Indian Railways, which is one the largest rail networks in the world, has been operating for decades. It is a prolific mode of transport crucial for nation-building through extended transport connectivity, logistics, and promotion of economic development and trade.

However, one part of the country that has remained the least connected is the Northeast region (NER) which includes eight states (Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura). Lately, however, the government has taken several steps to create new and improve existing infrastructure in the NER. These include concerted efforts to boost air, road, rail, waterways, and telecom connectivity.

This Briefing Paper attempts to understand railways connectivity initiatives in the NER and their potential to foster connectivity, trade, and economic cooperation within and outside the region, particularly with Bangladesh, Bhutan, and Nepal.

Introduction

Railways connect people, their economic lives and culture, builds the economy, provide logistics and facilitate trade. Indian Railways (IR), with its network, spread over 115,000 km and with 12,617 passenger and 7,421 freight trains serve 7349 station. Thus, playing a critical role in nation-building through extended transport connectivity, logistics, and promotion of economic development and trade.

However, one region within India which has missed the opportunity to be adequately connected for decades with other parts of the country is Northeast India which includes eight states (Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura). This region has 5,300 km of the international border, is home to 3.8 per cent of the national population, and covers 8 per cent of India's total geographical area.

As far as its connectivity to India’s mainland is concerned, it is connected by a 22 km narrow stretch called the Siliguri Corridor and lacks satisfactory development.

Lately, however, the government has taken several steps to create new and improve existing infrastructure in Northeastern region. These include concerted efforts to boost air, road, rail, waterways, and telecom connectivity.
The Ministry of Development of North Eastern Region (MDoNER) is implementing several schemes for infrastructure development in the region, such as the North East Special Infrastructure Development Scheme, schemes of the North Eastern Council, including North Eastern Road Sector Development Scheme (NERSDS), special packages for the Bodoland Territorial Council, Dima Hasao Territorial Council and Economic Development of KarbiAnglong Autonomous Territorial Council under State Plan Assistance. Besides, the EAP component of NERSDS is being implemented under Asian Development Bank-funded Northeastern State Roads Investment Programme Scheme.\(^1\)

In addition to the above, there are initiatives by the IR to establish connectivity within (connecting all the eight states) and outside the region (to mainland India). The approach is further buoyed by India’s Look East Policy and the geographical proximity of this region to other neighbouring countries. It is mentioned that almost the entire boundary of the region (98 per cent) is an international border shared with China and Bhutan in the north, Myanmar in the east, Bangladesh in the south and west, and Nepal to the west Sikkim.\(^2\)

This Briefing Paper attempts to understand railways connectivity initiatives in Northeast India and their potential to foster connectivity, trade, and economic cooperation within and outside the region, particularly with Bangladesh, Bhutan, and Nepal.

**India’s Act East Policy and Railways Connectivity in Northeast Region**

**From Look East to Act East Policy**

India’s Act East Policy (AEP) is an upgraded version of the original Look East Policy, launched in the early 1990s to strengthen strategic, economic, political links with neighbouring counties and the Association of Southeast Asian Nations (ASEAN).\(^3\)

The objective of this policy was to shift the country’s trading focus from the west to the booming Southeast Asian countries. The origin of the AEP concept can be traced back to the visit of the US Secretary of State, Hilary Clinton, to India, who coined the term in 2011, advocating for a more vital role for India in the Asia-Pacific region. The term ‘Act East Policy’ gained further momentum under the new government post-2014.\(^4\) The intended purpose of the AEP includes the following:

- Promote economic cooperation, cultural ties, and develop a strategic relationship with countries in the Asia-Pacific region through continuous engagement at regional, bilateral, and multilateral levels.
- Increase the interaction of the Northeast Indian states with other neighbouring countries.
- Find alternatives for traditional business partners focusing on the Pacific countries and the Southeast Asian countries.
- Limit the increasing influence of China related to trade in the ASEAN region.
- Put greater reliance on culture, connectivity, and commerce to develop better relations with ASEAN countries.

The AEP also seeks to build a common market with neighbouring countries Bangladesh, Bhutan, and Nepal, one side, and ASEAN on the other. Interestingly, in both cases, the Northeastern region of India remains as the pivotal point to achieve India’s strategic objectives, primarily because of its geographical proximity and its potential to act as a gateway to the neighbouring countries in the South and Southeast Asia region (as shown in Figure 1).
Connectivity Initiatives in the Northeast Region

India’s proactive approach to building a common market with neighbouring countries Bangladesh, Bhutan, and Nepal, on one side, and ASEAN, on the other, with an ambitious connectivity programme has Northeastern region at the centre.

Connecting Northeastern region states within itself and with mainland India will go a long way in achieving the strategic objectives of the AEP as international borders surround the region.

However, the task is not easy, considering that building a railway network in Northeastern is highly challenging as most of these projects are to be undertaken in the complex geological environment - topography, soil formation, with all having natural disadvantages compared to other areas.

Evidence reveals that several railways’ projects in these states have resulted in an extended project timeline and cost escalation.

Box 1: How Are Railways more Efficient than Other modes of Transportation?

- Estimated cost saving up to 10-40 per cent compared to roadways;
- Environment friendliness (it can lower gas emission by 75 per cent);
- Higher capacity of hauling large loads (a single freight train can replace several trucks);
- Standardised transit schedules; and
- Reliability.
Further, it has also been observed that in some states, the progress of new line projects connecting the capitals has been affected mainly due to delay in land acquisition and law and order issues.

Such issues could be addressed by more significant stakeholders’ engagement in the project planning and implementation processes and facilitating private sector participation.

Nevertheless, IR can play a significant role in achieving the intended objectives of the AEP. Adequate railways connectivity can transform the region and make it a thriving and essential base for India’s growing economic linkages with neighbouring countries, not only with Bangladesh, Bhutan, and Nepal, but also with Southeast Asia, China, Japan, and other countries in the east.

In view of the above, the Indian government has emphasised development and railway connectivity in the Northeastern region in recent years. In this connection, it is being ensured that adequate funds are allotted towards this.

As per the plan, the capital cities of all eight northeastern states are expected to be connected by March 2023. Some milestones have already been achieved in this regard. The entire Indian Railways’ network of the Northeastern states has been converted into a broad-gauge network.

During 2014-2017, a total of 972 km rail lines were converted into a broad gauge network. The country’s railway network already connects Tripura, Assam, and Arunachal Pradesh. These developments have enabled all the Northeast states except the Sikkim to be connected by the network of the IR. Even Sikkim is likely to be connected by the rail network in the coming years.

Further, there are ongoing initiatives towards speed augmentation of trains in the region by doubling the High-Density Network (HDN) sections and electrification of the entire network. More emphasis has been given to freight movement. A glimpse of ongoing initiatives by the IR in Northeastern region is delineated below in Box 2.
• Works of new BG lines have been taken up to connect capitals of Meghalaya (Shillong), Manipur (Imphal), Nagaland (Kohima), Mizoram (Aizawl) and Sikkim (Gangtok).

• In Manipur, the project of BG line connectivity from Jiribam to Imphal (110.62 km) in Manipur State was sanctioned in 2003-04. The section from Jiribam to Vangaichungpao (12 km) was commissioned in March 2017 and work from Vangaichungpao-Tupul-Imphal (98.62 km) has been taken up. This project is likely to be completed by March 2022.

• In Mizoram, the project of BG line connectivity from Bhairabi to Sairang (51.38 km) (suburban city of Aizawl, the Capital city of Mizoram) in Mizoram was sanctioned in 2008-09. However, land for the project could only be made available in 2014-15. About 80 per cent tunnelling work has been completed and the work on six tall bridges has been taken up. This project is likely to be completed by March 2023.

• In Nagaland, the project of BG line connectivity from Dimapur (Dhansiri)-Zubza (Kohima) (82.50km) (suburban city of Kohima) in Nagaland was sanctioned in 2006-07. However, the work speeded up from September 2018. Construction work has been taken up throughout the length of the project which is likely to be completed by March 2023.

• In Meghalaya, two projects of the BG line have been taken up for the capital connectivity of Meghalaya. New BG line from Tetelia-Byrnihat (21.50 km) in Meghalaya was sanctioned in 2006-07. However, the work speeded up only from 2014-15. About 10 km of the project falling in Assam from Tetelia to Kamalajari was completed in October 2018. The target date for completion of Tetelia-Byrnihat and Byrnihat-Shillong is not fixed, as land acquisition is yet to be completed for the entire length of the project.

• In Sikkim, the project of BG line connectivity from Sivok to Rangpo (44.39 km) was sanctioned in 2008-09. However, the project had suffered for a long time, as the Government of West Bengal had not given encumbrance-free land to Railway. The land acquisition has been completed, and work has been taken up, with the target completion date of December 2022.

• In Tripura, the Metre Gauge track to Agartala, Tripura, has been converted into BG on May 02, 2016. The first long-distance Train (Tripura Sundari Express) was introduced between Agartala and Delhi on July 31, 2016.

• In Assam, Bogibeel rail-cum-road Bridge was completed in December 2018. As a result, Naharlagun (Itanagar) and Dibrugarh reduced travel time from 24 to 5 hours. Alongside, Lumding-Hojai Doubling (44.92 km) has been completed and opened for passenger traffic in July 2019.

• In Tripura, Agartala-Sabroom’s new line (112 km) has been completed and opened for passenger traffic in October 2019.

• In Manipur, the Jiribam Railway Station has been completed. The first passenger train service to Jiribam in Manipur was flagged off in May 2016.

• In Mizoram, Bhairabi, the first railway station in Mizoram, has been connected by BG rail line and the first freight train was received in March 2016, and first passenger train service to Bhairabi in Mizoram was flagged off in May 2016.

Source: Indian Railways Vision 2020
Potential for Regional Connectivity through Railways

India’s drive towards improved Northeastern region connectivity through railways is consistent with several ongoing regional connectivity initiatives, such as the South Asia Sub-region Economic Cooperation Programme, Bay of Bengal Initiative for Multi-sectoral Technical and Economic Cooperation, and South Asia Association for Regional Cooperation (SAARC) railways corridor development approach. In fact, from India’s perspective, Northeastern region has been the focal point of its participation in the regional connectivity initiatives.

Several railways’ projects have been identified under the above three initiatives to facilitate regional connectivity through railways. For example, two of five railways’ corridors under SAARC (Corridor 1 linking India and

Box 3: Northeast Frontier Railway:
A Lifeline of the Northeast States during COVID-19 Pandemic

The Northeast Frontier Railway (NF Railways) caters to the Northeast region, besides Bihar and West Bengal. NF Railway has five divisions, namely, Tinsukia, Lumding, Rangiya, Alipurduar and Katihar: 452 stations covering a route length of 4002 km and a track length of 5971 km.

In normal times, on average, it carries about 100 million passengers annually at an average of 2.73 lakh passengers per day. Besides, NF Railways has been facilitating the transportation of essential goods within and outside the region. It moves Coal & Coke, Minerals & Ores, Food Grains, Flours & Pulses, Cement & Clinker, Chemical Manures, Iron & Steel, Petroleum Products & Gases, Container Services, Automobile, Sugar, Salt, Spices, Oils, Pig, Sponge, Wrought Iron, Stone/Bamboo Chips, Granite within and outside the region.

NF Railways also serve as a railhead for the landlocked Himalayan countries of Nepal and Bhutan and provides interchange facilities with Bangladesh.

NF emerged as a lifeline for the region during the COVID-19 pandemic following lockdown in March 2020. Despite lockdown and other restrictive measures, it operated 826 freight-carrying trains in June 2020. In addition, freight train movement with Bangladesh also increased significantly during the period with 50 rakes interchanged, compared to 5 rakes in the corresponding month of June 2019. This was an improvement of 900 per cent and the highest ever interchange with Bangladesh.

This is primarily because of its associated potential advantages in terms of cost-saving (10-40 per cent), environment friendliness (it can lower gas emission by 75 per cent); capacity of hauling large loads (a single freight train can replace several trucks), standardised transit schedules; and reliability.

Source: North Frontier Railways; and others
Bangladesh, including Delhi, Dhaka, Mahishasan, and Imphal; and Corridor 4 linking Nepal, India, and Bangladesh, including Birgunj/Raxaul, Katihar, Rohanpur, and Chattogram, with links to Jogbani and Agartala) connect to Northeast India and other regional countries.

These projects are being implemented by member countries with funding support from international agencies and local government. Major ongoing initiatives with the potential to connect Northeastern region of India with mainland India and other countries in the Bangladesh, Bhutan, India and Nepal (BBIN) sub-region is listed in Box 4.

### Box 4: Potential Projects to Connect Northeastern region with Mainland India and Countries in the BBIN Sub-region

- Construction of double line rail-cum-road bridge over the Brahmaputra River at Dhubri in Assam to Medhnipathar in Meghalaya
- Double tracking of Bongaigaon-Kamakhya rail line in Assam
- The new line between Jiribam and Imphal in Manipur
- The new line between and Maynaguri-Chengrabanda in West Bengal
- In Bhutan, studies have been conducted for specific routes (Hasimara to Tolibari; Kokrajhar to Gelephu; Pathshala to Nganglam; Rangia to Samdrup; and Jongkhar and Banarhat to Samtse)
- Reconstruction of one line from Kulaura, Shabazpur in Bangladesh to Karimganj (Assam), India is ongoing and a new railway between Akhaura in Bangladesh and Agartala in India is under preparation.
- Construction of 3 km new line linking Haldibari (West Bengal, India)-Chilhati (Bangladesh)
- Construction of BG rail line between Chilahati and Chilahati (Bangladesh) bordering India (West Bengal)
- Radhikapur (West Bengal, India)-Birol (Bangladesh) rail link
- Construction of New 15-km rail link line, 10 km in India and 15 km in Bangladesh connecting Akhaura (Bangladesh) to Agartala (Tripura, India)
- Construction of broad-gauge double-track line in the section between Khulna and Darshana junction bordering India (West Bengal)
- Construction of new Belonia (Tripura, India)-Feni (Bangladesh) line connecting India-Bangladesh border.

*Source: Compiled by the author based on various sources*
In addition, there are few train services operational at a bilateral level between countries. These include (i) train services on Gede (India)-Darshana (Bangladesh) and (ii) Petrapole (India)-Benapole (Bangladesh).

In addition, for the movement of passengers, two train services, namely Maitri Express between Kolkata-Dhaka, which runs five days a week and Bandhan Express, which runs two days a week between Kolkata-Khulna, are also in operation. Train services proved to be valuable during the COVID 19 pandemic.\(^5\)

As per reports, two freight trains from Singhabad in West Bengal to Rohanpur in Bangladesh; and from Radhikapur in West Bengal to Birol in Bangladesh are agreed to be made operational for dedicated movement of freights.

**Box 5: Proposed Rail Line between Agartala (Tripura) in India and Akhaura in Bangladesh to Transform the Landscape for Regional Connectivity and Cooperation**

The landmark project for the construction of a 16.1 km railway line between Agartala (Tripura) in India and Akhaura in Bangladesh is in progress. The project will connect the Northeastern region of India with Bangladesh and can further connect Kolkata reducing travel time to 10 hours from 31 hours at present. The project is expected to be completed by the end of 2021.

While the Ministry of Railways will bear the cost of laying a 5.46 km rail track on the Indian side, laying a 10.6 km track on the Bangladesh side estimated to cost about Rs.580 crore is being borne by the Ministry of External Affairs of India. The process of land acquisition and handing over to executing agencies in both countries has been completed.

The commencement of railway services on the proposed route would pave the way for the first train to run from the north-eastern region to Bangladesh and may transform the landscape for connectivity and cooperation between the two countries and perhaps the whole BBIN sub-region.

To mark this huge achievement, there is already a proposal to run the first train on the eve of India's 75\(^{th}\) year of independence in the year 2022.

*Source: Compiled by the author*

**Potential to Serve as a Hub for Regional Trade and Connectivity**

India shares its land border with eight countries. Out of this, Northeastern region shares borders with five. The region shares international borders of about 5483 km with several neighbouring countries, Nepal (99 km), Bhutan (516 km), China (Tibet) (1346 km), Myanmar (1643 km) and Bangladesh (1879 km).

Not only that, Bangladesh alone shares borders with many of the Northeastern region states – Assam 262 km, Tripura 856 km, Mizoram 318 km, Meghalaya 443 km, and West Bengal 2,217 km.\(^6\)

In addition, three major projects of Pan Asian Connectivity, the Asian Highway I and II and the Trans-Asian Railway are proposed to criss-cross the region before connecting Bangladesh, Nepal, the Indian Mainland and beyond.
In realisation of its positioning and potential, for trade purposes, several Integrated Check Posts (ICPs) and Land Customs Stations (LCS) are in place in Northeastern region to promote trade with neighbouring countries.

Northeastern region's importance is reinforced because most of the proposed transport routes between India-Bangladesh, India-Bhutan, and transit routes between Bangladesh and Nepal and Bangladesh and Bhutan under the BBIN Motor Vehicles Agreement (MVA) pass through the region.

In cognisance of its importance, the Government of India has prioritised and taken initiatives to set up and operationalise three ICPs in the region, namely ICP Agartala, ICP Petrapole, and ICP Moreh. In addition, the government has also plan to set up nine of the

<table>
<thead>
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<th>Table 1: Operational ICPs and LCS in Northeastern Region</th>
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| **Assam**  
| • Karimganj Steamer and Ferry Station (LCS)  
| • Mankachar (LCS)  
| • Sutarkandi (ICP proposed)  |
| **West Bengal**  
| • Chandrabangha (Proposed ICP)  
| • Fulbari (Proposed ICP)  
| • Ghojjadanga (Proposed ICP)  
| • Hili (Proposed ICP)  
| • Jaigaon (Proposed ICP)  
| • Mahadipur (Proposed ICP)  
| • Malda-Rajshahi via Mahadipur crossing (LCS)  
| • Panitanki (Proposed ICP)  
| • Petrapole (ICP)  |
| **Meghalaya**  
| • Bagmara (LCS)  
| • Borsara (LCS)  
| • West Garo Hills-Bakshiganj via Mahendraganj crossing on NH 12 (LCS)  
| • Tura-Nalitabari via Dalu crossing (LCS)  
| • Dawki (ICP under development)  |
| **Tripura**  
| • Agartala (ICP)  
| • Santirbazar-Feni via Santirbazar (LCP)  |
| **Mizoram**  
| • Kawarpuchiah (Proposed ICP)  |
| **Manipur**  
| • Moreh (ICP)  |

*Source: Compiled by the author*
proposed 13 ICPs in Northeastern region, which are planned to be established in the coming periods.\textsuperscript{7}

More importantly, several Bangladeshi industrial and economic belts, such as Mymensingh, Khulna, Rajshahi, Rangpur, Sylhet, and Chittagong are situated along the border, which could help the region to achieve its true potential.

Two other countries having land borders with India are Myanmar and China. Connectivity with Myanmar through NER could be a gateway to ASEAN markets and beyond. Improved connectivity-related infrastructure would boost connectivity within Northeastern region and strengthen India’s trade relations with neighbouring countries. This reflects the true potential of the Northeastern region in terms of regional connectivity and trade.

Huge potential benefits are originating from connectivity in the Northeastern region, which could contribute to its development. A study\textsuperscript{8} shows that the corridor-based development projects may generate economic activities and regional development, which, in turn, would influence economic growth through higher production and consumption.

Transport corridors could lead to more significant freight volumes and greater gross domestic product growth in the states.

As per the estimate, the East-West Corridor will increase freight volumes by up to 90 per cent in 2030 in the states that are part of the corridor. Similarly, freight volumes on international corridors are estimated to increase by 35 per cent for trilateral highways corridor (connecting India, Myanmar, and Thailand); Kaladan Multimodal Transit Transport Project corridor by 74 per cent; and

\begin{center}
\textbf{Box 6: Stakeholders’ Engagement Critical for Success of Connectivity Projects: The Case of Teteliya-Byrnihat and the Byrnihat-Shillong BG Line}
\end{center}

The project on 21.5km new BG line from Tetelia (Assam) to Byrnihat (Meghalaya) as an alternative alignment to Azara-Byrnihat new line (National Project) was sanctioned in 2010 and scheduled to be completed at the cost of Rs 385.2 crore.

Once completed, the project will connect Shillong, Meghalaya to Teteliya in Assam. The project is yet to be completed, and the scheduled timeline for completion is March 2022.

Evidence suggests that while the project has been completed along the 20 km stretch in Tetelia (Assam), land acquisition for the project in Byrnihat (Meghalaya) is facing a serious obstacle. This is in view of continued protests by local stakeholders led by Khasi Students’ Union, demanding a proper mechanism to check the possible influx of people from outside the state.

Given the impasse, the project is expected to miss the target date of completion. There are several such railways’ projects hampered by the issue of land acquisition in Northeastern region and other parts of India.

With infrastructure being at the heart of development, there is a need for stakeholders’ engagement in project planning and management right from the inception of the project till its completion.

This approach may be supported by the inclusion of an inbuilt mechanism in the project planning document to understand and address the concerns of stakeholders, particularly local ones. A bottom-up approach would perhaps do better than a top-down approach.

\textit{Source: Compiled by the author from different sources}
Bangladesh-China-India-Myanmar Economic Corridor by 49 per cent.

In line with the economic impacts of other transport corridors, Railway projects have started making positive impacts on common people in Northeastern region. They are now more integrated with the rest of India.

Railways’ connectivity also can work as a catalyst for improved trade scenarios for the entire country. Considering its strategic geographic location and proximity to several countries in South and Southeast Asian regions, concerted efforts are needed to connect the region through railways and other modes of transport.

There is a need to restore the pre-independence routes connecting the Northeastern states to mainland India through Bangladesh and establish connectivity with other neighbouring countries.

From a regional perspective, a two-way transit corridor through Bangladesh for the movement of goods and people between the Northeastern region and the rest of India could deepen connectivity and promote development. In return, Bangladesh may be allowed to export and import from Nepal and Bhutan through Indian territory.

A mutually beneficial approach to connectivity and development needs to be adopted by the BBIN countries. Ongoing railways connectivity initiatives at the regional and country-level can provide the much-needed boost in this respect.

**Concluding Remarks**

Northeastern region remains the least integrated area even after seven decades of independence. The region remains neglected both for known and unknown reasons. This is even though the region holds great potential for improving connectivity and trade with five of the eight neighbouring countries that share India’s borders.

While efforts have been made in the recent past towards improved road and waterways connectivity within Northeastern region and other countries in the region, efforts for railways connectivity seem lagging compared to other modes of transportation.
The region needs a holistic connectivity approach encompassing all modes of transport, including railways, to realise its true potential and serve as a gateway to other countries in the South and Southeast Asian regions.

Two critical areas that require attention are: (a) adequate resources, both financial and administrative, need to be ensured for the projects in the Northeastern region as the IR have many on-going projects across the country; and (b) infrastructure projects need to have an inbuilt mechanism to avoid and address issues arising from the land acquisition as it happened in Tetelia-Byrnihat BG line project.

Though the latter one is a political issue, this needs to be addressed on an urgent basis considering the potential of such projects for not only local development and connectivity but also regional connectivity and trade.

Endnotes

2 North Eastern Region, Vision 2020
5 As per a report, in October 2020, 146 freight trains moved with export goods from India to Bangladesh. Wheat, maize, onions, textiles, denim, FMCG products Fly ash, Bleaching powder, Gypsum, Stone, automobiles, tractors and mini cargo transport vans are some of the commodities moving in these trains.
6 Supra Note 1
7 Land Ports Authority of India
8 Prabir De, Sunetra Ghatak, Durairaj Kumarasamy, Assessing Economic Impacts of Connectivity Corridors in North East India: An Empirical Investigation, Economic & Political Weekly, Vol. LIV, No.11

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