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**SUSTAINABLE ROADS – PART OF THE TRANSPORT  
CHAIN IN A GLOBALISED WORLD**

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## **Abstract**

Recent trends in globalisation offer tremendous economic opportunities for employment and growth in Bangladesh. However, the degree to which these opportunities may benefit Bangladesh will depend significantly on the connectivity, efficiency and speed of different modes of transport system.

Situated at a strategic location between the Southeast Asia and South Asia regions, Bangladesh has opportunities to act as a 'transport hub' for these regions. In this context, an initial transit agreement between Bangladesh and Nepal in 1976 opened the opportunity for Bangladesh to enter the global road transport network in the sub-continent. The formation of the South Asian Association for Regional Cooperation (SAARC) in December 1985 further promoted regional co-operation and linkages for Bangladesh in transport, trade, agriculture, science, research and related fields. More recently, Bangladesh made separate transit agreements (road, rail, water and use of ports) with the SAARC countries of Nepal, India, and Bhutan, and separately with Myanmar.

Bangladesh has designated six points of entry and exit with Nepal for the movement of traffic-in-transit through her two ports and other territory, by all means of transportation. With Bhutan, there are six points of entry and exit in Bhutan and eight points of exit and entry in Bangladesh, for conducting trade between Bhutan and Bangladesh. Bangladesh imports a major share of its agriculture commodity and agriculture based industrial products from India. To support this trade, Bangladesh has opened 13 road-based traffic-in-transit points of entry and exit with India. Recently, Bangladesh has planned to construct a road between Myanmar and Bangladesh to promote trade and cooperation.

Bangladesh is linked to the SAARC region by variety of transport modes. There are many Land Customs Stations (about 181) on the borders for facilitating import and export trade with neighbouring countries by road and rail. Bangladesh is increasingly aware of the importance of intercontinental and international transport corridors.

Transport forms a critically important part of Bangladesh economy and plays a significant role in the social and economic development. Some 12 per cent of GDP and about 20 per cent of the annual development budget is spent on transport. The transport industry employs approximately 9.4 per cent of those in employment. Areas opened through land ports and road infrastructure, show increases in employment and income, improving quality of life. Moreover, agglomeration of township, business and other social and economic activities has taken place at the points of traffic-in-transit.

## 1. INTRODUCTION

It is now a national need to enter the global transport system to enhance trade facilitation and optimal use of country's network assets. Because Bangladesh is a SAARC member country, the opportunity of globalisation has emerged. In addition, the country has achieved good road based transport network in the last three decades and currently the government is planning to improve other modes of transport such as rail and water transport, including port facilities and the construction of deep-sea port. Bangladesh has completed its Asian Highways routes to facilitate neighbouring countries and is planning to be a member country of Trans Asian Railway system. However, transport network in the country is well diversified comprising of 140,000 km of roads (of which 21,560 km are inter-urban roads and 119,000 km are rural roads), 2,855 route-km of railways, 24,000 km route-km of inland waterways (of which about 6,000 km is navigable by mechanised vessels), two major sea ports (Chittagong and Mongla) and air transport services, having three international and five national full-length runway airports.

Currently, Bangladesh has direct road linkages with India. It is linked directly with West Bengal state of India by road, rail and inland water transport on its western border. To its north and east, it is linked directly by road to four landlocked states of India (Assam, Meghalaya, Mizoram and Tripura) and through Indian Territory by road to the remaining four states (Monipur, Nagaland, Arunachal Pradesh and Sikkim), and to Nepal and Bhutan. Also to its north, it is linked by inland water transport through the Brahmaputra River system and by metre gauge rail to Assam state. Further in the east there is a rail link extending to Tripura, Assam and beyond. Its main port of Chittagong provides international shipping services, as well as feeder services, to Singapore, Sri Lanka (Colombo Port) and the Indian Ports of Kolkata and Haldia. The second port of Mongla provides shipping services mainly to Kolkata and Haldia. In some cases, transshipment of cargo originating in or out bound for Bangladeshi ports occurs in the alternative ports of Singapore and Tanjung Pelaps (Malaysia).

To enhance border trade by means of various modes, the first trade agreement between Bangladesh and India, signed in 1972, provided, for transit of goods from one point to another of the same country through the territory of the other. Later, same type of agreement was made by Bangladesh with Nepal and Bhutan. Therefore, because of its unique geographical location, Bangladesh could play a pivotal role by providing road and rail linkage to Nepal, Bhutan and North-East India. The ports of Chittagong and Mongla, with improved management and augmentation of their capacities, could provide these landlocked countries and regions with much needed maritime linkages to the outside the world. However, the present role and potential will become the "transport hub" to serve the entire hinterland countries, a role similar to that of Rotterdam in Europe.

Trade between Bangladesh and rest of the world has shown strong growth since 1995. The average export growth since 1985 has been 11.4 per cent, while the average import growth was 7.6 per cent. Recently, the average export growth has further increased to 12.9 per cent and the import growth declined to 5.0 per cent. Bangladesh trade with SAARC countries represents one-third of the value of its trade with rest of the world, which are mostly happening by border trade as traffic-in-transit arrangement with neighbouring countries. It is found that there are 181 border posts (land custom stations) around the international borders of Bangladesh. Government policy is to improve both international trade and passenger movement through these land ports with neighbouring countries. In this circumstance, the

government has established the Bangladesh Land Port Authority (BLPA) and declared 13 existing border posts as land port through gazette notification in January 2002.

Close to land port facilities, new business opportunities, and increases in employment are a common improvement, in those areas. The aim of this paper is to explore the Bangladesh's transport in a globalised world. The paper undertakes a systematic review of available publications, collects the various transit agreement and protocol with neighbouring countries and information from government offices as secondary data. Some sorts of primary data were collected for improving the paper. Section 2 sets out the existing transport corridors which are in use. Section 3 describes the different transit agreements and protocols of Bangladesh. Section 4 focuses on existing road transport infrastructure and services to meet the global needs. Section 5 discusses the effects of land port infrastructure and demographic changes. Section 6 describes the impact of transport chain as employment and quality of life, urbanisation and road safety issues. Section 7 focuses on existing border trade and traffic-in-transit arrangement and available facilities at the border posts. Section 8 discusses role of government and initiatives to be needed in future to promote globalisation. Section 9 describes the summary and findings in the road sector globalisation process. Concluding remarks are made in section 10.

## **2. BANGLADESH AND TRANSPORT CORRIDORS IN A WORLD OF GLOBALISATION**

It is mentioned above that because of its strategic location, Bangladesh plays a pivotal role as traffic-in-transit facilities to the sub-region as well as landlocked counties Nepal and Bhutan by road, rail and water transport. Bangladesh also taken initiatives to establish efficient logistic chains between various origins and destinations involving more than one mode. In addition, the government decided, in principle, to establish a Road Maintenance Fund (RMF) with the objectives of; (a) tapping new sources of fund to create required resources for road maintenance; (b) reducing fiscal burden of the government to a manageable portion, so the government could divert resources to sectors, such as education, health, women's development and poverty reduction; (c) to ensure that road users participate in the management of the fund; (d) to strengthen financial discipline; and (e) to ensure that the required funds are used for road maintenance only. All above objectives may be helped by being part of the globalised transport chain, because the country will get additional money for road maintenance.

### **2.1 Road Corridor**

There are several road corridors to serve the region as well as neighbouring countries and landlocked Nepal and Bhutan. The strategic road corridors of Bangladesh are as follows.

#### **a. Banglabandha – Mongla/Dhaka/Chittagong Route**

This corridor starts from Kathmandu – Kakarvita to Phulbaria – Banglabandha – Mongla/Dhaka/Chittagong. This corridor provides road transport connectivity between Bangladesh, Nepal and Bhutan through India and open for border trade as traffic-in-transit agreement. From Kathmandu freights passes through the border land ports at Kakarvita in Nepal, Phulbaria in India and Banglabandha in Bangladesh, moves to Dhaka (capital city) and the major port city of Chittagong. However, there is no tripartite agreement between India,

Bangladesh and Nepal/Bhutan to allow for third country trade to use the Bangladesh seaports of Mongla and Chittagong, either by road or by rail. Therefore, there is a need for both Bangladesh and India to change their perspectives relating to transport connectivity with Nepal/Bhutan through India.

b. Burimari – Dhaka – Chittagong Route

This is a very important route to serve the landlocked country Bhutan through India. It connects the Chittagong sea port of Bangladesh. The Burimari land port of Bangladesh has been operational from 1988 as a Land Custom Office and was upgraded to a Custom Circle Office from 1995 because of its importance. This route is from Bhutan – India – Bangladesh (Burimari) and after that it is connected with Dhaka and Chittagong (international port) through Bangladesh. Though there is a transit agreement between Bangladesh and Bhutan, but it will need tripartite agreement among India, Bhutan and Bangladesh for through traffic.

c. Benapole – Dhaka Route

The geographical location of Bangladesh and India increases the importance of the route. This route starts from Calcutta (provincial capital of West Bengal province, India) – Petrapole (India) – Benapole (Bangladesh) – to the four landlocked states of India (Assam, Meghalaya, Mizoram and Tripura) and through Indian Territory by road to the remaining four states (Monipur, Nagaland, Arunachal Pradesh and Sikkim). There is a bilateral agreement between India and Bangladesh to operate bus services between Dhaka and Calcutta (12 services weekly each way carrying around 35 passengers per bus) that has been operative since 1999, but no freight transport is allowed to cross borders directly with goods.

d. Akhaura – Dhaka Route

This route starts from Agartala (India) Tripura State of India – Akhaura (Bangladesh) and it could be connected with Benapole for further connection to Calcutta. There is a bilateral agreement between India and Bangladesh to operate bus services between Dhaka and Agartala (13 weekly services each way) since 2002, but no freight transport is allowed to cross borders directly with goods.

e. Shibganj – Dhaka and Sylhet (Tamabil) – Chittagong/Dhaka Routes

The Shibganj – Dhaka route starts from Mohadipur (India) – Sonamasjid (Shibganj, Bangladesh) and it is located in the western part of Bangladesh. The Sylhet (Tamabil) – Chittagong/Dhaka route is very important to serve the eastern states of India and mainly for Meghalaya State.

All the above road based routes are connected to the land ports of Bangladesh, which are Banglabandha, Burimari, Benapole, Akhaura, Sonamasjid and Tamabil. There are other road based land ports, Birol, Hilli, Darshana, Bhomra, Haluaghat, Bibirbazar and Teknaf to serve India, Bhutan and Myanmar.

## 2.2 Rail Corridor

Bangladesh Railway (BR) presently has a route network of about 2,855 km of which 660 km is Broad Gauge (BG), 1,830 km Metre Gauge (MG) and 365 km is Dual Gauge (DG). DG means both BG and MG. BR inherited a small truncated portion of the British – Indian railway in 1947 (because of independence from British India) with two different gauges (BG and MG). The railway was connected with Indian Railways BG system at Benapole, Darshana, rahanpur and

Chilahati and MG at Birol, Burimari, Mogalhat and Shahbajpur. Of these linkages, Chilahati (Indian Railway Station at haldibari), Burimari (Indian Railway Station at Chengrabandha) and Mogalhat (Indian Railway Station at Gitaldaha) have been disconnected and the linkages at Shahbajpur (Indian Railway Station at Mahishasan) and Birol (Indian Railway Station at Radhikapur) are presently not in operation. The other three linkages are still in operation for freight traffic only.

Presently BR has cross border operations with only Indian Railways (IR). There are sets of rules that cover the interchange of inter-country traffic, operational procedures for trains and services, documentation etc and these are known as the 'Fundamental & Subsidiary (F & S) Rules'. These were formed by a joint agreement signed by BR and IR in 1973. There is also a bilateral agreement between Nepal and Bangladesh for the movement of traffic by rail to Nepal, but there is as yet no multilateral agreement. A multilateral agreement is necessary for the movement of traffic by rail to Nepal and Bhutan, both through India.

### 2.3 Inland Water Transport Corridor

Bangladesh is a country of rivers, tributaries and canals providing a network of inland waterways reaching the remotest areas where roads and railways have access constraints. Historically, Bangladesh waterways are connected with Indian territories, which are mostly access constrained by difficult terrain and there is direct access of Indian vessels through Bangladesh. Presently, cargo volumes of Indian transit traffic are not likely to grow significantly due to the distance, travel time, and other navigational problems. The number of border crossing points has increased and facilities are being developed, but the inter-country trade by water is unlikely to grow significantly with the proposed route needing major dredging to maintain navigable round the year. The dominating routes of Indian vessels through Bangladesh are Calcutta (India) – Bangladesh – Dhubri (India), Calcutta (India) – Bangladesh – Karimganj (India), and Dhubri (India) – Bangladesh – Karimganj (India).

The following map shows the important international gateways of Bangladesh as part of transport chain in the globalise world.

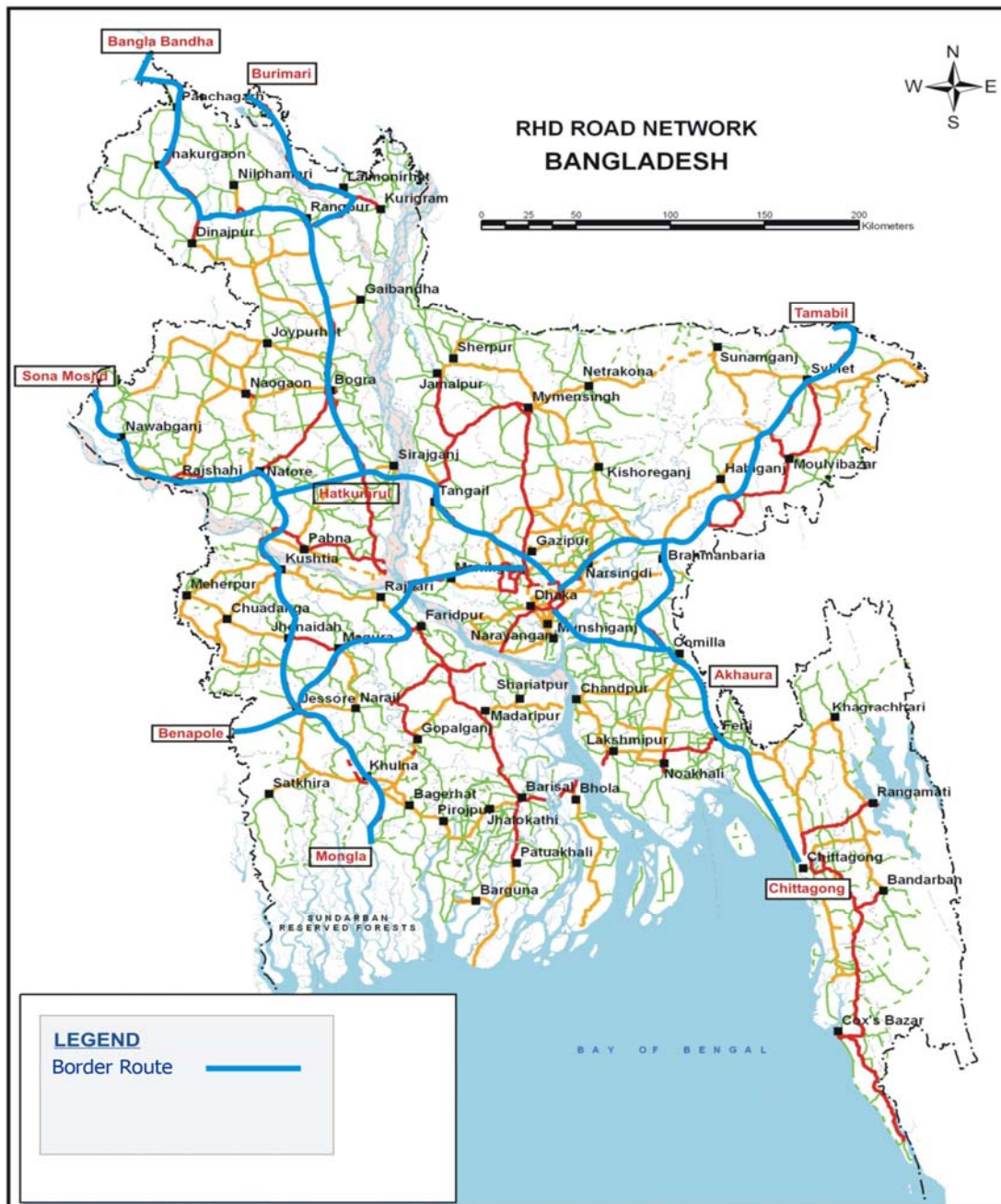


Figure - 2.3

### **3. ROLES OF BANGLADESH AND THE NEIGHBOURING COUNTRIES**

To achieve the world globalisation theme and optimal use of its transport infrastructure, Bangladesh has opened various points of exit and entry to Bhutan, Nepal, India and Myanmar. In addition, Bangladesh has been developing the designated land ports and transport corridors for trade facilitation in the sub-region. In the context of trade facilitation, Bangladesh has taken an Asian Development Bank (ADB) funded Development of Transport Corridor for Trade Facilitation project, which will enhance further trade among the countries. Given the limited resource potentials, Bangladesh is trying to provide transport services (rail, road and port services) to the sub-region indicated above, as a “trade in services”. This arrangement could provide Bangladesh an additional potential important source of foreign exchange earning and the country may expend more money for better maintenance of transport networks. The following discussions concentrate on the role of Bangladesh in a world of globalisation.

#### **3.1 Agreements with Bhutan**

As a SAARC member country, Bangladesh is giving priority for transit to the landlocked country Bhutan. Bangladesh signed agreements on transit and trade with Bhutan in the years 1980 and 2003 respectively. In this context, both Bhutan and Bangladesh are accorded to “traffic-in-transit” freedom of transit across their respective territories through routes mutually agreed upon. Bangladesh designated eight points of exit and entry for trade between two countries. The eight points of exit and entry in Bangladesh are; (a) Mogalhat, (b) Noonkhawa, (c) Nakugaon, (d) Haluaghat, (e) Banglabandha, (f) Burimari, (g) Dhaka Airport, and (h) Chittagong Airport. It is worth mentioning here that the term “traffic-in-transit” means the passage of goods including unaccompanied baggage across the territory of one country when the passage is a portion of a complete journey which begins or terminates within the territory of the other country.

To initiate trade between two countries, it was agreed to promote, facilitate, expand and diversify trade between the two countries. Both Bhutan and Bangladesh accorded each other the most favoured nation treatment in respect of issue of licenses, customs formalities, customs duties and other taxes, storage and handling charges, fees and charges of any kind levied on export and import of goods to exchange between the two countries. For facilitating the movement of goods, both the countries agreed to provide necessary number and means of transportation, warehousing and handling facilities at the points of entry and exit. Presently, 74 items of exportable and importable goods are traded between the countries by road.

#### **3.2 Agreements with Nepal**

Nepal also landlocked country in the sub-region and Bangladesh has transit agreement with the country. The agreement is very favourable to the nations and traffic-in-transit exempted from customs duty and from all transit duties or other charges (except reasonable charges for transportation). It is agreed and designated six points of entry and exit for movement of traffic-in-transit through her ports and other territory, by means of transportation to Nepal. The six points are Chittagong , Mongla Sea Port, and , Birol, Banglabandha, Chilahati and Benapole Land Ports.

In addition, goods arriving in Bangladesh by land or by sea and meant for onward transmission to Nepal by air forwarded from the place or entry to the airport of exit. In order to enjoy the



freedom of high seas, merchant ships sailing under the flag of Nepal are accorded, subject to Bangladesh laws and regulations, treatment no less favourable than that accorded to ships of any other foreign country in respect of matters relating to navigation, entry into and departure from the ports, use of ports and harbour facilities, as well as loading and unloading.

### 3.3 Agreements with India

Bangladesh has three different agreements on rail, water and road transport with India. The first agreement with India was through freight traffic by rail system in 1972 and it was revised in 1990. The other through freight traffic movement of India across Bangladesh is water transport, which agreement was signed in the year 1999. Moreover, there are several agreements on trade, which are facilitating by 12 entry and exit points of Bangladesh and all exportable and importable goods transporting by road system.

## 4. EXISTING ROAD TRANSPORT INFRASTRUCTURE AND SERVICES

Most of the routes under agreement on transit for international trade are predominantly national highways (2 or more lanes, 7.3 metre minimum width road) of Bangladesh. The Roads and Highways Department (RHD) under Ministry of Communications (MOC) is responsible for management of all the international trade routes including national and regional highways and district road. The RHD is responsible to conduct road condition survey with associated features such as shoulder, embankment, and number culvert and bridge every year for every kilometre. It is found from the available information that the road condition of national highways are good, which is within the range of 2-4 International Roughness Index (IRI). Most of the designated routes have enough capacity to carry extra international traffic.

## 5. DEVELOPMENT OF LAND PORT AND DEMOGRAPHIC CHANGES

In context of transport chain and globalisation, Bangladesh has been developing land port facilities since the year 2002 at border points. After the establishing of land port, various economic activities are experienced such as in-migration of businessman, professionals, transport people and labourers. In those areas, the ratio of males to females is increasing and temporary people stay in those ports because of commercial activity.

## 6. IMPACT OF TRANSPORT CHAIN

The longer the chains the more important performance becomes and they are often seen as an instrument for development of backward regions. It is found from the various studies that poor transport is barrier to trade. This means that barrier for reduction of production; on the other hand, the good transport chain has impact as increase the production, generation of employment and catalyst for urbanisation.

## 6.1 Employment and Quality of Life

It is found from the available data from various land ports that the numbers of in-migration labour increases because of economic activities of ports. The port facility increases the opportunities for clearing and forwarding agents, warehouse operators, exporters and importers, restaurants business, hotel business, truckers, handling labourers, and all kinds of employment. The consequences of this relocation of activities rearranges the factor prices, including labour. Increased transport efficiency including improvement of road network boosts the incomes of people in Bangladesh, which means increased quality of life and land value of those areas. The transport chain is promoting the development of culture in the backward areas such as border areas of Bangladesh. The standard of living and life-style of Bangladesh society is tied directly to the availability of an efficient transportation system.

## 6.2 Urbanisation

Before the opening of land port facilities in the border areas, there were no such economic activities as mentioned above. To activate the land port functions and cross border traffic, involvement of government administration is essential. To furnish the jobs, there is various involvement of government offices such as custom office, land port authority, police and border security, electricity, fire brigade, telecommunications, and other utility facilities offices. In this context, township and non-farm activities is growing in the areas and new housing and settlement are constructing by the government as well as private sectors.

## 6.3 Road Safety Issues

The motorisation of Bangladesh has increased fast in the recent years. The vulnerability of fatal risk on Bangladesh road is the second worst, in the world, at 44 death annually per 10,000 vehicles. Though it has no directly relation with transport chain, however, this section is discussed for mentioning the road safety scenario of Bangladesh because border trade in the arrangement of traffic-in-transit increases the overloading of trucks. The 1992 axle load survey of Road Master Plan (RMP) found that the average Equivalent Standard Axle (ESA) was 1.64 and Road Materials and Standards Study (RMMS) in 1994 indicated average ESA of 1.71. It is worth mentioning here that from late 1980s; Bangladesh has made considerable progress in rehabilitating, widening and maintaining its arterial road networks. These improved roads have encouraged the practice of overloading and the study found that the ESA was 6.63 (laden) and 5.61 (including un-laden) in 2003. The 2005 analysis found larger changes with respect to 2003 results. The ESA of 2005 was 18.74 (laden) and 17.85 (including un-laden).

The available data reveals that the share of 'hit pedestrian', 'head on' and 'rear end' collision is about 79 per cent and the pedestrians are most vulnerable. Their share is 54 per cent at fatal accidents. The fatal risk is more for younger pedestrians and is serious for the age group 6-10. The fatal risk of passengers within the age group 20-40 is more serious than the other age groups, because they are frequent road users. The rural people are more vulnerable, about 73 per cent more than the urban people. The share of national highways in the fatal accidents is 48 per cent and the incidence is higher.

## 7. BORDER TRADE BY ROAD AND TRAFFIC-IN-TRANSIT

The border trade among the neighbouring countries is taking place by the traffic-in-transit arrangement in the sub-region. Though there are 181 authorised border posts around the international borders of Bangladesh, among them, 13 strategic and important border posts are opened and developed for border trade. All the border posts are serving to the neighbouring countries, such as India, Nepal, Bhutan and Myanmar. The following border posts are discussed as an example to understand the volume of freight traded in the recent years among the neighbouring countries and Bangladesh.

### 7.1 Benapole Border Post

Benapole is an important land port, in context of volume and variety of imported commodity from India. There is a small quantity of goods exported to India from Bangladesh. However, the freight situation differs significantly in that there has been spiralling growth in the recent years as shown in the following Figure 1. In the eighties and nineties, the growth rate of traded commodity was 10.76 per cent and 14.57 per cent respectively. The total volume of traded goods was 764,150 tonnes in the year 1999 and it is fallen sharply to 405,790 tonnes within one year. Again, the growth rate has increased since year 2000.

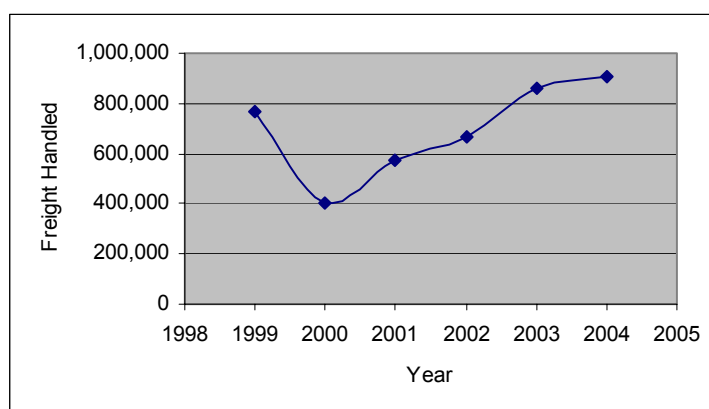


Figure 1: Historical Freight Flows from India at Benapole Border

The major import items from India are machinery, chemicals, steel materials, industrial raw materials, cycle parts, motor vehicle parts, electrical goods, dyes, paper consumer goods, vehicles, food grains, and agricultural implements and equipment. The major export items from Bangladesh to India are hilsha fish, VCD players, jute twine, raw jute, cloth, crushed bone, betel nuts and jute bags. The total export by Bangladesh was 249,937 tonnes to India in financial year 2004-05. On the other hand, total imports by Bangladesh from India were 909,081 tonnes over the same period. The transshipment operations are undertaken transferring from truck to truck, mainly at the Bangladesh storage depots and warehouses a most inefficient operation.

### 7.2 Banglabandha Border

The Banglabandha border crossing is very important for Nepal. Presently, export and import traffic between Bangladesh and Nepal is increasing day by day. The total volume of traded goods by this land port in the recent past was 1,633 tonnes, 8,182 tonnes, 1,409 tonnes, 828

tonnes, 1,141 tonnes and 4,356 tonnes in the year 1999, 2000, 2001, 2002, 2003, and 2004 respectively. It is expected that the traded goods will increase in the future. Nepal has expressed a desire to use the Mongla port of Bangladesh through the country for its export and import trade but this depends on a tripartite agreement among Bangladesh, Nepal and India. This would increase the volume of Nepal traffic in the near future. Bangladesh has built land port building and warehouses for import and export trade. The road route is Kakrvita (Nepal) – Phulbari (India) – Banglabandha (Bangladesh).

The main export commodities to Nepal are medicines, medical equipment, apparel, electrical items, fertiliser, jute, jute goods, tea, batteries, carbon rods, readymade garments, biscuits/wafers and candy, and PVC-free foam sheeting and profiles. The imported items are pulses, rice, fruits and UNICEF food supplies for the poor children. The loading and unloading from truck to truck is undertaken at point zero, the actual border line between Bangladesh and India.

### 7.3 Burimari Border

Burimari land port is the main border crossing point by road of landlocked country Bhutan to expand trade and use of ports facilities of Bangladesh. This has been operational since 1988 and it is upgraded as land port to serve the present trade demand of Bhutan and Bangladesh. The main imported items are dolomite, stone/boulders, coal, fruits, chemicals, pulses, oil cake, rice, vegetables, gypsum, limestone and timber. The main exported items are jute, jute goods, cotton waste, soap, mosquito nets, batteries, biscuits, fruits, cosmetics and toiletries, carpet, cotton clothes, medicine and other food items. The total volume of traded goods by the border was 371,975 tonnes in the financial year 2003-04. The transshipment operations are done truck to truck, mainly at the Bangladesh storage depots and warehouses.

### 7.4 Teknaf Border

The Teknaf border post is the only land port between Bangladesh and Myanmar for international trade by road. This port plays important role in border trade between two countries. The main imported items from Myanmar are rice, fish, towels, T-shirt, blanket, turmeric, betel-nut, and bamboo. The main exported item from Bangladesh to Myanmar are cement, rod, GI sheet, aluminium goods, and cosmetics. Currently, there is no system of opening letter of credit for export-import between Bangladesh and Myanmar. Bangladesh traders have to deposit US \$ 15,000 in any bank of Munda (a place of Myanmar) for transferring into Myanmar currency and then they can send imported items to Bangladesh through the merchants/importers of Myanmar. However, this land port is opened in 2003 and needs necessary improvement of road and infrastructure facilities for enhancing international trade.

## 8. INITIATIVES NEED IN FUTURE TO ACHIEVE GLOBAL DEMAND

It is found that Bangladesh can play a pivotal role and become the transport hub to serve the hinterland countries. Given the limited resource potentials, Bangladesh should try to provide transport services (rail, road and port services) to the sub-region of India, Nepal, Bhutan, Myanmar, as a 'trade in service'. This could provide Bangladesh a potentially important source of foreign exchange earning. This would create a win-win situation for both Bangladesh and the hinterland countries and the regions. Bangladesh is planning its transport network to meet the

future demand including road, rail, port and water transport.

#### 8.1 Rationalisation of Equivalent Standard Axle-load Value

Considering that Bangladesh road network was mostly built with 8.2 tonnes Equivalent Standard Axle (ESA) load, it would be pre-mature to suddenly open to the road network to sub-regional traffic, particularly because of truck overloading possibilities, which will badly damage the prime road network of the country. This problem should be addressed quickly. It would, therefore, be necessary to encourage railway to carry more of the sub-regional traffic, for which containerisation is a must. Due to gauge differences (Broad Gauge, BG vs. Metre Gauge, MG), transshipment facilities (between BG and MG) would need to be established at strategic locations for smooth transshipment of containers from one gauge to other.

#### 8.2 Initiate Cross Border Trade

Geographically, Bangladesh is well situated in its sub-region context. Nepal, Bhutan, North-East India, and Northern part of Myanmar could be considered as its hinterland. Currently, there is no direct movement of trucks among the mentioned countries including India. Since most of the inter-country trade with India is import traffic of Bangladesh, it would be to Bangladesh's advantage, to go for bilateral transport agreement, and in other cases multilateral transit agreement, where 3<sup>rd</sup> and 4<sup>th</sup> countries are involved. This will facilitate direct movement of goods from origin to destination without transshipment at the border.

#### 8.3 Improvement of Border Cross Services

The main issue of the border crossing is the requirement to tranship the cargo from one vehicle to other, since vehicles of one country is not allowed to travel over the road of the other. This transshipment takes place either by unloading the same in the warehouse of the other country or directly from one vehicle to other in 'no-mans land'. In-addition, the border-related offices apply their standard times for business hours. The difference of standard time creates problem to vehicle crossing. The border offices also follow their own documentation procedures causing delay.

#### 8.4 Development of Inter-modal Transport System

In order to enhance sub-regional trade, an inter-modal transport chain is required. This will promote a sustainable transport system as well as the efficiency of each mode. In addition, ESA load is not same in all countries of the sub-region nor is driving practice. Bangladesh has the left hand drive and India has right hand drive. This is a constraint to driving vehicles smoothly all over the sub-region. A National Land Transport Policy was adopted by the government of Bangladesh, which is now under implementation. This policy was prepared with a long term vision to make the role of transport in economic activities more significant and underpin continued economic and social development. This type of policy will enhance inter-modal transport system in Bangladesh as well as the sub-region.

## **9. SUMMARY AND FINDINGS**

This paper tries to discuss the present role of Bangladesh as part of transport chain in a globalised world. It is found that Bangladesh has made various agreements on traffic-in-transit and trade with neighbouring countries. In addition, the country has given priority to the landlocked countries like Nepal and Bhutan in the sub-region to use its seaports and land ports and air ports facilities. Bangladesh has declared 13 border posts as land port and developing its sea port facilities to encourage border trade. Bangladesh and India have an agreement on cross border passenger traffic. India has historical rail network and water way links through Bangladesh.

Bangladesh has developed its primary road network and upgraded road corridors to accommodate international traffic. All the land ports of Bangladesh are situated in such strategic locations, which are able to facilitate the sub-region. International trade by road is growing and earnings from border trade is increasing. However, there is a lacking of multilateral agreement with 3<sup>rd</sup> and 4<sup>th</sup> countries. As a part of transport chain, economic activities are growing in the area of the parts as employment and quality of life.

## **10. CONCLUSIONS**

Although much work remains to be done in the context of development of transport chains in the sub-region, the finding shows that there is a good starting point to enter in the transport chain. The role of government is positive for cross border passenger traffic but still there is lacking of through-freight truck movement. This depends on political role. Transport chains create various opportunities in Bangladesh such as transport efficiency, employment, and growth of township at the border points and also increases earnings. It is suggested that the transport service related functions at border point should be regularised to reduce time delay and increase the efficiency of border offices.

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