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Regional integration in Bay of Bengal region in post-covid-19 period

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Abstract

The Bay of Bengal region, encompassing seven nations, faces significant challenges and opportunities for regional integration in the post-COVID-19 period. This paper explores the economic trends, impact of the pandemic, and regional cooperation initiatives within the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC). Analyzing GDP growth, trade dynamics, and future trade scenarios using a Gravity model, the study anticipates both challenges and prospects for regional economic recovery. Amidst the pandemic, Bay of Bengal countries have suffered immense economic losses, prompting intensified efforts towards regional cooperation. The paper delineates strategies for addressing post-pandemic challenges, emphasizing the importance of public health collaboration, trade facilitation, and economic growth restoration. It underscores the role of BIMSTEC in fostering regional integration and recommends measures to enhance cooperation for a resilient and prosperous Bay of Bengal region.

Keywords: Bay of Bengal, regional integration, post-COVID-19, BIMSTEC, economic growth, trade facilitation, public health, regional cooperation

1. Introduction

The region encompassing the Bay of Bengal currently accommodates approximately 1.6 billion individuals, constituting roughly 23 percent of the global population. This area hosts a combined economy valued at 3 trillion dollars, contributing around 4 percent to the global GDP and 3.7 percent to global trade. The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) comprises seven nations: Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, and Thailand. BIMSTEC stands out as a unique regional cooperation endeavor within the Bay of Bengal area due to its geographical contiguity and access to the ocean. Notably, it not only holds direct access to the Bay of Bengal but also shares a rich history and cultural heritage among its member states.

Bay of Bengal countries are at different stages of development having different income levels. It has three developing countries (India, Sri Lanka and Thailand) and four least developed countries (LDCs) (Bangladesh, Bhutan, Nepal and Myanmar). On one hand, the region has two landlocked LDCs (Bhutan and Nepal). White, on the other, it has five littoral countries. Three Bay of Bengal countries, namely, Bangladesh, Myanmar and Nepal, are likely to gain developing country status a few years from now (perhaps as early as in 2026).

Among seven member countries, five members of BIMSTEC are also members of SAARC, two are members of ASEAN and six are part of SASEC 2 [1]. BIMSTEC appears as a connector to multiple regional initiatives. For example, due to cross regional FTA between some of the member countries, BIMSTEC has become and effective alternative for the Bay of Bengal countries to connect with the world. Not with standing its cross regional structure, BIMSTEC has high economic potential, given the region's economic dynamism, huge market and rich natural resources.

All seven Bay of Bengal countries have been affected heavily by the ongoing coronavirus (COVID-19) pandemic. Illustrated in Figure 1, the COVID-19 driven pandemic forces the price of the traded goods to go up with a markup over and above the market price, thereby causing additional economic welfare losses the triangle acd in figure 1 is the loss of welfare attributed to the shift of market equilibrium from *d* to the less efficient market equilibrium a due to increase in price as a result of rise on non-tariff barrier (bcd) and additional cost imposed due to pandemic (abd). The elimination of the extra expenses associated with the ongoing epidemic, along with improved trade facilitation and connectivity, would have a positive economic impact on the Bay of Bengal region by increasing trade volumes and ultimately improving economic wellbeing.

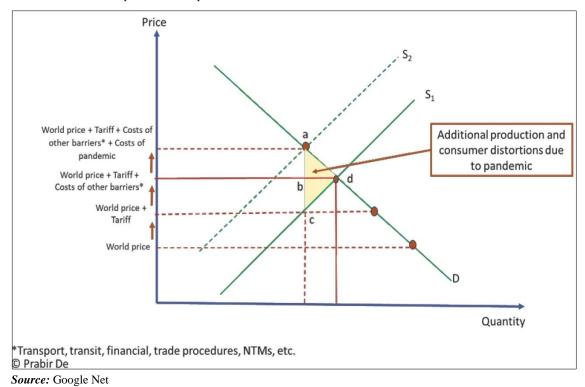


Fig 1: Illustration of economic distortions due to coronavirus pandemic

The management of the coronavirus pandemic underscores the potential for enhanced regional cooperation among the nations bordering the Bay of Bengal. Such cooperation could mitigate the costs associated with pandemic-induced barriers and foster regional integration. This integration might help overcome obstacles that hinder trade flows, movement of people, and capital across Bay of Bengal countries, especially in light of the common challenge posed by the coronavirus pandemic. As the World Health Organization rightly emphasizes, "With a fast-moving pandemic, no one is safe unless everyone is safe." In light of these considerations, this paper briefly explores the major challenges confronting the Bay of Bengal countries in

In light of these considerations, this paper briefly explores the major challenges confronting the Bay of Bengal countries in recent times and outlines a path forward for the post-COVID-19 period. The subsequent sections are structured as follows: Section 2 examines economic growth trends in the region, crucial for regional economic integration, and assesses the potential economic losses attributable to the COVID-19 pandemic. Section 3 delves into the impact of the coronavirus pandemic in the Bay of Bengal region, followed by an analysis of progress and achievements in regional cooperation within the context of the pandemic in Section 4. Section 5 outlines the opportunities and regional responses to address the ongoing pandemic. Finally, the paper concludes with Section 6.

2. Rising Bay Bengal and the corona virus pandemic

The past decade (2010-2019) witnessed significant growth in the Bay of Bengal region. As depicted in Table 1, smaller economies in the region outpaced larger ones during this period, signaling regional prosperity and inclusivity. Notably, Bangladesh achieved an impressive annual growth rate exceeding 10 percent, resulting in its GDP expanding over fivefold from US\$53.37 billion in 2000 to US\$302.57 billion in 2019. Nepal followed suit with notable growth. This remarkable economic expansion coincided with increased openness to trade, robust global growth, and strong regional partnerships in the Bay of Bengal area.

Another notable aspect of the Bay of Bengal region is the presence of two relatively large middle-income economies, India and Thailand, which provide significant market access to other Bay of Bengal countries, thereby bolstering regional demand and supply. India, as a burgeoning economic power, and Thailand, as the second-largest economy in ASEAN, play pivotal roles in this regard. Additionally, a shared sense of common public goods, such as natural resources, security, education, cuisine, and music, is evident among the countries in the region.

Table 1: GDP growth of BIMSTEC countries

	GDP (2	2000-2009)	GDP (2010-2019)		
	Size, 2000 (US\$ billion)	Growth* (2000-2009), (%)	Size, 2019 (US\$ billion)	Growth* (2010-2019), (%)	
Bangladesh	53.37	6.74	302.57	10.13	
Bhutan	0.42	11.26	2.53	5.04	
India	468.39	11.10	2868.93	5.52	
Myanmar	8.91	15.28	76.09	4.38	
Nepal	5.49	8.87	30.64	6.71	
Sri Lanka	16.33	9.92	84.01	4.01	
Thailand	126.39	8.34	543.55	4.77	

Note: CAGR GDP taken at current price

Source: Google Net

Table 2: Intra-BIMSTEC trade matrix, 2019

	Banglades	Bhutan	India	Myanmar	Nepal	Sri Lanka	Thailand	Intra- BIMSTEC	Share in World (%)
Bangladesh		0.00	0.98	0.03	0.05	0.03	0.03	1.12	3.11 (1.66)
Bhutan	0.00		0.50	0.00	0.00	0.00	0.00	0.51	97.59 (84.94)
India	8.13	0.69		0.96	7.10	4.23	4.33	25.45	7.83 (5.11)
Myanmar	0.07	0.00	0.64		0.00	0.03	3.26	3.99	22.03 (16.10)
Nepal	0.01	0.00	0.66	0.00		0.00	0.00	0.68	68.85 (42.84)
Sri Lanka	0.13	0.00	0.79	0.03	0.03		0.04	1.02	8.73 (2.81)
Thailand	0.98	0.00	7.32	4.35	0.10	0.38		13.14	5.35 (2.11)

Source: Google Net

The entire Bay of Bengal region is grappling with the profound impacts of the coronavirus pandemic. The dual effects of the pandemic and ensuing global and national lockdowns have wreaked havoc on Bay of Bengal countries, pushing regional economies, with the exceptions of Bangladesh, Bhutan, and Nepal, into economic recession in 2020 (IMF, 2020). Projections indicate that the Bay of Bengal region is poised to experience approximately a 9.11 percent GDP loss (equivalent to 3.5537 billion in current price terms or 7.67 percent in PPP terms, amounting to 952.80 billion) during 2020-2022, potentially marking the highest economic downturn since the Great Depression of the 1930s. Smaller economies heavily reliant on the region for their economic sustenance are particularly vulnerable to such crises. Let us delve into this vulnerability further, particularly in terms of trade.

The upward trend in intra-regional trade serves as another indicator of growing regional integration in the Bay of Bengal region, which surged to 7.20 percent in 2019 from 5.50 percent in 2010 (Figure 2). The region's dependence on intra-regional trade has increased significantly. Bhutan and Nepal exhibit heavy reliance on the Bay of Bengal region for their trade (see Table 2). For instance, nearly 98 percent of Bhutan's global exports were directed to the Bay of Bengal in 2019, a notable increase from 85 percent in 2000. Similarly, around 69 percent of Nepal's global exports were directed to the Bay of Bengal region, up from 43 percent in 2000. India, the largest economy in the Bay of Bengal region, exported goods worth \$25.45 billion to the region in 2019, followed by Thailand (\$13 billion) and Myanmar (\$4 billion). However, intra-regional trade during the COVID-19 pandemic period has witnessed a slowdown, with trade volume declining.

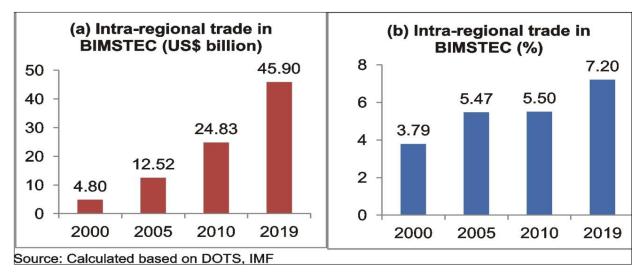


Fig 2: Trends in intra-regional trade in BIMSTEC

2.1 Likely trade scenario in post-COVID-19 period

We have conducted an analysis of future trade scenarios in the Bay of Bengal region using a Gravity model. Appendix 1

provides a detailed overview of the model, methodology, and the estimated results, which have demonstrated robustness and statistical significance. Table 3 and Figure 3 outline India's

anticipated exports to and imports from Bay of Bengal countries for the years 2021 and 2025. Several key findings are noteworthy.

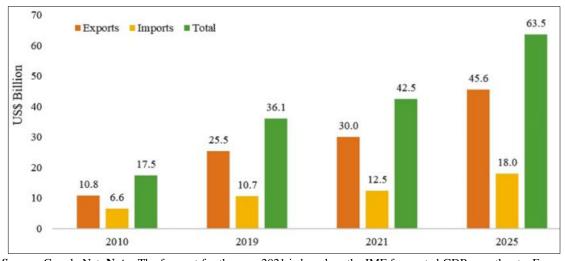
Firstly, it is projected that India's exports to Bay of Bengal countries may experience a slowdown in 2021 compared to previous years. India's total exports to the Bay of Bengal region are expected to surpass US\$30 billion by 2021 (compared to US\$25.5 billion in 2019) and reach US\$45 billion by 2025. Conversely, exports from the remaining Bay of Bengal

countries to India are estimated to grow at a slower pace. In 2019, these countries exported only US\$10.7 billion worth of goods to India. According to our trade forecast, this figure is anticipated to reach only US\$12.5 billion in 2021 and US\$18 billion in 2025. Hence, this trend suggests that India's imports from the Bay of Bengal region may experience a more pronounced deceleration compared to India's exports during the period from 2021 to 2025.

Table 3: Trade forecast based on Gravity model India's exports to and imports from BIMSTEC countries for 2021 and 2025

	India's	exports	to BIM	STEC	C BIMSTEC!s exports to India			India
	2010*	2019*	2021	2025	2010*	2019*	2021	2025
				(US\$ I	billion)			
Bangladesh	3.02	8.13	9.76	16.12	0.36	1.23	1.48	2.44
Myanmar	0.27	0.96	1.09	1.78	1.12	0.51	0.57	0.93
Sri Lanka	3.31	4.23	4.80	7.30	0.52	0.99	1.13	1.72
Thailand	2.14	4.33	5.06	6.98	3.95	7.04	8.22	11.35
Bhutan	0.16	0.69	0.81	1.12	0.19	0.25	0.29	0.40
Nepal	1.91	7.10	8.52	12.26	0.51	0.65	0.78	1.12
BIMSTEC	10.82	25.45	30.05	45.56	6.64	10.67	12.47	17.95

Note: The forecast for the year 2021 is based on the IMF forecasted GDP growth rate. For the year 2025, we assume the growth rate of GDP for India would be at 7 per cent and for other BIMSTEC countries it would vary between 4 to 6 per cent based on average of last five years of GDP. *Actual export



Source: Google Net, **Note:** The forecast for the year 2021 is based on the IMF forecasted GDP growth rate. For the year 2025, we assume the growth rate of GDP for India would be at 7 per cent and for other BIMSTEC countries it would vary between 4 to 6 per cent based on average of last five years of GDP. Data for 2010 and 2019 are actual export

Fig 3: Trade forecast based on Gravity model India's export to and imports from BIMSTEC for 2021 and 2025

Secondly, it is anticipated that India's top three export partners in the Bay of Bengal region will likely be Bangladesh, Nepal, and Thailand in 2021, and Bangladesh, Nepal, and Sri Lanka in 2025. However, concerning India's top three import partners among Bay of Bengal countries, Thailand, Bangladesh, and Sri Lanka are expected to maintain their positions. Unlike India's export partners, the forecasts suggest no significant changes among India's top three import partners.

Thirdly, exports from smaller and landlocked countries such as Bhutan, Myanmar, and Nepal to India are projected to grow at a faster rate in the post-COVID-19 years. This suggests a potential emergence of increased market access in India for these nations.

In summary, the COVID-19 pandemic has introduced significant uncertainties and disrupted normal economic activities and life in the Bay of Bengal region. Assuming

successful containment of the outbreak through widespread COVID-19 vaccine distribution and stronger global economic growth, the Bay of Bengal may experience a rapid growth rebound in the second half of 2021 or early 2022. However, the contraction of advanced economies and the continued spread of the virus and other disasters could lead to an uncertain economic recovery. Moreover, an economic recession could inflict long-term damage on the regional economy, particularly in terms of output and productivity growth. In such a scenario, implementing a comprehensive strategy that addresses the impact of the current crisis and focuses on growth-supportive reforms may help Bay of Bengal countries return to a sustained growth path, revitalize regional trade, and strengthen regional integration [2].

3. Dealing with coronavirus pandemic in Bay of Bengal region

Coronavirus pandemic has had a devastating impact on the Bengal of Bengal countries – health or otherwise. Illustrated in Table 4, BIMSTEC countries have witnessed 13 per cent of world's total COVID-19 cases and about 8 per cent of world total death as on 10 January 2021. India, Bangladesh and Nepal are the top three most-affected countries in terms of number of COVID-19 cases and deaths, followed by Myanmar, Sri Lanka

and Thailand. The least affected countries in the Bay of Bengal are Bhutan and Thailand in terms of total deaths. It seems these two countries have successfully escaped the brunt of the pandemic.

While all of these countries went into stick lockdown since as early as March 2020 as a measure to safeguard them from the pandemic, peaks of devastation were however reached only after the lift of lockdown. As on 10 January 2021, the total number of coronavirus cases in the Bay of Bengal region has surpassed the 11 million mark, while the deaths have increased to over 1,64,000 (Table 5). India accounted for the world's second highest number of cases and deaths at 1,04,73, 696 and 1,51,265 respectively. Bangladesh came in second place with 5,23,302 infections and 7,803 deaths. Nonetheless, the recovery rate in quite high in the Bay of Bengal region. As on 10 January 2021, over 10 million people have recovered from the COVID-19, representing about 17 per cent of cases of the global recovery. Success of such recovery is due mainly to the tests conducted through the RT-PCR across the region, more particularly in India (131,027 per million people) and rapid treatment of COVID-19 patients. Nevertheless, the economic costs of the pandemic have already been huge and are still expanding.

Table 4: Covid -19 Cases in the Bay of Bengal region*

Country	Total cases	Total deaths	Total recovered	Tot cases/	Deaths/ 1M pop	Tests/ 1M pop
India	1,04,73,696	1,51,265	1,01,00,053	7,550	109	1,31,027
Bangladesh	5,23,302	7,803	4,67,718	3,161	47	20,364
Nepal	2,65,268	1,927	2,58,968	9,019	66	67,577
Myanmar	1,31,186	2,858	1,14,609	2,403	52	36,925
Sri Lanka	48,665	232	42,091	2,268	11	64,761
Thailand	10,547	67	6,566	151	1	17,425
Bhutan	825	1	469	1,063	1	4,29,651
Bay of Bengal (BoB)	1,14,53,489	1,64,153	1,09,90,474	3,659	41	1,09,676
World	9,08,79,233	19,46,619	6,49,74,697	11,659	250	
BoB share in world (%)	12.60	8.43	16.92			

^{*}As on 10 January 2021 Source: Calculated by author based on data downloaded from the WHO.

With the current declining trend in terms of new cases and deaths, BIMSTEC countries are now looking towards the COVIND-19 vaccines which are being rolled out, mainly by India in the region. India, which is globally know for supplying affordable drugs, is all set to roll out the COVID-19 vaccines with are being rolled out, mainly by India in the region. India which is globally known for supplying affordable drugs, is all set to roll out the COVID-19 vaccines. Seven Indian pharmaceutical companies race to develop vaccines for the coronavirus (Table 6). Vaccines in India will be easier to administer and transport across the region. On three counts, namely, availability, accessibility and affordability, India's vaccine suit much better to the Bay of Bengal countries (Table 5 (a)). Thus, it is quite logical that Bay of Bengal countries may depend on India for the COVID-19 vaccine. India has successfully supplied over 5 million doses of COVID-19 vaccines to most of the BIMSTEC countries excluding www.dzarc.com/social

Thailand as donation (Table 5(b)). India has also ensured more supply of the vaccines in the neighborhood.

India has indigenously developed the COVAXIN by Bharat Biotech. Another vaccine, namely Covishield, developed by the Oxford University, is manufactured by the Serum Institute of India. Both have been approved for emergency use in India. The advantage of Indian vaccines in affordability as well as safety. Thailand, on the other hand, has signed a deal with UK-based AstraZeneca to supply COVID-19 vaccine. Bangkok-based Siam Bioscience Signed a letter of intent with AstraZeneca to supply 200 million doses [3]. Thailand has also placed order to China's Sinovac to supply COVID-19 vaccines. Bangladesh's Beximco Pharmaceuticals Ltd. (BPL) has signed a deal with the serum Institute of India to get COVID-19 vaccine. Besides approaching India, some Bay of Bengal countries have also signed contract with the WHO'S COVAX facility for the vaccine (e.g. Sri Lanka, Bangladesh).

Table 5(a): COVID-19 vaccines offered to Bay of Bengal countries

Country	Vaccine makers	Availability*	Affordability**	Accessibility***
India	Bharat Biotech, Serum Institute, Zydus Cadila, Panacea Biotec, Indian Immunologicals, Mynvax, Biological E	High	High	High
China	Sinovac Biotech, Sinophar, CanSino, CNBG, ZFLongkema	Medium	High	Low

Notes: *In terms of capability and number of manufacturers in the country. **In terms of price (as cheap as US\$ 5 to 15) ***Capital-to-Capital distance. *Source:* Author!s own based on several secondary sources

Table 5(b): Supply of COVID-19 vaccines by India*

Country	Doses
Bhutan	150,000
Bangladesh	2,000,000
Myanmar	1,500,000
Nepal	1,000,000
Sri Lanka	500,000
Thailand	Not yet
Total	51,50,000

Note: *First lot supplied as on 28 January 2021 and all are donations, *Source:* Authorls own based on MEA and other secondary sources

The current challenges for the Bay of Bengal countries are, therefore, mainly threefold: first, secure/arrange the vaccines at an affordable rate; second, supply the vaccines with the required technology and sophistication; and third, assure safe and secure implementation of the vaccines and manage the post-vaccination complications or emergencies [4]. BIMSTEC Secretariat, for example, has a strong role to play in managing the coronavirus pandemic including distribution of COVID-19 vaccines and following up the progress and emergency. The need for a stronger regional body is, thus, felt important not only for securing smooth coordination but also overcoming the barriers while supplying the vaccine across the region. BIMSTEC Foreign Ministers have rightly agreed to leverage regional cooperation through BIMSTEC process in order in order to combat the adverse effects of the pandemic [5].

4. The COVID-19 pandemic and regional cooperation in Bay of Bengal region: A primer

Despite its inception in 1997, BIMSTEC has historically maintained a relatively low profile as a regional bloc, with

several factors contributing to its perceived underachievement (De, 2018; Basu and Ghosh, 2020; ORF, 2020). However, there has been a noticeable resurgence in momentum within the BIMSTEC process, largely driven by political directives received during the BRICS-BIMSTEC Outreach Summit held in Goa in 2016. The 4th BIMSTEC Summit, convened in Kathmandu in 2018, recommended three key measures: strengthening the BIMSTEC Secretariat, activating BIMSTEC institutions, and establishing a BIMSTEC Development Fund. Subsequent substantial progress has been made in implementing initiatives aimed at revitalizing BIMSTEC integration efforts.

More recently, regional cooperation in the Bay of Bengal has gained further momentum amidst the current pandemic. Bay of Bengal countries have pledged to collectively combat the coronavirus pandemic. These developments, along with supporting initiatives in recent years and months, significantly contribute to the integration process within BIMSTEC, bolstering its overall effectiveness and relevance.

Box 1: Activities of BIMSTEC in 2020

India organized the BIMSTEC!s Conference on Combating Drug Trafficking in February 2020 in physical mode.

The 21st Session of the BIMSTEC Senior Officials! Meeting (SOM), comprising Foreign Secretaries of the BIMSTEC Member States, was virtually held on 2 September 2020 hosted by Colombo. The Foreign Secretaries/Senior Officials! from the BIMSTEC Member States attended the Meeting.

BIMSTEC countries organized the 2nd BIMSTEC Expert Group Meeting on Poverty Alleviation, held virtually on 12 November 2020. The EGM reviewed the progress achieved and discussed the new measures to further Agenda 2030 as envisioned by the leaders of BIMSTEC.

A Webinar on Harmonization of Curricula for Mutual Recognition of Traditional Medicine Degrees of BIMSTEC Countries was held virtually on 3 November 2020, hosted by the Ministry of Ayush of the Government of India. Delegates from all BIMSTEC Member States attended the Webinar to understand the system and process in the respective Member States in order to explore the strategies of establishing a harmonized system for mutual recognition of the traditional medicine degrees offered.

The Third Meeting of the BIMSTEC Transport Connectivity Working Group (BTCWG) was held virtually on 8 December 2020, hosted by India. The Meeting finalized the BIMSTEC Master Plan for Transport Connectivity that was developed with the technical assistance of the Asian Development Bank (ADB). The Master Plan is a ten-year strategy and action plan that will guide the development of transport connectivity as well as its synergies with other areas of connectivity.

The Second Meeting of the BIMSTEC Network of Tour Operators was held virtually in Colombo, Sri Lanka on 8-9 December 2020. The Meeting deliberated on the progress and status of the recommendations of the First Meeting of the BIMSTEC Network of Tour Operators and Plan of Action on Tourism Development for BIMSTEC Region.

The fifth BNPTT (BIMSTEC Network of Policy Think-Tanks) was organized by India virtually on 21-22 December 2020.

Source: Based on BIMSTEC Secretariat

Firstly, BIMSTEC has established a permanent secretariat in Dhaka, led by a Secretary General, who oversees a professional team driving the regional cooperation program.

Secondly, BIMSTEC member countries have finalized negotiations on the BIMSTEC Charter and the rationalization of sectors and sub-sectors, which is expected to be presented to leaders during the upcoming 5th BIMSTEC summit.

Thirdly, member countries are committed to accelerating cooperation to address the challenges posed by COVID-19, both within the region and beyond. Some countries have

established the COVID-19 Special Fund under SAARC and have collaborated on joint efforts to coordinate regional programs.

Fourthly, BIMSTEC has completed the Master Plan for BIMSTEC Connectivity, which is anticipated to receive endorsement from BIMSTEC leaders at the forthcoming 5th BIMSTEC Summit.

Fifthly, during the 21st Session of the BIMSTEC Senior Officials Meeting (SOM) held on September 2, 2020, BIMSTEC Foreign Secretaries finalized several important

legal instruments, including the BIMSTEC Convention on Mutual Legal Assistance in Criminal Matters, Memorandum of Association on the Establishment of BIMSTEC Technology Transfer Facility (TTF) in Colombo, Sri Lanka, BIMSTEC Charter, and Memorandum of Understanding (MoU) on Mutual Cooperation between Diplomatic Academies/Training Institutions of BIMSTEC Member States. These legal instruments are expected to be signed at the 5th BIMSTEC Summit.

Sixthly, BIMSTEC countries are currently negotiating the BIMSTEC Coastal Shipping Agreement and the BIMSTEC Motor Vehicle Agreement.

Seventhly, during the 21st Session of the BIMSTEC Senior Officials' Meeting (SOM) held on September 2, 2020, BIMSTEC Foreign Secretaries also approved the Memorandum of Understanding (MoU) between the BIMSTEC Secretariat and the Asian Development Bank to enlist greater project support in the region.

Recent months have witnessed increasing awareness of the opportunities presented through stronger regional cooperation in BIMSTEC (refer to Box 1 for some significant developments). The responses to the Coronavirus pandemic suggest a broader scope for regional cooperation among countries in the Bay of Bengal region ^[6].

5. Post-COVID-19 challenges and regional cooperation contours

The COVID-19 pandemic has presented three major challenges that must be addressed: first, the need for stronger regional cooperation in the public health sector and related services; second, the necessity for enhanced trade facilitation to bolster supply chain resilience; and third, the imperative to restore economic growth. Exhibit 1 outlines some priorities and opportunities for the region. The key message is that measures to mitigate COVID-19-related challenges must lead to a reduction in the costs of the pandemic in the region. The responses to the pandemic suggest a greater scope for regional cooperation among the countries in the Bay of Bengal region, particularly in reference to Sustainable Development Goals (SDGs) (De, 2021a, 2021b; Basu Ray Chaudhury, 2021).

5.1 Public health

National public health strategies in the Bay of Bengal countries have primarily focused on containing the COVID-19 infection. The region is witnessing a unified response to the COVID-19 pandemic. Beyond managing the coronavirus itself, Bay of Bengal countries are now actively engaged in securing vaccines and protecting supply chains. With the exception of India, the remaining BIMSTEC countries lack the capability to manufacture sophisticated vaccines and related medical formulations. India could naturally become the vaccine hub for the entire Bay of Bengal region and beyond. Bay of Bengal countries should renew their focus on public health management and epidemiological research and training. Collective action in public health will pave the way for effectively controlling the virus within and beyond borders. What can be done jointly and regionally?

First and foremost, countries need to reach a consensus on a protocol for health security coordination and cooperation mechanisms in the Bay of Bengal region.

Secondly, countries must strengthen and empower the BIMSTEC Secretariat to develop a regional plan and strategy for public health management, followed by timely endorsements from member countries.

Thirdly, the Bay of Bengal countries could establish a BIMSTEC Facility to Fight Pandemics (BFFP) and a BIMSTEC COVID-19 Fund (BCF) under the supervision of the BIMSTEC Secretariat. The operation of the BFFP and BCF can be discussed and agreed upon through mutual consultation. The BFFP is a shared facility aimed at enhancing the region's capacity to combat pandemics. The Fund may encourage research projects focusing on diagnostics, vaccines, and therapeutics not only for the COVID-19 virus but also for similar or other viral contaminations. Thailand, as the current chair of Public Health in BIMSTEC, may lead the discussion. Additionally, a Bay of Bengal-wide Research Development (R&D) Blueprint could be initiated. The Blueprint should aim to improve inter-country coordination, develop new protocols and standard operating procedures (SOPs), among other objectives.

Exhibit 1: Priorities and opportunities in the Bay of Bengal region

Priorities

- Check the economic loss of the region, bring back growth and ensure resilient recovery
- Promote trade, investment, tourism, etc.
- Complete the ongoing negotiations (e.g. BIMSTEC coastal shipping agreement)
- Encourage cooperation in Industry 4.0, public health, disaster management, climate change, etc.

Opportunities

- Connectivity-driven integration: BIMSTEC Master Plan of Connectivity, BIMSTEC coastal shipping agreement, BIMSTEC trade facilitation agreement, BIMSTEC MVA, etc.
- People-centric development partnership, value chains, comprehensive economic partnership, areas of cooperation - health, renewable energy, e-commerce, etc.
- Logistics and supply chain management
- Digital economy
- Energy cooperation
- New technology: S&T cooperation

Fourthly, a network of BIMSTEC Epidemiologists and Scientists could be established to promote the exchange of scholars, research findings, and innovation. Additionally, it could organize regional-level seminars and workshops, thereby strengthening the regional knowledge pool and resources.

ASEAN offers valuable lessons to the Bay of Bengal region. For instance, as noted in Djalante et al. (2020), ASEAN's policy approach to combatting epidemics has been grounded in its unique and pragmatic networks, such as the ASEAN Plus Three (APT) (including China, Japan, and South Korea), for regional disease surveillance mechanisms. ASEAN has developed protocols for communication and information sharing on emerging infectious diseases, encouraging member states to report all cases of diseases categorized as Public Health Emergencies of International Concern (PHEIC). Past programs include cooperation in Disaster Safety of Health Facilities and the ASEAN+3 Field Epidemiology Training Network, as well as the ASEAN Regional Public Health Laboratories Network (RPHLN) through the Global Health Security Agenda platform. However, it is unclear how such networks contribute to effective policymaking during the COVID-19 pandemic. Appendix 3 presents a list of ASEAN's responses to COVID-19. The ASEAN experience suggests that Bay of Bengal countries may consider establishing a senior officers' level interaction mechanism for public health development in response to COVID-19.

5.2 Enhanced trade facilitation and regional connectivity

Logistics support plays a pivotal role in the success of immunization services across the region, particularly in the context of COVID-19 preparedness. High-quality logistics are essential for ensuring faster and adequate supply of highquality vaccines and immunization-related materials across borders. Key areas of logistics support include vaccine management and monitoring, cold chain management, and immunization safety, among others. In particular, multimodal connectivity, combining air and land transportation, is crucial for the supply of COVID-19 vaccines from India to the remaining Bay of Bengal countries. Trade facilitation measures such as simplification of customs procedures, zero duty on medical products and services, and mutual recognition of standards are important for building and strengthening the supply chain in the region. Furthermore, in the post-COVID-19 period, Bay of Bengal countries should expedite the conclusion of the pending BIMSTEC Free Trade Agreement (FTA) and Customs Cooperation Agreement to ensure increased trade within the region. Enhanced trade facilitation coupled with supply chain resilience can ensure an effective supply of vaccines on time and at a low cost across the region. Regional connectivity lies at the heart of BIMSTEC cooperation. The BIMSTEC Secretariat and the Asian Development Bank (ADB) have developed the BIMSTEC Transport Connectivity Master Plan, which presents a transportation vision for seamless connectivity around the Bay of Bengal region and beyond. It has identified 261 projects for the construction, expansion, and modernization of existing transport infrastructure involving an estimated cost of US\$120 billion. Connectivity is crucial for the Bay of Bengal region's development (Yhome, 2017). Achievements in coastal shipping between India and Bangladesh are remarkable. The completion of the BIMSTEC coastal shipping agreement will

facilitate seamless movement of cargo and passenger vessels in the Bay of Bengal. Abolition (partial or full) of cabotage among BIMSTEC countries will play a catalytic role in promoting trade and connectivity. The Trilateral Highway is nearing completion and will connect the BIMSTEC countries overland. Bangladesh's completion of the Padma Bridge will facilitate trade and transportation. Bhutan and Nepal are already well connected with BIMSTEC but require capacity augmentation. Border infrastructure and connectivity require drastic reforms and development. The early completion of the BIMSTEC Motor Vehicle Agreement (MVA) will add momentum to BIMSTEC economic connectivity. Rail and digital connectivity have immense potential to enhance trade in the region and beyond. BIMSTEC countries may negotiate a BIMSTEC Railway Agreement, and a regional air transportation agreement in cargo and passenger services will promote faster mobility of goods and services. Maritime connectivity in BIMSTEC is another area requiring attention. A regional network of ports in the Bay of Bengal is essential for sharing vital information, undertaking training and capacity building, and dealing with common challenges, particularly in the post-COVID-19 period. An exchange of energy presents a golden opportunity in the post-COVID-19 period. The quality of electricity is critical for the supply of vaccines and medicines. The BIMSTEC Secretariat is planning to complete a BIMSTEC Grid Interconnection Master Plan Study to establish a regional electricity grid to facilitate energy trade. Bay of Bengal countries also require development partners like Japan, who can provide investment, technology, and infrastructure support.

6. Conclusion

The Bay of Bengal countries view BIMSTEC as a developmental tool, and its effectiveness needs to be reassessed in the post-COVID-19 period. The preceding discussion highlights that regional integration can lead to substantial economic gains in the Bay of Bengal region, particularly in the post-COVID-19 era. In other words, regional integration in the Bay of Bengal can serve as a building block for global integration. However, the benefits of regionalism are contingent upon the integration spirit of the Bay of Bengal countries. This article proposes the next phase of integration for the Bay of Bengal region at a time when the coronavirus-driven pandemic is perceived as a common threat to the entire region.

Countries in this region have been significantly affected by the ongoing coronavirus pandemic. This article argues that regional cooperation could help reduce the costs of pandemic-driven barriers. The responses to the coronavirus pandemic also indicate a greater scope for regional cooperation among the countries in the Bay of Bengal region. Regional integration may assist the Bay of Bengal countries in overcoming divisions that hinder the flow of trade in goods and services, people, and ideas, particularly when all members are confronting a common challenge to combat the coronavirus pandemic.

Sri Lanka, the current Chair of BIMSTEC, is scheduled to host the 5th BIMSTEC Summit as well as the 17th BIMSTEC Ministerial Meeting in early 2021. With the holding of the 5th BIMSTEC Summit, the chairmanship of the organization will transition from Sri Lanka to Thailand. These meetings are expected to further bolster regional cooperation and integration

in the Bay of Bengal region. The recommendations of this paper may aid in overcoming common challenges and rebuilding the region as the center of gravity in the Indo-Pacific.

Reference

- 1. Basu Ray Chaudhury, Anasua (ed.). *BIMSTEC in 2021*, Observer Research Foundation (ORF), Kolkata, 2021.
- Basu Pratnashree, Nilanjan Ghosh. "Breathing New Life into BIMSTEC: Challenges and Imperatives". ORF Occasional paper # 243, Observer Research Foundation (ORF), New Delhi, 2020.
- Das Riva Ganguly. "Keynote Address Delivered at the 5th BNPTT Meeting". Held on 21-22 December 2020, Organised by eh Research and Information System for Developing Countries (RIS), New Delhi, 2020.
- De Prabir (ed). Twenty Years of BIMSTEC: Promoting Regional Cooperation and Integration in the Bay of Bengal Region, Routledge, New Delhi, 2020.
- De Prabir. "Role of Infrastructure in promoting SDG 9 in India's Northeast". In Ghosh, Nilanjan (ed.) Post-Pandemic Development Priorities: The Decade of Action, Observer Research Foundation (ORF), Kolkata, 2021a.
- De Prabir. "The BIMSTEC Moment" in Basu Ray Chaudhury, Anasua (ed.), BIMSTCE IN 2021, Observer Research Foundation (ORF), Kolkata, 2021b.
- IMF. World Economic Outlook: October 2020, International Monetary Fund (IMF), Washington, D.C, 2020.
- 8. Islam S. "BIMSTEC to Stay Course in Post-COVID-19 Era", *Bdnews24.com* 6 june, Dhaka, 2020.
- 9. Kurian, Oommen C. "In the Shadow of COVID-19: Reimagining BIMSTEC's Health Futures", Observer Research Foundation (ORF), New Delhi, 2020.
- 10. ORF. A Report on Kolkata Colloquium 2019 : Reimagining BIMSTEC, Observer Research Foundation (ORF), Kolkata, 2020.
- Riyanti Djalante, Laely Nurhidayah, Hoang Van Minh, Nguyen Thi Ngoc Phuong, Yodi Mahendradhata, Angelo Trias, Jonatan Lassa, Michelle Ann Miller. "COVID-19 and ASEAN responses: Comparative policy analysis", Progress in Disaser Science, 2020, Volume 8. http://doi.org/10.1016/j.pdisas.2020.100129
- 12. WHO. "Immunization Supply Chain and Logistics", World Health Organization (WHO), Geneva, 2020.
- 13. Yhome K. "BIMSTEC: Rediscovering Old Routes to Connectivity", ORF Issue Brief, Issue No. 2013, Observer Research Foundation (ORF), New Delhi, 2017.