>4</sup> By mid-2021, the Port Access Elevated Highway (PAEH) project experienced delays due to the pandemic, although contractors for various activities (e.g., toll management, customs inspection, maritime facilitation center) have been mobilized.

11. **Trade Facilitation.** Various trade facilitation measures have been implemented in the SASEC corridors. Much guidance is being provided by the ADB-supported SASEC Cross Border Transport Facilitation Routes Initiative, which identified issues affecting trade along a given border point/route and to design solutions to resolve them.<sup>5</sup>

- **Recent Progress.** Following recommendations of these and earlier studies, an integrated check post (ICP) was completed in Birgunj, Nepal in 2018 (SC1). SASEC countries are developing the following border crossing facilities: ICP at Moreh, India (SC3); dry port at Phuentsholing, Bhutan (SC3); land customs station at Pasakha, Bhutan (SC3); and new ICP Dawki, India (SC5). Technology-driven transit facilitation using an electronic cargo tracking system (ECTS) has been piloted from Visakhapatnam port to Nepal under SC1 by road and rail since 2018, and extended to Kolkata port in 2019.
- **Priority Projects.** These include: (i) the Bangladesh SASEC Integrated Trade Facilitation Sector Development Program (planned for 2022), will help improve trade policy and border infrastructure in the country;<sup>6</sup> and (ii) the Nepal SASEC Customs and Logistics Reform Program, a new APSI addition, this will improve logistics through the new Trade Logistics Development Policy and continue Customs reforms through the Customs Reform and Modernization Plan 2021–2026.

12. **Energy Sector.** The SASEC power trade flagship initiative essentially comprises the development of interconnections that will enable cross-border evacuation of hydropower resources, allowing the countries to share the costs and benefits of huge hydropower and transmission investments, and helping them balance the needs of national markets, given differences in demand and supply patterns<sup>7</sup>.

- **Recent Progress.** ADB committed a total of \$416 million for three power transmission projects in Nepal in 2020–2021 to build future capacity to allow the export of surplus power. Continuing the progress in cross-border electricity trade under bilateral initiatives contributes to developing a more robust electricity infrastructure and enabling more reliable grid operation and power transmission across borders.
- **Priority Projects.** Harnessing hydropower potential and improving internal transmission and cross-border interconnections remain the SASEC program's priorities for energy. A green fuel development TA will promote clean energy to support green recovery after the pandemic eases.

13. **Economic Corridor Development.** Under the SASEC program, economic corridor development has featured prominently in pursuit of synergies among SASEC members under the SASEC Vision, such as for key SASEC corridor routes that traverse India (SC2 and SC3). Comprehensive development plans were prepared for all four sections of India's East Coast Economic Corridor (ECEC) in SC2, clearly outlining how the corridor's production networks will

---

<sup>5</sup> The initial phase (completed) covered the Kolkata–Dhaka trade facilitation route in Subregional Corridor 2 (SC2), with three border crossing pairs: Gede–Darshana, Petrapole–Benapole, and Ghojadanga–Bhomra. Phase 2 of this study covered the Kakarvita–Panitanki–Fulbari–Banglabandha–Chattogram/ Mongla route in SC4.

<sup>6</sup> The program part for policy reform will help Bangladesh comply with the World Trade Organization (WTO) Trade Facilitation Agreement (TFA) and implement the national Customs modernization plans.

<sup>7</sup> India's release of the revised power trade regulations in 2018 and 2019 are important developments, generally applicable to tripartite agreements under the bilateral power exchange framework between India and its neighbors.

be linked with various ports along the ECEC<sup>8</sup>, involving pursuit of efficient multimodal transport network, quality infrastructure and a business-friendly policy framework with efficient business procedures. ADB supported studies to develop the Southwest and Northeast Economic Corridors in Bangladesh.<sup>9</sup> Promoting the tourism sector is one of the flagship initiatives in the SASEC Vision. Tourism service trade will be facilitated by measures to lower physical and procedural border constraints, as well as joint promotion of regional tourism. ADB is assisting the preparation of Maldives' 5th Tourism Master Plan. It will explore areas of collaboration with neighboring SASEC countries, especially with Sri Lanka.

- **Recent Progress.** ADB approved a \$250 million loan for India's Industrial Corridor Development Subprogram 1 in October 2021 to expand multimodal transport networks, enhance institutions for corridor management, and address skills gaps to support industrialization.
  - **Priority Projects.** For APSI 2022–2024, these include: Tranche 2 of Visakhapatnam–Chennai Industrial Corridor Development, Tamil Nadu Urban Flagship Investment, and Industrial Corridor Development Subprogram 2.
14. Of the shortlist of 53 projects for coordination and facilitation by the SASEC program:
- Bangladesh will be implementing 21 projects amounting to \$23.46 billion; of these, AIIB will provide financing of \$1.3 billion; Japan, \$6.08 billion; ADB, \$3.19 billion; and WB, \$585.00 million.
  - India will be implementing 15 projects worth \$4.60 billion, with Japan providing \$387.83 million; World Bank, \$70 million; and ADB \$2.82 billion.
  - Nepal will be implementing 10 projects costing \$4.27 billion, of which \$450 million will be financed by the World Bank, \$1.44 billion by ADB, and \$129.23 million by JICA.
  - Bhutan will be implementing two projects worth \$884.40 million, with ADB financing of \$408.50 million.
  - One Sri Lanka project worth \$1.16 billion, one will be financed by the People's Republic of China (PRC) for \$989 million.
  - The Myanmar project worth \$171 million will be financed by its government.
  - The two Maldives projects worth \$26.99 million are being financed by ADB for \$25.00 million.
15. Notable among the priority projects are those that have secured firm funding since 2020, and/or are now under implementation, but will continue to be monitored. These include:
- Matarbari port development (Bangladesh), funded by JICA, construction of which began in November 2020, for completion in early 2026;
  - Tranche 1 of Dhaka–Sylhet Corridor Road Investment, with funding committed by ADB in October 2021;
  - Nepal SASEC Power Transmission and Distribution System Strengthening Project, for which ADB committed funding of \$235 million in August 2020; and

---

<sup>8</sup> Out of four the ECEC sections, master planning of selected nodes was done with ADB support for the Visakhapatnam–Chennai (VCIC) and Chennai–Kanyakumari (CKIC) sections. For VCIC, ADB committed a total of \$370 million in policy/program and project loans in 2017. In Tamil Nadu, ADB committed \$484 million in June 2021 to enhance the transport connectivity and facilitate industrial development in line with the regional economic corridor development plan for the CKIC.

<sup>9</sup> Spanning Khulna/Jessore–Dhaka–Sylhet, ADB supported the Northeast Economic Corridor (NEEC) study for India, which links with the ECEC and the Bangladesh corridors that will help develop integration of South Asia with Southeast Asia.



- Nepal Strategic Road Connectivity and Trade Improvement Project (covering Kathmandu–Nauvise–Mugling) approved by the World Bank in June 2020 for \$450 million.

## **SASEC Knowledge Initiatives**

16. **Transport sector.** While SASEC corridors and sector/thematic areas achieved progress toward better connectivity in the region, further investment in connectivity infrastructure and policy reform should continue to fill the remaining gaps and generate greater synergies among SASEC countries.

- **Advancing Cooperation in the Maritime Sector Studies,** completed in 2021, recommend policy reforms and port and connectivity infrastructure investment projects worth more than \$30 billion in selected SASEC countries. It will improve port logistics and facilities for efficient handling of cargo in major SASEC ports and strengthen capacity to cope with anticipated growth in container traffic, thereby making SASEC trade within the subregion and beyond competitive. The study covers the areas of (i) port logistics and hinterland connectivity, (ii) port community systems (PCS), and (iii) port greening. Further, (iv) maritime tourism is also a part of the study to promote subregional tourism development. The key proposed interventions relate to performance improvement at existing terminals to unlock capacities, the use of technology such as port community systems to improve transaction times, the development of pre-gate facilities, parking areas, and truck appointment systems to streamline traffic approaching the ports, development of port approach flyovers and hinterland connectivity infrastructure, adoption of environmental management system for ports, development of terminals for cruise passengers, and formulating policies for private sector participation in the development of port terminals and external logistics facilities. Apart from this, regional agreements on reducing border compliances would also aid in improving logistics efficiency. The findings of the four studies will be presented at the SASEC Transport Working Group Meeting scheduled in 2022. With the guidance from the said meeting, ADB will consider support for follow-up actions.
- **Safe Mobility and Regional Connectivity Initiative** consists of two studies. The Road Safety Study has proposed recommendations, among which are: (i) formation of a subregional road safety forum for advancing road safety management capacity, (ii) establishment of a performance indicator for SASEC highway network, and (iii) incorporation of road safety guidance in project designs. The Road Asset Management Study is being undertaken to: (i) assess gaps in road asset management policies, funding, lifecycle strategies, processes, institutional capacity, and to develop prioritized improvement plans; (ii) estimate investments needed to improve and maintain the quality and improve the safety of national road networks; and (iii) recommend asset management project pipelines. In-country workshops are planned in India, Nepal, Bangladesh, and Maldives in June and July 2022 towards developing the improvement plans and asset management investment needs.
- **Data Analytics for Assessing SASEC Logistics Movement Study.** This study, commenced in January 2022, was initiated to understand origin, destination, and specific movement patterns of cross-border trade logistics in SASEC countries. It will attempt to capture comprehensive data and tap into big data analytic tool to map cross border logistics and trade movement. Such mapping will help corroborate priority corridors,

location of crossings, efficiency of border crossings, and bottlenecks that need to be addressed.

- **India–Bangladesh Rail-based Cargo Movement Study** is being proposed to identify the needed policy/institutional reforms and required infrastructure and technology investments to promote container rail service between India and Bangladesh and bypass the congestion in busy border crossings.

17. **Trade Facilitation.** Further policy reforms are needed to address identified gaps in facilitating regional trade, and there is an opportunity to expand the scope of trade facilitation to overall logistics sector, involving efforts in building a modern trade logistics industry with enhanced supply chain management, and strengthened logistics governance. In tourism, proposed investments to promote priority circuits will be complemented by efforts to lower border constraints (both physical and procedural), involving simplified visa regimes and others, for seamless cross-border movement of tourists.

- **Routes Initiative Studies** recommended enhancement/upgrading of transport links along the Kolkata–Dhaka route (Phase 1 of the studies) and the Kathmandu–Panitanki–Banglabandha–Mongla/Chittagong route (Phase 2) to reduce traffic congestion and improve driving conditions; (ii) improvement of infrastructure and service facilities at land ports to support efficiency, particularly with respect to and import and export clearances, parking, laboratories; and (iii) streamlining of trade facilitation practices, including policy interventions (such as automation of certain processes, data sharing, expansion of the permissible list of import items).
- **Trade Facilitation Measures for e-Commerce.** This consists of studies and measures that aim to facilitate cross-border e-commerce and help micro, small, and medium enterprises (MSMEs) connect to global markets. Among the activities included is the assessment study in 2021, the findings of which would form the basis for formulating a set of recommendations on needed policy and institutional reforms for facilitating cross-border e-commerce. A study on e-commerce is ongoing for Sri Lanka which will streamline customs processes, legal framework, and documentation associated with e-commerce; and explore the use of information and communication technology (ICT), leveraging collaboration with the postal network and authorized courier services.
- **Sanitary and Phytosanitary and Technical Barriers to Trade (SPS-TBT).** Under the standards and conformity assessment pillar of the SASEC Trade Facilitation Strategic Framework, subregional trade will be enhanced through strengthened interagency cooperation, and enhanced partnerships with the private sector to reduce barriers to trade. Taking off from national diagnostics studies prepared for SASEC countries in 2017–2018, studies on SPS-TBT facilities for Maldives and Bhutan were completed in 2020, with one for Nepal still being undertaken. A webinar on the regional framework for mutual agreement and certification for select products is being planned, and a proposal to create a regional forum among food regulators will be considered under the SASEC platform.

18. **Energy.** In the energy sector, the updating of the Regional Transmission Master Plan has started, and the Green Fuel Development Initiative is proposed to conduct studies on green hydrogen and advanced biofuels in the SASEC countries.

- **Updating of Regional Transmission Master Plan.** The SASEC transmission master plan, completed in 2016, is being updated to incorporate changes in load forecasts and recent progress in hydropower projects in the SASEC subregion. Moreover, it will be extended to cover other countries in Southeast Asia in order to examine the potential for power trade between SASEC countries and Southeast Asia. The extended coverage of the master plan will also be used to develop a power master plan for the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) member states.
- **Green Fuel Development Initiative.** This initiative plans to assess each country and region-wide resource potential to produce (i) green hydrogen from renewable energy in process of the water electrolysis, and (ii) advance biofuels from agricultural residues and municipal solid wastes. These alternative fuels can be used for multiple purposes for energy, transport, and industries. The region-wide supply chain and trade systems can be explored. Eventually, regional strategies and development roadmap will be formulated in cooperative frameworks of knowledge sharing, regulatory mechanisms, technological standardization, business modeling, and pilot project schemes.

19. **Economic Corridor Development.** Completion of the national economic corridor development studies have opened the way for the next stage, to link the in-country corridors and to realize complementarities of each country thereby enhancing competitiveness of the region as a whole. Further, this will explore economic cooperation outside the SASEC region, especially with those in Southeast Asia. SASEC knowledge initiatives on supply chain mapping study (phase 1 and phase 2) was undertaken to capture these opportunities.

- **Supply Chain Mapping Study (Phase 1)** focuses on essential medical products related to COVID-19 to help national governments address disruptions caused by mobility restrictions during the pandemic and ease barriers to facilitate supply chain resilience of inputs. The medical products cover overalls, gloves, hospital disinfectants, surgical masks and respirators, and their associated components for the production. The study mapped trade flows of these products within and outside SASEC countries, identified opportunities for regional supply chain and binding constraints, and provides policy recommendations on harmonization of personal protective equipment (PPE) product standards and agreements for mutual recognition of certifications, identification of tariff line and excluding them from the sensitive list under SAFTA, business competitiveness by reducing or abolishing value-added tax (VAT) and other indirect taxes, promoting capacity-building exercises, reduction of compliance requirements, and implementing SASEC-friendly procurement policies, a SASEC-wide platform/business forum to enable dialogue between producers and buyers of PPE products in the region, and explore the scope for starting direct airfreight services.
- **Supply Chain Mapping Study (Phase 2)** has explored the possibility for improving the regional supply chain among the SASEC countries by promoting industry-to-industry linkage building on national economic corridors. It looked at sectors/products with the highest growth potential based on trade shares and foreign direct investment (FDI) flows, e.g., textiles/apparel and food processing (for traditional sectors), and electronics/electrical equipment and automobiles (for emerging sectors), and recommended measures to develop them. For textiles, suggestions included institutional support, incentive schemes, and preferential tariffs. For food (specifically shrimp trade), suggestions included enhanced cold chain facilities and harmonizing trade

documentation. Regional cooperation and integration (RCI)-related recommendations include review of tariff and quota, testing facility for cross-border trade, coordinated development of logistics (especially cold chain for food products, direct ocean freight for textile and direct cargo flights for electronics), and SASEC joint investment policy called to facilitate Indian original equipment manufacturer (OEM) for auto products, in addition to promotion of the sectors in each country by incentives for investment including FDI and technology upgrading, zone development and capacity development. Quality power supply was highlighted for electronic products.

- The study also explored opportunities for SASEC countries to expand export to Southeast Asian countries, taking into account that the SASEC region works as an integrated economic system as a result of the SASEC program. The potential economic value of developing value chains between South Asia and Southeast Asia was analyzed for a range of products, with appropriate hard and soft interventions to develop them. Revisiting tariff was recommended also for developing South Asia–Southeast Asia supply chain.
- **Scoping study on Strengthening Institutional Mechanism for tourism in SASEC.** A recently completed study on strengthening institutional mechanisms for SASEC tourism identified three priority tourism circuits based on strength of focus/global uniqueness; regional cooperation potential, and economic impact, among others. Investment budgets for product development, marketing and capacity building were presented for the (i) Buddhist tourism circuit; (ii) medical tourism circuit; and (iii) sea cruise tourism circuit. These will be supplemented by measures to lower physical and procedural border constraints. Infrastructure investments at borders, plus modernization/digital transformation of processes, will result in a more seamless movement of tourists across borders. The study was prepared by the SASEC secretariat for the proposal of new Initiative Regional Tourism Program.

### Country Initiatives facilitated by SASEC

20. Three country initiatives are currently supported by the SASEC program.

- **Electronic Cargo Tracking Systems (ECTS).** Since 2017, ADB supported pilots and studies for (i) Nepal imports through India, off-border clearances in India, and Bangladesh exports through India; (ii) India's transit cargo through Bangladesh; (iii) off-border clearances in Maldives and in Sri Lanka.
- **Motor Vehicle Agreements (MVAs).** Bangladesh, Bhutan, India, and Nepal (BBIN) MVA was ratified by Bangladesh, India, and Nepal, while Bhutan has yet to ratify and agreed for the other three countries to proceed with implementation. Provisions of the passenger and cargo protocols to operationalize the BBIN MVA are under discussion. India–Myanmar–Thailand (IMT) MVA is currently under discussion together with the operating protocols.
- **Cross-border Power Trade Framework Agreement.** The SASEC program has been supporting the formulation of the framework agreement to provide a broad framework for enhanced cooperation in power trade and interconnections, and will help graduate SASEC power trade from largely bilateral to multi-country trade, eventually involving countries outside the subregion.

### **Proposed New Initiatives**

21. The following four new initiatives will be included into APSI upon endorsement at the SASEC Finance Ministers Meeting:

- Strengthening Regional Health Security through the One Health Approach
- Highly Facilitated Trade Corridors
- Food Regulators' Forum
- Regional Tourism Program

## I. INTRODUCTION

1. In 2016, the SASEC member countries adopted the SASEC Operational Plan (OP) 2016–2025, to serve as the SASEC program’s first comprehensive, strategic long-term plan which expands the scope of regionally-oriented investments of the members. It was originally focused on (i) upgrading/expanding multimodal transport connectivity to address critical bottlenecks in trade routes; (ii) facilitating trade to complement multimodal transport networks; (iii) enhancing electricity trade to expand energy supply and secure power reliability; and (iv) promoting synergies between economic corridors in SASEC countries and beyond, and optimizing their development impacts through improved cross-border links.

2. During the Finance Ministers Meeting on 2017, SASEC countries adopted a long-term vision and strategy for the subregion. The SASEC Vision aims to generate greater synergies between countries in order to accelerate sustainable and economic growth via: (i) leveraging natural resource-based industries in a SASEC country by tapping into latent industrial demand within the subregion, (ii) promoting industry-to-industry links within the subregion to develop and strengthen regional value chains, and (iii) expanding the region’s trade and commerce by providing access to regional and global markets. Flagship initiatives were proposed to realize the various synergies identified by the Vision, such as promotion of power trade and joint tourism development.

3. Myanmar formalized its membership in the SASEC Program in 2017, well after the time the Vision document was formulated. A separate study was undertaken to facilitate Myanmar’s inclusion in the SASEC Vision, which found opportunities in: (i) trade in rice, pulses and beans, fishery and textiles/garments; (ii) energy trade; (iii) digital connectivity; (iv) promoting tourism; and (v) improving coastal shipping linkages.

4. The SASEC Operational Plan (OP) was updated in 2019 to align it more closely with the SASEC Vision, giving a more holistic perspective of where the program stands in priority sectors of cooperation, especially in terms of: (i) the key roles of existing and planned projects in relation to transport and energy networks, and the remaining project gaps; (ii) the status of financing from governments, ADB, and other partners; and (iii) the extent of project preparedness. The SASEC OP has been shifted to an online-based database in the SASEC website to ensure real time updating and wider accessibility. This will entail further improving the SASEC website and media visibility and holding more regular engagement with partners on the program’s key thrusts and projects.

5. The SASEC program’s operational focus on enhancing multimodal transport networks took hold with numerous airport, rail and last-mile road projects approved from 2019 to 2021, which enabled the program to continue its momentum despite the crippling effects of the COVID-19 pandemic since early 2020. As of 31 December 2021, the SASEC portfolio consists of 74 committed projects with cumulative cost of \$17.57 billion and ADB funding of about \$10.28 billion since 2001. The transport sector accounts for the greatest number of projects (44 projects worth a cumulative total of \$12.32 billion), followed by energy (16 projects worth \$2.92 billion), economic corridor development/multisector (nine projects worth \$2.22 billion), trade facilitation (three projects worth \$80.66 million), and ICT (two projects worth \$20.80 million). Of ADB’s \$10.28 billion contribution, \$7.15 billion are ordinary capital resources (OCR) and \$3.14 billion concessional (ADF). Governments provided \$5.40 billion and other development partners \$1.89 billion. Additional \$194.01 million in 141 technical assistance grants were provided to the SASEC countries.

## II. PRIORITY PROJECTS UNDER SASEC CORRIDOR AND SECTORAL INITIATIVES

6. SASEC initiatives facilitate coordination of priority projects/programs, provide upstream analytical studies, and support the enhancement of regional mechanisms. Projects and programs which have regional potential in the transport sector, trade facilitation, energy sector, and economic corridor development, are classified as multimodal SASEC Corridor Initiatives if they have geographic focus. Those without geographic focus are classified under Sectoral Initiatives. For APSI initiatives, vital information is collected for relevant projects and is consolidated in the SASEC OP, which enable easier coordination among the various projects/programs by the member countries, thereby maximizing synergies among them. Priority projects/programs which are crucial to move forward the SASEC program, are identified for focused monitoring and implementation of actions to facilitate their progress. This section first undertakes a stock-taking exercise of the recent progress and achievement for each of the SASEC corridor and sectoral initiatives, which provides the basis for prioritizing projects for APSI in the following section.

7. Knowledge initiatives to be discussed in the next chapter, meanwhile, support upstream studies that enable policy reforms and capacity development measures both at national and regional levels, and facilitate consultations and technical support through appropriate regional mechanisms. The knowledge initiatives also consist of efforts by SASEC countries to improve multimodal connectivity to achieve better and more efficient trade among themselves, but these efforts are not identifiable in terms of specific SASEC corridors presented earlier. These initiatives are found to be complementary to the identified multimodal corridor projects and could be further developed into specific priority projects for future inclusion in the SASEC Operational Plan or APSI, depending on the findings of exhaustive studies for these initiatives.

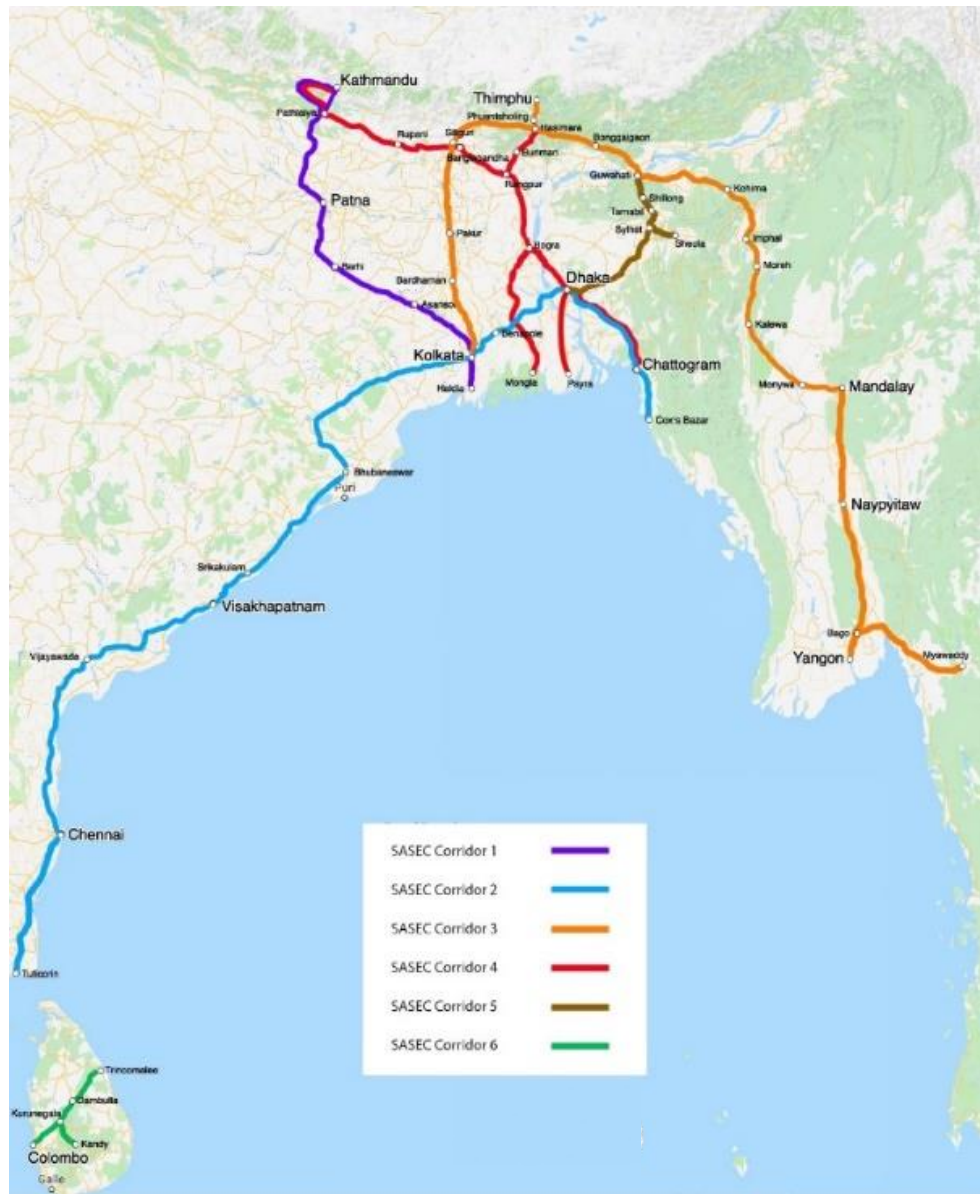
### A. SASEC Corridor Initiatives

8. The priority multimodal corridor initiatives are selected on the basis of the identified priority SASEC Road Corridors (SRC) presented in the 2019 SASEC Operational Plan Update, and these are: (i) Nepal–India Trade Corridor (SRC 1), (ii) Bay of Bengal Highway (SRC 2), (iii) India–ASEAN East–West Corridor (SRC 3), (iv) Nepal/ Bhutan–Bangladesh North–South Corridor (SRC 4), (v) North Bangladesh–India Connector (SRC 5), and (vi) Sri Lanka Port Highway (SRC 6). Since these corridors now consist of various transport modes, including trade facilitation and economic corridor initiatives, they will be called SASEC Corridors (SC) in the APSI. Other multimodal corridor initiatives identified in completed and ongoing studies are also presented as possible APSI projects. All six corridors are presented in the map below.<sup>10</sup>

---

<sup>10</sup> A new SASEC Corridor linking Kathmandu with western Nepal and connecting to Lucknow–Delhi–Mumbai/Mundra may be proposed once the opportunity matures.

**Map 1: SASEC Corridors**



SASEC = South Asia Subregional Economic Cooperation.

Note: The boundaries, colors, denominations, and any other information shown on the map do not imply, on the part of the Asian Development Bank, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries, colors, denominations, or information.

Source: Asian Development Bank.

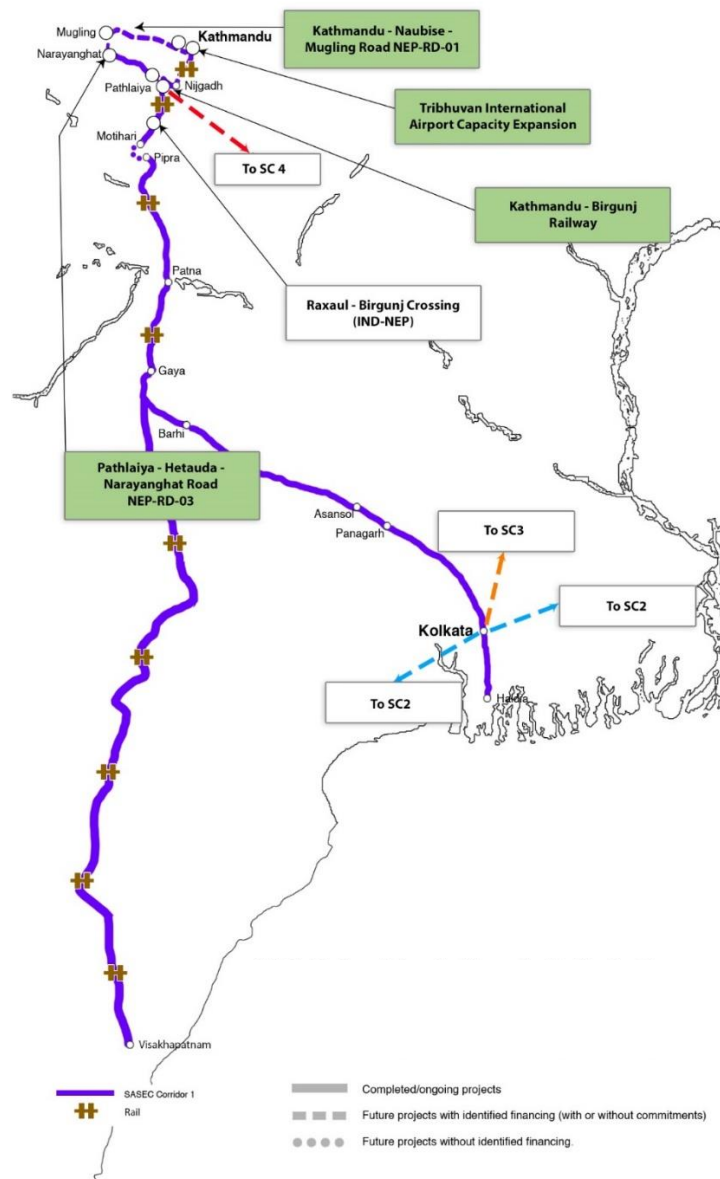
9. The aforementioned corridor routes were recognized as the key SASEC transport corridors whose development will have a major influence in reducing transport and trade costs between member countries. For each corridor, assessment of the recent progress and analysis of gaps and challenges for various modes (road, rail, inland waterway, ports, and airports) was undertaken. The APSI then identified the priority projects that are seen to address the gaps and the emerging needs to realize the full economic benefits of enhanced connectivity in each corridor.



### (i) SASEC Corridor 1: Kathmandu–Kolkata Trade Corridor

10. The Kathmandu–Kolkata via Birgunj route serves as the key trade route for landlocked Nepal linking it with India (its largest trading partner) as well as with other countries passing through Kolkata and Visakhapatnam ports. Birgunj is the major land customs serving as a gateway to Nepal where 45% of its total trade cross this border point by road and rail.

Map 2: SASEC Corridor 1



Source: Asian Development Bank.

11. **Transport.** The corridor has been strengthened with continued investment and policy reforms to improve its connectivity and trade efficiency.

- **Roads.** Many road sections in India have been upgraded to four lanes. Completion of the new Ganga Bridge across the Ganges River and its approach road network in the state of Bihar (with ADB financing of \$500 million) improves transport connectivity in a key section of this corridor around Patna. In Nepal, the ongoing construction of the 75 km Fast Track road, which will link Kathmandu to Southern Terai region and on to Birgunj, is being hampered by COVID-19 pandemic challenges, moving its target completion date from 2022 to 2024.
- **Rail.** The corridor is being served by the SASEC Rail Corridor (SRLC) 1: “Nepal–Kolkata Trade Corridor” spanning Birgunj–Raxaul–Muzaffarpur–Patna–Gaya–Asansol–Kolkata–Haldia, which is particularly important for containerized import traffic. Recently, Visakhapatnam is handling a growing share of Nepal’s container trade, with movement largely by rail.
- **Port.** India’s Sagarmala program, launched by the Ministry of Shipping in 2016 to achieve port-led prosperity, is planning and implementing projects along key focus areas of port modernization, new port development, and port-linked industrialization, among others. Initiatives for operational efficiency improvement and capacity expansion are either ongoing or have been completed for Kolkata, Haldia, and Visakhapatnam ports in the corridor.
- **Airport.** The corridor includes air transport to enhance regional connectivity especially for tourism purposes. Nepal is expanding/upgrading Gautam Buddha International Airport (280 km west of Kathmandu, part of SASEC Tourism Infrastructure Project), along with making improvements in Kathmandu’s Tribhuvan International Airport (TIA).

12. **Trade Facilitation.** At the Raxaul–Birgunj border crossing, construction of integrated check post (ICP) across the border for truck transport has been completed (inaugurated in early 2018). An inland container depot (ICD) which is 6 km inside Nepal from the border has been operational since 2004. Both were developed with support from the Government of India, facilitating the cross-border movement of trade cargo between India and Nepal.

13. ADB has been promoting technology-driven transit facilitation using an electronic cargo tracking system (ECTS) to ensure safe and secure transit, simplify border formalities, reduce transit time and cost, and improve shipment visibility. India and Nepal signed a Memorandum of Intent (MOI) for ECTS piloting in June 2017. Since April 2018, India and Nepal have been piloting ECTS from the Indian port of Visakhapatnam (Vizag) to Nepal using simplified modalities. The ECTS enabled transit facilitation through both road and rail. Under this pilot, the shipping line undertakes the responsibility of discharging the cargo at the BCP in Nepal, obviating the need for the Nepal trader to undertake formalities in India. The pilot has been extended to Kolkata/Haldia ports in February 2019 and is expected to continue until the Treaty of Transit is suitably revised. The two countries are discussing the inclusion of the procedure in the bilateral Treaty of Transit. The opening of a new gateway route for Nepal through Mumbai and Mundra is also under discussion.

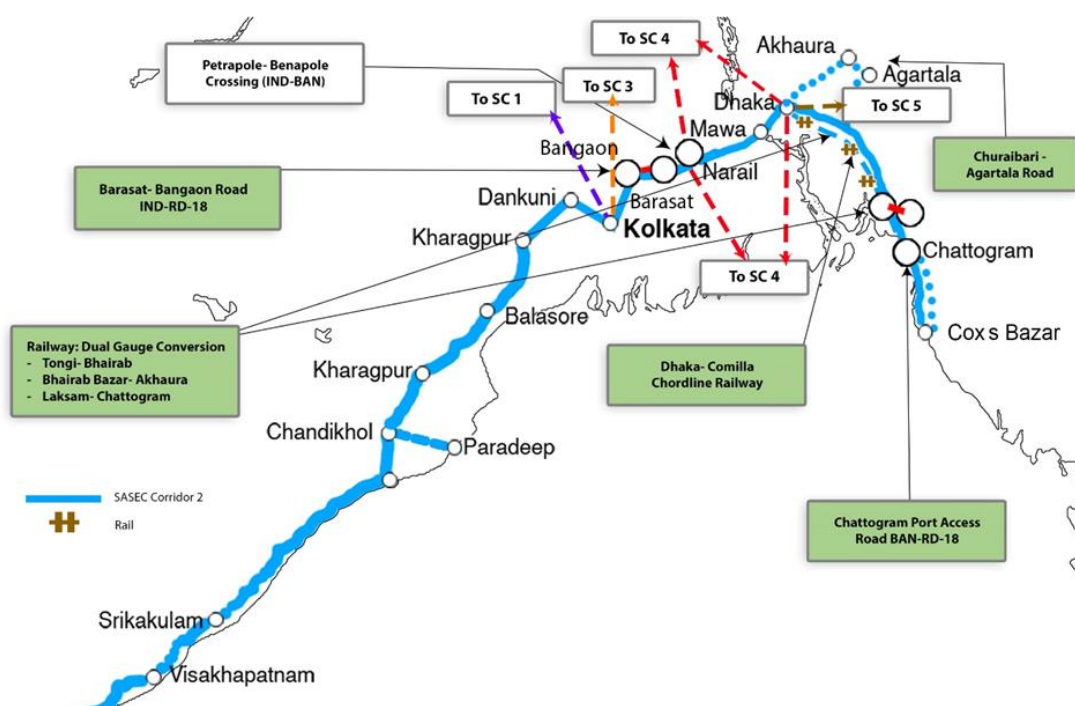
14. Further infrastructure development will make the corridor more effective. In India, many road sections have been upgraded to four lanes, but in approaching Kolkata, there is increasing congestion, requiring the provision of additional lanes on the outskirts of the city. Operationalization of Bangladesh Bhutan India Nepal (BBIN) MVA, initially with three countries (excepting Bhutan) will supplement the bilateral MVA arrangements for better movement of cargo

across the borders. Cargo movement in Nepal is currently concentrated on road transport. Logistics sector development is critical to decrease trade costs, thus enhancing Nepal's competitiveness and facilitate opportunity to get into the regional supply chain. The planned extension of Indian rail to Kathmandu together with construction of east–west Nepal railways will supplement road transport. The development of inland waterways will give opportunity for an alternate climate-friendly transportation mode in Nepal.

## (ii) SASEC Corridor 2: Bay of Bengal Highway

15. The corridor spans the route from Thoothukudi (Tuticorin)–Chennai–Visakhapatnam–Kolkata–Dhaka–Chattogram (formerly Chittagong)–Cox's Bazar–Teknaf. The corridor links SASEC ports and consists of Indian East Coast Economic Corridor (ECEC) and Bangladesh Southwest Economic Corridor. It is a major trade route between India and Bangladesh as well as connecting Dhaka to major ports. The corridor covers 65% of road-based bilateral trade of the two countries.

Map 3: SASEC Corridor 2



Source: Asian Development Bank.

16. **Transport.** Projects enhancing connectivity between West Bengal of India and Bangladesh, and improving linkages between Dhaka and major ports in Bangladesh, are progressing well.

- **Roads.** For the Indian side, many road sections in the middle to northern part of the corridor are either under implementation or completed with Government of India funding. In Bangladesh, there are many ongoing connectivity initiatives such as Bhanga–Jashore–Benapole road upgrading to four lanes, new Padma bridge, Dhaka–Mawa–Bhanga

Expressway, and Dhaka–Chattogram road upgrading including bridges.<sup>11</sup> Road upgrading to deal with congestion issues are now under project preparation, such as four-laning of NH35 (connecting Kolkata with Bangladesh border) and upgradation of Dhaka–Chattogram highway. Bangladesh is emphasizing the improvement of operational capacity and safety of the Dhaka–Chattogram–Cox’s Bazar–Teknaf Highway.<sup>12</sup>

- **Rail.** This corridor is being served by the SASEC Rail Corridor (SRLC) 2 “India–Bangladesh Rail Corridor”: Kolkata–Ranaghat–Gede–Tangail–Dhaka–Comilla–Chattogram (Chittagong)–Cox’s Bazar, including spur line 2A Comilla–Akhaura–Agartala; 2B: Sirajganj–Bogra; 2C: Darshana–Khulna–Mongla; and 2D: connections to Payra Port (spur lines 2C and 2D are in SC 4, however). This corridor’s western half is the major route for bilateral movement of bulk traffic between India and Bangladesh (Gede–Darshana), while the eastern half is important in both (i) linking Dhaka with its main port (e.g., Chattogram) and extension to Cox’s Bazar; and (ii) bilateral connection through the Agartala–Akhaura link under development. Railways are extending and adjusting the gauge to establish direct operations between India and Bangladesh, with projects such as Dual Gauging of Akhaura to Laksam line, Railway link Akhaura–Agartala, and Chattogram–Cox’s Bazar railway line. The Railway Bridge over Jamuna River will improve rail links with the country’s northern region. In Bangladesh, ADB is supporting several ongoing projects that are augmenting capacity of the network (adding and/or upgrading 313 km of track) and ensuring gauge compatibility.
- **Ports.** The key Bangladesh port in this corridor is the congested Chattogram Port which handles 98% of Bangladesh’s maritime trade. Upgrading of the port (Patenga Container Terminal) is underway. Port connectivity will be enhanced through the \$1.5 billion Matabari port project in Bangladesh. In India, the Sagarmala program is the leading port development, aiming to reduce logistics costs and facilitate cargo through port-led industrialization via coastal economic zones (CEZs). Among key CEZs planned are those surrounding ports in Chennai and Visakhapatnam. Port development (new and upgrade) will provide the needed capacity for larger vessels and container trade, to support port-led industrialization under the Sagarmala Initiative, capitalizing on India’s strategic location in maritime routes and global production networks. Chennai is the largest port in terms of container handling. Visakhapatnam is the largest port on the east coast in terms of tonnage throughput due to its substantial bulk cargoes but is also growing as a container port. Similarly, Paradip is mainly a bulk cargo port.
- **Airports.** Two ongoing airport projects in Bangladesh are developing the passenger terminal and upgrading facilities at Dhaka international airport. Another is developing Cox’s Bazar airport. In India, the Chennai Airport Expansion Project (for completion in 2022) covers both domestic and terminal facilities.

---

<sup>11</sup> In Bangladesh, the ongoing Padma bridge will improve road links between the northern and southwest regions, while the ongoing Jamuna Railway bridge will improve rail links between Dhaka and the northwest region. Padma Multipurpose (Road and Rail) Bridge Project, being developed by the Government of Bangladesh, started in November 2014, is almost 90% completed; expected completion is June 2022. ADB and JICA had supported the feasibility study and design of the project. The new Bangabandhu bridge over Jamuna, 300 meters upstream of the existing bridge, is being constructed with JICA funding and is expected to be completed by 2025.

<sup>12</sup> Additional spurs may be added to enhance Bangladesh connectivity to Myanmar (especially to connect to the Kaladan multimodal route). There are currently two road spurs: (i) Moynamoti–Darkhar–Akhaura–Agartala, and (ii) Bariarhat–Ramgarh.

17. **Trade Facilitation.** ADB has supported a SASEC Cross Border Transport Facilitation Routes Initiative (TFRI) which aims to identify issues affecting trade along a given border point/route and design solutions to resolve them. The initial phase covered the Kolkata–Dhaka trade facilitation route, with three border crossing pairs: Gede–Darshana, Petrapole–Benapole, and Ghojadanga–Bhomra; the report has been completed. ADB is developing the Bangladesh SASEC Integrated Trade Facilitation Sector Development Program (TF-SDP) which supports policy reforms to introduce transit arrangements. Investment support will be provided under TF-SDP to develop border infrastructure at Sonamasjid. Transit arrangements with ECTS has been supported for various routes, applying lessons from the earlier TFRI; the study findings also inputted into the design of the Bangladesh TF-SDP, under which select border crossing points would be developed in a holistic manner. Under the Bangladesh TF-SDP, two border crossings are included for development in SC2, namely, Bibirbazar (with India) and Teknaf (with Myanmar). Operationalization of BBIN MVA will further enhance transit cargo.

18. **Economic Corridor Development.** ADB-supported economic corridor studies are identifying opportunities for growth centers and investment needs. India's East Coast Economic Corridor (ECEC), which is along SC2, is the focus of India's current economic corridor development (ECD) efforts, through its Visakhapatnam–Chennai Industrial Corridor (VCIC program). This involves enhancing economic linkages across industries and sectors through critical interventions comprising policy reforms and institutional development (at the state level) and developing high-quality infrastructure to boost industry growth. The VCIC study has led to ADB's commitment of funding to the VCIC program in 2017 comprising: (i) a \$125 million policy-based loan for policy reforms and institutional development in the state of Andhra Pradesh, and (ii) \$245 million for developing high-quality internal infrastructure for identified industrial areas. ADB approved a \$250 million loan for India's Industrial Corridor Development Subprogram 1 in October 2021 to expand multimodal transport networks, enhance institutions for corridor management, and address skills gaps to support industrialization. In June 2021, ADB earlier approved \$484 million for the Tamil Nadu Industrial Connectivity project to enhance transport connectivity and facilitate industrial development in line with the regional economic corridor development plan for the Chennai–Kanyakumari Industrial Corridor (CKIC).

19. The Southwest Bangladesh Economic Corridor Comprehensive Development Plan supported by ADB and presented to the Government of Bangladesh in 2017 proposed developing multimodal transport spine running through key urban and economic centers connecting to key gateways, such as: (i) Jessore–Khulna–Bagerhat–Gopalganj–Tekerhat–Bhanga–Dhaka, (ii) Jessore–Magura–Faridpur–Dhaka via Paturia, and (iii) Jessore–Narail–Kasiani–Bhanga via the Padma bridge. The corridor will include two industrial nodes like Khulna and Dhaka covering six districts and identified potential sectors that will drive industrialization.

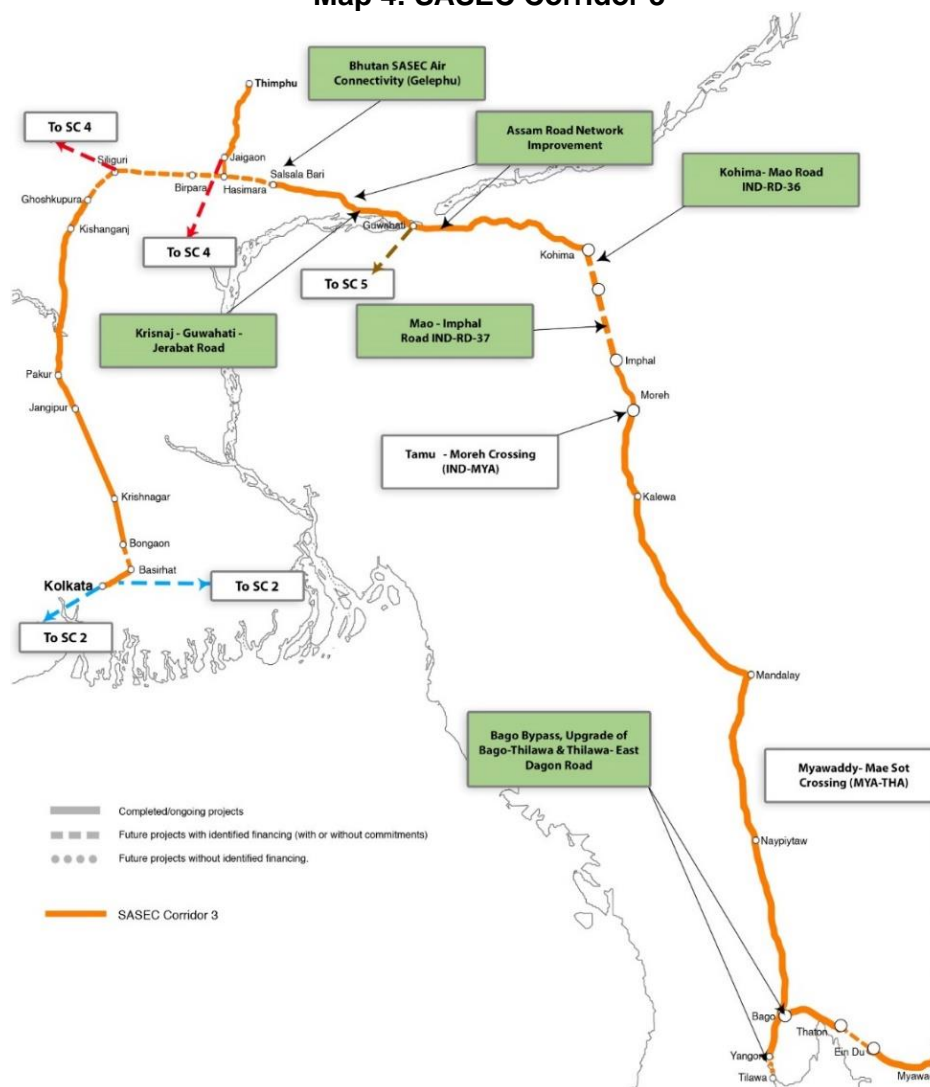
20. Roads around Kolkata and on toward the border crossing at Benapole suffer from congestion which translates to delays in cross-border cargo transport. To supplement the road transport, investment in railway upgrading (particularly dual gauging of the Bangladesh network) has been increasing. Further, SASEC maritime cooperation initiatives, which completed four studies identifying policy reforms, port infrastructure investment, and connectivity projects worth more than \$30 billion, will guide future port development strategies for the corridor.

### **(iii) SASEC Corridor 3: India–ASEAN East–West Corridor**

21. This corridor covers the route Kolkata–Siliguri–Guwahati–Imphal–Moreh/Tamu–Mandalay–Bago–Myawaddy, with spurs Hasimara–Phuentsholing–Thimphu and Bago–Yangon. Development potential of this corridor arises from connecting SASEC corridors with the Trilateral

Highway linking India, Myanmar, and Thailand and other ASEAN countries beyond. The corridor therefore serves as the main gateway for greater economic integration between SASEC countries and Southeast Asia and East Asia. Within SASEC, the corridor serves to connect Bhutan and eastern Nepal with India's East–West corridor. It enables Bhutan to use the Indian ports for third country trade.

**Map 4: SASEC Corridor 3**



Source: Asian Development Bank.

22. **Transport.** Siliguri corridor at the “Chicken’s Neck” had been upgraded successfully for land-based trade of India with Bhutan and Nepal, as well as with its northeastern region. The focus of development has therefore shifted to enhancing connectivity with Myanmar, and strengthening the spur of the corridor to Bhutan.

- **Roads.** For the Indian side, upgrading of the Siliguri corridor from Guwahati to Nagaon has been completed mostly with Indian government financing, with some sections supported by ADB’s SASEC Road Connectivity Investment Program (Tranches 1 and 2

committed in 2015 and 2018, respectively).<sup>13</sup> ADB is supporting the upgrading of Imphal to Myanmar border (Moreh–Tamu) which is expected to be completed in 2023. Myanmar sections of this corridor are being developed under India's Look East policy that will connect Moreh, India with Mae Sot, Thailand via Myanmar.<sup>14</sup> The road southwards from Tamu to Kalewa has been developed and is being rehabilitated with Indian government support, with some bridge works remaining. The reconstruction of the 66.4-km road between Eindou and Kawkareik in Kayin State (with ADB funding of \$100 million) has been completed. The spur for Bhutan which diverts northwards at Hasimara to the border city of Phuentsholing in Bhutan is being upgraded with ADB funding. The Thimphu–Phuentsholing Highway has been completed and is mainly AH Class III.

- **Airports.** As this corridor covers mainly landlocked territory (except around Yangon), airports serve a key connectivity function. The development focus for airports is mainly on upgrading passenger terminals (to address traffic growth) and additional runways, taxiways, and aprons to handle larger aircraft. Works at Bhutan's Paro and Gelephu airports involve upgrading taxiways and departure terminals. In India, the construction of a new passenger terminal at Guwahati airport is due for completion in 2020–2021. This is part of the UDAN<sup>15</sup> regional airport development and “regional connectivity scheme” which involves development of new airports and upgrading of existing ones and promoting service to underserved/unserved regional airports through viability gap funding. Myanmar recently completed renovation of Yangon International Airport and has started development of a new cargo terminal at Mandalay.

23. **Trade facilitation.** An ICD has been developed at Siliguri. ICP has been developed at Moreh and improvement of border infrastructure at Tamu is contemplated. In Bhutan, a new border facility with connecting road at Pasakha is ongoing with ADB funding. Piloting the ECTS to facilitate transit cargo clearance was first applied in 2014 to the Kolkata–Jaigaon–Phuentsholing corridor, which yielded lessons in streamlining regulations and improving cargo tracking control. Post clearance audit to facilitate trade and improve compliance is being piloted at Phuentsholing and Thimphu.

24. **Economic Corridor Development.** ADB has prepared a Vision Study to develop Assam state as India's expressway to ASEAN, which laid down an outward-looking growth strategy up to 2025. ADB submitted the report to the state government in December 2018, which then requested ADB to scale up the study to a Northeast Region Corridor study which will span from Dawki (on the India–Bangladesh border) to Shillong via Guwahati to Nagaon, and from Golaghat via Dimapur and Imphal to Moreh (on the India–Myanmar border).

25. While the “Chicken Neck” area (between Bhutan, India, and Nepal) has benefited from road upgrading (largely with ADB support), the corridor needs to focus on enhancing connectivity between key points in the northeast region of India, and toward the border with Myanmar. The Government of India will support needed road improvements especially with respect to Assam–Nagaland–Manipur links. Within Myanmar, there are several sections of the corridor that require

---

<sup>13</sup> Mostly financed by the Government of India; some sections covered by ADB's SASEC Road Connectivity Investment Program for India, with Tranche 1 committed in 2015 and Tranche 2 in 2018.

<sup>14</sup> ADB has approved GMS Highway Modernization project I and II for Myanmar in December 2018 and November 2020, with combined ADB financing of \$678.5 million, to upgrade and improve safety of central and southern stretches of the Trilateral Highway and that are part of the GMS North–South and East–West Economic Corridor.

<sup>15</sup> Ude Desh ka Aam Naagrik (Hindi for “Let the common citizens of the country fly”), known by its acronym UDAN (Hindi for “flight”) is a regional airport development program of the Government of India and part of the Regional Connectivity Scheme (RCS) of upgrading under-served air routes.

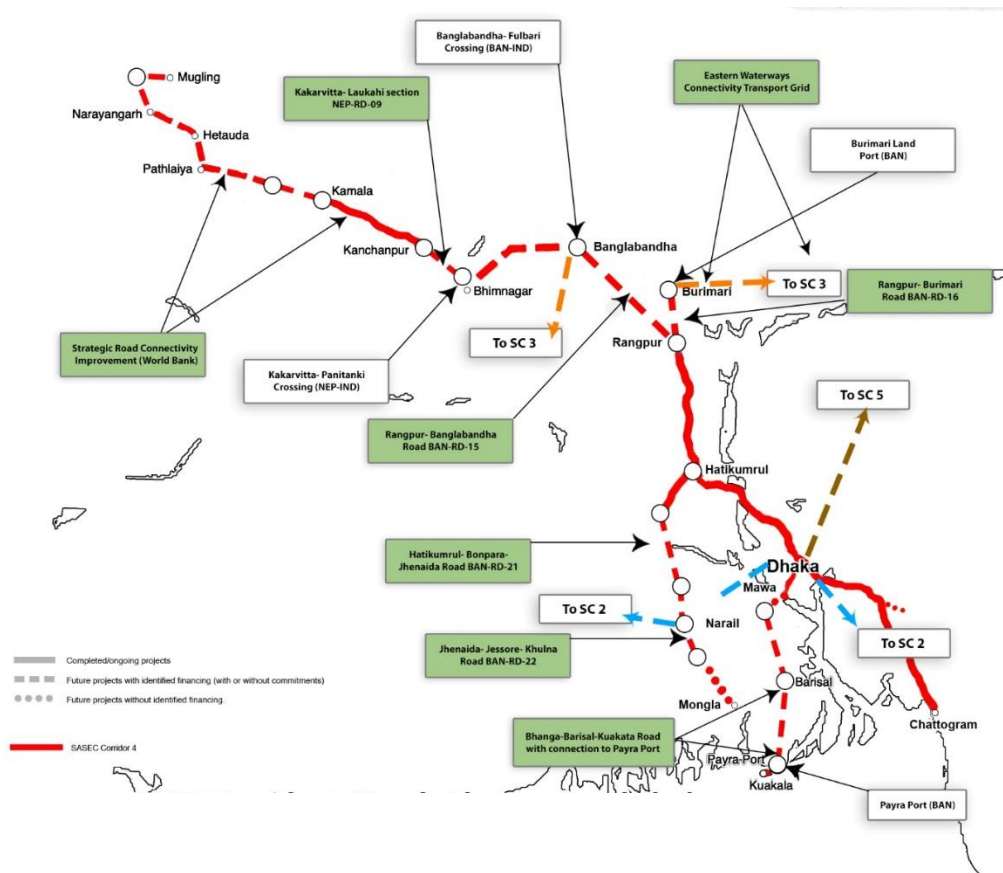


upgrading and these are being addressed by Trilateral Highway initiatives as well as the Greater Mekong Subregion (GMS) projects in Myanmar. In order to catalyze India's Act East Policy, involving enhancing economic linkages with Southeast Asia via Myanmar, there is a need to operationalize the India–Myanmar–Thailand MVA to facilitate passenger, personal, and cargo vehicular traffic between IMT countries, reducing costly and time-consuming transshipment of people and goods at border crossings, spurring more opportunities for greater trade and economic exchanges along the corridor.

#### (iv) SASEC Corridor 4: The Nepal/Bhutan–Bangladesh North–South Corridor

26. The corridor spans Kathmandu–Kakarvitta/Panitanki–Rangpur–Bogra–Dhaka–Chattogram, with spurs Rangpur–Burimari/Chengrabandha–Phuentsholing, Bogra–Mongla, and Dhaka–Payra Port.<sup>16</sup> This corridor provides landlocked Bhutan and Nepal access to the Bangladesh market for intra-subregional trade, and further potential links to Bangladeshi ports as another gateway for trade outside the SASEC region. Currently, volumes are relatively low and seasonal (mostly trade in fruits/ vegetables) in the Kakarvitta–Banglabandha (main trunk of SC4) and Phuentsholing–Burimari (spur 4a) sections, but southwards (i.e., between Rangpur and Dhaka), the overall traffic and trade volumes increase rapidly.

Map 5: SASEC Corridor 4



Source: Asian Development Bank.

<sup>16</sup> Bogra–Mongla route specifically covers Bogra–Hatikumrul–Pakshi Bridge–Jessore–Khulna–Mongla; Dhaka–Payra route specifically covers Dhaka–Mawa–Bhanga–Barisal–Payra Port.



27. **Transport.** Road transport is the major mode of transport in this corridor.

- **Roads.** In Nepal, expansion of a section of the East–West Highway between Dhalkebar and Pathlaiya is being financed by the Government of Nepal with World Bank support for bridges. ADB is financing the upgrading of Kanchanpur–Kamala section (87 km) to four lanes, which commenced in 2020; detailed engineering for upgrading Dhalkebar–Pathlaiya section is ongoing. In India, construction of the Mechi Bridge on the India–Nepal border including its approach roads is completed, which will improve links between Kakarvitta and Panitanki (with ADB financing). In Bangladesh, the sections from Rangpur southeastwards to Dhaka are all under various stages of construction under ADB-supported SASEC road connectivity projects. However, the Elenga–Hatikumrul–Rangpur section (under ADB’s SASEC Dhaka–Northwest Corridor Road project, approved in 2017), is only about 35% completed, due to resettlement, pandemic, and other issues.

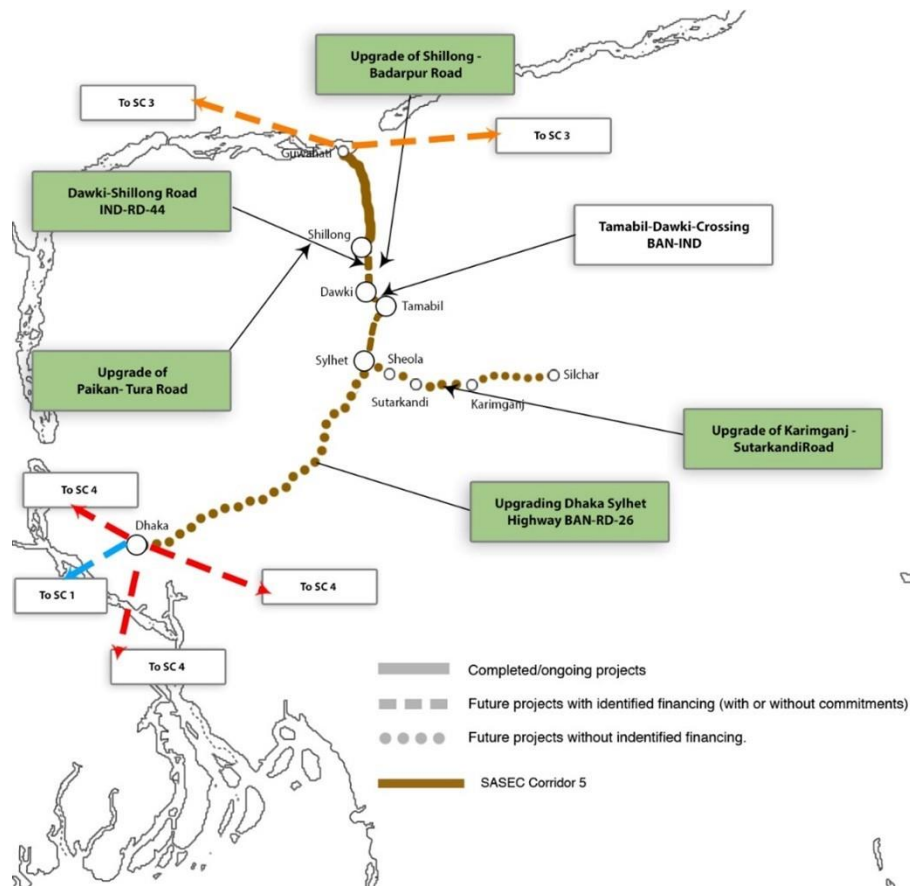
28. **Trade Facilitation.** SASEC Cross Border Transport Facilitation Routes Initiative has completed, which aimed to identify issues affecting trade along a given border point/route and to design solutions to resolve them. The SASEC Routes Initiative – Phase 2 study will cover the Kakarvitta–Panitanki–Fulbari–Banglabandha–Chattogram/Mongla route. Operationalization of BBIN MVA will facilitate cargo movement along the corridor.

29. The corridor needs further improvement of road infrastructure and trade facilitation and needs to develop ports in Bangladesh as alternates for congested Chattogram. There are two Bangladeshi ports in this corridor—upgrading of Payra port is underway, covering multipurpose terminal facilities, dredging of the channel, and coal/ bulk terminal. Mongla port, another key port, has been proposed for upgrading to address the congestion at Chattogram and to serve the hinterland in Bangladesh’s western section. SASEC countries also aim to better utilize natural waterway connectivity between India and Bangladesh, Nepal, Bhutan, and Myanmar, and promote multi-modal integration for more efficient value chain logistics. The development of inland waterways as an alternate mode of transport is at its initial stage. India is implementing projects to augment the navigation capacity of its waterways through sustainable inland waterway transport infrastructure.

#### **(v) SASEC Corridor 5: The North Bangladesh–India Connector**

30. This corridor spans Dhaka–Sylhet–Tamabil–Dawki–Shillong–Guwahati, with spur Sylhet–Sheola–Karimganj–Silchar. This corridor develops Bangladesh as a regional crossroad connecting the northeast region of India to Dhaka, and further to Bangladesh ports (with SC2 and SC4). Cargo transit arrangement will also link it with other areas of India. It will also allow the northeast area of Bangladesh to get connected to Myanmar and ASEAN through SC3 (through the spur Sylhet–Sheola–Silchar connecting to Assam and India–Myanmar–Thailand Trilateral Highway at Guwahati in SC3).

**Map 6: SASEC Corridor 5**



Source: Asian Development Bank.

### 31. Transport.

- Road.** In India, conversion of the road from Shillong to Guwahati (NH40) to a four-lane highway (82 km) has been completed with Indian government financing. The corridor has a spur that links Sylhet with the Indian border, and onward to Silchar; the section on the Indian side west of Karimganj is in good condition. This spur could provide Bangladesh with access through to northern Myanmar via Imphal/Moreh. In Bangladesh, the improvement of Dhaka–Sylhet section started with ADB funding of \$400 million under the SASEC Dhaka–Sylhet Road Investment Project – Tranche 1 committed in October 2021. The project will provide the trunk road network for the development of the Northeast Bangladesh Economic Corridor as recommended by the ADB-supported corridor study.
- Rail.** Earlier railway assistance from ADB supported the double tracking and improvement of signaling for the section from the Dhaka to Darshana close to the border with India near Gede (on approach to Petrapole and Kolkata). ADB is supporting the Government of Bangladesh in upgrading the 72-km Akhaura–Laksam section of the Dhaka Chittagong railway corridor to a double track railway line with modern signaling equipment. This section is a key part of a major subregional corridor and the Trans-Asia Railway network (connecting to India via Gede in India and Darshanain Bangladesh). The project will also (i) improve 11 railway stations, and (ii) strengthen the capacity of the railway sector in

project management and implementation as well as in accessing climate mitigation funds. By increasing the capacity of this major international trade corridor, the project will boost the national economy and facilitate subregional cooperation and trade.

32. **Trade Facilitation.** The Government of India is developing an ICP at Dawki, a key border crossing point that services trade between Bangladesh and the northeastern region of India. International transit cargo operations started at Chattogram port in 2020, under which international cargoes unloaded at Chattogram port can be transported to the northeastern region of India through Bangladesh without customs clearance.

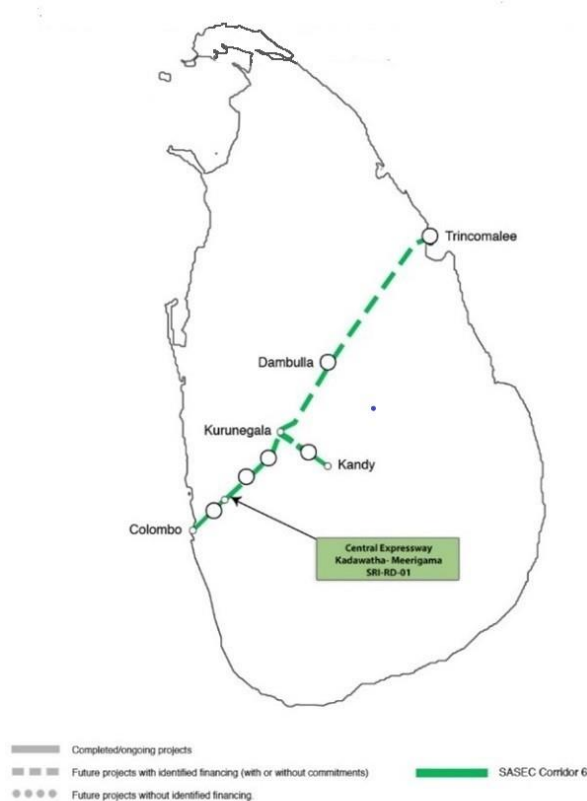
33. **Economic Corridor Development.** The Northeast Bangladesh Economic Corridor study aimed to identify the development potential of the northeastern districts in the Dhaka, Sylhet, Chattogram, and Mymensingh divisions, which are endowed with rich resources and strategically located for cross-border trade with India's northeastern region and Bhutan and Nepal. The study identified promising industries and proposed infrastructure and urban services needed for planned industrial development and regionally balanced growth, which will support the coordinated and holistic development of industries, infrastructure, and urban–rural areas. Emphasis was given to improving transport gateways and connectivity within Bangladesh not only to increase intra-regional trade and investment but also to play a pivotal role in economic integration in the SASEC subregion.

34. ADB support for the Dhaka–Sylhet Road investment will be supplemented for leveraged impact by the Bangladesh SASEC TF-SDP planned for commitment in early 2022. This TF-SDP will support the expansion of the international transit cargo operation with ECTS, and improve cross-border facilities at Akhaura, Sonamasjid, and Tamabil. It is planned that more border crossing points (BCPs) will be upgraded with a succeeding TF project. Development of this corridor will hinge on two ICPs in Dawki and Sutarkandi. India's Northeast Region Economic Corridor study recommended an ICD at Silchar to facilitate off-border clearance of goods from proximate border points (Sutarkandi, Karimganj). Operationalization of the BBIN MVA will allow cross-border truck operation without transshipment and further facilitate the connectivity to make Bangladesh as a transit hub in the region. Further development is required for road connectivity, but the main constraint in India is the Dawki suspension bridge which has low weight limit. Difficult terrain from Dawki to Shillong makes the use of two lanes difficult, even while the section from Shillong to Guwahati has been converted to four lanes and is now commercially busy.

#### **(vi) SASEC Corridor 6: The Sri Lanka Port Highway**

35. This corridor spans Colombo–Dambulla–Trincomalee with spur Kurunegala–Kandy. The corridor aims to enhance connectivity between the main port in Colombo with its northern hinterland, as well as with its main port in the northeast (e.g., Trincomalee), thus promoting export competitiveness and facilitate Sri Lanka's participation in the global/regional supply chain as proposed in the 2017 Colombo–Trincomalee Economic Corridor (CTEC) study.

**Map 7: SASEC Corridor 6**



Source: Asian Development Bank.

## 36. Transport

- Roads.** The construction of Central Expressway Stage II (Meerigama–Kurunegala–Ambepussa link), with financing from the PRC, was completed by end of 2021.<sup>17</sup> Upgrade to two lanes of another section (Galewela–Dambulla section of Kurunegala–Trincomalee road) has been completed with Sri Lankan government financing. ADB is supporting the Port Access Elevated Highway (PAEH) in Sri Lanka for (i) alleviating traffic congestion in Colombo, (ii) addressing the increasing traffic to/ from the port, and (iii) providing a direct link to the city center and port from Colombo–Katuyana expressway. This project will enhance Colombo port's role as regional maritime transshipment hub. Parallel financing from JICA is supporting the Kelanya bridge project, which like the PAEH, will help separate port traffic stream from city traffic. Preparation of projects to improve the Colombo–Trincomalee links for other sections of the Central Expressway is ongoing.
- Ports.** Colombo is the largest port in Sri Lanka and is a major international container hub handling approximately 7 million twenty-foot equivalent unit (TEU) per annum. Sri Lanka is succeeding in developing Colombo port as a regional maritime transshipment hub, having completed the Colombo Port Expansion project in 2015, which consolidated Colombo port's position as a transshipment hub port for South Asia, providing the port expanded container handling capacity and sufficient depth for new-generation vessels. As

<sup>17</sup> Construction of Central Expressway Stage 3 has also commenced, comprising 31.7 km from Pothuhera to Galagedara via Rambukkana, and four interchanges at Pothuhera, Polgahawela, Rambukkana, and Galagedara.

noted earlier, access to Colombo port is being improved through the ongoing PAEH project, which will alleviate traffic congestion in Colombo and its port.

- **Airport.** The ongoing project is the expansion of Bandaranaike International Airport, comprising the construction of a new Terminal 2, which is a new multi-level terminal building with a floor area of approximately 180,000 square meters, two new piers, and a link course connecting to the existing terminal. The arrival and departure areas will be separated vertically. Its two packages are scheduled for completion in 2023.

37. **Trade Facilitation.** To complement the PAEH project, enhancements to the trade facilitation environment were included, which are (i) design preparation for new customs terminal; (ii) improvement of risk management framework and the system; (iii) concept design, requirement definition, and system design for port community system (PCS) and going forward, interface with the National Single Window (to be developed); and (iv) procurement of electronic cargo tracking system.

38. **Economic Corridor Development.** The Colombo–Trincomalee Economic Corridor (CTEC) study completed in 2017 recommended extending the economic strengths of the western region/Colombo area to the eastern end in Trincomalee using the Central Expressway acting as corridor spine, while leveraging key sections for tourism and light manufacturing.

39. The CTEC concept development plan identified policy measures to boost manufacturing exports and integration with global value chains. However, progress has been stymied by lengthy processes in planning and implementing identified measures. Moreover, the imbalances in level of development between the southwest areas around Colombo, and the eastern sections up to Trincomalee, require differentiating capacity building and industry and trade promotion efforts between these regions. The pandemic has additionally caused complications in financing development of priority sectors such as ICT, logistics, and manufacturing.

## **B. Priority Projects/Programs under Sectoral Initiatives**

### **(i) Trade Facilitation**

40. **Trade Facilitation.** The SASEC Trade Facilitation Strategic Framework 2014–2018 (STFSF) was adopted by the SASEC countries in March 2014 and continues to demonstrate progress across five priority areas: (i) Customs modernization and harmonization, (ii) standards and conformity assessment, (iii) cross-border facilities improvement, (iv) through transport facilitation, and (v) institution and capacity building. The SASEC OP pursues six operational TF priorities (which are the focus of ADB's TF assistance), namely, to (i) simplify trade documentation, (ii) promote automation in border agencies and development of NSW, (iii) strengthen national conformance bodies to better address sanitary/ phytosanitary (SPS) and technical barriers to trade (TBT), (iv) develop/implement through transport MVAs,<sup>18</sup> (v) develop

---

<sup>18</sup> The Bangladesh, Bhutan, India, and Nepal (BBIN) motor vehicle agreement (MVA), which was signed at the BBIN Transport Ministers' Meeting (Thimphu, Bhutan, June 2015), is a landmark framework agreement designed to facilitate passenger, personal, and cargo vehicular traffic between the BBIN countries. Three of the four signatory countries have ratified the Agreement, while Bhutan government consented for the other countries to proceed with implementation while the ratification process is under way in Bhutan. The possibility of a pilot implementation of the MVA between and among Bangladesh, India, and Nepal along agreed routes and involving selected transport operators of the three countries is being explored. Meanwhile, ADB has been supporting the drafting of the India–Myanmar–Thailand MVA, but this has yet to be signed pending the resolution of various issues. ADB will facilitate the discussion on these issues if requested to do so by the countries.

trade-related infrastructure in ports and land border crossings, and (vi) build capacity and enhance coordination in trade facilitation.

41. The current ADB assistance focuses on (i) support for the SASEC Customs Subgroup and its national and subregional projects on the exchange of trade documents, and transit automation, among others, including capacity building in Customs best practices and international norms; (ii) improvement of cross-border facilities,<sup>19</sup> which have largely been integrated into SASEC road connectivity projects in member countries and included in discussions on SASEC corridors; and (iii) transport facilitation for more efficient transnational movement of people, goods, and vehicles, which involves a multitrack approach.<sup>20</sup>

42. Since 2012, ADB has provided policy-based loans and grants totaling \$69 million for a regional (Bangladesh, Bhutan, Nepal) and a national (Nepal) trade facilitation program. These programs supported the governments to help the countries to fulfill their commitments to the Trade Facilitation Agreement (TFA) of the World Trade Organization (WTO) and related international standards on customs and strengthen the latest measures in customs operations such as risk management, post-clearance audit, advance ruling, trade facilitation measures for authorized operators, pre-arrival processing, and expedited shipment. In May 2019, ADB approved an ADF loan/grant of \$10 million to develop Maldives' NSW, a single electronic platform to improve the speed and efficiency of cross-border control procedures employing the latest in high-tech systems. ADB approved a \$1.5 million technical assistance to prepare Bangladesh's SASEC Integrated Trade Facilitation Sector Development Program (included in ADB's 2021 pipeline for \$200 million) to improve the country's border infrastructure and trade facilitation environment.

43. While trade facilitation has always focused on expediting cargo clearance, reducing transaction costs and efficient compliance management, the COVID-19 pandemic has highlighted the need to clear cargo expeditiously with least physical interface and maintain efficient supply chains. Prioritizing trade facilitation reforms and evolving new initiatives that help sustain trade, particularly in critical goods, with due regard to public health and safety has become vital.<sup>21</sup>

44. As connectivity infrastructure has been developed both in hard and soft intrastate, there is an opportunity to expand the scope of trade facilitation to overall logistics sector. The proposed SASEC Customs and Logistics Reforms Program aims to improve logistics in Nepal through the preparation and implementation of the new Trade Logistics Development Policy while continuing assistance to reforms in customs, thereby envisaging a modern, efficient, integrated, and sustainable trade logistics industry. It will result in targeted and integrated logistics infrastructure development, enhanced supply chain management, and strengthened logistics governance.

---

<sup>19</sup> An ADB study to coordinate development of border infrastructure, covering nine land customs stations (LCS) pairings, looked at infrastructural, institutional, procedural, ICT and other issues that need to be addressed in these LCSs, and emphasized the need for better coordination to synchronize investments and software.

<sup>20</sup> Multitrack approach involves: (i) expanding pilots of the electronic cargo tracking system (ECTS) for transit cargo to further demonstrate its cargo security and revenue protection benefits; (ii) undertaking cross-border TF routes initiative, which will identify issues along a route or border point and design appropriate solutions for these; and (iii) continuing support for finalizing implementing protocols of the BBIN MVA, which aims to lower costly and time consuming transshipment of people and goods at border crossings.

<sup>21</sup> In March 2020, as the SASEC Secretariat and convenor of the SASEC Customs Subgroup, ADB shared with SASEC countries information on the roles that customs administrations can play to address the COVID-19 outbreak, from facilitating the movement of relief goods (medicines, equipment) and qualified personnel across borders to helping domestic traders overcome the challenge of disrupted supply chains. Customs administrations were enjoined to devise plans to suit national needs, keeping global best practices in mind.

## (ii) Energy Sector

45. The discussion on progress and high-priority initiatives in energy will proceed based on promoting SASEC-wide network integration efforts in regional power trade.<sup>22</sup> Another operational priority for energy is the promotion of clean, low-carbon energy (e.g., wind, solar, biofuels). The APSI, therefore, includes proposals for promoting knowledge exchanges and technology transfer for clean energy development.

46. **Power Trade.** The SASEC countries envision power trade to provide cheaper renewable power (mainly hydropower) from countries like Bhutan and Nepal to power-consuming countries like Bangladesh, India, and Sri Lanka. Power trade can also enable power swap arrangements to meet seasonal variations in power demand and supply. The SASEC power trade flagship initiative essentially comprises the development of interconnections that will enable cross-border evacuation of hydropower resources, allowing the countries to share the costs and benefits of huge hydropower and transmission investments, and helping them balance the needs of national markets, given differences in demand and supply patterns.

47. SASEC power exchange is currently taking place with India in bilateral trade arrangements individually with Bangladesh, Bhutan, Nepal, and Myanmar. India is a natural center for SASEC power exchange, given its central geographic location, large generation capacity, and huge demand. India released its revised Guidelines for Import–Export (Cross-Border) of Electricity – 2018 in December 2018 that covers (i) tripartite trading of electricity under the overall framework of bilateral agreements signed between the countries, (ii) trading through power exchanges after clearance from designated authorities, and (iii) easing of restrictions on ownership for export–import. Features and progress of bilateral power trade in SASEC of each bilateral trade are as follows.

48. **India–Bhutan Trade.** Since 1986, Bhutan has been a net power exporter to India through various hydropower plants (HPPs) with their associated transmission lines. Each new HPP in Bhutan comes with a transmission line to bring power to the desired load center. There are three ongoing HPPs being constructed for power export to India: (i) 1,200 MW Punatsangchhu I, (ii) 1,020 MW Punatsangchhu II, and (iii) 720 MW Mangdechhu. While commissioning was delayed for Punatsangchhu I and II to 2022 and late 2019, respectively, Mangdechhu started generating power (from the first of its four plants) in June 2019; the tariff protocol for such power export was signed by the countries in April 2019.

49. **India–Nepal Trade.** This was based earlier on the need to cater to the power needs of isolated local border areas of Nepal, with the Nepal Electricity Authority (NEA) buying from utilities in the bordering Indian states (Bihar, Uttar Pradesh, and Uttarakhand). Eventually, Nepal has been drawing larger power from India for its domestic needs, via various transmission strengthening efforts (including upgrading the Mahendranagar–Butwal 132 kV line), many with ADB assistance. A Power Sale Agreement (PSA) was signed in December 2011 between Nepal and India for the import of 150 MW for 25 years. A joint working group (JWG) and joint study committee (JSC) were formed by India and Nepal to deal with power trade and transmission connectivity between the two countries. The JWG and JSC decided to prepare a long-term integrated transmission plan for the evacuation of surplus power from HPPs in Nepal, with a detailed action plan to be prepared for HPPs coming up by 2025 (and a perspective plan for HPPs by 2035). Consequently, Nepal’s Ministry of Energy, Water Resources and Irrigation, issued the

---

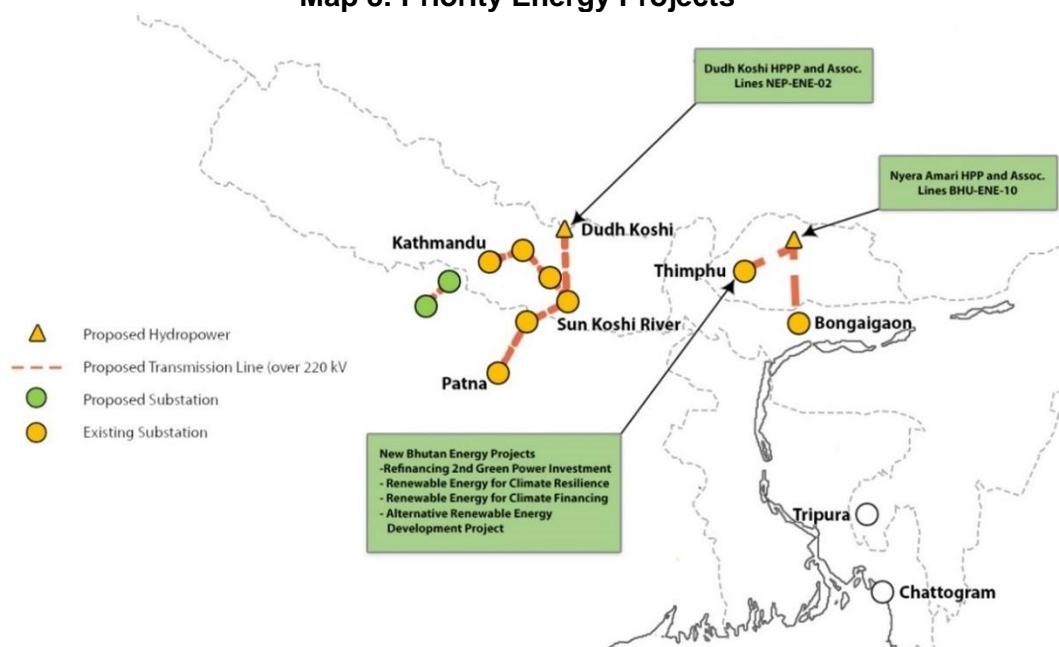
<sup>22</sup> The SASEC Vision proposed flagship initiatives in two areas, namely, power trade development and cooperation in oil and gas. However, the APSI 2022–2024 does not include projects in the latter area.

Transmission System Development Plan in December 2018, based on the updated generation and load scenario by 2040. This consists of a mesh network of a main 400-kV East–West line interconnected by radial lines along river corridors, with six Nepal–India connections.

50. **India–Bangladesh Trade.** A 400-kV alternating current (AC) Baharampur (India)–Bheramara (Bangladesh) line, connected to high voltage direct current (HVDC) back-to-back substations (commissioned in October 2013) enables the Indian export of 500 MW to Bangladesh. A second circuit with a similar arrangement of HVDC substations has been commissioned in September 2018, upgrading the power transmission capacity of the Bheramara grid interconnection between the two countries from 500 MW to 1,000 MW. Such trade, as well as system strengthening, was undertaken by Power Grid Corporation of India Ltd. (PGCIL) and the Power Grid Company of Bangladesh Ltd. (PGCB). Power imports by Bangladesh from India were covered by agreements between these entities, with some imports going through a competitive tendering. An agreement also covered the use of India’s transmission facilities for Bangladesh power imports. Based on a decision of the 8th Joint Steering Committee (JSC)/Joint Working Group (JWG) meeting, Bangladesh is importing up to 160 MW of power at Comilla from Palatana in Tripura, India through radial interconnection through various cross-border links. A decision was taken to enhance the capacity of the Comilla interconnection to 500 MW based on the decision at the 13th JSC/JSWG meeting in 2017.

51. **India–Myanmar Trade.** Currently, India supplies power to Myanmar from Moreh (India) bordering Tamu (Myanmar) with a capacity of 3 MW at the unit price of ₹6/kilowatt-hour (kWh) (about \$0.09/kWh). Myanmar’s Ministry of Energy and Electricity has received proposals for importing power from India and the Lao People’s Democratic Republic via cross-border transmission lines, which will support Myanmar’s electrification program for border communities.

**Map 8: Priority Energy Projects**



Source: Asian Development Bank.



52. **Updating of the Regional Transmission Master Plan.** The original masterplan was completed in 2016. It used the optimal dispatch model which looks at current and future interconnections to maximize cross-border power trade benefits. The masterplan developed regional network models based on individual country networks, and simulated cross-border power transfer scenarios given hydropower generation prospects and load forecast data for the countries. The SASEC transmission master plan is being updated to incorporate changes in load forecasts and recent progress in hydropower generation projects in the SASEC subregion. Moreover, it will be extended to cover other countries in Southeast Asia in order to examine the potential for power trade between SASEC countries with Southeast Asia. The extended coverage of the master plan will also be used to develop a power master plan for the BIMSTEC member states.

53. **Oil and Gas Cooperation.** The SASEC Regional Gas and Petroleum Working Group (RGP-WG) was established with the aim of enhancing the gas and fuel supply chain in the SASEC subregion; it is being supported by RETA 9584. The RGP-WG's inception meeting, held in Delhi, India (December 2018), agreed on the working groups's priority tasks such as reviewing the prospects for SASEC oil and gas cooperation and sharing knowledge on technological advances in the oil and gas sector.

54. **Progress.** Recent major progress in terms of projects is the ADB commitment of a total of \$416 million for three power transmission projects in Nepal in 2020–2021 to build future capacity to allow the export of surplus power. This includes \$235 million for the SASEC Power Transmission and Distribution System Strengthening Project (August 2020) to complete the reinforcement and modernization of power supply system in Kathmandu and begin strengthening distribution systems outside of Kathmandu. These will enable the evacuation of hydropower to the main load center in Kathmandu and other load centers, while excess power is traded with neighboring countries. The Bangladesh Dhaka Western Zone Grid Expansion (ADB commitment of \$300 million in December 2019) focuses on the remaining deficiencies in the transmission system to enhance power transfer capacity to the load centers in the southern and western zones, and to strengthen in-country power transfer capacity for increased cross-border power trade with India. ADB is supporting SASEC energy regional technical assistance (approved in September 2018 for \$2 million) to support the SASEC Cross-Border Power Trade Working Group (SPT-WG)<sup>23</sup> in undertaking oversight and coordination in sharing knowledge in regional power trade and renewable energy and energy efficiency measures.<sup>24</sup>

55. Enhanced SASEC trading of renewable hydropower from Nepal and Bhutan to Bangladesh and India can be a strong driver of post-COVID-19 green recovery. As cross-border electricity trade under bilateral initiatives continues to advance, helping develop a more robust electricity infrastructure and more reliable grid operation and power transmission across borders, there is a need for the SASEC Energy Working Group (EWG) to ramp up efforts to strengthen the subregion's transmission and power generation pipeline. These efforts are expected to lead to

---

<sup>23</sup> The SPT-WG was established in October 2017 with the holding of its inception meeting in New Delhi, India also hosted the second SPT-WG meeting in New Delhi in November 2019. The Virtual SPT-WG meeting was held in October 2020.

<sup>24</sup> ADB approved in September 2018, the regional technical assistance (RETA) TA-9584 REG to support SASEC regional energy cooperation with a funding of \$2.0 million. One of the TA outputs is support for cross-border power trade, through (i) workshops to promote effective trade arrangements and project assessments; and (ii) master plan development covering regional strategies, road maps, pre-feasibility study of commercial/institutional arrangements, investment costs, regulations, and other focus areas. Another TA output is knowledge sharing on advanced energy technologies, which can include progress and issues of power trade experiences in other regions (e.g., Central Asia, Greater Mekong Subregion).

the delivery of a reliable and high-quality supply of electricity to the subregion's consumers and consolidate the position of Bhutan and Nepal as net energy exporters of SASEC. The efforts of the EWG are also expected to contribute to the subregion's attainment of universal access to a reliable power supply by 2030 and promote sustainable energy for all while contributing to the reduction of fossil fuel dependency in the subregion.

### **(iii) Economic Corridor Development**

56. The economic corridor development strategy is to support multimodal and cross-country connectivity in identified corridor areas through the development of high-quality infrastructure and policy and institutional reforms to boost industry competitiveness. ADB-supported economic corridor studies are identifying opportunities for growth centers and investment needs, with some examples of identified opportunities from ECD studies done for NER India (in SC3) and in Bangladesh. So far, there have been five economic corridor studies completed for (i) East Coast Economic Corridor in India, (ii) Colombo–Trincomalee Economic Corridor in Sri Lanka, (iii) Bangladesh Southwest Economic Corridor, (iv) Bangladesh Northeast Economic Corridor, and (v) North East Economic Corridor in India.

57. India's ECEC, which is along SC2, is the focus of India's current ECD efforts, initially through its Visakhapatnam–Chennai Industrial Corridor (VCIC).<sup>25</sup> In SC3, there is an India Northeast Economic Corridor (NEEC) study, which is a scaling up of ADB's Vision Study to develop Assam state as India's expressway to ASEAN. The NEEC, undertaken with ADB support, further detailed the strategy for catalyzing India's Act East Policy for greater economic integration with Southeast Asia. The said study is also key to defining India's future ECD actions for SASEC Corridor 5, which serves as an important link between the northeast region of India with the northeastern and central areas of Bangladesh including Dhaka.

58. The NEEC study is also looking to better linkages with Bangladesh's economic corridors, namely, the Southwest Bangladesh Economic corridor in SC4, and the Northeast Bangladesh Economic corridor in SC5. Comprehensive development plans for these two Bangladesh corridors are being prepared with ADB support, which will investigate developing multimodal transport spine running through key urban and economic centers connecting to key gateways.

59. India's NEEC and ECEC corridor efforts will be interlinked with ECD efforts in Bangladesh, with the aim of tapping into the economic strengths of various locales in India and Bangladesh (e.g., Southwest and Northeast economic corridors), and improving their links to markets in NER India, Bangladesh, Bhutan, and Nepal through better multimodal transport connectivity.

60. While the subregion's economies have seen rapid transformation and strong economic growth since the 1990s, a pressing challenge remains to be the creation of more productive and well-paying jobs in manufacturing and services, which has lagged in terms of contribution to the countries' gross domestic product (GDP). The corridor approach has been adopted in India for instance, to stimulate manufacturing, which was combined with the Act East Policy to integrate India's economy with Asia's dynamic production networks.

---

<sup>25</sup> ADB committed funding to the VCIC in February 2017 comprising: (i) \$125 million policy-based loan for policy reforms and institutional development in the state of Andhra Pradesh, and (ii) \$245 million for developing high-quality internal infrastructure for identified industrial areas.

61. The industrial corridor approach, however, involves determining the adequacy of key infrastructure in industrial clusters, in terms of the ability to support the burgeoning demand for efficient industrial infrastructure, and the need to undertake a robust skills inventory required to work in various industry activities. The government units in charge of the corridor would also need to further improve its procedures for doing business, labor-related laws, land management, and taxation laws if it is to enhance its competitiveness. Comprehensive development plans were prepared for all four sections of India's ECEC in SC2, clearly outlining how the corridor's production networks will be linked with various ports along the ECEC, involving pursuit of efficient multimodal transport network, quality infrastructure and a business- friendly policy framework with efficient business procedures.<sup>26</sup> ADB approved a \$250 million loan for India's Industrial Corridor Development Subprogram 1 in October 2021 to expand multimodal transport networks, enhance institutions for corridor management, and address skills gaps to support industrialization.

62. **Tourism.** The SASEC Vision document launched in 2017 identified two flagship initiatives in tourism, namely, (i) the promotion of SASEC as a tourist destination, and (ii) supporting the tourism sector in Maldives. These initiatives aim to tap into the industry's huge potential to contribute to inclusive and sustainable economic growth. Tourism service trade will be facilitated by measures to lower physical and procedural border constraints, as well as join the promotion of regional tourism. Toward the promotion of SASEC tourism, a study on SASEC as a tourist destination was completed in 2019. The study suggested a framework for SASEC subregional cooperation in tourism so that the subregion's tourism potential could be fully harnessed. A scoping study "Strengthening Institutional Mechanisms for SASEC Tourism" undertaken in 2021 further specified actions to establish institutional mechanism to steer regional tourism development and to lower border constraints both physically and procedurally (please find more details in the knowledge initiative section).

63. The Government of Maldives has undertaken concerted efforts at developing internal connectivity for enhanced tourism and trade in Maldives. There are ongoing large investments in bridge-and-causeway links, airport runway and maritime infrastructure, to address the high transport costs between the islands. These include: (i) the Greater Malé Connectivity Project to connect Malé with Villingli, port of Gulhaifahu and Thilafushi industrial zone through a 6.74-km bridge/causeway, and contract with Indian company was signed in August 2021; (ii) the relocation of commercial harbor/Malé port to Thilafushi due to congestion, with reclamation underway for completion in 3 years; and (iii) Velena International Airport expansion, with the sea plane terminal completed in early 2020, and the international terminal for completion in 2022. The government is also preparing its 5th Maldives Tourism Master Plan (TMP5) which ADB is supporting. The master plan aims to provide a strategic framework and action plan to position Maldives as an emerging tourist destination in Asia; TMP5 will define strategies and activities and provide direction for further development of Maldives' tourism sector to promote development based on sustainable tourism principles and practices. The ultimate goals are: to develop environmentally sensitive business operations, support the protection of cultural and natural heritage, and provide tangible economic and social benefits to local people. The master plan will also explore opportunities for collaboration with neighboring countries to develop joint theme-based tourist circuits, identify bottlenecks to such multi-country tourism development, propose policy measures to address the bottlenecks, and propose joint tourism promotion in the region.

---

<sup>26</sup> Out of four ECEC sections, master planning of selected nodes was done with ADB support for the VCIC and Chennai-Kanyakumari (CKIC) sections. For VCIC, ADB committed a total of \$370 million in policy/ program and project loans in 2017. In Tamil Nadu, ADB committed \$484 million in June 2021 to enhance transport connectivity and facilitate industrial development in line with the regional economic corridor development plan for the CKIC.

### C. Priority Projects/Programs

64. The APSI priority projects were selected based on their progress or state of preparation and financing, and their critical role in addressing the SASEC program's trade and connectivity objectives. Criteria for project selection include: (i) advancement/progress of project preparation/approval/ implementation, (ii) identification of firm financing, (iii) spatial orientation or key role the project plays in meeting the sector's trade/ connectivity objectives, and (iv) strong interest as a regional project by SASEC member countries. As discussed earlier, the priority multimodal corridor initiatives are selected on the basis of the identified priority SASEC road corridors (SRC) presented in the 2019 SASEC Operational Plan Update.

65. The APSI contains 53 priority projects proposed for close coordination and facilitation by the SASEC program with a total cost of \$34.54 billion and identified the financing of \$18.48 billion (Table 1). These are mostly in the six identified priority SASEC corridors, comprising 42 projects costing a total of \$30.21 billion with financing of \$16.45 billion. The rest (11 projects) are in trade facilitation, energy, and economic corridor development costing \$4.33 billion and with the financing of \$2.01 billion. It is proposed to closely monitor the progress of these priority projects and programs identified for each SASEC corridor and sector and to implement stronger and closer cross-border coordination to ensure better leveraging of their impacts.

**Table 1. Priority APSI Projects 2022–2024**

Project	Country	Total Cost (\$ million)	Funding (\$ million)	Agency
<b>SASEC Corridor 1</b>				
1. Upgrading of Pathlaiya–Hetauda–Narayanghat Road	NEP	270.00	200.00	ADB
2. Upgrading of Kathmandu–Naubise–Mugling road (part of Nepal Strategic Road Connectivity and Trade Improvement project, World Bank)	NEP			WB
3. Nagdhunga Tunnel Construction	NEP	122.00	122.00	JICA
4. Tribhuvan International Airport Capacity Expansion Project (International Terminal Building)	NEP	250.00	200.00	ADB
5. TIA Air Traffic Control and Safety Improvement	NEP	7.23	7.23	JICA
6. Bihar National Highway Improvement (Patna–Gaya)	IND	182.39	182.39	JICA
<b>SASEC Corridor 2</b>				
7. Improvement of Barasat-Bongaon Road connecting Kolkata to Bangladesh border IND	IND	130.00	130.00	GOI
8. Upgrading of Churaibari–Agartala Road	IND	1,010.00	900.00	ADB
9. Chattogram Port Access Road Improvement	BAN	232.00	150.00	ADB

10. Chattogram–Cox's Bazar Highway Improvement	BAN	660.00	13.98	JICA
11. Cross Border Road Improvement project (inc. 5 bridges)	BAN	402.68	232.32	JICA
12. Conversion of existing meter gauge double line to dual gauge between Tongi and Bhairab	BAN	1057.95	200.00	ADB
13. Conversion of meter gauge double line to dual gauge between Bhairab Bazar and Akhaura	BAN	662.30	200.00	ADB
14. Conversion of existing meter gauge double line to dual gauge between Laksam and Chattogram	BAN	1841.95	300.00	ADB
15. Matarbari Port Project	BAN	4183.78	3364.68	Japan
16. SASEC Railway Connectivity Dhaka–Cumilla Chord-line Project (T1)	BAN	1500.00	300.00	ADB
<b>SASEC Corridor 3</b>				
17. Assam Road Network Improvement	IND	457.60	300.00	ADB
18. Upgrade of Kohima-Mao Section, and Mao-Imphal Section (NH39)	IND	253.00	253.00	GOI
19. Upgrading of Krisnaj–Guwahati–Jerabat Road	IND	360.00	300.00	ADB
20. SASEC Air Connectivity Project (Gelephu)	BHU	49.90	38.00	ADB
21. Bago Bypass Project, Upgrade of Bago–Thilawa and Thilawa–East Dagon Road	MYA	171.00	171.00	GOM
22. Moreh–Tamu Cross Border Bridge/ Other Bridges along the Trilateral Highway	IND	52.00	52.00	GOI
<b>SASEC Corridor 4</b>				
23. Strategic Road Connectivity and Trade Improvement Project	NEP	801.50	450.00	WB
24. Upgrading of Kakarvitta–Laukahi road	NEP	250.00	200.00	ADB
25. Improvement of Rangpur–Banglabandha road	BAN	1500.00	400.00	ADB
26. Improvement of Burimari–Rangpur road	BAN	1450.00	200.00	ADB
27. Upgrading of Jhenaidah–Jashore road	BAN	486.50	270.00	WB
28. Improvement of Hatikamrul–Bonpara–Kustia–Jhenaida road	BAN	1,200.00	900.00	AIIB
29. Daulatdia–Faridpul–Bhanga–Barisal road	BAN	1300.00	400.00	ADB

30. Western Bangladesh Bridge Improvement Project	BAN	312.21	312.21	JICA
31. Jamuna Railway Bridge Project	BAN	1,980.00	1,400.00	JICA
32. Joydevpur–Ishwardi Double Line Project	BAN	1,230.00	755.78	JICA
33. Eastern Waterways Connectivity Transport Grid project	IND	70.00	70.00	WB
SASEC Corridor 5				
34. Upgrading of Dhaka–Sylhet Highway – Tranche 2	BAN	1349.00	500.00	ADB
35. Upgrading Dhaka–Sylhet Highway – Tranche 1	BAN	879.90	400.00	ADB
36. Upgrading Sylhet–Tamabil section	BAN	585.30	404.00	AIIB
37. Sylhet–Sutarkandi–Sheola Road	BAN	499.00	315.00	WB
38. Upgrading of NH 40 Dawki to Shillong road in Easter Meghalaya State (inc. rehabilitation of Dawki bridge at the border)	IND	237.20	205.44	JICA
39. Upgrading of Shillong–Badarpur Road	IND	735.00	686.00 <sup>a</sup>	ADB
40. Upgrading of Karimganj–Sutarkandi Road	IND	39.45		ADB
41. Upgrading of Paikan–Tura Road (section of NH 217)	IND	285.00		ADB
SASEC Corridor 6				
42. Construction of Central Expressway Stage 1 (Kadawatha to Meerigama)	SRI	1164.00	989.00	PRC
Trade Facilitation				
43. Integrated Trade Facilitation Sector Development Program	BAN	143.00	143.00	ADB
44. Customs and Logistics Reform Program	NEP	50.00	50.00	ADB
45. National Single Window Project	MLD	11.99	10.00	ADB
46. Trade Facilitation Project	MLD	15.00	15.00	ADB
Energy				
47. Green Fuel Development Business Modeling	REG	2.00	2.00	ADB
48. Dudh Koshi Hydropower Project	NEP	2200.00	550.00	ADB
49. Nyera Amari Hydropower Project	BHU	794.50	370.50	ADB
50. Nepal SASEC Power Transmission and Distribution System Strengthening Project	NEP	322.00	235.00	ADB

<b>Economic Corridor Development</b>				
51. Visakhapatnam–Chennai Industrial Corridor Development Program – Tranche 2	IND	364.40	255.00	ADB
52. Tamil Nadu Urban Flagship Investment Program	IND	178.60	125.00	ADB
53. Industrial Corridor Development Program Subprogram 2	IND	250.00	250.00	ADB
<b>TOTAL</b>		<b>34,541.33</b>	<b>18,479.53</b>	

ADB = Asian Development Bank, AIIB = Asian Infrastructure Investment Bank, BAN = Bangladesh, BHU = Bhutan, IND = India, GOI = Government of India, GOM = Government of India, JICA = Japan International Cooperation Agency, MLD = Maldives, NEP = Nepal, PRC = People's Republic of China, REG = regional, SRI = Sri Lanka, WB = World Bank.

<sup>a</sup> Items 27, 28 and 29 under Second SASEC Road Connectivity Investment Program (tranche 2)(2024) funding of \$686 million out of \$986 million.

Source: Asian Development Bank.

66. Recent additions to the APSI in 2021 include the following projects:

- **Trade Facilitation:** Nepal Customs and Logistics Reform Program, based on the Nepal Indicative Country Pipeline Monitoring (ICPM) report as of October 2021; and Maldives Trade Facilitation Project in 2023.
- **Energy:** Green Fuel Development Business Modeling (Regional); this is designed to contribute to climate change mitigation and resilience and will help ease the subregion's transition to green recovery after the COVID-19 pandemic eases.
- **Economic Corridor Development:** Industrial Corridor Development (Subprogram 2). This is a follow up of Subprogram 1, which will work to strengthen industrial corridor management by supporting integration of institutions and synchronization of policies between federal and state governments. Identified gaps in the industrial operating ecosystem was used in developing the policy matrix. It will support policy actions to develop the green corridor framework and link industrial corridor development with the Skill India initiative. The program loan is a logical extension of ADB's engagement in corridor development at the state level.

### III. SASEC KNOWLEDGE INITIATIVES

67. SASEC knowledge initiatives are undertaken to support the SASEC countries in addressing the various challenges the subregion face, such as the COVID-19 pandemic and the disruptions to the regional supply chain it causes and increasing climate change and disaster risks. Nevertheless, support for regional public goods is not explicitly covered under any of the SASEC program's operational priorities, and such knowledge initiatives are a means of determining their viability for SASEC cooperation.

68. The knowledge initiatives are grouped according to the SASEC operational priorities. The transport sector has three ongoing studies and a new study proposed to start, trade facilitation including tourism have six, the energy sector has two, and economic corridor development also has two. Among the total 14 initiatives, nine initiatives provide analytical work, and four initiatives support the arrangement for regional mechanisms. The following section will provide brief description, progress and recommendations, and action plan to move forward each of the knowledge initiatives listed.

#### A. Transport Sector

69. While SASEC corridors and sector/thematic areas achieved progress toward better connectivity in the SASEC subregion, continued efforts to strengthen regional cooperation are needed to generate synergies among the member countries to unleash their latent trade potential. Further investment for connectivity infrastructure and policy reform should continue to fill the remaining gaps.

##### (i) Advancing Cooperation in the Maritime Sector Studies

70. SASEC's intraregional trade is less than 5% of its total trade, with most of its trade take place with distant markets. In recent years, SASEC has started to orient its strategies to improve connectivity with markets outside the region by focusing on maritime connectivity as the dominant mode of transport for international trade logistics. Ports in the Bay of Bengal, however, face several constraints such as draft restrictions, capacity limitations, and poor performance; vessel-related conditions; and weaknesses in port interfaces (i.e., road, rail, inland waterways, and coastal shipping links to ports). In terms of connectivity and availability of shipping services, the Bay of Bengal is primarily served by feeder vessels on account of draft restrictions that constrain the handling of larger vessels. The trend toward increased containerization of non-bulk trade will likely exacerbate these limitations in port capacities. Enhancing maritime connectivity will also serve as a means to improve economic linkages between SASEC and Southeast Asian countries.

71. SASEC cooperation in maritime transport will focus on common issues impacting on the subregion's ports such as port performance; the use of information and communications technology (ICT; the updating of legal and regulatory frameworks, inland logistics, and environmental sustainability. Maritime transport initiatives will focus on addressing various challenges of SASEC ports, and topics covered involve:<sup>27</sup>(i) improving port infrastructure, (ii) establishing port community systems (PCS), (iii) maritime tourism, (iv) enhancing port logistics and hinterland connectivity, and (v) greening of ports. Reports on PCS, port greening, and maritime tourism have been completed and disseminated at the virtual workshops (Nov–

---

<sup>27</sup> With numerous ports, SC1 (Bay of Bengal Highway) will benefit the most from enhancing maritime connectivity. SC6 (Sri Lanka Port Highway) will also benefit immensely from SASEC maritime transport cooperation, which will help Sri Lanka address issues relating to port performance, the use of ICT in port operation, and enhancing inland logistics.



Dec 2020). Activities undertaken in 2021 include (i) finalization of reports; and (ii) virtual inception workshop and virtual dissemination workshops.

## Recommendations

72. The final reports of the four studies identified an action plan to improve SASEC maritime sector along with detailed solutions. The policy reforms, port infrastructure investment and connectivity projects listed in the study are estimated at more than \$30 billion. The key issues and recommendations have been assessed across the following categories:

- **Port infrastructure.** Draft and approach channel challenges are present across the riverine ports of the SASEC region (Ports of Kolkata, Haldia, Chattogram, Mongla, Malé, Yangon, and Thilawa), and there is high utilization of terminal capacity at Malé, Kolkata, Paradip, Yangon, Chattogram, Haldia, Visakhapatnam, and Tuticorin and inadequate yard equipment issues faced at Kolkata, Chattogram, and Malé ports. Several ports have severe problems related to approach road infrastructure and evacuation. These issues lead to congestion and longer turnaround times. Interventions in capacity addition, equipment upgrades, and elevated access roads are being recommended to improve port performance.
- **Inland connectivity and external trade infrastructure:** Inland connectivity is a challenge for a majority of the SASEC ports such as Mongla Port of Bangladesh which lacks rail connectivity. At the regional level, there are examples such as India and Myanmar with no inter-country rail connectivity. Also, most SASEC countries lack adequate trade logistics facilities. Enhancement of connectivity infrastructure and development of external trade infrastructure (CFSs and ICDs) is crucial for the growth of ports in Bangladesh, Myanmar, and Maldives.
- **Customs infrastructure and processes:** Customs processes are elongated in the SASEC region. There are multiple manual checks that are imposed at various ports with limited use of technology and risk management systems. In Bangladesh, physical inspection for customs and destuffing happens inside the port premises for multiple goods. Process interventions have been proposed to address the current inefficiencies in SASEC ports due to the low equipment productivity, inefficient operations, and tedious clearance processes leading to additional logistics time and cost.
- **Regional interconnectivity.** The key ports responsible for the major trade routes are Kolkata, Haldia, Chennai, and Vizag port in India, Chittagong and Mongla in Bangladesh, Yangon and Thilawa in Myanmar, and Malé port in Maldives. Colombo port in Sri Lanka is a major transshipment hub in the region. Implementing interventions to improve the capacity and performance of these ports is important to further improve the existing connectivity and trade in the SASEC region. It is important to have seamless connectivity with multiple routes and mode choices between the SASEC countries to further improve the trade in the region.
- **Use of information technology.** While the ICT applications in the subregion's container terminals and customs organizations have become increasingly comprehensive, the use of ICT is much lower in other organizations in the port environment. The technology interventions are aimed to address the inefficiencies in the port/terminal operations through increased automation and digitization. The development of a port community system (PCS),

a neutral and open electronic platform enabling the intelligent and secure exchange of information between public and private stakeholders, is recommended to improve the competitive position of the sea and air ports' communities. PCS will also optimize, manage and automate logistics processes through a single submission of data, and connecting transport and logistics chains. SASEC can also investigate the collaboration of PCSs, which will contribute to the expansion of the intra-regional trade volume in the future.

- **Cruise tourism.** Drawing on past trends and the longer-term expectations of government and the private sector as to where the cruise industry can expect to develop, the outlook for the sector is cautiously positive, with India emerging as a major future source of ocean travelers, which could change the pattern of cruise activity in the SASEC region. This will require changes in port operations in the visitor service sector, regional cooperation, and the infrastructure required to meet future demand.
- **Port greening.** For green port measures and/or technologies related to energy consumption (energy efficiency improvement, use of cleaner energy carriers or local renewable power generation), the next step, in general, is a conceptual design with a cost estimate which can be used for a more detailed economic evaluation. For environmental management, further workshops with the key port personnel and relevant stakeholders are recommended to develop an environmental roadmap and environmental management plan, to define targets and target dates for improved future performance, as well as prioritization and implementation of measures aligned with environmental management systems and international best practices. Facilitating capacity development and training may be required.

73. Key proposed interventions include the following:

- Performance improvement at existing terminals to unlock capacities (expansion of existing container terminals in Vizag, development of new container terminal in Kolkata, increasing the utilization of quay gantry cranes at berth in Haldia and Chattogram);
- Use of technology to improve transaction times (electronic cargo tracking system in Chattogram, port community systems in Chattogram and Malé, berth window management system in Chattogram, gate automation, and online freight marketplace in Chattogram, Chennai, Haldia, Kolkata, Tuticorin, and Vizag);
- Development of pre-gate facilities, parking areas and truck appointment systems to streamline traffic approaching the ports (Kolkata, Chennai, Chattogram);
- Development of port approach flyovers and hinterland connectivity infrastructure (widening of Chattogram–Cox's Bazar–Teknaf Highway, Chennai Peripheral Road project, elevated expressway to Chennai Port double-track high-speed railway from Dhaka to Chattogram, Padma Multipurpose Bridge Project, Ro-Ro development and rail evacuation to an extended gate facility, development of Kulhudhuffushi Regional Port and Hithadhoo Regional Port along with container ferry service between regional ports);
- Adoption of environmental management system for ports;
- Development/improvement of cruise terminals in Bandaranayake Quay and Trincomalee; and
- Formulating policies (private sector participation in development of port terminals and external logistics facilities, direct-port delivery and direct-port export cargo).

## **(ii) Safe Mobility and Regional Connectivity**

74. Safe mobility is an integral component of connectivity initiatives. In South Asia, road safety has emerged as a major challenge to transport connectivity. To address this issue, ADB and the Government of India organized the Conference on Safe Mobility and Regional Connectivity in January 2020 in New Delhi, India. The conference discussed the status of connectivity and road safety in the SASEC subregion and proposed priority areas be included in a common plan of action to address road safety challenges. The conference analyzed regulatory regimes, shared best practices in road safety among member countries of the SASEC program, and drew up a collective framework and action plan for regional safe mobility and connectivity.

75. Following the conference, a Study on Safe Mobility and Regional Connectivity was initiated, which comprises the Road Safety Capability Assessment and Road Asset Management Study. The road safety study's aims include: (i) a review of the current national and regional practices in addressing road safety, (ii) setting out priority actions that need to be implemented by SASEC members, and (iii) collation of case studies on good practices that are relevant to the SASEC road safety context. A virtual regional meeting was held in November 2020 to: (i) discuss the Road Safety Assessment Framework, (ii) discuss national and regional initiatives for road safety, and (iii) discuss the preparation of the Road Safety Knowledge Product (to spill over to 2022 due to COVID-19 constraints to field visits). This knowledge product would be the basis for formulating recommendations to promote road safety in the subregion, which will be shared under the SASEC Program's knowledge platform. It will also be the basis for the adoption of the SASEC framework and action plan for regional safe mobility and connectivity by SASEC countries.

76. The Road Asset Management Study is being undertaken to: (i) assess gaps in road asset management policies, funding, lifecycle strategies, processes, institutional capacity, and to develop prioritized improvement plans; (ii) estimate investments needed to improve and maintain the quality and improve the safety of national road networks; and (iii) recommend asset management project pipelines. In-country workshops are planned in India, Nepal, Bangladesh, and Maldives in June and July 2022 towards developing the improvement plans and asset management investment needs.

### **Recommendations**

77. The proposed recommendations in the Road Safety Study are:

- (i) Formation of a subregional road safety forum for advancing road safety management capacity using the organizing structure of the Asia Pacific Road Safety Observatory;
- (ii) A performance indicator should be established for the SASEC highway network to achieve consistent three-star safety ratings for all users by 2030, as per voluntary road safety targets endorsed by the United Nations;
- (iii) SASEC road infrastructure projects should include those capacity-building projects identified in this report which are considered to best fit the relevant country, as determined by the responsible interagency road safety governing body or road safety lead agency;
- (iv) Road safety specific guidance for SASEC project design and delivery should be prepared, and road safety expectations should be incorporated into SASEC plans; and
- (v) SASEC participating countries should incorporate regional safety priorities and infrastructure safety expectations into national work programs, networks, and institutions as appropriate.

### **(iii) Data Analytics for Assessing SASEC Logistics Movement**

78. This study commenced in January 2022, was initiated to understand the origin, destination, and specific movement patterns of cross-border trade logistics in SASEC countries. It will attempt to capture comprehensive data and tap into big data analytic tools to map cross-border logistics and trade movement. Such mapping will help corroborate priority corridors, location of crossings, efficiency of border crossings, and bottlenecks that need to be addressed. The study is currently in the data collection phase and the consultant has finalized and submitted the inception report.

### **(iv) India–Bangladesh Rail-based Cargo Movement Study**

79. Limitations in cross-border transport connectivity, particularly of container rail services in South Asia were found to have constrained trade prospects between countries in the subregion as well as with neighboring subregions. A study on the operational feasibility of a trunk Southern Asian trunk route, namely the Istanbul–Tehran–Islamabad–Delhi–Kolkata–Dhaka–Yangon (ITI–DKD–Y) Container Rail Corridor, found significant cost and time advantages in the use of this corridor, compared to alternative options involving circuitous carriageways and transshipment delays. In fact, usage of even partial segments of the ITI–DKD–Y corridor can potentially halve costs under modest assumptions, as well as reduce delivery time by up to 14 days. The study called for the activation of end-to-end rail service along the ITI–DKD–Y route, along with multimodal transit linkages to landlocked countries at strategic terminals in the route, to maximize traffic volumes and revenues. However, operationalization of the corridor requires concerted efforts to build institutional collaboration, adoption of a connectivity master plan, development of strategic dry ports, and usage of ICT tools, among others.

80. India and Bangladesh have recognized the advantages of promoting container rail service, given that bilateral trade between the two countries is largely road-based through the congested Petrapole–Benapole border, where it takes an average of close to a month for a truck from India to reach Bangladesh due to delays in Customs and other clearances at the border. Cognizant that the rolling out of container train services will help reduce costs and will also bring down the transport time, a trial run carrying 60 containers weighing 27 tons of de-oiled cake from India to Bangladesh was undertaken in April 2018. The train traveled from Majherhat station, crossed Ranaghat and Gede in India, and Darshana and Ishurdi in Bangladesh before reaching Bangabandhu West station, 117 km from Dhaka, for a journey of only about 24 hours.

81. The study on promoting India–Bangladesh rail-based cargo movement is being considered based on discussions between officials of ADB and the governments of India and Bangladesh. The study will identify the needed policy and institutional reforms as well as the required infrastructure and technology investments for effecting rail-based cargo service between India and Bangladesh and bypass the congestion in certain border crossings.

## **B. Trade Facilitation**

82. Further policy reforms are needed to address identified gaps in facilitating regional trade. As connectivity infrastructure has been developed both in hard and soft intrastate, there is an opportunity to expand the scope of trade facilitation to the overall logistics sector, involving efforts in building a modern trade logistics industry with enhanced supply chain management, and strengthened logistics governance.

## **(i) Routes Initiative Studies**

83. ADB has supported the studies with the aim of identifying issues affecting trade along a given border point/route and designing solutions to resolve them. The initial phase covered the Kolkata–Dhaka route. The final report has been completed and submitted to the governments of Bangladesh and India in July 2020. The study proceeded to phase 2 in April 2020 covering the route Kakarvita–Panitanki–Fulbari–Banglabandha–Chattogram/Mongla. The final report for phase 2 study was finalized and submitted to the governments of Bangladesh and India in mid-2021.

### **Recommendations**

84. Study on Kolkata to Dhaka route (phase 1) covers three border crossing points (BCPs): Petrapole–Benapole, Ghojadanga–Bhomra, and Gede–Darshana. The study provides assessment of the BCPs and recommends interventions to address identified gaps and issues as follows:

- Hard interventions include augmenting select road stretches, improving road conditions of select district roads, augmenting rail infrastructure, developing a dry port/intermodal transshipment facility, and others.
- Soft interventions are categorized into (i) common interventions involving Bangladesh and India, (ii) interventions common to Indian land customs stations (LCS) (Petrapole, Ghojadanga, and Gede), (iii) interventions specific to LCS in India, (iv) interventions common to Bangladesh land ports (Benapole, Bhomra, and Darsana), and (v) interventions specific to land ports in Bangladesh. They include initiating discussions to align working days and hours to improve services to the traders and enhance trade through the respective gateways; equipping the border facilities to handle containers, putting in place a regulatory regime that allows inland clearance of cargo, and others.

85. Phase 2 study route on Kakarvita–Panitanki–Fulbari–Banglabandha–Chattogram/ Mongla serves SASEC Road Corridor 4 which passes through the two BCPs at Kakarvitta (Nepal) – Panitanki (India) and Fulbari (India) –Banglabandha (Bangladesh) and terminating at Chittagong (via Dhaka) and Mongla ports. The study assessed the existing route infrastructure, infrastructure/facilities at the existing BCPs/gateways facilitating transit trade as well as cargo clearance process associated with the transit trade with a view to identify key gaps/ constraints and recommend hard and soft interventions to address the same. In addition, the study also aims to improve the trade efficiency with respect to bilateral trade between India and Nepal, and Bangladesh and India at the two identified BCP pairs. Proposed recommendations are:

- Several hard interventions may include development of the proposed integrated check post (ICP) to address infrastructure related gaps; exploring the option of installation of e-seal on Nepali registered vehicles to ensure real-time tracking of vehicles over the transit route; developing requisite facilities within the LCS premise for the cargo vehicle drivers; and others.
- Some soft interventions include *acceding* to Mutual Recognition Agreement (MRA) on inspection, testing and certification system between India and Nepal; enhancing direct facilitation of consignments leveraging RMS to further reduce cargo clearance time at the LCS, and integrating Food Safety and Standards Authority of India (FSSAI) with facility of Single Window Interface for Facilitating Trade (SWIFT) to enable the traders to secure all

the clearances at a single point; exploring the option of amendment in the operating modalities for the transit route between Nepal and Bangladesh; and others.

86. The study reports will serve as background information for the development of Highly Facilitated Trade Corridors which will be proposed at the NOM in June 2022.

## **(ii) Trade Facilitation Measures for e-Commerce.**

87. Sri Lanka e-commerce review and study assesses the e-commerce landscape in Sri Lanka, through an analysis of its key drivers and challenges, with an in-depth look at the policy and regulatory environment, trade processes, stakeholder mapping and levels of technology adoption. Based on this assessment, and insight into Sri Lanka's strengths and pain points, the report has highlighted international best practice cases, summarizing successful initiatives taken by other countries, in South Asia, as well as across the world in advancing e-commerce trade. The report ends with recommendations and proposed initiatives for the Government of Sri Lanka. These recommendations outline priority areas for action that will complement existing initiatives and create a seamless environment for cross-border e-commerce to flourish.

## **Recommendations**

88. The study recommends developing a national strategy on e-commerce; setting up a dedicated agency or coordinating body to drive e-commerce initiatives, strengthening domestic regulations to support e-commerce, building the capacity of government officials with investments in technical skills and competencies, supporting the digitalization of MSMEs, institutionalizing public-private dialogue on driving the cross-border e-commerce agenda, setting specific broadband connectivity goals and provide infrastructure in rural areas and public spaces, expanding digital payment solutions through investments and supportive policy tools, planning a phased advancement of trade facilitation initiatives, streamlining trade processes, undertaking cooperation and data exchange agreements with ecosystem players, and developing consistent metrics to measure performance.

## **(iii) Sanitary and Phytosanitary and Technical Barriers to Trade (SPS-TBT)**

89. Under the standards and conformity assessment pillar of the SASEC Trade Facilitation Strategic Framework, subregional trade will be enhanced through strengthened interagency cooperation, and enhanced partnerships with the private sector to reduce barriers to trade.

90. During 2017–2018, national diagnostic studies on SPS-TBT in SASEC were prepared and national validation meetings conducted for Bangladesh, Bhutan, India, Maldives, Nepal, and Sri Lanka. The national diagnostic studies identified SPS- and TBT-related non-tariff measures that are potentially trade-restrictive, as well as gaps in legislative and institutional frameworks, and infrastructure and human capacity. The findings were presented at a regional workshop in New Delhi in April 2018, to guide the preparation of the regional diagnostic study. The series of studies will be completed with publication of national study for Bangladesh and a regional study in 2022. Recently, the studies on SPS-TBT facilities for Maldives and Bhutan are completed, and that of Nepal is being undertaken.

## Recommendations

91. **Study on SPS-TBT Facilities in Maldives.** The study for Maldives seeks to better understand the status of SPS-TBT testing laboratories established across the country, including facilities, equipment, and personnel in each laboratory. It also attempts to identify procedures applied regarding testing and sampling. Additionally, the study seeks to explore border points where no testing facilities are available in a convenient location, as well as the distance and time took for samples to reach the testing facilities. The study found that Maldives does not have sufficient infrastructure and institutional arrangements for testing import products. Based on the analysis of testing laboratories, their sizes, and functions, the study provided recommendations for future actions, classified into legal framework, infrastructure and facilities, and ICT and institutional arrangements.

92. The study provided the following recommendations:

- **Legal Framework:** Enactment of the Food Safety Bill, Enactment of the Standards Bill, enactment or review of other related legislations.
- **Infrastructure and Facilities:** Upgrade of National Health Laboratory (NHL) Facilities, Enhance Testing Capacity of Maldives Customs Service (MCS), establish adequate cold storage facilities at major ports, and establish adequate quarantine facilities at major ports.
- **Information and Communication Technology:** Automation and use of risk management at regulatory agencies.
- **Institutional Arrangements:** Establish National Standards Body and Certification Body, establish the Technical Committee on non-tariff measures (NTM), create a national database of all NTMs, review of SPS-related procedures to prevent import of substandard products, and conduct technical skills development program.

93. **Study on SPS-TBT Facilities in Bhutan.** The study for Bhutan provides a brief overview of the SPS-TBT scenario in the country, summarizes the pattern of trade at various entry and exit points with an analysis of trade between Bhutan and other SASEC countries. The study also provides an overview of policy and legislation framework relating to the SPS-TBT measures and legal provisions applied by various enforcing agencies. The next critical phase of the study is the assessment of the physical infrastructure of the testing laboratory and metrology center (referral and satellite laboratory) including testing equipment, sample collection, test conducted, test parameters used, human resources available, training and capacity building, budget allocation for repair and maintenance, and availability of basic facilities like electricity, water, telephone, internet, inspection/quarantine areas, etc. Furthermore, the study also focuses on the coordination and cooperation among regulatory agencies and laboratories. Besides, the study briefly mentions the numerous trade hurdles in areas of documentation, procedure, certification, and inspection, lack of transparency in compliance requirements of importing/exporting countries, and the absence of mutual recognition in test results of laboratory and certification of competent authorities by countries involved. The study provided the following recommendations:

- **Legal Framework:** Harmonize and update the existing policies and legal provisions, including manual and guidelines of various agencies involved in the SPS-TBT-related issues, align national standards with the international standard guidelines/protocols, explore opportunities to incorporate the TBT-SPS measures into the existing bilateral trade agreements between Bhutan–India and Bhutan–Bangladesh, review the role of Bhutan Agriculture and Food Regulatory Authority (BAFRA), and Introduce the risk-based system.

- **Institutional Framework:** Strong institutional framework for the regulatory agencies, formalize the roles and responsibilities of the Royal Centre for Disease Control (RCDC) and BAFRA, Mutual Recognition Arrangement (MRA), and Strengthen Cooperation and Coordination.
- **Quality Infrastructure and Human Resources:** Provide quality infrastructure support, and Develop human resources for improving the laboratory services.
- **Information Technology:** The use of information and technology must be strengthened, especially in the areas of SPS-TBT to transform the entire ecosystem of public service delivery, including the dissemination of information and maintenance of electronic database.

94. The study reports will serve as background information for the establishment of the Food Regulators' Forum which will be proposed at the NOM in June 2022. It is proposed to publish the study reports subject to relevant governments' clearance.

## **Energy Sector**

### **(i) Updating of Regional Transmission Master Plan**

95. ADB conducted a cross-border transmission master plan study covering the countries in the SASEC region in 2016. The main objective of the study was to identify the beneficial cross-border transmission developments for the period 2020–2030, considering the individual country generation development plans.

96. ADB intends to review and update the study findings of the 2016 report considering the developments that have taken place since then. The main objectives of the proposed study are the following:

- Review and summarize the findings of the previous report considering the SASEC countries.
- Update the potential cross-border transmission developments, load forecast information, and generation developments for the period 2024–2030.
  - Update the potential list of cross-border transmission developments based on the current information.
  - Update the expected load growth information based on the latest available load forecast information.
  - Identify major generation projects that are underway and generation developments/retirements considered for the study period.
- Estimate the potential benefits of different cross-border transmission development options.
- Undertake consultations with the country experts and key stakeholders and finalize the report.

### **(ii) Green Fuel Development Initiative**

97. ADB plans to conduct studies and assessments on green hydrogen and advanced biofuels in the SASEC region. This initiative aims to explore steps to improve the regional energy security and climate change by promoting more alternative fuels that can be produced from domestic and/or regional resources. The main objectives of the proposed study are the following:



- Assess each county and region-wide resources potential to produce green hydrogen from renewable energy and advanced biofuel from agricultural residues and municipal solid wastes.
- Study regional supply chain and trade systems and markets of alternative fuels such as green hydrogen and advance biofuels.
- Propose regional strategies and development road map in cooperative frameworks of knowledge sharing, regulatory mechanism, technological standardization, business modeling, and pilot project schemes.

## C. Economic Corridor Development

### (i) Supply Chain Study (Phase 1)

98. Supply chain study will help national governments address not only the disruptions caused by mobility restrictions under COVID-19 but also the long-term objective of making supply chains more resilient. It will enhance the visibility of import sources and product markets to help inform both national and enterprise-level decisions. Through the mapping exercise, SASEC countries can determine their dependence on supply chains in the region, or elsewhere outside. At the level of the enterprise, supply chain maps could bring greater visibility of import sources and export destinations. This is essential for planning business strategy and product sourcing, not only in times of uncertainty but also for enhancing cost efficiency and competitiveness. Supply chain maps can be beneficial, especially for MSMEs in improving their knowledge of supply chain players beyond immediate buyers and sellers. The COVID-19 pandemic has revealed vulnerabilities in global supply chains with businesses realizing the dangers of over-relying on a single manufacturing hub. At the strategic level, supply chain mapping could help governments identify the country's degree of dependence on specific supply/logistics chains for imports and exports. As the benefits of globalization come into intense scrutiny in the aftermath of COVID-19, governments are now mulling whether supply chains should be shorter to become stronger. This could imply changes in regulatory policy to limit or manage the degree of offshoring, especially for commodities essential to national security. This opens further opportunities for regional cooperation that could trigger significant increases in intra-regional trade with its attendant implications on transport connectivity and trade facilitation.

99. Supply chain mapping was initially undertaken for essential commodities related to COVID-19-related measures, which could be a basis for guiding procurement, and in easing border measures for essential commodities. For instance, tariffs and non-tariff measures affecting imports of essential medicines, medical equipment and related inputs could be relaxed to facilitate their cross-border movement. The study mapped trade flows of these products within and outside SASEC countries, identified opportunities for regional supply chain and binding constraints, and provides policy recommendations.

100. The medical products in the supply chain mapping exercise cover gloves, surgical masks, coveralls, hospital disinfectants, and respirators, and their associated components for the production.

101. **Gloves.** In the SASEC region, Sri Lanka is the only country that had the capacity, resources, and skill for mass production of gloves (industrial, surgical, and household) before the onset of the pandemic. India, Bangladesh, and Myanmar started producing locally to meet the local demand and reduce dependency on import dependency only after the onset of the pandemic. India is the only net exporter of latex sheets which is the key component for gloves in

the region but has a limited exportable surplus, which would not be sufficient to cater to the demands of the SASEC nations. Primary exporters of final products are Sri Lanka and India. Despite the large trade with non-SASEC partners, Sri Lanka is not exporting gloves to key SASEC markets such as Nepal and Myanmar. Part of the exports of Sri Lanka to the rest of the world could be redirected to meet the demands of SASEC nations such as Nepal and Myanmar. There is a strong consumer preference for European/Australian brands in these nations. Several large brands including Ansell and Cardinal Health have large manufacturing facilities for gloves in Malaysia and Thailand from which they export to the world. Hence, consumers in the SASEC region with a preference for these large brands would invariably have to import gloves from Malaysia or Thailand. On the other hand, Sri Lanka in the SASEC region has a higher production capacity, it has a preferential export market in the United States (US) because of better prices and therefore produces gloves of targeted quality. It would be helpful to support sharing of product information among SASEC countries through interaction among business societies and holding business fairs.

102. **Surgical Masks.** SASEC region hardly had any units dedicated to manufacturing surgical/textile masks until the first quarter of 2020 and largely depended on imports to meet the demand. Due to the worldwide export bans and mask shortage, SASEC countries started producing masks to meet the local demand. Bangladesh, India, and Sri Lanka ramped up their production in a matter of months through their established textile enterprises. Major components for surgical masks are non-woven fabric and ear loops. India is a major net exporter of the components to the SASEC nations, however, a substantial portion of the SASEC demand (including India's) is primarily being met by imports from non-SASEC nations. Bangladesh, India, and Sri Lanka are net exporters of final products. Net exports of Sri Lanka stood at \$125 million. This is a sizable exportable surplus, which could, in part, be used to meet the demand of nations such as Bhutan, Myanmar, and Nepal which are currently importing heavily from non-SASEC nations. One of the major reasons for the preference for mask import from the PRC is the competitive pricing. Also, Bhutan has limited trade relations with Sri Lanka due to logistics challenges. Additionally, there is a lack of understanding and information availability regarding the producers. Myanmar imposes comparatively high import tariffs on surgical masks for all SASEC countries. It is recommended that sharing product information among SASEC countries is supported, and Myanmar's high import tariff on surgical masks for SASEC countries will be reviewed.

103. **Coveralls.** Production in the SASEC region was almost negligible prior to the pandemic. The production capacity gained momentum due to the COVID-19 emergency after March 2020 especially in Bangladesh, India, and Sri Lanka in the SASEC region owing to the availability of raw materials, infrastructure, and resources. The key components of coveralls include non-woven fabric and plastic laminates. India and Sri Lanka are well linked to the SASEC region, with exports addressing coverage across all other SASEC nations. However, despite the exports, there is still considerable reliance on import from the rest of the world. This could partly be due to the broad variety of components associated with coveralls (a total of 37 HS codes), and hence it may not be possible to address the entire demand from the region. Bangladesh, India, Myanmar, and Sri Lanka are the major exporters of final products. Bangladesh has a large net export to the rest of the world. It is important to note that the HS codes for coveralls also include several mainstream textile products such as jackets and coats, hence it is likely that a considerable part of the trade value represented is not necessarily the trade value of coveralls. Irrespective, there is an indication of the possibility to divert a part of the trade to non-SASEC countries to import reliant SASEC nation such as Maldives, Bhutan, and Nepal. Bangladesh has considerably high import tariffs at 25% on coveralls for all SASEC countries followed by Myanmar (Bangladesh has HS Code 621010, 621040, and 621050 on the negative list under SAFTA). Players in both India and

Bangladesh have preferred export markets in the US, Saudi Arabia, Kuwait, etc. over countries in the SASEC region which had very limited demand in terms of value and volume. It is recommended that import tariffs on coveralls will be revisited.

104. **Hospital Disinfectants.** India is the major manufacturer and supplier of the raw material and is the export hub. The manufacturing of the final product disinfectant is predominantly led by India and Sri Lanka, with some manufacturing units in Bangladesh. However, India accounts for the largest share as a supplier and is the export hub of disinfectants in the region. The key components of hospital disinfectants are disodium carbonate, ammonium salts and hydroxides, amino acids, ethers, aldehydes, and other chemicals. India is a major producer and exporter of the chemicals required for the disinfectants and has been widely exporting it to all other SASEC countries (except Maldives). Despite exports from India, the volume of demand in the SASEC region still necessitates large imports from the rest of the world. Hence, there appears to be limited scope to promote intra-SASEC trade. India and Sri Lanka export final products to other SASEC nations, however there is still a substantial reliance on the rest of the world. Understanding the various sub-products traded under the selected HS codes and their dynamics is pivotal to ascertaining the scope for promoting intra-SASEC trade.

105. **Respirators.** There is substantial trade in the SASEC region for several plastic and non-woven fabric components which is required for respirators production, but it could partly be due to the trade of miscellaneous plastic products captured in the HS codes. Irrespective of SASEC trade, there is substantial dependency on the rest of the world to fully meet the needs of the region. To put this into perspective, the net imports from the rest of the world for Bangladesh, India, and Sri Lanka is over \$ 290 million. Hence, the scope for intra-SASEC trade is limited. Sri Lanka appears to have substantial exportable surplus for final goods, which is currently being exported to the rest of the world (\$ 124 million). On the other hand, Bhutan, Maldives, Myanmar, and Nepal are importing sizable quantities of the final product. There are two main reasons for the lack of exports from Sri Lanka to countries such as Bhutan and Nepal. First, Bhutan and Nepal are not well connected with Sri Lanka, much of the cargo would need to transit via India, increasing the cost of logistics. Apart from logistics, another impediment to trade is the lack of business linkages between Bhutan and Nepal with Sri Lanka. There is scope to increase exports from Sri Lanka to Nepal/Bhutan if there are improvements in air freight connectivity and business linkages.

106. A summary on the learnings of the study on the key producers/net exporters and opportunities in SASEC region for trade of PPE products is detailed in Table 2 below.

**Table 2I: List of Key Producers and Exporters**

	Gloves	Surgical Mask	Coveralls	Hospital Disinfectants	Respirators
<b>Intermediate goods</b>	<b>Latex sheets:</b> India is a producer with potential for surplus production for exports	<b>Non-woven fabric and ear loops:</b> India is the key producer and net exporter	<b>Non-woven fabric and plastic laminates:</b> India and Sri Lanka are major producers and exporters	<b>Chemicals:</b> India is a major producer	<b>Plastic and non-woven fabric components:</b> India, Bangladesh and Sri Lanka are producers with potential to improve capacity to meet the domestic and regional demand
<b>Final Goods</b>	Sri Lanka has potential to expand exports to Nepal and Myanmar	Bangladesh, India and especially Sri Lanka may export to Bhutan, Myanmar and Nepal	Bangladesh, India, Myanmar and Sri Lanka export to Maldives, Bhutan and Nepal	India and Sri Lanka export final products to other SASEC nations	Sri Lanka export to Nepal, Myanmar, Maldives, and Bhutan
<b>Bottlenecks</b>	Consumer preference for European/Australian brands	<ul style="list-style-type: none"> <li>Competitive pricing of PRC products</li> <li>Logistics challenges between Sri Lanka &amp; Bhutan</li> <li>Lack of information on producers</li> </ul>	<ul style="list-style-type: none"> <li>Players prefer export markets in USA, Saudi Arabia, Kuwait, etc for large demand</li> </ul>		<ul style="list-style-type: none"> <li>Cost of logistics</li> <li>Lack of air freight connectivity</li> <li>Lack of business linkages</li> </ul>

Source: Asian Development Bank.

### Recommendations

Based on the discussion above, potential recommendations have been identified to enhance the trade volume of PPE products in the region. These include the following:

- **Regulatory requirements and customs procedure:** The harmonization of PPE product standards and agreements for mutual recognition of certifications across all the seven SASEC nations could be implemented. This would ensure that the PPE products would not have to go through a cumbersome and time-consuming process of local testing and certification at the destination port.
- **Tariffs and trade policies:** Identification of each of these PPE products as a separate tariff line and excluding them from the sensitive list under SAFTA would help improve SASEC trade, by reducing the cost of imports from SASEC partners. Instead of implementing blanket export bans during emergencies, there could be pre-agreed 'minimum commitments' that could be built in as part of trade with SASEC partners for essential PPE products, where exports up to certain minimum level will be honored for a stipulated period of time post the announcement of export bans.
- **Business competitiveness:** Improve competitiveness by reducing or abolishing VAT and other indirect taxes, promoting capacity-building exercises, reduction of compliance requirements, and implementing SASEC-friendly procurement policies.
- **Business integration and outreach:** A SASEC-wide platform/business forum to enable dialogue between producers and buyers of PPE products in the region is recommended. This will enhance the awareness of crucial market information for both the buyers and sellers, thereby facilitating trade. Further, a common tendering portal for PPE products in the SASEC region could be developed, to increase the visibility of government procurement to suppliers in the region. The existing ADB supply chain portal can also be leveraged as a common SASEC tender portal.

- **Logistics and connectivity:** The scope for starting direct airfreight services could be explored, specifically in times of crises such as the COVID-19 pandemic.

## **(ii) Supply Chain Study (Phase 2)**

107. Supply Chain Study (Phase 2) expands the scope of products. It identified target products based on economic corridor studies, government national development plans, and comparative advantages revealed in trade statistics. Using export and import data, the study evaluated whether the supply requirements for the identified goods can be met from within the subregion, in case the goods are being imported by a SASEC country from outside the subregion, but the supply can be sourced from within the subregion. The study also analyzed barriers that are hindering the supply chain from being operated from within the SASEC region. Supply Chain Study (Phase 2) also expanded the coverage beyond the SASEC region and explored the scope to develop a supply chain with Southeast Asia.

108. A review of the economic corridor development studies across SASEC countries reveals overlapping focus sectors, with the top six consisting of food processing, textiles, chemicals, automobiles, pharmaceuticals, and electronics. A review of the national plans of the SASEC countries indicates that focus sectors identified in corridor studies also feature as government priority sectors. Analysis of intra-SASEC trade was undertaken to identify the trade basket among SASEC countries and top traded commodities in the most traded sectors. It found that deepening value chain integration among SASEC countries will be critical to achieve the aspirations of SASEC vision and facilitating integration in global value chains. The mapping exercise also found that trade complementarity within the SASEC region is low, except for India that leads exports in the region. SASEC countries recorded higher global value chain participation in resource-driven sectors, while registering lower participation in higher value-added manufacturing sectors. The subregion is more backward-driven however, in food processing, textiles, electronics, and automotive assembly that are identified in economic corridors and are focus sectors in national plans. The study examined opportunities and bottlenecks to regionalize trade for three focus sectors: (i) textiles and apparel, (ii) food processing, and (iii) automobiles and auto parts and proposed recommendations. For developing value chains between South Asia and Southeast Asia, the electronics value chain and automobile value chain are examined.

### **Textiles Value Chain**

109. Textiles account of \$4 billion of trade within SASEC countries. Intermediate goods like fabrics and yarn account for a lion's share of this, with around \$2.2 billion of intra-SASEC trade. There exist opportunities to increase both the overall this with better integration.

110. Cotton fabric presents the largest opportunity. India exports \$502 million cotton fabrics within the SASEC region, which is about a third of its global exports. However, most of the cotton imports of Bangladesh and Sri Lanka are not from India. Bangladesh sources fabrics primarily from the PRC, Hongkong, China (50%), and sources only 10% of its fabrics from India. Sri Lanka imports about 25% more fabric from other countries when compared to India. There is an opportunity of \$3.2 billion for regionalization of fabric trade between India and Bangladesh as well as \$196 million between India and Sri Lanka which is currently being served by countries outside SASEC. Over and above this there are significant opportunities to enhance the overall share of SASEC's exports globally, through specific interventions.

111. However, there exist challenges and impediments that would need to be overcome for better integration of this sector. The spinning subsector in India is highly fragmented and still has a predominant presence of the unorganized sector. This prevents optimization for scale, manufacturing practices, textiles, and quality, affecting competitiveness and trade. The weaving subsector is underdeveloped in Bangladesh, forcing it to be import-dependent. This adds to the lead times for garment manufacturing eventually affecting the competitiveness and trade volumes, especially with the US and EU. Higher tariffs exist among India and Bangladesh in fabrics than between SASEC and non-SASEC countries. Moreover, trade agreements previously envisaged put a limit on trade quantity among SASEC countries. The region is dependent on imports for high-quality non-woven fabrics and textile machinery, which again impacts the competitiveness in the global marketplace. Textile trade is ocean freight dependent and except for Sri Lanka, the SASEC region lacks direct sea connectivity with major global markets, impacting the cost and delivery parameters. The movement of raw materials and intermediate goods within the SASEC region is hampered by suboptimal cross-border infrastructure for quality and clearance.

### Recommendations

112. Hard Interventions include (i) working with liners and ports to ensure direct call ships from SASEC countries, especially 2–3 ports in India and one port in Bangladesh, focused on textile trade, to key markets of the US, EU, and the resultant reduction in transit time from 45 to 28 days; and (ii) improved capacity and capability of cross-border testing centers for fabric and yarn across India—Bangladesh and India—Sri Lanka borders for fabric and yarn. Proposed soft interventions include (iii) institutional support for growth of cotton fabric manufacturing in Bangladesh through technology and investment support, setting up of industrial infrastructure like manufacturing clusters; (iv) institutional support for adoption of technology, manufacturing practices, and other competitiveness improvement measures by the yarn manufacturers in the MSME segment in India; (v) incentive schemes such as duty drawbacks on imports of textiles machineries and capital support to enable setting of facilities for manufacturing textiles machineries in Bangladesh, India, and Sri Lanka; (vi) incentive schemes for supporting the growth of non-woven fabric manufacture within SASEC region; and (vii) consultation between the SASEC countries to review the current duty structures and quotas on raw materials, intermediate products, and finished goods among SASEC region, towards facilitating free movement within the region.

### **Food Processing Value Chain**

113. The study of the food processing industry resulted in the conclusion that shrimps with \$4.6 billion of exports from SASEC region exports accounting for 29% of global exports is the sector for most potential for value chain integration within the SASEC region. The SASEC region has been able to develop capabilities in production of frozen white legged shrimps which have the highest demand globally. India leads global exports of frozen shrimps by 23% followed by Ecuador 22%, and Viet Nam 11%. Other SASEC, countries which contribute to exports from the region are Bangladesh, Sri Lanka, and Myanmar. Regional integration of resources in secondary processing, i.e., the globally leading Indian secondary processing units expanding their sourcing of primary processed shrimp from the whole of the SASEC region rather than merely from within India, will enable the region to reach new heights in frozen shrimp exports. India has capacities in tertiary processing, and it can move further up the value chain by leveraging upon its leadership position in secondary processed shrimp. This will enable it to address the export market potential of \$2.6 billion in value-added shrimps which is currently being served by Viet Nam, the PRC. and Thailand.

114. There are challenges identified in the study that prevent the realization of the opportunities—(i) high tariffs charged by India on processed shrimp imports; augmentation of secondary processing in India as well as in deepening the raw material creation by way of shrimp farming in other SASEC countries with potential, i.e., Bangladesh, Myanmar, and Sri Lanka; poor raw material availability in the countries with potential due to inadequate focus on aqua culture and fragmented and suboptimal primary capacities; and lack of breadth and depth in the capability of tertiary processing and production of value-added shrimp products in India. Despite being the global leader in secondary processed shrimps, India is a marginal player in tertiary and value-added products. Finally, low yield of secondary shrimp production in Bangladesh, Sri Lanka, and Myanmar, due to suboptimal industry maturity. Industrial infrastructure and logistical bottlenecks in India are leading to high costs, delayed deliveries, and lost orders, especially in the peak season, preventing further increase of its global dominance in the secondary segment. Suboptimal capacity of testing facilities at the customs entry points in ports and across the borders within the SASEC region, especially for the sanitary and phytosanitary requirements is causing delays and deterioration of quality and freshness of the pre-processed product

### Recommendations

115. Hard Interventions identified to overcome these challenges are (i) to enhance the raw material availability and primary processing in Bangladesh, Myanmar, and Sri Lanka through initiatives such as support to geospatial mapping and planning of the coastline ideal for aquaculture development along with the provision of the necessary infrastructure such as power, fresh water, logistical connectivity, and environmental control; (ii) support for the improvement of industrial and logistical infrastructure i.e., availability of manufacturing zones and reefer containers in India; (iii) support to the improvement of cold chain linkages to major processing cluster through the development of cold chain infrastructure like reefer trucks to transport shrimps to processing units in Bangladesh, Myanmar, and Sri Lanka; and (iv) investments be made at the port and cross-border customs control points in state-of-the-art marine food testing facilities so as to enhance speed and efficiency of testing to global standards.

116. Following soft Interventions are proposed: (v) consultations for bringing further, fin intra-SASEC preferential tariff structures to arrive at a uniform minimum rate for free and easy movement of raw, primary processed, and secondary processed shrimp across the region; (vi) introduction of incentive schemes, capital support, and other fiscal benefits to promote private sector investments into primary and secondary processing capacities in Bangladesh, Myanmar, and Sri Lanka; (vii) introduction of incentive schemes in the form of tax benefits or duty drawbacks on exports of value-added shrimp, capital support for new capacity, and marketing support for promotion of value-added shrimp from India to the global market; (viii) introduction of incentives, capital support, and other fiscal benefits to promote private sector investments into industrial and logistical infrastructure focused on shrimp sector such as cold chain creation, plug and play manufacturing facilities and zones, last mile connectivity to ports, etc. (ix) enhance the human resources availability and quality in this sector. This would need to focus on the free movement of manpower in the primary and secondary processing sectors across the SASEC region and a free movement into India of trained and skilled manpower from ASEAN countries such as Thailand and Viet Nam. Also introduce and support initiatives towards skill development at all levels—primary, secondary, and tertiary, within the SASEC region, by enabling free movement of trainers and trainees within the region and in tertiary sector, trainers from other Asian countries to SASEC region

## **Auto Value Chain**

117. The automobile components trade of CKD/SKD units from India to Bangladesh and Sri Lanka will act as a catalyst for the growth of automobile value chain in these countries. India has global exports of over \$4 billion in the category of motor car components (HS-8708) and \$602 million in motorcycle components (HS-8714) but it only trades \$137 million of motor car components to the SASEC countries. SASEC countries import motor car components primarily from Japan, the PRC, and the Republic of Korea. There is an opportunity for regional integration in motor car components where India can be the go-to country to source auto components. The setup of regional assemblies by Indian OEMs will proliferate the trade in components. There is a net opportunity of \$175 billion for Indian suppliers to cater to the SASEC market in motorcar components and \$150 million in motorcycle component that is currently being served by countries out of SASEC.

118. India is the only SASEC nation that exports to the Southeast Asia region, but its presence is marginal—accounting for ~2% of the SEA imports in automobiles and ~3% of Southeast Asia imports in components. Considering the nature of the industry and the limited propensity of exports from India/SASEC to Southeast Asia, the two economic blocks can continue manufacturing products where they have comparative advantage and integrate to form a knitted value chain for the auto and auto components segment. Based on current competitiveness, there exist opportunities for increased exports from India to Southeast Asia of \$296.5 million of automobiles and \$273.1 million of components. There exist significantly more opportunities to enhance the exports of automobiles and components from India globally as well as to Southeast Asia, by improving its physical infrastructure. The automotive industry is currently at a watershed, with new emerging technologies for mobility, electric vehicles, driverless vehicles, etc. Significant opportunity exists for SASEC to ride the emerging curve with the rest of the world.

119. The auto sector in Bangladesh, Myanmar, and Sri Lanka is still at a very nascent stage and is nonexistent in other SASEC countries. These countries have been traditionally reliant on imports of used car units from Japan to cater to the domestic need, with only the recent entry of few assembling units in Bangladesh and Sri Lanka. While India is one of the significant players globally in auto components, very few facilities for component manufacturing exist in the other SASEC countries. Lack of economic size of the markets in these countries comes in the way of significant development of automotive segment. Higher tariffs are imposed on Indian auto components by other SASEC countries act as a hindrance in auto value chain integration within the SASEC, in the after-market segment as well as in the limited assembly units in those countries. Higher tariffs on automobiles and components from India in Southeast Asian countries, in comparison to countries such as Japan, the PRC, and the US are a hindrance for increased integration of India–Southeast Asia automotive value chains.

## **Recommendations**

120. To encourage the setting up of auto assembly units and possibly their ecosystem players in countries such as Bangladesh, Myanmar, and Sri Lanka, it is recommended that (i) there be initiatives to set up auto zones along with necessary support infrastructures such as industrial land, factory sheds, power, and institutional support for easier approvals. Further, it is required to have; (ii) support for the development of highway and railway links that connect the identified automotive manufacturing locations to the nearest gateway points such as ports and inland freight terminals in India. Support also for developing capabilities in identified ports to handle automobile cargo and containers; (iii) improved cross-border road and rail infrastructure across the SASEC



region, as well as the SASEC to Southeast Asia connectivity, would enable cost-effective and smoother logistics, benefiting the value chain integration across the region(s); (iv) support for setting up of engineering institutes and training centers for new and emerging technologies of mobility and electric vehicles in India and other SASEC countries. Recommended soft infrastructures are (v) the introduction of incentive schemes, capital support, and other fiscal benefits to promote private sector investments into automotive assembly capacities in Bangladesh, Myanmar, Nepal, and Sri Lanka; (vi) consultation with SASEC countries to revise the tariffs on Indian components downward towards the free and easy movement of components within the region; (vii) the SASEC region can bring in measures similar to the ASEAN+1 model in auto sector as followed by Southeast Asian countries. Indian OEMs are keen on expanding their manufacturing footprint in other SASEC countries. A joint investment policy from SASEC governments to ensure that these investors get treated on par with their domestic firms would enable greater integration across the region and would eventually result in auto component growth in the other SASEC countries; (viii) consultations between SASEC and Southeast Asian countries to bring in parity in import duties on automobiles and components into Southeast Asia, with Japan, the PRC, and the US; (ix) incentives for investments by private and nongovernmental sectors for technology development, skill development, and research and development in the emerging areas of automobile industry such as electric vehicles, zero emission, storage, etc.

### **Electronics Value Chain**

121. Indian semiconductor market stands at \$15 billion in 2020 and is estimated to reach \$63 billion by 2026. By 2030, India's semiconductor market will be driven by wireless communications, consumer electronics and automotive electronics with 24%, 23%, and 20% of the market share, respectively. Further, Sri Lanka is focusing on expanding the manufacture of assembled printed circuit board's completely knocked down units and semi-knocked down units.

122. SASEC economies are however import dependent for critical and high value-added components such as semiconductor wafers, printed circuits, displays, cameras, etc. SASEC economies have further limited presence in the electronic component manufacturing stage, which accounts for the maximum value addition. Further, the SASEC economies such as Bhutan and Bangladesh are at niche stage of electronics manufacturing.

### **Recommendations**

123. There exists a dire need to (i) strengthen power transmission and distribution network across major manufacturing locations in the SASEC region. There is also (ii) a need for the development of dedicated air cargo facilities at identified airports, that is, airports handling a significant percentage of electronics trade in SASEC regions. These may include Indira Gandhi International Airport and Chennai International Airport in India; Colombo International Airport in Sri Lanka. Further; (iii) expansion of direct flights between SASEC and Southeast Asian economies; (iv) setting up of build-to-suit factories/plug-and-play infrastructure near urban areas in industrial areas with good connectivity infrastructure for quick investor attraction, such facilities need to have strong linkages with global institutes of repute, incubation centers, and industrial training hubs; and (v) setting up of electronics equipment testing facilities across manufacturing clusters are required.

124. Soft Interventions would include (vi) promoting investments (FDI) into the electronics sector, particularly, electronic component manufacturing; (vii) formation of SASEC regional center for leveraging Industry 4.0 so that firms can learn to modernize their processes to increase

productivity and reduce costs (summits, workshops, trainings, financial aids, etc); (viii) introduction of incentives (in the form of lower import duties, lower handling charges, etc.) to promote sourcing of components from SASEC economies to counteract the disadvantages of lower import costs. For countries, such as India and Sri Lanka (having a significant manufacturing base) require (ix) integrating MSMEs into the overall value chain through capacity building, and training programs.

### **(iii) Scoping study on Strengthening Institutional Mechanism for Tourism in SASEC**

125. Tourism, among the fastest-growing economic sectors in the world over the past decade, is among the worst hit by the COVID-19 pandemic. The SASEC subregion took the worst hit, with over half a million deaths, shrinkage in GDP, loss of livelihoods, and diversion of national resources and priorities to contain the pandemic and revive the economy. As the pandemic waned in the second half of 2021, tourism was bouncing back and the badly hit travel and tourism industry saw signs of revival as borders opened up. Now, towards the end of December 2021, the threat of a new variant of the virus Omicron looms large over the world economy, and the region.

126. While the sector and tour operators at individual levels have undertaken a number of practices to keep the tourism experience COVID-safe, they all are broadly adopting the strategy of Survive–Revive–Thrive, i.e., first, by keeping the business alive; second, regain business volume and bring back all jobs; and finally grow (as compared to 2019 base year).

127. Tourists too have largely modified their ways of travel. Travel and holidays are preferred to near-by destinations accessible by road or short haul flights. Destinations of nature and dispersed tourism loads are preferred; travel in smaller groups with family and friends are opted for, rather than with strangers in a packaged tour. Destinations with low infection rates and high vaccination rates are preferred. Being vaccinated is now metaphorically a ‘passport’ to visit places.

128. Tourism has been identified as one of the pillars of economic cooperation among SASEC countries. Various studies have been carried out to assess the potential. It is now time to translate that opportunity into a clear action plan of investment. On one hand, promoting regional thematic tourism circuits aligns well with modified tourist preferences, and on the other provides direction and focus to badly needed investments in the sector to revive jobs and bring back tourism sector as an important enabler for socioeconomic growth. This scoping study shortlisted three priority circuits, i.e., Buddhist tourism, medical tourism, and sea cruise tourism.

129. **Proposed Regional Actions.** Regional tourism circuit opportunities cut across national boundaries driven not just by proximity, but also by continuity of language, culture, terrain, shared civilizational history, and dependencies on one another. So far, the tourism industry and government agencies at national and regional levels within the country have either looked inwards (i.e., towards their domestic market) or outwards (i.e., towards source markets far and beyond); but rarely focused on their neighboring countries. This opportunity needs to be realized now than ever before. Regional cooperation will require extensive dialogue, negotiations, and working arrangements, but also more importantly change in mindsets and reorientation of business strategies.

130. Achieving regional cooperation and collaboration in the SASEC region will require working together at national levels, but also at the state and/or provincial levels as the mandate for tourism sector development is largely delegated to the state and provincial governments in countries like India and Nepal. Local governments also play a role in implementing infrastructure and basic

service delivery on the ground. Hence, implementing regional cooperation will require stitching together these linkages for implementing a regional tourism sector development program.

131. First, it is recommended that an institutional mechanism to steer regional tourism development be constituted in the form of the SASEC Tourism Center of Excellence. The mechanism should provide technical expertise and program management support, while it also extends itself as the Secretariat to facilitate regional cooperation, dialogue, and agreed operating arrangements. In the current context, regional cooperation is also critical to arrive at working arrangements to enable COVID-safe travel and visitation experiences.

132. The second important measure would be to lower border constraints—both physical and procedural. The visa regime for travel across SASEC country boundaries should be simplified and standardized not just for citizens of SASEC countries to travel with one another, but also for citizens from around the world to cross SASEC country borders from one to another. Significant investments are needed in physical infrastructure at land and sea borders together with modernization/digital transformation to ease processes and provide for seamless movement of tourists across borders.

133. **Buddhist tourism circuit.** While Buddhist tourism destinations are spread across the region and beyond, the core destinations that bear the most importance from a religious and historical perspective are eight destinations related to the Life of Buddha, that are spread across Bihar, Uttar Pradesh (India), and Lumbini province (Nepal). These eight destinations are served by four international airports, including the recently built Kushinagar airport, and upgraded Lumbini airport. However, road infrastructure and rail connectivity/services for inter-sea travel need a lot of improvement. Seamless land border crossing into Nepal too is constrained at present. Hospitality is largely at low and mid-end segments, concentrated at few locations in the circuit.

134. Less than 1 % of Buddhists from across the world population of ~ 500 million Buddhists visit this region, which is the cradle of Buddhism. The vast potential for arrivals from countries with significant Buddhist population (largely countries in Asia) needs to be harnessed. High-end tourist segment needs to be enhanced through creating options for hospitality, transportation, and curated experiences that they have propensity to patronize. In parallel, it is suggested that both domestic and international tourists, who may not be practicing Buddhists, be offered curated experience that pertains to the post-Vedic period of India's civilizational history pertaining to the Nand, Maurya, and Gupta dynasties (circa ~ 500 BC to 500 AD). This era was witness to many a landmark achievements in science, arts and culture, philosophy, architecture, and much more.

135. Improvements in transportation are recommended in road networks, way-side amenities, Sonauli–Siddharthanagar land border crossing, and increased frequency of the luxury train service connecting destinations in this circuit. Destination-level infrastructure requires significant upgradation. First, to provide for safe and smooth visitation experience; and second, enhance the tourism value, elongate visit duration, and create engaging experiences.

136. Significant efforts are required to enhance the Buddhism tourism product development and marketing, tailored to the different tourist segments defined by their source market, spending capacity and preferred activities. Organizations like the Association of Buddhist Tour Operators needs to be supported, and further partnerships fostered between government, tourism industry, and Buddhist religious organizations. Collectively, they should evolve strategies that do not dilute the sanctity of the faith with crass tourism, while tourism itself provides a more sublime and spiritual experience to travelers. Support to microenterprises/microentrepreneurs at the

destinations, combined with training and skill development will go a long way to enhance sustainable livelihoods in the region.

137. A total investment of \$320 million over a 3–5-year horizon across Buddhism tourism circuits and destinations will create huge multiplier effects, and usher in the capacity and capability to expand the tourism economy multi-fold. Of this investment, \$244 million is envisaged in infrastructure and assets, \$57 million in capacity building and institutional development initiatives, and \$19 million in technical assistance.

138. **Medical Tourism Circuit.** The medical tourism circuit in the SASEC region is largely defined by India as the host country and other neighboring countries as the source markets. India is among the fastest-growing medical tourism destinations in the world, and among the top 10. India offers highly competitive healthcare treatment costs, together with offerings in wellness and therapeutic treatments. Metropolitan cities of Delhi (National Capital Region), Kochi, Chennai, Bangalore, Mumbai, and Kolkata are major destinations for medical tourists from source markets spread across SASEC, the Middle East, Africa, and Central Asia. Medical tourism has high economic multipliers, even though they are single destination visits, as patients are often accompanied by one/more caregivers, durations of stay are longer, and spends across the entire healthcare value chain (diagnostics, treatment, medication, rehabilitation, etc.). Traveling overseas for medical treatments is patronized by the relatively affluent from within their source markets. Hence, more can be done to make such medical care more accessible for modest budgets.

139. Nearly 70% of the over 0.6 million medical tourist arrivals in India are from SASEC countries, with Bangladesh contributing over 50% of all arrivals. Even though the northeast region is in close proximity to many SASEC countries, metro cities are preferred due to bed availability, high-end expertise, surgical infrastructure, and easier connectivity. India competes with Malaysia, Singapore, and Thailand in these same source markets.

140. With a focus on this segment, many areas of improvement in the nonmedical realm are identified to help realize the full potential of this sector. Value chains should be extended into source market countries to ensure economic benefits are shared across both source and host markets. Improved land border crossings, and road and rail services will make travel affordable, while air ambulance services can be made into scheduled flights for moving critical patients at more affordable rates. Visa regime simplification will further aid seamless travel. Creating integrated medi-cities where the entire value chain of services, including a stay for caregivers, are offered will spur medical tourism to new levels. Further, human resource development should focus on trained facilitators and foreign language skills.

141. **Medical Tourism Circuit:** Over a 3–5-year span, an overall investment of \$243 million in medical tourism circuit in host and source countries will have a significant impact on the rapidly growing sector. A budgeted investment of \$176 million is proposed for infrastructure and assets, and capacity building and institutional development assistance for \$67 million. Smaller technical assistance components required for implementation are embedded within the budgets for infrastructure development.

142. **Sea Cruise tourism.** Typical characteristics of a multi-destination tourism circuit and the need for regional cooperation among countries in proximity with seaports are essential for the success of sea cruise tourism. Sea cruising is a relatively new experience for tourists from SASEC and offers good potential for regional cooperation within the SASEC countries (barring landlocked

Bhutan and Nepal). With many ports, islands, and sea-side tourism destinations, various itinerary combinations can be drawn up to suit budgets, destination preferences, and preferred activities.

143. Mumbai, Kochi, Goa, Chennai, and Colombo have the potential to be homeports—where cruise ships are based and begin their journeys. Maldives, Lakshwadeep, Andaman, and Nicobar Islands, other destinations along India's West and East coast, Sri Lanka, Bangladesh, and Myanmar are potential ports-of-call for cruise ships offering onshore excursions to places of interest and beachside activities to tourists. As a 'floating hotel,' the cruise vessel itself offers a variety of entertainment, dining, and activity options—much of which is tailored to suit regional tastes is finding favor among tourists from within the region.

144. Cruise passengers calling on India are dominated by Western tourists, in the higher age and income brackets. The future potential lies in attracting middle-class urban citizens from tier 1 and 2 cities, for a fun and adventure-filled high-seas sailing experience. Experts have projected cruise tourist volumes to rise to over 2.7 million for India, from the recent levels of ~ 200,000 over the next 20 years, provided strategies shift to attract tourists from within India. This approach is relevant to the region as well. Apart from India, Sri Lanka, Maldives, and other SASEC countries would benefit from attracting tourists for making shorter voyages (3–10 days) with offerings tailored to local tastes.

145. Enhancing cruise arrivals will also help island nations like Maldives and Sri Lanka expand their tourism revenues, without commensurate pressure on lodging, built environment (resorts/hotels), resource consumption (water/electricity), and waste generation, as cruisers stay aboard the ship and spend their day onshore.

146. Significant investments are required in cruise passenger terminals, berth and other port infrastructure, and onshore destination-level facilities to enhance this sector. Procedural simplification, easier visa regime/immigration procedures, and simplified and moderate tax regimes are all critical to the success of the cruise tourism industry.

147. The cruise industry is a complex value chain comprising port authorities and other agencies located at ports (customs/immigration/etc.), cruise lines, tour operators, logistics providers, and destination managers. Mechanisms need to be established for all stakeholders to come together to resolve issues and ensure a seamless cruising experience for tourists.

148. **Sea Cruise Tourism Circuit:** For the development of the sea cruise tourism sector, a total budget of \$ 252 million is proposed for investment over a 3–5-year horizon. Of this, \$200 million is proposed for infrastructure development, \$ 26 million in capacity building and institutional development, and \$26 million in technical assistance.

149. Detailed studies, project preparation surveys, and technical assistance engagements need to be undertaken to refine the investment program, assess technical and financial sustainability, and build environmental and social safeguards once the detailed investment program is prepared. Stakeholders need to be consulted to develop a consensus around the priorities, circuit development strategies, and investment plans.

150. The scoping study report will serve as background information for the establishment of Regional Tourism Program which will be proposed at the NOM in June 2022.

## IV. COUNTRY INITIATIVES FACILITATED BY SASEC

### (i) Electronic Cargo Tracking Systems (ECTS)

151. ECTS involves the use of secure seals aided by tracking technologies such as satellite positioning systems, cellular communications, radio frequency identification, and other web-based software to ensure the security of cargo. ADB has been promoting ECTS to ensure safe and secure transit, simplify border formalities, reduce transit time and cost, and improve shipment visibility.

152. Since 2017, ADB-supported pilots and studies are listed below. Findings of studies to be the basis for formulating a set of recommendations on policy/institutional reforms and investments needed to effectively deploy ECTS in identified trade and transit routes. Based on ADB support, Bangladesh's National Board of Revenue (NBR) has already issued the Customs Transit and Transshipment Rules, 2021, and ECTS regulations.

- Nepal imports through India, off-border clearances in India, and Bangladesh exports through India
- India's transit cargo through Bangladesh
- Off-border clearances in Maldives
- Off-border clearances in Sri Lanka

153. **Study on the use of ECTS in Maldives.** The study was undertaken in 2020–2021 to provide a conceptual design for development of a system by standardizing the features of key devices and interaction of the devices for a functional electronic tracking system for vehicles and goods in transport and storage. The study covered three types of movement and warehousing of goods under customs control applicable for tracking, namely, (i) movement of cargo from Malé port to Hulhumalé and regional ports, (ii) bonded warehousing of goods at Hulhumalé in containers or constructed warehouses, and (iii) movement of cargo from warehouses to resorts/safari vessels.

### Recommendations

154. For these cases, the report addressed the following issues, among others: (i) operating model for a technology-driven system of controls, and (ii) procuring/sourcing the tracking devices including options for ownership. The report also provides process flow diagrams for each user case, applying ECTS. The study demonstrated that ECTS and RFID technology can lead to improvement in revenue security, improved administrative control of stakeholder businesses, prevention of diversion and pilferages of bonded goods, efficiency, and visibility for each of the above movements and bring transparency in customs administration.

### (ii) Motor Vehicle Agreements (MVAs)

155. The Bangladesh, Bhutan, India and Nepal (BBIN) Motor Vehicles Agreement (MVA), signed in Thimphu in June 2015, is designed to facilitate passenger, personal and cargo vehicular traffic between the BBIN countries. Once fully implemented, it is envisaged to reduce costly and time-consuming transshipment of goods at border crossings, promote people-to-people contacts, and create greater opportunities for economic exchanges in key trade routes. Bangladesh, India, and Nepal have ratified the agreement. While Bhutan has yet to ratify this, it agreed for the BBIN countries to proceed with implementation. Therefore, the provisions of the passenger and cargo

protocols to operationalize the BBIN MVA is under discussion by the BBIN countries along with the provisions of a memorandum of understanding (MOU) to implement the MVA among them. The countries are also developing a work plan for the phased implementation of the MVA. In the last-held meeting of the BBIN nodal officials on 7–8 March 2022 in New Delhi, the countries agreed on the text of the MOU, on a work plan for the phased implementation of the MVA, conduct more trial runs for cargo vehicles and to constitute transport and customs working groups for accelerated negotiation and finalization of the protocols.

156. The India–Myanmar–Thailand (IMT) MVA, currently under discussion, is key to smoothening trade flows along the IMT Trilateral Highway, which is a link to Southeast Asian markets for South Asian countries. While consensus has been reached on the text of the MVA, the IMT countries are also discussing the operating protocols that would help in facilitating passenger, personal, and cargo vehicular traffic between India, Myanmar, and Thailand. Once implemented, the IMT MVA will enhance opportunities for greater trade and economic exchanges along the corridor as well as people to people exchanges.

### **(iii) Cross-border Power Trade Framework Agreement**

157. The SASEC program has been supporting the formulation of the framework agreement to provide a broad framework for enhanced cooperation in power trade and interconnections, and will help graduate SASEC power trade from largely bilateral to multicountry trade, eventually involving countries outside the subregion. The draft agreement has been prepared by the SASEC Cross-Border Power Trade Working Group (SPT-WG) and currently being finalized for signing by member countries at the SASEC Finance Ministers Meeting. Relatedly, the SPT-WG will also undertake research and knowledge sharing on technical and regulatory harmonization of power trade operations. Such knowledge will provide the basis for preparing the various power trade operating protocols under the RPTFA, needed to scale-up electricity trading in the subregion.

158. During 2019–2020, the draft power trade framework agreement was formulated to provide a broad framework for enhanced cooperation in power trade and interconnections and help graduate SASEC power trade from largely bilateral to multicountry trade.

## **V. PROPOSED NEW INITIATIVES**

159. The following six new initiatives will be included to APSI upon endorsement at the SASEC Finance Ministers Meeting:

- Strengthening Regional Health Security through the One Health Approach
- Highly Facilitated Trade Corridors
- Food Regulators' Forum
- Regional Tourism Program
- Establishment of Subgroups for the Supply Chain Development, Road and Railway, Maritime, and Inland Waterways
- SASEC Business Forum

## APPENDIX – ACTION PLANS FOR SASEC KNOWLEDGE INITIATIVES

### (i) Advancing Cooperation in the Maritime Sector Studies

1. The identified projects are for consideration of each country to adopt in its investment plan and include in the SASEC Operational Plan to share information to facilitate coordinated development among SASEC countries. It is also proposed to organize a meeting to collaborate printed circuit boards among SASEC member countries. Cruise tourism is proposed to be a part of the newly proposed Regional Tourism Program.

Actions	Responsibility	Target Date
Adoption of a part of identified investment projects into SASEC Operational Plan	SASEC member countries	Dec 2022
Endorsement to formulate the Subgroup for Supply Chain Development	NOM	13 June 2022
Holding the first meeting of the Subgroup	SASEC Secretariat	Within 2022
Meeting to collaborate PCSs among SASEC member countries	SASEC member countries and SASEC Secretariat	Within 2022
Conference on SASEC cruise tourism	SASEC member countries and SASEC Secretariat	Within 2022

Source: ADB staff.

### (ii) Safe Mobility and Regional Connectivity

Actions	Responsibility	Target Date
Asset management maturity assessments and improvement plan completed	SASEC Secretariat	Nov 2022
Asset Management Investment needs report prepared	SASEC Secretariat	Nov 2022
Preparation of road safety performance indicator	SASEC Secretariat	Dec 2022
Preparation of road safety specific guidance	SASEC Secretariat	Dec 2022

Source: ADB staff.

### (iii) Data Analytics for Assessing SASEC Logistics Movement.

#### Action Plan

Action	Responsibility	Target Date
Primary surveys conducted across logistics stakeholder groups.	SASEC Secretariat	Q2 2022
Secondary data collection and stakeholder consultations.	SASEC Secretariat	Q2 2022
Methodology for transport modelling developed.	SASEC Secretariat	Q3 2022

Source: ADB staff.



**(iv) Sanitary and Phytosanitary and Technical Barriers to Trade (SPS-TBT)**

<b>Actions</b>	<b>Responsibility</b>	<b>Target Date</b>
Completion of Study on SPS-TBT Facilities in Nepal	SASEC Secretariat	July 2022

Source: ADB staff.

**(v) Updating of Regional Transmission Master Plan**

<b>Actions</b>	<b>Responsibility</b>	<b>Target Date</b>
Draft final report	Consultants	October 2022
Consultation with key stakeholders	ADB, Experts	November 2022
Finalize the report	ADB, Expert	December 2022

Source: ADB staff.

**(vi) Supply Chain Study (Phase 1 and Phase 2)**

2. It is proposed to formulate a sector working group for the SASEC operational priority of economic corridor development and discuss the recommendation of the study and next steps for regional supply chain development. The working group will be participated by Ministries of Commerce, economic planning agencies, and other relevant ministries. The working group will also discuss the recommendation of the Phase 2 study.

<b>Actions</b>	<b>Responsibility</b>	<b>Target Date</b>
Endorsement to formulate the Subgroup for Supply Chain Development	NOM	13 June 2022
Holding the first meeting of the Subgroup	SASEC Secretariat	Within 2022

Source: ADB staff.