South Asia Scan

Inter-regional Tracks: Railway Connectivity in the Bay of Bengal Region

Riya Sinha

NUS National University of Singapore | ISAS Institute of South Asian Studies

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Executive Summary[1]

Over the past few years, India has placed growing importance on strengthening connectivity between South and Southeast Asia through its Northeast Region (NER). This vision lies at the heart of India's 'Act East' policy, launched in 2014. A key pillar of this strategy is improving infrastructure links – especially railways – with neighbouring countries as part of a broader effort to close persistent connectivity gaps in the region.

This focus on railway connectivity is not a recent development. The idea has been actively discussed since the 1970s. Numerous proposals were presented to foster seamless rail links across borders. However, tangible progress in railway connectivity remained relatively modest until the early 2000s. During this period, the existing connections were characterised mainly as political and ad hoc, lacking the comprehensive and sustained infrastructure needed for robust regional connectivity.

In recent years, there has been a significant push for railway development. This has led to the revival of six of seven historical railway lines in Bangladesh, the establishment of the first passenger railway with Nepal, strategic plans for five railway lines with Bhutan and the development of railways in India's NER with plans to link it to Myanmar. In turn, this raises two important questions: What factors have driven the recent surge in investments in cross-border railway connectivity in South Asia, particularly involving India and its neighbours? Additionally, given the historical challenges and stalled efforts over the past five decades, what makes the current push for railway links between South Asia and Southeast Asia more feasible now?

This South Asia Scan undertakes a comprehensive analysis of the development of railway connectivity in the Bay of Bengal Region, explicitly focusing on forging links between South Asia and Southeast Asia. The primary objectives are to examine existing gaps impeding

1 This South Asia Scan builds on the author's 2024 working paper, *Express Routes: India's Railway Connectivity with South Asia*, Working Paper, New Delhi: Centre for Social and Economic Progress, 23 December 2024, https://csep.org/working-paper/express-routes-indias-railway-connectivity-with-south-asia/.

railway connectivity among the Bay of Bengal countries (Nepal, India, Bhutan, Bangladesh and Myanmar), identify challenges and propose strategic policy instruments to establish robust railway linkages.

This Scan uses a mixed-methods approach to analyse the region's current state of railway connectivity. Through in-depth country-specific case studies, the paper details the challenges faced at both policy and operational levels. At the policy level, impediments include a lack of political will among governments, the complex political situation in border states such as Manipur in India and the Sagaing region in Myanmar, hurdles in forming effective public-private partnerships and a deficiency in institutional capacity for cross-border rail movement. Operationally, challenges comprise limited availability of rail transport equipment, a shortage of labour, substandard infrastructure and the failure to recognise other inland loading/unloading dry ports as points of entry or exit.

In response to the identified challenges, the paper puts forth a set of policy instruments to facilitate railway connectivity in the Bay of Bengal region. Suggestions encompass the creation of a Nepal-India-Bangladesh-Myanmar railway corridor, encouraging inter-modal transportation by rail, strategic investments in trade facilitation and the establishment of bonded warehouses for the efficient off-border loading and unloading of goods. These proposed measures aim to address both policy and operational challenges, fostering a conducive environment for the development of a seamless and efficient railway network.

Introduction

In recent years, strengthening connectivity between South and Southeast Asia has become both a policy priority and a strategic objective for the Indian government. This is underscored in India's 'Neighbourhood First' and 'Act East' policies, which focus on improving India's connectivity with its land and maritime neighbours, particularly through infrastructure initiatives.[2] As a result, in the last decade, the region has seen significant improvements in border infrastructure either through the revival of old linkages or the construction of new ones, including in areas such as the Integrated Check Posts (ICPs), railways, pipelines, electricity grid connectivity, inland waterways and coastal shipping, among others. However, a closer assessment reveals that among these initiatives, there is a significant gap to be filled in railway connectivity in the region, especially in terms of achieving inter-regional connectivity between South and Southeast Asia via the NER.

This Scan aims to analyse the current status and dissect the challenges in the development of railway connectivity between India and its neighbouring countries, particularly in Southeast Asia.

Historically, railways have played an important role in a nation's economic growth, serving as an indispensable artery for transporting goods and people across borders. It is a low-cost, climate-friendly mode of transportation that can help countries expand their trade networks while also lowering the logistics cost.[3] Globally, from Central Asia to Central and East Africa, countries have set an ambitious target to establish cross-border rail connectivity to expedite the movement of goods and people. These have led to the development of regional plans and initiatives, often supported by multilateral agencies, such as the Central Asia Regional Economic Cooperation (CAREC) Railway Corridors and the establishment of the Northern Corridor Transit and Transport Coordination Authority in Africa. The European Union too, with its well-established cross-border railway networks, aims to

2 Parliamentary Committee on External Affairs, *India's Neighbourhood First Policy*, 22nd Report, New Delhi: Ministry of External Affairs, 25 July 2023, https://sansad.in/getFile/lsscommittee/External%20Affairs/17_External_Affairs_22.pdf?source=loksabhadocs.

3 Martha Lawrence and Victor Aragones, 'Cross Border Railway Crossing: Pain Points, Partnership and Persistence', *World Bank Blogs*, 19 February 2021, https://blogs.worldbank.org/transport/cross-border-railway-crossing-pain-points-partnership-and-persistence.

double its freight transportation through railways to 30 per cent by 2050 as a part of its Sustainable and Smart Mobility Strategy.[4]

In contrast, the countries of South Asia and Southeast Asia, despite their aspirations for better railway connectivity, are struggling to increase their share. As a result, the modal pattern of freight transportation remains higher towards road even within countries. For instance, in India, railways account for only 31 per cent of the freight transportation, falling short of the international benchmark of 55 per cent.[5] With the neighbouring countries, the share of railway transportation further reduces, ranging from three to four per cent with Bangladesh to none with Myanmar.[6]

Recognising the need to address this imbalance in road and rail movement, the Indian government has been increasing its investment in expanding rail connectivity with not only its immediate neighbours but also in its NER to connect with Southeast Asian economies. In 2021, on the occasion of India's 75th Independence Day, Indian Prime Minister Narendra Modi announced that railway development is a priority for India's NER, "Today a new history of connectivity is being written in the Northeast. This is a connectivity of both the hearts and the infrastructure. Very soon the work of connecting all the state capitals of the Northeast with rail service is going to be completed… Under the 'Act East' policy, today Northeast, Bangladesh, Myanmar and Southeast Asia are also being connected."[7]

More recently, in 2023, India also launched the NER's first high-speed train and increased the NER's railway budget to expedite railway projects.[8]

4 European Commission, 'A Fundamental Transport Transformation: Commission Presents Its Plan for Green, Smart and Affordable Mobility', Press Release, Brussels, European Commission, 9 December 2020, https://ec.europa.eu/commission/presscorner/detail/en/ip_20_2329.

5 NITI Aayog and Bureau of Research on Industry and Economic Fundamentals (BRIEF), *Improving Rail Efficiency and Share in India's Freight Transport*, New Delhi: NITI Aayog, Government of India, 27 January 2022, https://www.briefindia.com/improving-rail-efficiency-share-in-indias-freight-transport-2/

6 Calculated by the author using data from the Directorate General of Commercial Intelligence and Statistics, Ministry of Commerce and Industry, Government of India.

7 'PM Addressed the Nation from the Ramparts of the Red Fort on the 75th Independence Day', Prime Minister's Office, Government of India, 15 August 2021, https://www.pmindia.gov.in/en/news_updates/pm-addressed-the-nation-from-the-ramparts-of-the-red-fort-on-the-75th-independence-day/?comment=disable.

8 Utpal Parashar, ''Better Connectivity in 9 Years': PM Modi at Launch of Northeast's First Vande Bharat Express', *Hindustan Times*, 30 May 2023, https://www.hindustantimes.com/india-news/pm-modi-flags-off-vande-bharat-express-boosts-connectivity-to-northeast-india-101685346284814.html; and 'Modi Govt Increased Northeast's Railways Budget to Expedite Projects, Says Ashwini Vaishnaw', *Financial Express*, 30 May 2023, https://www.financialexpress.com/business/railways-act-east-for-northeast-modi-govt-increased-railways-budget-for-ne-to-expedite-projects-ashwini-vaishnaw-3107503/.

However, despite this emphasis, the development of railway connectivity has been slow in the region, encountering several national and regional challenges. This raises some pertinent questions: what factors have driven the recent surge in investments in cross-border railway connectivity in South Asia, particularly involving India and its neighbours? Additionally, given the historical challenges and stalled efforts over the past five decades, what makes the current push for railway links between South Asia and Southeast Asia more feasible?

For South Asia and the Bay of Bengal region, improving railway connectivity is not merely a logistical effort but is also a testament to the evolving geopolitical landscape, the strategic ambitions and the developmental imperatives of the countries. It signifies a reinvigorated commitment to regional cooperation, trade facilitation and economic development, including a focus on connecting at an inter-regional level with Southeast Asia. Therefore, undertaking railway connectivity is not just a matter of convenience but is an urgent necessity driven by three compelling rationales, ranging from economic, political and geostrategic.

The Scan delves into the intricacies of rail freight movement between India and its neighbouring countries, identifying the multifaceted challenges that hinder the efficient movement of goods via railways. It also focuses on policy recommendations to facilitate railway connectivity in the region and highlights global best practices for strengthening railway connectivity.

This Scan explores why transportation infrastructure, particularly railways, matters for regional connectivity by delving into examples from other regions. It then dissects the progress in railway connectivity in the Bay of Bengal region (Nepal, Bangladesh, Myanmar and Bhutan) by delving into the drivers for connectivity and country-specific cases. The Scan also focuses on an in-depth analysis of India's railway connectivity with its neighbours, addressing challenges hindering railway connectivity. Finally, it proposes a roadmap for an efficient, cost-effective and sustainable inter-regional rail network.

Methodology

This Scan builds on the author's previous research on railway connectivity in South Asia.[9] It attempts to expand the focus of the existing research to make a case for inter-regional railway connectivity with Southeast Asia. For this, the research relies on a mixed-methods approach. It uses qualitative and quantitative data to examine the various facets of India's growing interest in improving connectivity with its neighbouring countries through railways.

For the qualitative analysis, the author conducted an extensive literature review of books, journal articles, reports and some media articles. For primary research, the author relied on archival bilateral documents on India-Nepal and India-Bangladesh relations published by Avtar Singh Bhasin and also conducted stakeholder interviews with both serving and retired government authorities from the Railway Board, Ministry of External Affairs, Ministry of Commerce and Industry (India); India's railway advisors in Bangladesh, the Department of Railways in Nepal and transportation experts at multilateral institutions such as the Asian Development Bank. The author also interviewed diplomatic representatives in India and the neighbouring countries. The other stakeholders included scholars and representatives from the private sector. The study is also based on the author's fieldwork in Nepal and India.

The trade data for this Scan is sourced from the Directorate General of Commercial Intelligence and Statistics and Ministry of Commerce and Industry, India.

9 Riya Sinha, 'Roll East: A Proposal for India-Myanmar-Thailand Railway Connectivity', in *Connectivity and Cooperation in the Bay of Bengal Region*, eds. Constantino Xavier and Amitendu Palit (New Delhi: Centre for Social and Economic Progress, 2023), 41-49, https://csep.org/kpGD3Df; and Riya Sinha, 'Express Routes: India's Railway Connectivity with South Asia', *CSEP Working Paper 85* (New Delhi: Centre for Social and Economic Progress, 2024), https://csep.org/wp-content/uploads/2024/12/Express-Routes_India-Railway-Connectivity.pdf.

The Crucial Role of Transportation Infrastructure in Regional Connectivity

Globally, countries have relied on developing efficient transportation infrastructure to foster regional connectivity and integration. This approach includes initiatives for strengthening infrastructure through various modes, including land (roads, rail), water (inland waterways, coastal shipping) and air routes. For instance, India's proactive pursuit of cross-border infrastructure development, especially in the transportation sector, is an important aspect of its 'Neighbourhood First' and 'Act East' policies. China's Belt and Road Initiative (BRI) is also centred on the development of cross-border transportation infrastructure and networks. Multilateral programs, including the South Asia Subregional Economic Cooperation and CAREC, allocate a substantial portion of their resources for constructing and enhancing transportation infrastructure.

Several studies have highlighted the crucial role this plays in trade facilitation, enhancing people-to-people connectivity, promoting tourism and solidifying cultural linkages aimed at better regional connectivity.[10] For instance, the availability of infrastructure determines decisions such as healthcare, education, trade networks and corridors. These also lead to the formation of human capital and, in turn, play an important role in the economic development of countries and regions.[11]

Transportation infrastructure development is a complex and dynamic process influenced by several interconnected factors. Conventionally, the economic rationale stands out in most literature, creating a link between better connectivity and economic development. However, political will is also a key factor reflecting the government's commitment to investment and prioritisation of infrastructure projects. More recently, geopolitical and geoeconomic factors have also become key drivers for the development of transportation

10 Ramesh Pokharel, Luca Bertolini, and Marco Te Brömmelstroet, 'How Does Transportation Facilitate Regional Economic Development? A Heuristic Mapping of the Literature', *Transportation Research Interdisciplinary Perspectives*, 19 May 2023, https://doi.org/10.1016/j.trip.2023.100817; Yijia Zhang and Lu Cheng, "The Role of Transport Infrastructure in Economic Growth: Empirical Evidence in the UK," *Transport Policy* 133, March 2023, 223–33, https://doi.org/10.1016/j.tranpol.2023.01.017.

11 Sumit S Deole and Asmae El Gallaa, 'Population Density, Optimal Infrastructure and Economic Growth', in *The Economics of Infrastructure Provisioning: The Changing Role of the State*, eds. Arnold Picot, Massimo Florio, Nico Grove, and Johann Kranz (Cambridge, MA: The MIT Press, 2015), https://doi.org/10.7551/mitpress/10388.003.0006.

infrastructure as nations realise the importance of well-connected and integrated networks. This section further explores these three drivers.

The Economic Rationale

Through various approaches and models, infrastructure development has been directly linked with higher economic growth in countries and regions. For instance, literature on New Economic Geography emphasises the role of quality infrastructure in the reduction of transportation costs, thereby facilitating economic growth.[12] Other approaches, such as 'agglomeration economies', delve into the wider economic benefits of transportation models, beyond the traditional cost-benefit analysis of the infrastructure.[13] It is also known that better transport infrastructure supports export-driven economic growth, which further benefits from the establishment of local, regional and global value chains. When coupled with other trade facilitation initiatives, it further leads to a decrease in the time and cost of doing trade. For instance, after the construction of the World Trade Bridge in Laredo at the United States (US)-Mexico border in 2000, the median waiting time for trucks decreased from five hours to one hour.[14]

Better transportation infrastructure is also a catalyst for social mobility, especially for workers, leading to higher living standards and enhanced access to social benefits such as healthcare, education and more. For instance, the Øresund Bridge, inaugurated in 2000, exemplifies this transformation, with the number of daily commuters between the southern Swedish region of Skåne and Copenhagen in Denmark increasing approximately seven-fold to around 20,000 per day.[15] Additionally, investment in transport infrastructure further improves the attractiveness of regions and generates economic activities. Literature shows that when transportation costs are

12 Paul Krugman, 'The New Economic Geography, Now Middle-Aged', *Regional Studies*, No. 45, 2011, 1-7, https://doi.org/10.1080/00343404.2011.537127.

13 Daniel J Graham, 'Agglomeration Economies and Transport Investment', in *The Wider Economic Benefits of Transport*, Paris: Organisation for Economic Co-operation and Development (OECD), 2008, https://www.oecd-ilibrary.org/transport/the-wider-economic-benefits-of-transport/agglomeration-economies-and-transport-investment_9789282101834-6-en.

14 Riya Sinha, 'Linking Land Borders: India's Integrated Check Posts', *Working Paper*, New Delhi: Centre for Social and Economic Progress, 8 July 2021, https://csep.org/working-paper/linking-land-borders-indias-integrated-check-posts/#section6.

15 Organisation for Economic Co-operation and Development (OECD), 'OECD Territorial Reviews: Japan 2016', Paris: OECD Publishing, 2016, https://doi.org/10.1787/9789264250543-en

minimised, a location becomes more attractive for firms, creating economic 'hubs'.[16] This results in higher growth and higher gross domestic product (GDP) per capita.

For South Asia and Southeast Asia, a significant amount of literature has emphasised on the unrealised economic potential of missing transportation infrastructure and linkages. For instance, one study underscores that by improving connectivity with Myanmar, a process currently limited to a single land port at Moreh in Manipur for all of India's northeast, India's export potential could experience a substantial upswing, estimated at 20-30 per cent.[17] Furthermore, when combined with the liberalisation of tariffs, addressing non-tariff barriers, improving trade facilitation and eliminating foreign direct investment barriers between South Asia and Southeast Asia, the World Bank estimates that the GDP could increase by 0.4 to 10.6 per cent for South Asia and by 0.1 to 0.4 per cent for Southeast Asia.[18] Therefore, for economic growth, the development of regional transportation infrastructure requires a comprehensive approach, addressing both hard and soft factors affecting regional integration.[19]

The Political Rationale

Political will is another key factor for the development of cross-border transportation infrastructure. Power asymmetry, fear of economic or political domination, differing political and agendas are some factors that can impact the advancement of infrastructure projects. For instance, in a 2009 report, the World Bank indicated that economic development plans for Africa will be more successful if supported by the heads of state in the African government.[20]
In the Organisation for Economic Co-operation and Development

16 Paul Krugman, 'The Hub-Effect or Threeness in Interregional Trade', in *Theory, Policy and Dynamics in Interregional Trade*, eds. Wilfred J. Ethier, Elhanan Helpman, and J. Peter Neary (Cambridge: Cambridge University Press, 2010).

17 Land Ports Authority of India (LPAI), 'Strengthening Border Connectivity at India-Myanmar Border', New Delhi: Government of India, 2022, https://www.lpai.gov.in/sites/default/files/FINAL-LPAI%20Reports-15-Sept-2022.pdf.

18 World Bank, 'Deepening Linkages between South and Southeast Asia', Washington DC: World Bank, 23 June 2022, https://documents1.worldbank.org/curated/en/099935106222222459/pdf/P16286504042220c808ee006e72f2cac441.pdf.

19 Riya Sinha and Constantino Xavier, 'Beyond the Coastline: India's Land Connectivity Options around the Bay of Bengal', *CSEP Working Paper*, New Delhi: Centre for Social and Economic Progress, 15 March 2024, https://csep.org/wp-content/uploads/2024/03/Beyond-the-Coastline-Indias-Land-Connectivity-Options-around-the-Bay-of-Bengal-1.pdf.

20 Ashley Theron, 'The Importance of Political Will to Successful Regional Infrastructure Projects', *ESI Africa*, 27 September 2017, https://www.esi-africa.com/features-analysis/the-importance-of-political-will-to-successful-regional-infrastructure-projects/.

countries, transport infrastructure investment remains one of the key decisions made by policymakers.[21] Large infrastructure projects, such as railways and inland waterways, require buy-in from various national and regional partners. For instance, investments take place at a supranational level in initiatives such as the Trans-European Transport Network and the BRI. In South Asia, the lack of political commitment, leadership deficits and institutional weakness are some of the key reasons often cited for the lack of regional connectivity.[22] This is further compounded by the rivalry between India and Pakistan, which has derailed several regional connectivity initiatives such as the South Asian railway and a regional motor vehicles agreement.

Effective infrastructure planning also necessitates coordinated efforts across multiple layers, particularly in federal structures involving both central and state governments. The central and local governments often have distinct domestic and foreign policy interests in cross-border connectivity. Although local users stand to benefit significantly from transportation infrastructure, the central government typically shoulders a larger financial burden for its development compared to the state government. For instance, in Europe, between 2009 and 2015, the local governments contributed 37.1 per cent, whereas the central government contributed the remaining.[23] A similar pattern is observed in South Asia, especially in countries like India, where New Delhi plays a more prominent role in infrastructure development than the border states. Consequently, the misalignment of priorities contributes to project delays stemming from challenges such as land acquisition and labour issues. Aligning these priorities is crucial for enhancing regional connectivity effectively and efficiently. A robust political commitment to infrastructure development can mitigate associated risks.

21 Organisation for Economic Co-operation and Development (OECD), 'Transport Infrastructure Trends and Regional Development', Paris: OECD Publishing, 2020, https://www.oecd-ilibrary.org/sites/512e786f-en/index.html?itemId=/content/component/512e786f-en.

22 Selim Raihan, 'Enhanced Regional Economic Cooperation through Dealing with NTMs in the BBIN Sub-Region in South Asia: A Political Economy Approach', *Munich Personal RePEc Archive*, 2017, https://mpra.ub.uni-muenchen.de/110470/1/MPRA_paper_110470.pdf.

23 Organisation for Economic Co-operation and Development (OECD), 'Transport Infrastructure Trends and Regional Development', Paris: OECD, 2001, https://www.scribd.com/document/860975718/12-OECD-Transport-Infrastructure-Trends-and-Regional-Development.

The Geopolitical Rationale

Beyond the economic and political factors, there is a growing recognition of the geopolitical dimensions that drive the process of selection and development of transportation infrastructure. Today, connectivity strategies driven by nation-states are a core element of international politics. The creation of transport infrastructure and the establishment of transport corridors are increasingly perceived as indicators of political will, shaping geopolitical dynamics by creating beneficiaries and, inevitably, losers along the way.[24] The China-Pakistan Economic Corridor is an example of how cross-border infrastructure projects can have geopolitical significance.

Furthermore, several scholars contend that the existing geopolitical competition regarding infrastructure development is more concerned with securing centrality in trade, production and consumption networks than territorial disputes.[25] This clarifies the rationale behind the geopolitical competition in infrastructure finance and construction, as roads, ports, pipelines, energy grids, high-speed rail and undersea cables strategically align locations and populations within Sino-centric networks or those associated with the US or regional actors. For instance, recent reports suggest that the US wants to develop the Lobito Corridor in Africa with cross-border railway connectivity in order to gain access to critical minerals.[26]

Following China's unveiling of the BRI in 2013, other countries, regions and international groupings have also stepped up their infrastructure initiatives. For instance, the G7 leaders have a flagship initiative known as the Partnership for Global Infrastructure and Investment for low and middle-income countries to meet their demand for high-quality infrastructure.[27] In March 2023, Japan introduced the new plan for a Free and Open Indo-Pacific (FOIP)

24 Kasymov Saidakmal Saidahrolovich, Masharipov Masud Numonzhonovich, and Tohirov Mahmudjon Murodjon Ugli, 'Geopolitics of Transport Corridors', *World Economics & Finance Bulletin (WEFB)*, Vol. 18, 2023, https://scholarexpress.net/index.php/wefb/article/download/1921/1678.

25 Seth Schindler, Ilias Alami, Jennifer DiCarlo, Nicholas Jepson, Steven Rolf, et al., 'The Second Cold War: US-China Competition for Centrality in Infrastructure, Digital, Production, and Finance Networks', *Geopolitics*, 7 September 2023, 1-38, https://doi.org/10.1080/14650045.2023.2253432.

26 Christina Lu, 'Washington Wants to Revive a Critical Minerals Mega-Railway Through Africa', *Foreign Policy*, 28 February 2024, https://foreignpolicy.com/2024/02/28/lobito-corridor-angola-critical-minerals-us-china-infrastructure-investment.

27 The White House, 'FACT SHEET: Partnership for Global Infrastructure and Investment at the G7 Summit', Washington DC: The White House, 20 May 2023, https://www.whitehouse.gov/briefing-room/statements-releases/2023/05/20/fact-sheet-partnership-for-global-infrastructure-and-investment-at-the-g7-summit.

during Prime Minister Fumio Kishida's visit to India.[28] This builds on former Prime Minister Shinzo Abe's FOIP, developed after his speech in the Indian Parliament in 2007. More recently, the announcement of the India-Middle East-Europe Economic Corridor, announced on the sidelines of the G20 Leaders' Summit, by leaders of India, European Union, France, Germany, Italy, Saudi Arabia, the United Arab Emirates and the US, is another step towards strengthening inter-regional infrastructure initiatives through multimodal infrastructure, including railways.[29]

The Importance of Railways in Regional Integration

Among the various transport infrastructures, railway linkages have played a crucial role in cross-border development. In post-colonial states, infrastructure development through railways has become an important part of their growth strategy. For landlocked countries, railway development is seen as a way of national growth and development that enables better connectivity with the global economies. For instance, studies have highlighted that one of the drivers for landlocked Laos to permit China to finance and construct a railroad was the need to leverage its location to build an 'Iron River' that will connect China to other countries of Southeast Asia through its territory.[30] This rationale was aimed at the domestic development of Laos.

Similarly, in the South Asian countries, railway and infrastructure development are seen as a catalyst for growth. According to estimates, South Asia will need US$6.3 trillion (S$8.5 trillion) in climate-adjusted infrastructure investments by 2030 to maintain the current levels of economic growth. The infrastructure requirements of the region vary by country. Nepal and Bangladesh, for instance, need to annually spend over US$1 billion (S$1.4 billion) and US$25 billion (S$33.8 billion) respectively to meet their infrastructure

28 Government of Japan, 'New Plan for a 'Free and Open Indo-Pacific': Policy Speech by PM Kishida', Tokyo: Prime Minister's Office of Japan, 19 May 2023, https://www.japan.go.jp/kizuna/2023/05/new_plan_for_free_and_open_indo-pacific.html.

29 Rajya Sabha, 'Question No-700 India-Middle East-Europe Economic Corridor', *Ministry of External Affairs*, 8 February 2024, https://www.mea.gov.in/rajya-sabha.htm?dtl/37570/QUESTION+NO700+INDIAMIDDLE+EASTEUROPE+ECONOMIC+CORRIDOR.

30 David M Lampton, Selina Ho, and Cheng-Chwee Kuik, *Rivers of Iron: Railroads and Chinese Power in Southeast Asia*, (Berkeley: University of California Press, 13 October 2020), https://doi.org/10.2307/j.ctv153k6k1.

requirements, where almost 50 per cent is dedicated to transport infrastructure.[31]

However, there is limited capacity (financial, institutional and workforce) in the developing states to implement this. This gap is being filled by other states that have made significant developments in cross-border railway construction to fulfil different foreign policy and developmental goals. These include competitive and like-minded actors such as Japan, China, India and the US. As a result, railway development has become an economic tool for pursuing national and foreign policy objectives.

For instance, China has dreamed of building an inter-country railroad system connecting Southwest China to its seven Southeast Asian neighbours. If the entire three trunk-line pan-Asian rail network from Kunming to Singapore is eventually completed, it will link the People's Republic of China's seven Southeast Asian neighbours (Vietnam, Laos, Myanmar, Cambodia, Thailand, Malaysia and Singapore) to southern China. The adoption of the Chinese standard for projects in Laos, which currently lacks substantial railway infrastructure, suggests that Thailand may need to embrace the same standard to achieve seamless connectivity with Laos.[32] The establishment of both domestic and international supply chains, coupled with the standardisation of practices, enhances Beijing's influence in global and regional economic, military and diplomatic realms.

In East and Central Africa, the revival and construction of railways has led to increased competition between the US and China in their quest to secure the supply of critical minerals available abundantly in African countries such as the Democratic Republic of Congo.[33] Countries in the region also created the Northern Corridor Transport Network and the Central Railway Corridors to connect the six countries of eastern Africa with a multi-modal transportation system. One of the main objectives of these initiatives was to build standard-gauge railways.[34]

31 Ajaya M Dixit, 'Infrastructure Finance Strategies for Sustainable Development in Nepal', Social Science Research Network, 2017, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2924424.

32 David M Lampton, Selina Ho, and Cheng-Chwee Kuik, *Rivers of Iron: Railroads and Chinese Power in Southeast Asia*, op. cit.

33 Ben Payton, 'Parallel Lines – US and China Vie for African Rail Dominance', *African Business*, 6 October 2023, https://african.business/2023/09/resources/parallel-lines-us-and-china-vie-for-african-rail-dominance.

34 Northern Corridor Transit and Transport Coordination Authority (NCTTCA), 'Northern Corridor Transit and Transport Agreement', Mombasa: NCTTCA, https://ttcanc.org/northern-corridor-transit-and-transport-agreement.

Advancements in Cross-Border Railway Networks in the Bay of Bengal Region

In the colonial Indian subcontinent, the development of railways was aimed at efficiently mobilising resources, both raw material and labour. It was designed to connect the main extraction centres to the production hubs while mobilising labour from one part of the country to another to work in these units. In post-colonial South Asia, especially in the mid-20th century, there was an inward focus on development, with a higher emphasis on domestic development than cross-border ones. Coupled with the various wars fought in the region, the disconnection in infrastructure development prevailed. For instance, all seven railway lines with (then) East Pakistan were stopped in 1961.

In contrast, the East and Southeast Asian countries were recipients of significant Western investments for manufacturing in the latter half of the 20th century, which led to the development of cross-border transportation systems. Thus, while railway links were being disconnected in South Asia, Southeast Asia invested in reconnections.

Furthermore, the railway development in South Asia and Southeast Asia was in isolation in the 20th and early 21st centuries. The British Empire harboured ambitious plans to establish a robust and comprehensive connectivity network between British India and Burma during the pre-World War II era. The geopolitical significance of such a connection was evident as it aimed to enhance trade routes, facilitate strategic military movements and solidify imperial control over the Southeast Asian region. However, despite these strategic intentions, the unfolding events of World War II disrupted and thwarted the British efforts to realise their connectivity aspirations. Later, in the early years of the 21st century, India's plans to link its NER with Myanmar via railways were thwarted, citing financial unviability.

However, since 2005, several factors have encouraged India's change in stance on investing in regional connectivity and building improved transportation infrastructure with neighbouring countries.

First, one of the most pressing challenges that India and the region face is the persistently high logistics costs that weigh heavily on its

economy. For South Asia, logistics costs range between a staggering 10-25 per cent of the country's GDP, a figure that stands in stark contrast to countries such as the US (eight per cent), Europe (eight per cent), Singapore (eight per cent) and China (10 per cent).[35] This discrepancy places the region at a significant competitive dis, and advantage in the global market and underscores the urgency of revitalising its rail road other modal infrastructure. Furthermore, on the economic front, the trade between India and its neighbouring countries is growing. Even though India's share in global trade remains low, the volume of movement with the neighbouring countries, especially those in Eastern South Asia, is growing. Bangladesh is India's fourth-largest export destination. As a result, there is not just a focus on developing railways but on growing multi-modal connectivity. Therefore, high logistics costs in the region impede economic connectivity.

Second, at a political level, India has been making significant outreach to its neighbouring countries as a part of its 'Neighbourhood First' and 'Act East' policies. This is manifested in all spheres of connectivity. Additionally, better connectivity is also a demand by India's neighbouring states, especially the landlocked states of Nepal and Bhutan.

Finally, geostrategic compulsions are driving India's push for railway connectivity. China's increasing railway investments in the region have caused geostrategic anxieties and pushed India to do more. China is developing railway corridors in Southeast Asia, from Myanmar to Indonesia and Vietnam, conducting feasibility studies of the Kerung (Tibet) – Kathmandu railway in Nepal, developing railways in Bangladesh and developing railway lines in Tibet close to the border with Bhutan. Comparatively, India's plan to link with the neighbouring countries with no regional railway connectivity plan looks weak. As a result, India is investing more in the neighbouring countries to provide competitive options for railway development.

This section delves into several operations and planned links for railway connectivity in the Bay of Bengal region. These can be studied as regional, sub-regional and bilateral initiatives.

35 Logistics Performance Index, 2023, World Bank, https://lpi.worldbank.org/international/global.

Regional Initiatives for Railway Connectivity

Several multilateral and bilateral plans have been devised to connect India and Myanmar via rail in the last two decades. The United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) planned the Trans-Asian Rail Network project to create an integrated freight railway network connecting Europe and Asia. Its overall goal is to see the development of an international, integrated, intermodal transport and logistics system for the region. An Intergovernmental Agreement on the Trans-Asian Railway Network drafted by the UNESCAP was adopted in April 2006 and came into force on 11 June 2009. Several countries in the region (South Asia and the Bay of Bengal), including Bangladesh, India, Myanmar, Nepal, Pakistan, Sri Lanka and Thailand, are signatories to the agreement.[36]

At a regional level, India had identified the development of cross-border railway connectivity through the South Asian Association for Regional Cooperation (SAARC) in 2007. It identified five railway corridors in the region (Table 1). However, since 2019, the regional organisation has been rendered non-functional, with no meeting having taken place due to the conflictual relations between India and Pakistan after the Pulwama terror attack.

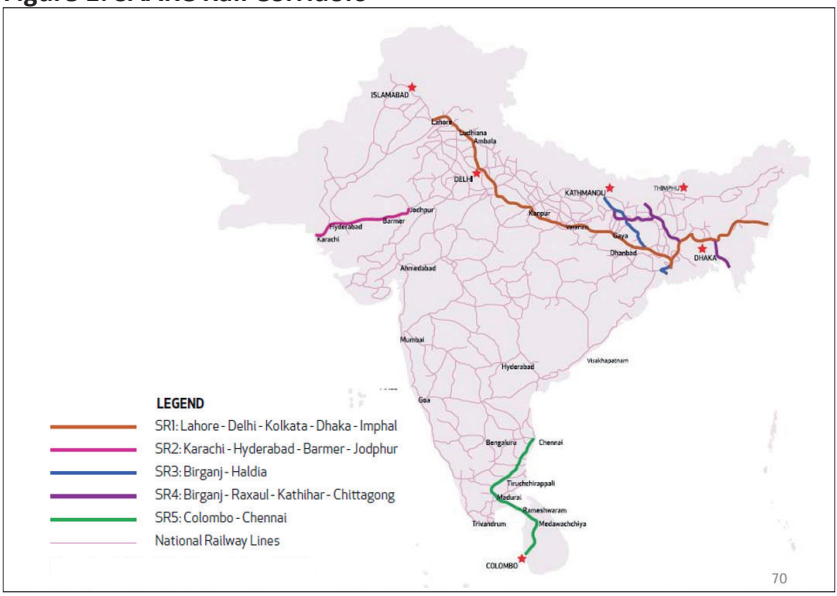
Table 1: SAARC Railway Corridors

Corridor	Route	Countries Covered
SRC1	Lahore-Delhi-Kolkata-Dhaka-Mahishasan-Imphal	Pakistan, India, Bangladesh
SRC2	Karachi-Hyderabad-Khokrapar-Munnabao-Barmer-Jodhpur	Pakistan and India
SRC3	Birgunj-Raxaul-Haldia-Kolkata	Nepal and India
SRC4	Birgunj-Raxaul-Kathihar-Rohanpur-Chittagong, with links to Jogbani and Agartala	Nepal, India and Bangladesh
SRC5	Colombo-Chennai	Sri Lanka and India

Source: National Academy of Indian Railways

36 United Nations Treaty Collection, *Intergovernmental Agreement on the Trans-Asian Railway Network*, (New York: United Nations, 12 April 2006), https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XI-C5&chapter=11&clang=_en.

Figure 1: SAARC Rail Corridors



Source: Report of the Working Group on Railways (NTDPC).

India is also exploring railway connectivity with its neighbouring nations through the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), as outlined in the Masterplan for Transport Connectivity. However, within BIMSTEC, there is an acknowledgement that the significance of railways for intra-regional transportation has diminished. The BIMSTEC masterplan underscores the importance of fostering railway links between ports, dry ports, borders and their surrounding hinterlands. Unlike the approach taken by SAARC, there is a reduced emphasis on establishing a comprehensive regional railway network in BIMSTEC, primarily due to technical challenges. As a result, India's focus on railway development in the region has been at a bilateral level.

The subsequent section further delves into the country-specific analysis of India's railway connectivity with its neighbouring countries.

Bilateral Initiatives for Railway Connectivity

India-Bangladesh

After Bangladesh's liberation in 1971, the development of erstwhile railway links that had connected India and (then) East Pakistan was emphasised by both countries to grow economic relations. This led to the signing of the first bilateral trade agreement on 29 March 1972, which sought to promote a balanced two-way trade between both countries of ₹250 million (S$3.7 million) on each side.[37] The second trade agreement was signed in July 1973, with a similar objective but an enhanced two-way trade of ₹305 million (S$4.6 million). The third trade agreement was signed in 1980. In all three agreements, both countries had agreed to undertake the development of cross-border railways. Thus, the revival of the cross-border railway between India and Bangladesh has been an old discussion, which could not be implemented due to several reasons, including bilateral issues such as cross-border smuggling.

The development of commercial relations was affected for many years, and this had an impact on the development of transportation modes between both countries, including via rail, road and waterways.[38] Furthermore, Bangladesh also had multi-fold reasons for a lack of closer connectivity with India. The overarching issue was India's lack of political trust in the post-1975 (post-Sheikh Mujibur Rahman) period. As a result, several reasons were used over the decades to not connect with India, including denying transit rights to the NER. Furthermore, it was reported that during the 1993 visit of Commerce Minister of India, Pranab Mukherjee, to Dhaka for the Joint Economic Commission meeting, Bangladesh, for the first time, confessed that the lack of progress was due to outstanding issues such as the sharing of waters.[39] Other political issues, such as the Peace Accord of the Chittagong Hill Tracts, had also threatened to derail the issues of connectivity in the region.

The lack of bilateral political trust and its spill-over effects on economic relations and cross-border connectivity have persisted for

37 'Protocol on Inland Water Transit and Trade', Dhaka: Government of India and Government of Bangladesh, 1 November 1972, p. 1233.

38 Avtar Singh Bhasin, *India-Bangladesh Relations: Documents, 1971-2002*, (New Delhi: Geetika Publishers, 2003), x-xii.

39 Ibid.

many years. Given that Bangladesh was dependent on India for its imports, especially raw materials for its industry, the trade figures were growing organically, driven by demand. Much of this started moving through roads due to the slowness in the finalisation of railway connectivity. As a result, supply chain networks were created in the region, mostly bypassing Bangladesh and bigger industrial players set up factories in locations along the routes through the Siliguri corridor to go to the NER.[40]

Revival of Railway Connectivity

India-Bangladesh relations have survived many political troughs and falls to develop closer relations. Today, Bangladesh is India's sixth-largest trading partner globally and the largest in South Asia. However, the cross-border transport infrastructure development in the region has not matched the pace of growth of bilateral trade. As the countries progress towards finalising a Comprehensive Economic Partnership Agreement (CEPA), more seamless and multi-modal connectivity linkages will be needed.

Several developments have taken place in the last decade between India and Bangladesh that have facilitated the revival of railway connectivity. At the political level, the signing of the Land Boundary Agreement between both countries was an important step towards building political trust. At an economic level, Bangladesh is now India's fourth-largest export destination and its largest trading partner in South Asia. Bilateral trade is likely to grow in the next decade, especially as the CEPA is finalised and implemented.

Today, six of the seven railway links between India and Bangladesh have been revived. These include Petrapole-Benapole, Gede-Darshana, Haldibari-Chilahati, Singabad-Rohanpur, Radhikapur-Birol and Agartala-Akhaura. Another line under development includes Karimganj/Mahissan-Shahbazpur. Additionally, four other potential railway links are being surveyed: Belonia-Feni, Bogra-Sirajganj, Mahisasan Zero Point and Balurghat-Hili.[41]

40 Findings from the author's fieldwork in July 2023.

41 M Jamshed, 'Railways holds the key to regional growth', *The Indian Express*, 4 March 2024, https://indianexpress.com/article/opinion/columns/railways-holds-the-key-to-regional-growth-9193980/.

Between India's Petrapole and Bangladesh's Benapole, both passenger and freight trains are operational. The passenger train is known as the Bandhan Express. Till May 2024, the freight train moved at a frequency of four days per week.[42] Some work has been ongoing on the upgradation of this rail link, including the 900-metre new siding that has been constructed at Benapole.[43] However, post the regime change in Bangladesh in May 2024, the frequency of railway movement has been reduced.

Between Gede (India) and Darshana (Bangladesh), a passenger train, the Maitree Express and a freight train ply. The Indian government envisages developing Gede as a model railway station, with plans having been finalised. These two comprise the largest share of the volume of rail movement between both countries (Figure 1). For both railway lines, the cargo gets loaded at the Ranaghat railway station and then proceeds towards the border area.

From the other two lines, Singhabad-Rohanpur and Radhikapur-Birol, have limited goods and freight trains moving through them. The fifth, Haldibari-Chilahati was reopened on 1 August 2021. Indian Prime Minister Narendra Modi and Prime Minister of Bangladesh Sheikh Hasina jointly inaugurated this route on 17 December 2020. In November 2023, the Akhaura-Agartala Railway line was inaugurated by both countries.

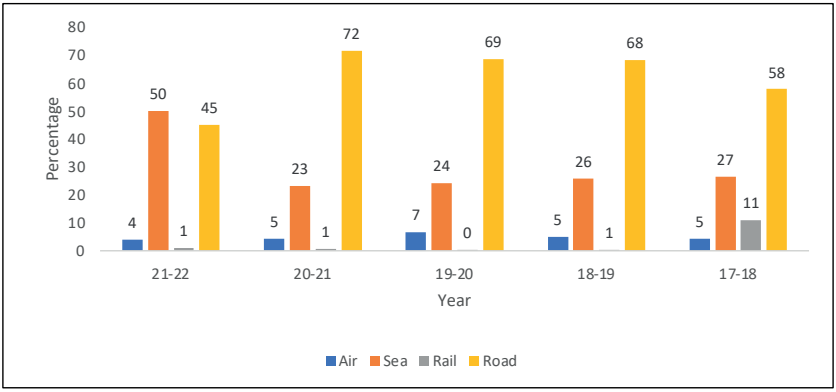
Despite the inauguration of new railway lines between India and Bangladesh, there has been limited focus on improving this connectivity by streamlining operating and regulatory procedures. Furthermore, it was also revealed during stakeholder interviews that India is planning four railway lines through the Siliguri corridor to mitigate any impact of the closure of the border with Bangladesh, as well as protect India's strategically important territory.[44] This approach is also reflected in the declining share of railways in cross-border trade (Figures 2A and 2B).

42 Findings from the author's fieldwork in July 2023.

43 South Asia Subregional Economic Cooperation (SASEC), 'Benapole Railway Station Being Improved to Serve Rising Rail Imports', 18 June 2021, https://www.sasec.asia/index.php?page=news&nid=1284&url=benapole-railway-upgrade.

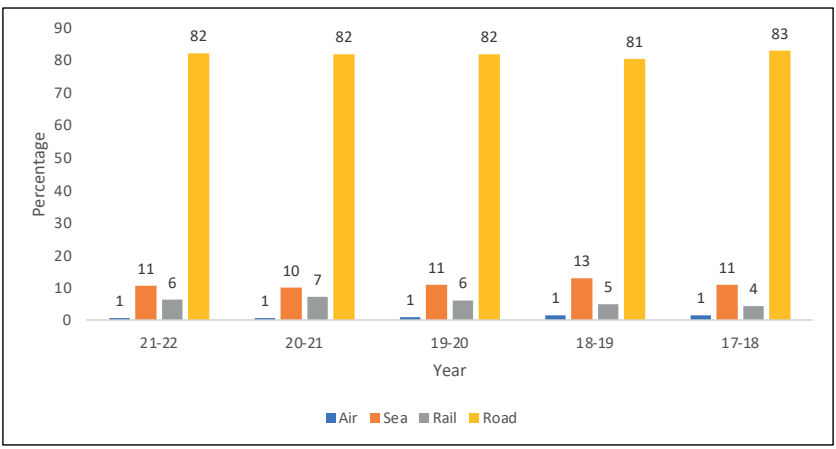
44 Interview with a representative from India's Railway Board in December 2023.

Figure 2A: Share of Railway Movement in India-Bangladesh Trade – India's Exports to Bangladesh (Modal Share, Per Cent)



Source: Calculated by the author based on data from Directorate General of Commercial Intelligence and Statistics (DGCI&S).

Figure 2B: Share of Railway Movement in India-Bangladesh Trade – India's Imports from Bangladesh (Modal Share, Per Cent)



Source: Calculated by the author based on data from Directorate General of Commercial Intelligence and Statistics (DGCI&S).

In 2021-22, only four per cent of India's total exports to Bangladesh went via rail, whereas six per cent of goods were imported via rail (Figure 2A and 2B). In terms of exports, there has been a decline in movement via rail in the last five years, despite the inauguration of new lines. The exported commodities include wheat, cereals, rice (other than basmati), oil meals, granite and natural stone, whereas key imported commodities include cotton fabrics, ready-made

garments cotton, cotton raw, miscellaneous and processed items.[45] Beyond these commodities, there is potential for jute trade, which is available in abundance near Khulna and on the Petrapole-Benapole railway line.[46]

India-Nepal

Nepal is a landlocked nation situated between India to the south and China to the north. Throughout its history, railway infrastructure in Nepal has been restricted, with only modest connectivity established between Indian and Nepalese commercial hubs. According to the Treaty of Peace and Friendship signed in 1950, the two countries maintain an open border.

Nepal's first railway – the Nepal Government Railway – began in 1927 as a narrow-gauge track. The Nepal-Janakpur-Jayanagar Railway, established in the 1930s for timber export to British India, operated sporadically until 2014, when it closed for broad-gauging. Another line – Koshi Railways – emerged in 1997 for the Koshi Bridge Project's construction material transport within Nepal.[47]

The India-Nepal Treaty of Trade and Commerce (1950) identified key railheads, but efforts to enhance connectivity resurfaced in the 1980s. Talks in 1984 and 1990 between Nepal's Foreign Minister and India's External Affairs Minister explored cross-border railway links, leading to a project report for the proposed Raxaul-Kathmandu route and investigations into other connectivity options.[48]

Discussions on India-Nepal railway connectivity persisted in the 1990s, notably during the First Session of the Indo-Nepal High-Level Task Force in April 1994, addressing various project proposals. In 1995, during the visit of Nepalese Prime Minister Man Mohan Adhikari to India, both nations agreed to enhance trade and transit regimes, allowing Nepal access to additional ports. A joint survey for the East-West Electric Railway was also approved. By November 1995, Rail India Technical and Economic Service (RITES) completed

45 Directorate General of Commercial Intelligence and Statistics (DGCI&S), Ministry of Commerce and Industry, Government of India, https://tradestat.commerce.gov.in/.
46 Interview with a former Indian High Commissioner to Bangladesh.
47 Shankar Rimal, 'History and Status of Railway Transportation in Nepal', 2021, *Academia*, https://www.academia.edu/49508306/History_and_status_of_Railway_transportation_in_Nepal.
48 Avtar Singh Bhasin, *Nepal-India, Nepal-China Relations: Documents, 1947-June 2005*, Vol. 1 (New Delhi: Geetika Publishers, 2005).

the survey for broad-gauging the Raxaul-Sirsiya railway track.[49] The East-West Railway, designated a National Pride Project, aimed to connect 21 Terai districts.[50] Despite completing the survey in 2010, implementation has been delayed due to economic viability concerns and gauge development issues. Nepal, a member of the Trans-Asian Railways, advocates for railways on the standard gauge, aligning with international standards. This preference for standard gauge was highlighted in 1997, emphasising the potential benefits of SAARC cooperation in upgrading and standardising road and railway segments.

Currently, there are two railway lines operational between India and Nepal, including Raxaul-Sirsiya (Birgunj) and Jayanagar-Kurtha. Several others have been planned and are at various stages of development (Table 2).

Table 2: Railway Links between India and Nepal

S/No	Rail Link		Status	Distance (in km)	Estimated Cost (₹ Crores)
	From	To			
1	Raxaul (Bihar)	Sirsiya (Birgunj)	Operational	6	-
2	Jogbani(Bihar)	Biratnagar(Nepal)	Complete	18.6	241
3	Jayanagar(Bihar)	Bijalpura (Nepal) and extension to Bardibas	Operational	6.72	470
4	Nepalganj Road (Uttar Pradesh)	Nepalganj (Nepal)	Planned	12	149
5	Nautanwa (Uttar Pradesh)	Bhairahawa (Nepal)	Planned	15	176
6	New Jalpaiguri (West Bengal)	Kakarbhita via Panittanki (Nepal)	Planned	46	358

Source: Press Information Bureau and author's additions based on fieldwork

The Raxaul-Sirsiya (Birgunj) line is approximately six kilometres (km) in length from Raxaul (India) to Sirsiya Inland Container Depot (ICD), located near Birgunj (Nepal). The primary purpose of this railway is to move cargo between India and Nepal and transport Nepal's third-country cargo arriving at the seaports of Kolkata and Vishakhapatnam. This line was commenced in 2000 after several years of planning. India and Nepal signed a rail services agreement on

49 Ibid.

50 National Planning Commission, Government of Nepal, 'National Pride Projects', Kathmandu: National Planning Commission, Government of Nepal, https://npc.gov.np/en/page/national_pride_projects.

21 May 2004 to operate and manage Nepal's third-country trade from Kolkata and Haldia Ports in India to Birgunj in Nepal via Raxaul.

In the last decade, India has made several advancements in streamlining the movement of Nepal's third-country cargo through the implementation of the Electronic Cargo Tracking System to check pilferage and allowing private container train operators to carry containers bound for Nepal, ending the monopoly of the public sector Container Corporation of India (CONCOR).[51] It also permitted wagons operated by the Nepal Railway Company to carry Nepal-bound freight over Indian railways. This provision was expected to increase efficiency and cost competitiveness in the movement of Nepal's freight.

The Jayanagar-Kurtha line is the first passenger railway link between India and Nepal and was inaugurated on 2 April 2022. This route is popular among the pilgrims, who visit Janakpur in Nepal for religious tourism. The Jayanagar-Kurtha section is part of the 68.72-km Jayanagar-Bijalpura-Bardibas rail link, out of which 2.97km is in India and 65.75 kilometres is in Nepal.[52]

The third railway line – Jogbani-Biratnagar railway line – is complete but not yet operational due to plans for an extension of lines and a delay in receiving locomotives from the Integrated Coach Factory, Chennai.[53] The total length of the railway line is approximately 18.6km with 5.45km in India (from Bathnaha, Bihar) and 13.15km in Nepal (up to Katahari, Morang).

India and Nepal have plans to connect by rail – New Jalpaiguri (India) to Kakarbhitta (Nepal); Nautanwa (India) to Bhairahawa (Nepal); and Nepalganj Road (India) to Nepalganj (Nepal). Both countries are also exploring the possibility of an electric railway line between Kathmandu–Birgunj and Raxaul, to be developed by India. In 2021, India and Nepal signed a memorandum of understanding to conduct the final location survey of this broad-gauge railway line.[54]

51 Press Information Bureau (PIB), Government of India, 'Rail Cargo Movement between India and Nepal Gets a Big Boost', New Delhi: Press Information Bureau, 9 July 2021, https://pib.gov.in/Pressreleaseshare.aspx?PRID=1734254.

52 Amit Mishra, 'Train to Himalayas: How India Is Deepening Ties with Nepal through the Railways', *SwarajyaMag*, 7 April 2023, https://swarajyamag.com/infrastructure/train-to-himalayas-how-india-is-deepening-ties-with-nepal-through-the-railways.

53 Findings from fieldwork in July 2023.

54 Prithvi Mann Shrestha, 'Final Location Survey for Kathmandu-Raxaul Rail Set to Chug Along', *The Kathmandu Post*, 20 December 2021, https://kathmandupost.com/national/2021/12/20/final-location-survey-for-kathmandu-raxaul-rail-set-to-chug-along.

Despite rail connectivity between both countries, bilateral cargo movement is limited, especially through the Raxaul-Birgunj route. Ninety-nine per cent of the export-import cargo traffic between India and Nepal is routed via road through the ICPs and other Land Customs Stations on the border.[55] The railway route is used mainly for Nepal's transit of third-country goods.

In addition to the plan for bilateral rail linkages with India, Kathmandu has also been demanding access to Bangladesh through the Indian territory to facilitate movement via rail. In 1996, during a delegation-level visit to New Delhi, Nepalese Prime Minister Sher Bahadur Deuba thanked the Indian government for the positive response towards providing the Kakarbita-Phulbari-Banglabandha land route for transit to Bangladesh, as the rail movement through Radhikapur could not be utilised due to several difficulties.[56]

India-Myanmar (via the Northeast Region)

There has never been a railway connecting India with Myanmar (or colonial Burma before 1948). In 1852, following the Second Anglo-Burmese War, the British carried out a survey for a railway route connecting India with Yunnan through Burma. A railway project between Assam and Burma was also planned in 1896, although it was never constructed.[57]

In order to promote trade and people-to-people connections, building rail connectivity with Myanmar is a crucial component of India's 'Act East' policy. In order to enhance regional connectivity, the India Transport Report (2014) had proposed the construction of new railway lines with Myanmar, including one that would connect Sittwe, Myanmar, with Tripura, Arunachal Pradesh.

The Indian Railways has been planning a railway link between Mandalay, Myanmar and Jiribam, Manipur. In 2008, RITES conducted a feasibility study for this rail route, where it initially rejected the route citing economic unviability. However, in 2019, attempts were

55 Calculated by the author using data from Directorate General of Commercial Intelligence and Statistics (DGCIS&S), Government of India, https://www.india.gov.in/directorate-general-commercial-intelligence-and-statistics.

56 Avtar Singh Bhasin, *Nepal-India, Nepal-China Relations: Documents, 1947-June 2005*, Vol. 1 (New Delhi: Geetika Publishers, 2005).

57 K Yhome, 'The Burma Roads: India's Search for Connectivity through Myanmar', *Asian Survey* 55, no. 6, 2015, 1217–1240, https://www.jstor.org/stable/10.2307/26364333.

made to reconstruct this route and link it further to Myanmar. This route is split into two sections: Section one is the link in India from Jiribam-Imphal-Moreh (236km), and Section two is the link in Myanmar from Tamu to Kalay (128km).[58] The Jiribam-Imphal railway line is still under construction, with completion anticipated in 2024. In response to a question in the Lok Sabha, former Railway Minister Piyush Goyal said that the project is expected to cost 12,264 crore Indian rupees (approximately S$2 billion), of which about 90 per cent was spent until March 2020. The budget for 2020-21 included an additional expenditure of ₹800 crore Indian (S$131.15 million).[59] This represents the project's refocused attention and resource allocation from its launch in 2003-04, despite multiple delays ensuing.

Citing the Imphal-Moreh railway line as a "strategic line", the Indian Railway Board also approved and commenced work on the site study of the route in 2022.[60] This railway line is also a part of the Trans-Asian Railway Network. However, in order to fully utilise the potential of railway connectivity with Myanmar, India needs to plan its extension into Thailand.[61]

India has increased the development of railway lines throughout the Northeast, moving beyond the emphasis on cross-border connections. This is a major component of its 'Act East' policy, which also emphasises the NER's development as a necessary precondition for connectivity with Southeast Asia. This includes the 51.38-km Bairabi-Sairang line in Mizoram and the 44-km Sivok-Rangpo line in Sikkim. An important milestone was attained when a passenger train from Silchar, Assam, arrived at the Vangaichungpao railway station in Manipur earlier in January 2022. Later that month, a freight train arrived at the Rani Gaidinlu station in Manipur.[62] At an average pace of 193.71km each year – 94 per cent greater than the average

58 Press Information Bureau, Government of India, 'Indo-Myanmar Railway Network', New Delhi: Ministry of Railways, 11 May 2016, https://pib.gov.in/newsite/PrintRelease.aspx?relid=145244.

59 Press Information Bureau, Government of India, 'Jiribam-Imphal Railway Line', New Delhi: Press Information Bureau, 21 September 2020, https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1657353.

60 D K Dash, 'Railway Board Sanctions Final Location Survey of Imphal-Moreh Line within Hours after Vaishnaw's Reassurance', *The Times of India*, 5 January 2022, https://timesofindia.indiatimes.com/india/railway-board-sanctions-final-location-survey-of-imphal-moreh-line-within-hours-after-vaishnaws-assurance/articleshow/88718329.cms.

61 Riya Sinha, 'Roll East: A Proposal for India-Myanmar-Thailand Railway Connectivity', in *Connectivity and Cooperation in the Bay of Bengal Region*, op. cit.

62 Iboyaima Laithangbam, 'First-ever goods train reaches Rani Gaidinlu station in Manipur', *The Hindu*, 29 January 2022, https://www.thehindu.com/news/national/other-states/first-ever-goods-train-reaches-rani-gaidinlu-station-in-manipur/article38343234.ece.

commissioning during 2009-14 – a number of rail development projects have been put into service in the region since 2014. These projects include 270km of new lines, 972km of gauge conversion and 114km of doubling.[63]

In order to establish seamless rail connectivity between India and Myanmar, there are several infrastructure and regulatory barriers that need to be addressed. These include the lack of accessibility to freight wagons, the absence of mirror infrastructure on both sides of the border, cargo handling infrastructure and the mechanisation of processes. Increased engagements between governments on both sides with local trading bodies and chambers to communicate the benefits of using rail as the preferred mode of transportation are also necessary to generate cargo volumes.

India-Bhutan

India shares a 699-km-long border with Bhutan and is its largest trading partner, accounting for 98 per cent of its exports and 90 per cent of its imports.[64] As of now, there is no direct railway link between India and Bhutan. However, both countries are exploring the prospect of establishing connectivity through rail. Indian Railway Construction International Limited has also opened an office in Bhutan to facilitate the construction of railway links between the two countries. India and Bhutan have identified five potential rail links to bridge the current gap and enhance transportation and trade between the two nations. The Indian government will develop these on a grant basis.

63 Taran Deol, 'Modi govt wants all Northeast capitals connected by rail. Here's how many are linked now,' *The Print*, 17 August 2021, https://theprint.in/india/modi-govt-wants-all-northeast-capitals-connected-by-rail-heres-how-many-are-linked-now/716477/.

64 'Export Import Data Bank', Ministry of Commerce and Industry, Government of India, https://www.commerce.gov.in/trade-statistics/.

Table 3: Planned Railway Lines between India and Bhutan

S/No	Station in India	Station in Bhutan	Distance (km)	Status (March 2025)
1	Kokrajhar (Assam)	Gelephu	69	Detailed Project Report finalised and submitted for approval
2	Pathsala (Assam)	Nanglam	51.5	Planned
3	Rangiya (Assam)	Samdrupjongkjar	48	Planned
4	Banarhat (West Bengal)	Samtse	23	Planned
5	Hasimara (West Bengal)	Phuentsholing	17.52	Planned

Source: South Asia Subregional Economic Cooperation, https://www.sasec.asia/index.php?page=news&nid=875&url=india-railway-connectivity-bhutan

The Kokrajhar-Gelephu rail link is further expected to connect with the Mongla Port in Bangladesh through a multi-modal link, providing Bhutan access to sea routes. Apart from the direct rail development, the Haldibari and Chilahati rail route between India and Bangladesh has also been designated as an additional trade route for Bhutan's trade with Bangladesh in November 2023.[65] Prior to this, both countries had designated Pandu, Jogighopa and Agartala as rail transit customs stations.

While challenges such as terrain, operating procedures and infrastructure availability persist, the ongoing discussions and identified potential rail links signify a shared vision for a more interconnected and collaborative future between India and Bhutan. The realisation of these railway connections has the potential to redefine the economic and cultural landscape of the region, marking a significant milestone in the history of bilateral relations between these two neighbouring nations.

65 'India-Bhutan Agree to Finalise Location for First Cross-Border Rail Link', *The Economic Times*, 7 November 2023, https://infra.economictimes.indiatimes.com/news/railways/india-bhutan-agree-to-finalise-location-for-first-cross-border-rail-link/105032447.

Challenges in Railway Connectivity

Despite growing interest in strengthening cross-border railway links between India and its neighbours, particularly Bangladesh and Nepal, several operational, technical and institutional challenges hinder progress. These include the following:

1. **Lack of interoperability of cross-border railway systems:** One of the key issues that affect seamless operation of cross-border railways between India and its neighbourhood is the differences in gauge systems, technical standards, braking and signalling systems, axle load parameters and power supply. For instance, the Chattogram-Dhaka line in Bangladesh is a metre-gauge line that is further connected to the cross-border Akhaura-Agartala line, which is broad gauge.[66] At the same time, Indian Railways is electrified, Bangladesh Railways is gradually electrifying its lines and Nepal is developing plans to electrify its railways. Finally, there is a need to develop harmonised safety standards to ensure the safety of cross-border operations. The disparity in these affects the interoperability of rail networks. As a result, there are delays in cross-border railway connectivity, requiring either a change in the railway engine or transloading of goods to another rake. Other interoperability issues include the different cross-border operational protocols, legal frameworks and inter-agency cooperation. Without adequate interoperability, efficient cross-border railway transportation will be difficult to achieve.

2. **Infrastructure and manpower bottlenecks at key loading or transfer points:** At the Petrapole and Ranaghat railway stations, there is a lack of adequate cargo handling equipment. Similarly, on the Bangladesh side, the infrastructure is inadequate for handling cargo at both Gede and Darshana. For instance, at Ranaghat, a customs official has to climb on the wagons physically to inspect cargo, as there is no platform infrastructure for goods trains. Furthermore, the same labour that unloads trucks also unloads goods from rakes. Furthermore, the unloading of rakes has not been a priority, resulting in delays. There is also no dedicated station and platform at Benapole for the movement of goods. In Nepal, while India is engaged in railway development,

66 Jamshed, op. cit.

there is a lack of domestic manpower capacity to build and operate railways. India's Konkan Railway Corporation has employed technical staff and crew members to oversee railway operations in Nepal.[67]

3. **Improving institutional capacity in Nepal:** While Nepal has prioritised railway development, it does not have the institutional structure to support this. In 2023, the Ministry of Physical Infrastructure and Transport (MoPIT) had formed a Railway Board and a Railway Company for railway development. This was in addition to the existing Department of Railways and the Nepal Railway Company Limited. This led to a tussle for power between the different agencies due to a lack of clarity on the delegation of responsibilities. Furthermore, given that there is only one public railway operational in Nepal with a Nepali carrier, there is a smaller manpower in the railway operations. The Railway Board has now been dissolved. This lack of institutional clarity affects the development of railways in the country and weakens MoPIT's bargaining power in negotiating terms with the donor agencies. Therefore, emphasising the need for streamlining the institutional setup and capacity building of railway manpower in the country.

4. **Limited availability of private funding for railway development in Nepal:** Kathmandu, so far, has depended on New Delhi for developing railways on a grant basis. They are also dependent on the imported rolling stock from India. While China is willing to develop the Kerung (Tibet)-Kathmandu railway line, it has been unwilling to do so on a grant basis, even though the feasibility study was recently concluded on a grant basis. Experts in Nepal are of the opinion that China's railway line will not be economically feasible for Nepal and the latter will continue to rely on Indian routes while seeking favourable conditions from India.[68] However, the competition between India and China and the lack of other competitive funding sources for railway development in Nepal would further delay the implementation plans in the country.

67 Prithvi Man Shrestha, 'Nepal Aims to Expand Railway Network but Lacks Essential Staff', *The Kathmandu Post*, 25 January 2025, https://kathmandupost.com/national/2024/01/25/nepal-aims-to-expand-railway-network-but-lacks-essential-staff.

68 Findings from a closed-door roundtable discussion hosted by the Centre for Social and Economic Progress (CSEP) on Nepal, June 2023, https://csep.org/event/sambandh-policy-dialogue-geopolitics-infrastructure-and-development-in-nepal/.

5. **Unavailability of rakes:** The shortage of rakes (wagons) for transporting goods to Bangladesh has become a pressing concern for stakeholders involved in cross-border trade. One significant challenge is attributed to the perceived reluctance of Eastern Railways in India to readily provide the required rakes.[69] This scarcity not only hampers the efficiency of freight operations but also exacerbates delays in delivering essential goods to Bangladesh. Compounding the issue, the process of making cargo bookings for rail transportation to Bangladesh is fraught with difficulties. The current system relies heavily on manual processes, leading to inefficiencies, delays and the potential for errors. This manual complexity further exacerbates the challenges faced by businesses and logistics operators attempting to streamline cross-border trade.

6. **Limitations in cargo booking*:*** The stakeholders reported that cargo can only be booked by the exporters and not by the Customs House Agents (CHAs) in India. In a general trade process, the exporters rely on the CHAs to complete the documentation formalities and book the cargo. The CHAs play an additional role in cargo consolidation, in case one importer does not have the volume for a full wagon. This is also because currently, there is no less-than-container-load provision for cargo in a wagon, which will eliminate the need for cargo consolidation. The Indian Customs mandates one full wagon per exporter.[70] One rake can carry between 1,000 and 2,000 tonnes of cargo. However, the exporters do not have enough volumes to send via rake. Therefore, the Indian exporters to Bangladesh, who rely heavily on the Customs House Agents, find it difficult to book the rail cargo.

7. **No movement of rail through ICDs in India:** Currently, all ICDs primarily cater to seaports and land ports, neglecting the potential efficiency gains offered by rail ICDs. The absence of cargo movement through rail ICDs becomes even more pronounced due to the monopoly held by CONCOR in the rail transportation sector to Bangladesh. This monopoly, which restricts private ICDs with railway sidings from sending goods to Bangladesh, contributes to a concentration of cargo loading and customs clearance activities at specific hubs, notably Ranaghat.

69 Findings from fieldwork at Ranaghat and Petrapole.
70 Interview with a Customs Broker in Kolkata, July 2023.

The centralisation of these processes creates a bottleneck in the railway movement, limiting the options available to businesses and increasing the overall cost of trade via railways. The monopoly not only stifles healthy competition but also hampers the potential benefits that could arise from the utilisation of private ICDs with railway sidings.

8. **No movement of container trains:** During the field visit in July 2023, it was reported that no container train has moved between India and Bangladesh in the last six months. This is due to the reluctance of exporters to send goods via rail, as they find it cheaper and more convenient to use the road infrastructure. Furthermore, at the ICPs, especially at Petrapole, there are more slots available for truck parking, making the movement easier for transporters.

Recommendations

Upgradation and Utilisation of Cross-Border Rail Infrastructure

There is an urgent need for all countries in the region to invest in substantial upgradation of existing cross-border rail infrastructure. This encompasses not only the tracks and signalling systems but also the essential rail yards for handling goods. As mentioned in the sections above, to facilitate the smooth movement of goods, it is crucial to equip rail yards with state-of-the-art container handling equipment such as conveyor belts, forklifts and cargo scanners, among others. Such equipment is already available at the rail yards at seaports in India, either owned by the ports or used by private contractors. Such practices can be replicated at the rail yards at the land borders to enable ease of customs and security inspection. This upgrade will enhance the efficiency of cargo handling, reducing transit times and minimising the risk of damage to goods during loading, unloading and handling processes.

Additionally, at several places in the region, old rail infrastructure from the colonial times is present and needs minor upgrades. For instance, the Narayanganj Railway Station near Dhaka in Bangladesh was a primarily jute trading station during the colonial times. The Bangladesh government has upgraded the warehouse infrastructure and is ready to use it. Similarly, Khulna railway station catered to the jute trade with the rest of India during the colonial period.[71] This station is well connected to the Darshana railway station, which connects to Gede in India. India and Bangladesh should also consider the utilisation of this existing infrastructure for trade and make the cargo handling equipment available to ensure faster development of railway connectivity.

Establishment of the Nepal-India-Bangladesh-Myanmar Railway Corridor

A railway corridor performs a twofold objective. First, it leads to an improvement in infrastructure that will connect major businesses with multi-modal transportation. Second, it leads to streamlining of border regulations and standards for the movement of goods and

71 Interview with a former High Commissioner of India to Bangladesh.

people. Scholars have made a case for developing 'Highly Facilitated Trade Corridors' in the Bay of Bengal region in order to holistically address the connectivity gap and enable efficient cross-border transportation.[72] Currently, most transportation infrastructure development in the region is either taking place in silos or there is an over-emphasis on developing road and shipping links. This necessitates the development of railway corridors in the Bay of Bengal region for efficient cross-border movement. In contrast, many regions around the world have been focused on the development of railway corridors. This includes the Kazakhstan–Turkmenistan–Iran Railway corridor in Central Asia (see Case Study 1). Countries have benefited from the development of such corridors, including through an increase in freight movement, as well as cross-border cooperation on norms and standards.

Earlier in 2017, India's Railway Minister had alluded to New Delhi's priority in developing connectivity between Kathmandu and New Delhi, and Kolkata and Kathmandu via railways.[73] For efficient utilisation of railway connectivity, the governments in the region need to prioritise the development of a cross-regional railway corridor, such as the Nepal-India-Bangladesh-Myanmar railway corridor. By developing the route as a corridor, the countries can cooperate not only in infrastructure development but also in establishing seamless standards and operating procedures. The corridor, developed along key trade and industrial routes, will help in increasing cross-border trade and connectivity.

Case Study 1: Ease of Infrastructure and Interoperability at the Kazakhstan-Turkmenistan-Iran Railway Corridor

The Kazakhstan-Turkmenistan-Iran (KTI) railway corridor is a 930-km inter-country link that begins in Uzen, Kazakhstan, and ends at Gorgun, Iran. This US$1.4 billion (S$1.8 billion)-railway project was completed in 2014. It aimed to improve cross-border railway infrastructure and the capacity of railway and border officials along the corridor. The traffic along the corridor increased from 0.53 million

72 Pritam Banerjee, 'Conceptualising Highly Facilitated Trade Corridors in Southern Asia', in *Connectivity and Cooperation in the Bay of Bengal Region*, eds. Constantino Xavier and Amitendu Palit (New Delhi: Centre for Social Economic Progress, 2023), https://csep.org/reports/conceptualising-highly-facilitated-trade-corridors-in-southern-asia/.

73 Press Information Bureau, 'Two Day Meeting on 'Strengthening Railway Transport Connectivity in South and South West Asia' Commences in New Delhi', New Delhi: Government of India, 15 March 2017, https://pib.gov.in/PressReleasePage.aspx?PRID=1484453.

tonnes in 2015 to 1.44 million tonnes in 2018. In 2021, a permanent working group was also established, consisting of the heads of railways from the three countries, for setting development priorities for the corridors, addressing challenges and charting out an annual action plan.[74]

Currently, Turkmenistan and Iran have the capacity to manage 22 and 16 trains per day respectively. Furthermore, studies conclude that the rolling stock available is sufficient for both existing and projected traffic along the route.[75] Given the gauge disparity between Turkmenistan and Iran, there are facilities for bogie change at the Etrek Railway Station (Turkmenistan). This change only takes 10 to 15 minutes, thereby reducing the transit time. Given the existence of sufficient infrastructure, interoperability and management capacities, the governments are now focusing on strengthening the railway corridor and linking it with larger economies such as Russia, China and India.

The operation of the KTI railway as a corridor with coordinated management from each country has enabled countries to collaboratively overcome infrastructural gaps, expand the volume of trade handled and develop operational protocols for ease of transportation.

Encouraging Inter-modal Transportation by Rail

Establishing railway connectivity faces a notable challenge on the political economy front, particularly concerning the concerns of truckers and trucking associations about the potential loss of livelihoods.

One effective strategy to address this challenge involves promoting intermodal transportation by rail, encompassing both accompanied and unaccompanied transport units. Accompanied units involve trucks with their drivers, which can be seamlessly offloaded at the destination station and connected to final delivery locations, referred to as roll-on-roll-off railway wagons.

74 Sandeep Raj Jain, 'Study Project on Commercialisation of KTI Railway Corridor', presentation at the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), 22-23 June 2022, https://www.unescap.org/sites/default/d8files/event-documents/7_ESCAP_S.Jain_KTI.pdf.

75 United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), *Study on Physical and Non-Physical Barriers along the KTI Railway Corridor*, Bangkok: UNESCAP, https://www.unescap.org/sites/default/files/2_Phys%20%26%20non-phys%20barriers_KTI.pdf.

These accompanied units offer solutions to several challenges. First, they contribute to the alleviation of border congestion by redirecting trucks through railways. Second, they enhance last-mile connectivity in destination countries, eliminating the need to transload goods into local trucks. Third, they mitigate infrastructural issues at loading railway stations, as the trucks are pre-loaded with goods, usually customs cleared and sealed. Lastly, at a political economy level, they help overcome challenges posed by local trucking associations.

Although accompanied railway units constitute a relatively small share of cross-border railway movements, their benefits are substantial, particularly in regions with dense and congested borders like those found in South Asia. This form of connectivity is often integrated into a larger transport chain, involving maritime and land transportation. Notably, this transportation model has been gaining traction in Europe, albeit with incremental growth (see Case Study 2). Furthermore, countries have taken several policy decisions to encourage the utilisation of this intermodal transportation. Switzerland, for example, levies a 'Heavy Goods Vehicle Charge' for trucks that do not use this option.[76]

Case Study 2: Accompanied Intermodal Transportation through the Channel Tunnel

A shuttle railway link exists between the terminals of Folkestone in the United Kingdom (UK) and Coquelles in France through a 50-km-long Channel Tunnel. Inaugurated in 1994, this is the third-largest railway tunnel in the world, using Eurotunnel Le Shuttle Services for both freight and passenger transportation.[77] The shuttle terminals are well connected to the motorways or highways. Each shuttle train can accommodate up to 32 trucks. This facility has reduced the transit time to 90 minutes, compared to 210 minutes taken by the ferry earlier.[78] Today, it accounts for 26 per cent of the goods traded between the UK and continental Europe. Between 2009 and 2016,

76 Federal Customs Administration, Switzerland, 'Fact Sheet on the Swiss Lump-Sum Heavy Vehicle Charge', Bern: Federal Department of Finance, 2013, https://www.campinginterlaken.ch/application/files/2215/8980/9273/Factsheetheavyweightmotorhomes.pdf.

77 Elliot Robinson, 'Celebrating 28 Years of the Channel Tunnel', *Global Railway Review*, 30 May 2022, https://www.globalrailwayreview.com/article/134728/celebrating-28-years-channel-tunnel-services-15-facts/.

78 United Nations Economic Commission for Europe (UNECE), 'Railways' Role in Intermodality and the Digitalization of Transport Documents', Geneva: UNECE, 27 July 2018, https://unece.org/DAM/trans/main/wp24/ECE_TRANS_262_E_Web_Optimized.pdf.

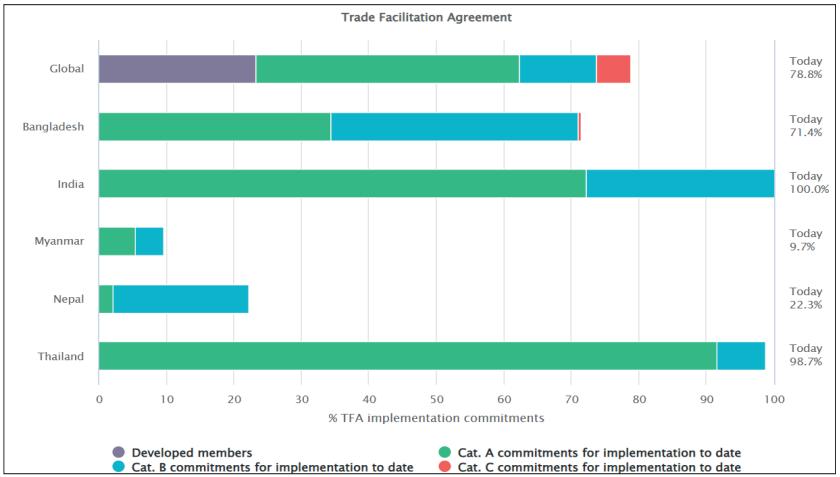
the truck traffic via the shuttle trains increased from nine per cent of the total railway freight share to 21.6 per cent.

Investing in Trade Facilitation Measures

Beyond infrastructural upgradation, another key step towards supporting railway connectivity in the Bay of Bengal region is for countries to invest in trade facilitation (TF) measures. Over the last two decades, TF has emerged as an important instrument for reducing the time and cost of doing trade. This is particularly important in the Bay of Bengal region, where, while there is a concerted effort to bring down tariffs, the non-tariff measures continue to hinder the smooth flow of trade. TF offers more practical solutions for addressing the gaps in connectivity. Some trade facilitation measures include transparent regulations and procedures, improved inter-agency cooperation, paperless transactions (or digitisation), transit facilitations, streamlining of customs procedures, enhanced real-time information sharing through a Single Window System, engagement of women and more.

Several countries in the Bay of Bengal region have ratified the World Trade Organization's Trade Facilitation Agreement (TFA). These include India, Nepal, Bangladesh and Thailand. Among these countries, Nepal and Bangladesh are least developed countries (LDCs), thereby enjoying a longer timeline for the implementation of TF measures. India and Thailand show the highest implementation of the TFA at 100 per cent and 98.7 per cent respectively (Figure 3).

Figure 3: Progress on Implementation Commitments



Source: Trade Facilitation Agreement Database

Therefore, India and Thailand are well placed to support other countries in the region in achieving their TF commitments. It is estimated that the implementation of TF measures can reduce trade costs by nine per cent.[79] This is particularly important for Nepal and Bangladesh, as both countries are set to graduate from the LDC status in 2026.

Case Study 3: CIM-SMGS[80] Common consignment Note and the Eurasian Customs Union (both have been important traffic facilitation elements)

In cross-border railway connectivity, several good practices exist at both the bilateral and regional levels for trade facilitation. For instance, Europe uses CIM/SMGS systems for digital exchange and recognition of documents across borders. A CIM note confirms that the rail carrier had received the goods and that a contract of carriage

79 United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) and Asian Development Bank (ADB), 'Trade Facilitation and Better Connectivity for an Inclusive Asia and Pacific', Manila: Asian Development Bank, 2017, https://www.adb.org/sites/default/files/publication/359786/trade-facilitation-connectivity.pdf.

80 CIM refers to 'Contrat de transport international ferroviaire de marchandises' (French). It translates to the 'International Consignment Note for Rail Freight' under the COTIF Convention. It is used primarily in Western and Central Europe under the legal framework of the Intergovernmental Organisation for International Carriage by Rail. SMGS is a Russian acronym for the Agreement on International Goods Transport by Rail. It is used mainly in Eastern Europe, Commonwealth of Independent States and parts of Asia under the Organisation for Cooperation between Railways. These systems govern cross-border railway freight transport and are part of efforts to facilitate digital document exchange and interoperability across different legal and railway regimes.

exists between the carrier and the trader. The SMGS confirms that the contract between the carrier and trader has ended. The CIM/SMGS note is recognised in the European Union, Russia, Belarus, Ukraine and Kyrgyzstan.[81]

Digitisation of this document for the railways has offered several benefits. It has helped reduce the transit time for cargo within Europe and at an inter-regional level, by decreasing the time taken for document production, authorisation and storage. Its expansion in terms of the various languages it operates in, including Chinese, has enabled widespread adoption of the system. This has eased the process of getting translations for every consignment. Lastly, the digitisation of railway documents has also enabled traceability, leading to enhanced security of the cargo. Given its success in easing cross-border movement, many private players have adopted the use of the CIM/SMGS consignment note to transfer goods across countries that recognise this note. As India aims to establish multi-modal connectivity with countries of Southeast Asia as well as those of West Asia, streamlining document sharing, in line with international benchmarks, will be essential.

Establishing Bonded Warehouses for Railway Transportation

The establishment of rail-connected bonded warehouses is another way to increase the use of railways in the Bay of Bengal region. Currently, the majority of the goods are transported via trucks and undergo mandatory customs clearance at the land ports. A bonded warehouse is a customs-recognised area that allows the trader to store goods without payment of customs duty for up to one year. The construction of bonded warehouses along key railway corridors and terminals will increase the chances of using railways as a mode of cross-border freight transportation. Many Asian countries, such as China, Singapore and Malaysia, have bonded warehouses near key terminals.

Bonded warehouses also help overcome uncertainty in supply chains due to emergencies such as the COVID-19 pandemic, ongoing conflicts around the globe, as well as disruptions in shipping lanes.

81 United Nations Economic Commission for Europe (UNECE), 'Legal Interoperability CIM/SMGS: The Railway Ahead', Geneva: UNECE, 2010, https://unece.org/DAM/trans/main/speca/docs/15th_Pres_Legal_Interoperability_CIM-SMGS_EE_e.pdf.

As a result, companies feel the need to hold more inventory at key locations. Bonded warehouses are an economical and efficient option for storing, importing and re-exporting goods. Bonded warehouses also help importers avoid duty payments for goods that have to be re-exported. For instance, Singapore is a transhipment hub with many bonded warehouses located at its borders.

In South Asia, especially at the land borders, there is a higher emphasis on the expedited clearance of goods. The use of bonded warehouses, whether in isolation or as parts of the ICDs, will significantly help in reducing trade costs and facilitating the use of railways for connectivity.

Conclusion

India's active engagement in strengthening rail connectivity with its neighbouring nations in South Asia is in alignment with the 'Neighbourhood First' and 'Act East' policies. This commitment is through the various lines that have been either revived, constructed or planned with Bangladesh, Nepal, Bhutan, Myanmar and Sri Lanka. The objective is to enhance regional cooperation, trade and economic development, while also focusing on South Asia-Southeast Asian connectivity.

The benefits of rail connectivity in the region, which still struggles with regional integration, are many. These include efficient movement of goods/passengers, lower per-km costs and environmentally friendly transportation. India's new efforts signify a renewed commitment to regional cooperation and economic development in South Asia. This is particularly important because the historic reluctance of India and its neighbours, coupled with capacity limitations towards rail connectivity, contributed to a heavy reliance on roads for railway movement.

Today, India's focus on railway development with the neighbouring countries is driven by political and economic factors, as well as in response to China's rail development in the neighbouring countries. As is happening globally in Southeast Asia and Eastern and Central Africa, this has also led to geostrategic competition between actors such as Japan, China, India and the US for the development of railways and leveraging them for economic and foreign policy goals.

India's current focus on railway development with its neighbours is shaped by both political and economic considerations, as well as a strategic response to China's expanding rail presence in the region. Similar to trends in Southeast Asia and Eastern and Central Africa, this has contributed to growing geostrategic competition – particularly among China, Japan, India and the US – as these actors seek to develop railway infrastructure to advance their economic and foreign policy objectives.

Despite India's late entry into rail development, influenced by economic growth and geostrategic considerations, addressing

challenges and improving cross-border rail movement solidifies India's global position as an infrastructure developer. Therefore, it will be important to address various challenges and explore policy options, including cooperation with like-minded players in the region, for India to achieve its foreign policy and connectivity goals in its neighbourhood.

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Prior to this, she was an Associate Fellow in the Foreign Policy and Security vertical at the Centre for Social and Economic Progress (CSEP), India. She was the 2024 Maitri Fellow at the United States Studies Centre, supported by the Centre for Australia India Relations. In 2022, she was a Visiting Fellow at the Stimson Centre in Washington DC.

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