

A connectivity game changer



Multi-modal connectivity is poised to be a game changer.
Arnab Ganguly and Jithin Sabu on how the BBIN is
connecting to thrive

An overview of the BBIN sub-region

The BBIN sub-region, comprising Bangladesh, Bhutan, India, and Nepal, is home to nearly 1.6 billion people with a combined gross domestic product (GDP) of US\$3.5 trillion. India and Bangladesh are the two largest economies, while Bhutan and Nepal are land-locked and are mostly dependent on India's road, rail and waterways for their third country exports and imports.

Additionally, India enjoys a trade surplus with the rest of the countries in the BBIN sub-region, including Bangladesh. These countries are dependent on India for supply of food grains and various essential agricultural products, among others.

Intra-regional trade in the BBIN sub-region

It is argued that the volume of intra-regional trade among countries in South Asia is less than its potential owing to a number of infrastructural and trade facilitation challenges.

Total goods trade within South Asia could be worth \$67 billion rather than the actual trade of only \$23 billion¹. The BBIN sub-region, which is a part of South Asia, is no exception. Presently, the intra-regional trade among countries in the BBIN sub-region stands at merely four percent (Table 1).

A comparative analysis of countries in the BBIN sub-region in terms of their Logistics Performance Indicators (Figure 1) and their Ease of Doing Business Rankings (Figure 2) underlines significant inter-country differences. Figure 1 reveals that other than India, countries in the BBIN sub-region are below the global average.

Similarly, Figure 2 highlights the need for harmonising procedures for trading across borders so as to reduce the time and cost of doing trade, especially for Bangladesh. These are the reasons why it is often argued that it is about

Table 1. Intra-regional trade among countries in the BBIN sub-region (values in million US\$)

Countries	Bangladesh	Bhutan	India	Nepal	Export RoW	Total Exports
Bangladesh		83.97	1,264.74	45.17	45,531.41	46,925.29
Bhutan	8.61		324.74	9.54	576.00	918.89
India	8,200.75	777.70		6,276.11	313,361.04	328,615.59
Nepal	11.64	1.93	633.90		922.28	1,569.75
Import RoW	57,566.22	952.00	474,709.28	10,215.08		378,029.52
Total Imports	65,787.23	1,815.59	476,932.66	16,545.90		561,081.38

Notes: 1) Rows represent Exports and Columns represent Imports. 2) Data on Exports and Imports taken from trade data published by Governments of Nepal, Bhutan and India. 3) Methodology adopted from UNESCAP. 4) RoW = Rest of the World
Source: CUTS's calculations

Figure 1. Comparative analysis of countries in the BBIN sub-region vis-à-vis global average based on their logistics performance indicator

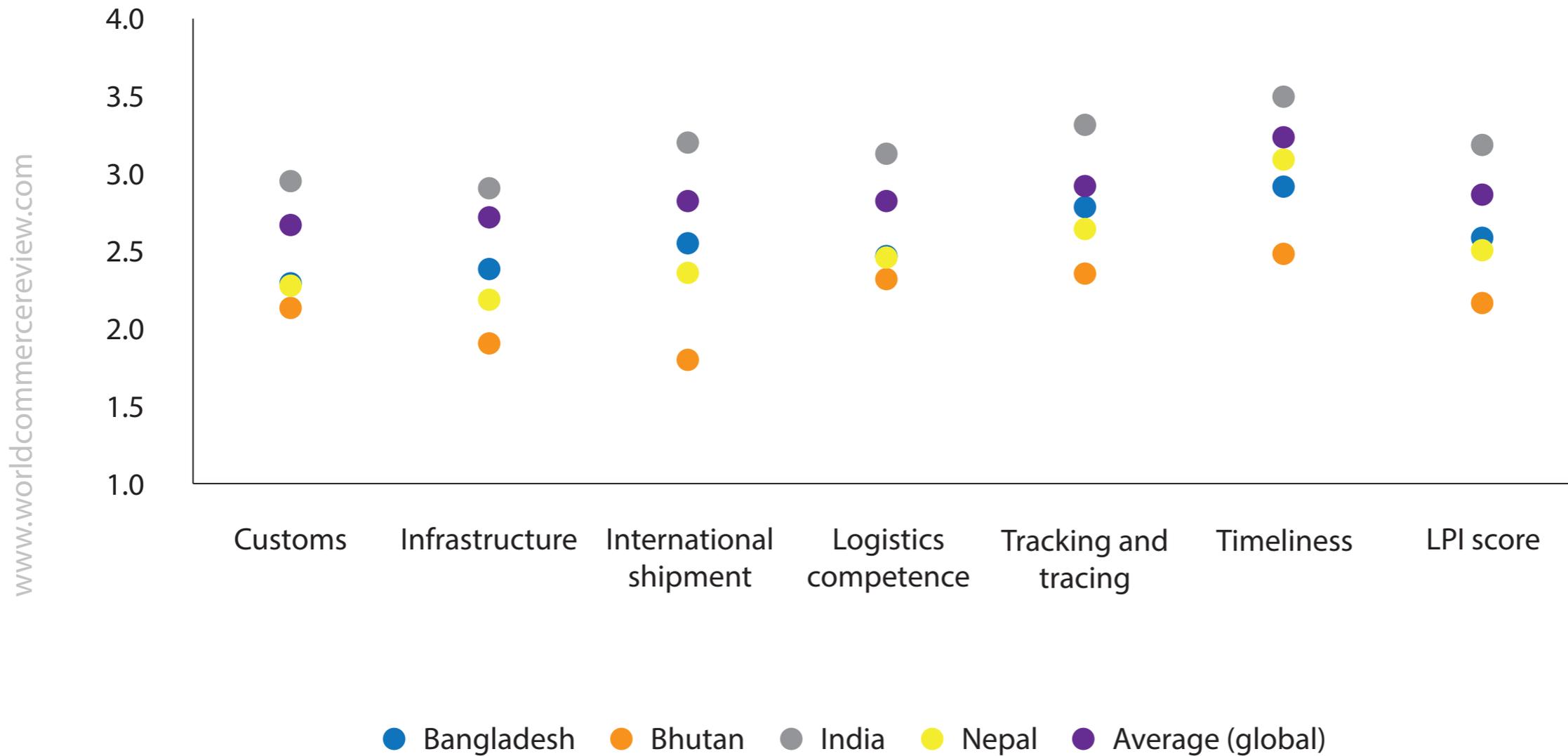
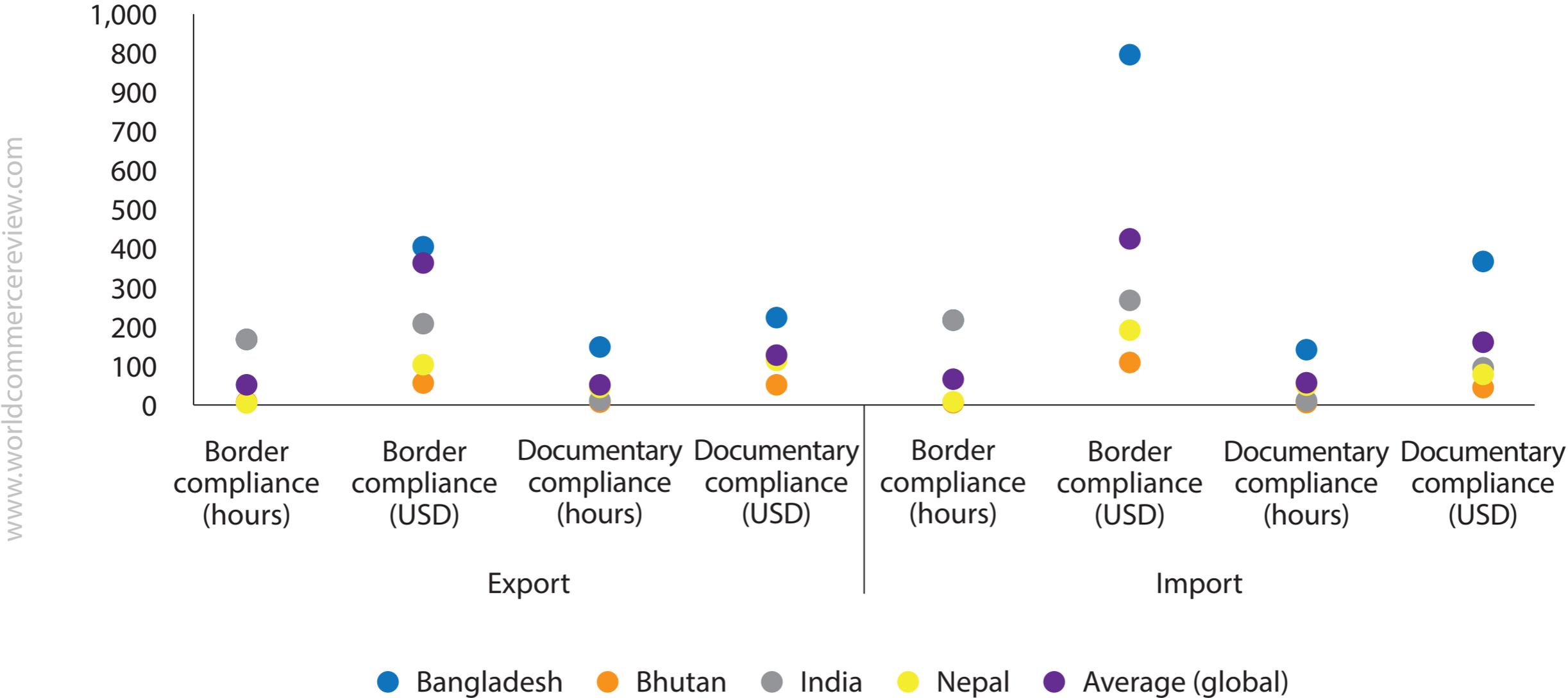


Figure 2. Comparative analysis of countries in the BBIN sub-region vis-à-vis global average based on Ease of Doing Business rankings - trading across borders



15-20 percent less expensive for a company in India to trade with a company in Brazil or Germany than with a company in Bangladesh².

Efforts to facilitate seamless cargo movement: the BBIN MVA

Trade in the BBIN sub-region is heavily skewed toward roadways³. Such a skewed modal mix could be attributed to several factors⁴. Some of them are as follows:

- roadways provide seamless first and last mile connectivity
- greater predictability in the delivery of consignments
- artificially low trucking price

With the coordinated efforts from governments, private players and civil society organisations [...], an efficient multi-modal transport connectivity network could be created in the BBIN sub-region



Trial run under BBIN MVA in 2016

To facilitate seamless cargo movement and avoid transshipment at the borders, countries in the BBIN sub-region came together and signed a Motor Vehicles Agreement (a Framework Agreement) in June 15, 2015. While owing to domestic reasons, Bhutan decided to remain an observer to the BBIN MVA, the other three countries have decided to go ahead and implement it.

Meanwhile, commendable progress is happening on the Inland Waterways and Railways front. There is an increased momentum in the BBIN sub-region to establish multimodal connectivity through various transportation and digital connectivity initiatives.

Multilateral development organisations such as the Asian Development Bank (ADB), the World Bank, United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), and bilateral agencies such as Japan International Cooperation Agency (JICA) are assisting these countries by providing broader frameworks in developing multi-modal connectivity.

Prospects of multi-modal connectivity in the BBIN sub-region

A study by the Organisation for Economic Cooperation and Development (OECD) has found that a 10 percent improvement in transport and trade-related infrastructure quality can increase agricultural exports of developing countries by 30 percent⁵.



Multi-modal terminal under construction in Haldia, India

Therefore, efficient transport and logistics networks would be critical for promoting trade globally and among countries in the BBIN sub-region. This is even more important for geographically challenged landlocked countries like Bhutan and Nepal which are dependent on India for their third country exports/imports.

Given the excessive dependence on roadways for doing cross border and its various challenges like congestion, multi-modal connectivity is an imperative to reduce the pressure on roadways and promoting other modes of transportation to facilitate increased freight movement and a reduction in freight cost, either through reduction in travel time and/or through reduction in cost per tonnage, or both.

Reduced cost of transporting and transit time would make the products from the sub-region competitive in the global market. It would also help in attracting global investment to the sub-region for creation of more economical and business friendly logistics system.

Adoption of multi-modal connectivity in the sub-region supported by digitisation and automation will upgrade the logistics performance of the sub-region.

Setting up multi-modal transport networks would also play a catalytic role in industrial development in the BBIN sub-region by better integrating the industrial clusters in the BBIN sub-region⁶.

Enhanced connectivity would be beneficial for sectors like fast moving consumer goods, textiles and clothing. Local farmers and women entrepreneurs in the small and medium category would be directly and indirectly benefitted from the seamless connectivity by getting access to distant markets.

Multi-modal transport connectivity would also help in decarbonising the supply chain by efficiently integrating environment friendly transport modes like inland waterways in the chain. For example, better integration of the river systems in India and Bangladesh could facilitate a modal shift of select bulk and break bulk cargo from roadways to waterways.

On-going initiatives and projects in the pipeline

Realising the potential of multi-modal connectivity, countries in the BBIN sub-region are now focusing on initiatives such as building multi-modal terminals, logistics parks, enhancing bilateral railway and water connectivity, building dedicated freight corridors, digitisation of trade initiatives, and adopting real-time electronic cargo tracking system.

Following are some major initiatives to promote multi-modal connectivity in the BBIN sub-region:

Roadways

- Construction of a bridge on river Padma in Bangladesh

- Construction of a dry ports at Pasakha and Phuentsholing, Bhutan
- Upgrading of four important trade routes between India and Nepal to six-lane highways

Railways

- Augmenting of the Jamuna Setu in Bangladesh with a dual gauge, double track railway line
- Bhutan and India are fast-tracking a railway link between Mujnai in West Bengal and Nyoenpaling in Bhutan⁷
- Construction of railway line connecting Haldibari (India) – Chilahati (Bangladesh) and Akhaura (Bangladesh) – Agartala (India)
- Construction of the Mongla – Khulna Rail Project in Bangladesh
- Construction of railway line connecting Raxaul, India with Kathmandu, Nepal⁸

Inland waterways

- Renewal of the PIWTT between India and Bangladesh and inclusion of five new Port of Call
- Construction of Multi-Modal Logistics Park at Jogighopa, Varanasi, and Sahibganj in India
- Facilitating water transportation in the Karnali, Narayani, Kaligandaki and Koshi Rivers to improve Nepal's connectivity via inland waterways

Coastal shipping

- Construction of a deep-sea port at Matabari, Bangladesh
- Discussion on including additional Port of Call in the Coastal Shipping Agreement between India and Bangladesh

Challenges and how to address them

The establishment of seamless connectivity comes with a set of practical challenges as well. Addressing challenges with the right solutions are important for establishing seamless multi-modal connectivity in the sub-region.

Skewed modal mix which suits the requirement of small exporters/importers and problem of cargo aggregation

Transporting cargo via modes like inland waterways and railways becomes economically feasible only if the size of the cargo is substantial. For example, it is cheaper to transport 2,000 tons of a cargo via inland waterways vis-à-vis roadways, but it is cheaper to transport 50 tons of the same cargo via roadways vis-à-vis inland waterways.

Majority of the exporters/importers who avail roadways are small exporters/importers usually trading in 100-150 tons. To encourage them to avail alternative modes would require aggregators of the cargo.

While the logistics service providers and/or the freight forwarding agents could very well play this role, however, it is essential to make necessary amendments in the customs procedures to allow sending multiple consignments in a single voyage.

Predictability in delivery of consignments

Other than time and cost of cargo transportation, Predictability is a major factor influencing an exporter/importer's choice of mode. For example, in a survey undertaken by CUTS, majority of the exporters/importers opined that even though trucks face a detention of 10-18 days at the Petrapole-Benapole border, between India and Bangladesh, the exporters/imports are confident that the cargo will be delivered to the exporter's/importer's warehouse within 25 days.

In the case of inland waterways such predictability is missing. This is because the barges that ply between India and Bangladesh depend on tidal forces. On top of it, there are issues with night navigation, and availability of depth in select stretches. Together these factors make transportation by inland waterways unpredictable.

In the case of railways, factors like availability of rakes, availability of line clearance etc. has been considered to be a major challenge which motivates traders to stick to roadways, even though railways and inland waterways offer cheaper modes of transportation.

Therefore, there is a need to identify and address the factors affecting predictability in cargo transportation to encourage more and more players to avail railways and inland waterways as their preferred transportation.

To this end, there is a need for the respective national governments to undertake more pilot movements and gradually start scheduled services to make cargo movement among countries in the BBIN sub-region more predictable.

Promoting off-border clearance and operationalising the use of Electronic Cargo System

Cross border trade among countries in the BBIN sub-region requires a number of at-the-border procedures like physical checking of the consignments by customs officials and national security agencies, checking whether all duty payments etc. has been done for the consignment etc.

This leads to congestion at the border crossings. For example, while on an average, 2,000 trucks arrive at the Petrapole border in India, not more than 400 trucks could enter the Bangladesh side.

Such delays could be avoided by facilitating off-border clearance at the Inland Container Depots, where all necessary customs and security checks could be undertaken and the trucks are allowed to move to the border points.

Additionally, use of smart technologies like Electronic Cargo Tracking System and RFID seals could be used to address the concerns of national governments and customs officials pertaining to trucks going off track or violating cross-border movement rights.

It is important to note here that majority of the trucks plying within countries in the BBIN sub-region are open body trucks and use of ETS and RFID seal could be challenging.

In this regard, it is an imperative that each of the national governments undertake coordinated steps to convert open trucks to closed trucks by introducing appropriate fiscal incentives for the truck owners, transporters, and logistics service providers.

Coordination among multiple stakeholders

In a multi-modal transport system, a shipment is handled by more than one stakeholder/company, that too across multiple countries in case of cross border trade.

In such a scenario, it is imperative that all the agencies work in tandem to ensure timely delivery of a consignment. Furthermore, it needs to be determined who would be liable for damage or any delay in delivering cargo.

Therefore, it is essential that countries in the BBIN sub-region come together and put in place a regional multi-modal logistics policy. This policy should aim at uniformity in freight rates, standardization of procedures to avoid

delays at the border, and gradual replacement of transshipment with transit arrangements in alignment with the provisions of the BBIN MVA.

Livelihood concerns

It has been argued earlier that facilitating greater multi-modal connectivity would entail re-balancing the existing modal mix. While such re-balancing would create new livelihood opportunities, it would also make some of the earlier jobs redundant.

Addressing all the stakeholder concerns and providing alternative livelihood options for people who lose their livelihood is an imperative for creating a political economy consensus to facilitate multi-modal connectivity.

Therefore, there is the need for an in-depth study to better understand the kind of adjustments likely to happen in the logistics sector and the type of jobs that are likely to be created for a comprehensive understanding of job-specific skill requirements and strategies to address the skill gaps. Such interventions should consider options for imparting training to the people displaced by redistribution of modal shares.

Conclusions

While transporting cargo via roadways have its advantages, however, poor road conditions and traffic congestion, cause delays in freight transportation attribute to much of the delays in Cross Border Trade within the BBIN sub-region⁹.

Additionally, there are issues pertaining to exchange of transit rights, which leads to transshipment at the borders (barring trade between India and Nepal) mandatory thereby causing additional delays.

Since progress with regard to operationalisation of the BBIN MVA is turning out to be a slow-going process, multi-modal connectivity could be one of the more viable solutions that could facilitate seamless cargo movement within the BBIN sub-region.

However, facilitating multi-modal connectivity among countries in the BBIN sub-region requires addressing a number of infrastructural, procedural, and socio-economic challenges. Addressing these challenges would require undertaking co-ordinated and well targeted interventions.

With the coordinated efforts from governments, private players and civil society organisations, taking into account concerns of all the stakeholders involved, an efficient multi-modal transport connectivity network could be created in the BBIN sub-region. There is no doubt that this will be a game changer in the sub-region's achievement of sustainable growth and prosperity. ■

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Endnotes

1. Kathuria, Sanjay, editor. 2018. *"A Glass Half Full: The Promise of Regional Trade in South Asia."* Overview booklet. World Bank, Washington, DC. License: Creative Commons Attribution CC BY 3.0 IGO
2. Herrera Dappe, Matias; Kunaka, Charles. 2021. *Connecting to Thrive: Challenges and Opportunities of Transport Integration in Eastern South Asia. International Development in Focus; Washington, DC: World Bank.*
3. <http://cuts-citee.org/pdf/dp-role-multi-modal-connectivity-in-fostering-value-chains-bbin-sub-region.pdf>

4. https://niti.gov.in/writereaddata/files/document_publication/Freight_report.pdf
5. <https://www.oecd.org/sti/ind/interconnected-economies-GVCs-synthesis.pdf>
6. *Industrial corridors such as the Amritsar-Delhi-Kolkata Industrial Corridor, and the Eastern Dedicated Freight Corridor in India; industrial estate in Pasakha, Bhutan; the fast-developing regions in North and North West Bangladesh; and industrial parks in Nepal; would be benefitted from the multi-modal transport network.*
7. *Feasibility studies for up to five rail links between Bhutan and India are being conducted. This includes a 57km line from Kokhrajhar (Assam) to Gelephu (Bhutan), a 51.15km line from Pathsala (Assam) to Nanglam (Bhutan), a 48km line from Rangiya (Assam) to Samdrupjongkjar (Bhutan), a 23km line between West Bengal's Banarhat to Samtse in Bhutan, and a 17.52km line between Hasimara in West Bengal to Phuentsholing in Bhutan.*
8. *Pathalaiya–Birgunj (Nepal)–Raxaul (India) Road; Dharan–Biratnagar (Nepal)–Jogbani (India) Road; Belhiya (Nepal)–Sunauli (India) to Bhairahawa–Butawal Road; and Suryabinayak–Dhulikhel Road.*
9. https://cuts-citee.org/pdf/Report-Connecting_Corridors_beyond_Borders.pdf