

## **TRANSPORT INTERDEPENDENCY AND ITS IMPACT ON SOCIO-ECONOMIC DEVELOPMENT AND NATIONAL SECURITY OF BANGLADESH**

**Brigadier General Khondaker Shafiur Rahman, ndc, afwc, psc, G+**

### **INTRODUCTION**

The transport system of a country encompasses the array of national and regional highways, district roads, feeder roads, railways and river routes which are means of connectivity facilitating trade, commerce and technological development through interaction of people. The socio-economic condition of Bangladesh has undergone sharp changes in the past decades. Among many contributing factors, development of transport infrastructure is a key issue which triggered positive trend of the socio-economic indicators. A modern multimodal transport policy is needed for the balanced growth of various modes. Adopted Transport Policy should give out a conceptual framework on the corridor based developed transport infrastructures focusing the regional connectivity and beyond.

If Bangladesh aspires to be a developing country by 2021, top priority has to be laid on integrated multimodal transport development and constant review of budget allocation. Therefore, development of transport infrastructure in Bangladesh has now been considered so vital not only for the socio-economic need of the country but also for economic emancipation of the whole region. But while concentrating on economic development, national security related issues should not be overlooked which may result in compromise and exposing to many vulnerabilities. Utilization of military resources and expertise can contribute immensely towards infrastructure development and national security issues.

### **PRESENT STATE OF TRANSPORT INFRASTRUCTURES OF BANGLADESH**

#### **Constraints of Existing Roadway System**

**Missing Link.** The unabridged portion of Asian Highway (AH) and national highway restricts smooth flow of traffic on roadway. Even the construction of Bangabandhu Jamuna Multipurpose Bridge (BJMB) over the Jamuna could not establish designed flow of traffic on this route due to restriction imposed at different segments of the roadway. Similarly link between Mongla port and Dhaka is yet to be established for want of links on unabridged section of Dhaka–Maowa roadway (Alamgir Muzibul, 2013).

**Road Network Pattern.** Maximum roadways of Bangladesh travel from north to south with least development of roadway network on east to west of the country. Therefore, flow of roadway traffic from east to west is restricted with detour movement or link journey.

**Proximity of Bridges and Culverts on Roadway.** Adequate number of bridges or culverts are not constructed on any roadway network of Bangladesh according to its design. As such inadequate number of bridges and culverts are incapable of transferring water from one side of the road to other, thus erosion takes place at each bridge/culvert site with ultimate washing away, mostly of approach roads.

**Lack of Bypass Roads.** Divisional cities are connected with national highways. At present bypass exists at few district cities only (Rangpur, Bogra, Pabna, Jhenidah, Jessore, Tangail, Comilla, and Feni). However, traffic jam is extensively felt throughout the year at all divisional towns for want of bypass road network. Only one two lane bypass road, Joydevpur-Kanchpur seems inadequate considering the huge traffic flow.

**Increased Number of Heavy and Long Vehicles.** Due to rapid industrialization and increased trade, number of heavy and long vehicles has increased manifold. Neither our bridges nor our roads are designed for sustaining these. As a result, most of the roads get destroyed quicker than expected. Also, the turning radius and dimensions of these vehicles are causes of prolonged traffic jam in many roads.

#### **Constraints of Existing Railway System (BR Wikipedia, 2013)**

**Types of Railway Track.** Bangladesh Railway system comprises two Gauges; Broad (BG) and Metre (MG), which involves transshipments of traffic at the break of gauge points at BJMB, Bahadurabad Ghat, Santahar and Parbatipur.

**Transshipment at Riverine Points.** Due to non-availability of bridges at Phulcharighat and Bahadurabadghat transshipment of passenger traffic and cargo traffic incur considerable delay and constraints on railway services.

**Design of Railway Track over Bangabandhu Jamuna Multipurpose Bridge.** The railway link over the JMB connecting East and West zones through the newly constructed 99 km Dual Gauge (DG) line and rehabilitation and conversion of 245 kilometers (kms) BG line to DG from Jamtoli to Parbatipur has facilitated movement of passenger traffic over BJMB. Further improvement will be achieved after completion of the following ongoing/proposed work:

- a) Railway link between western side of BJMB and Bogra.
- b) Railway link between eastern side of BJMB and Tarakandi (completed).
- c) Conversion of MG tracks to DG track from Joydebpur to Dhaka.

#### **Constraints of Existing Riverway Network**

**Siltation in Riverbed.** Bangladesh is formed by sedimentary deposits carried by three major rivers, namely, the Ganges (Padma), the Brahmaputra (Jamuna) and the

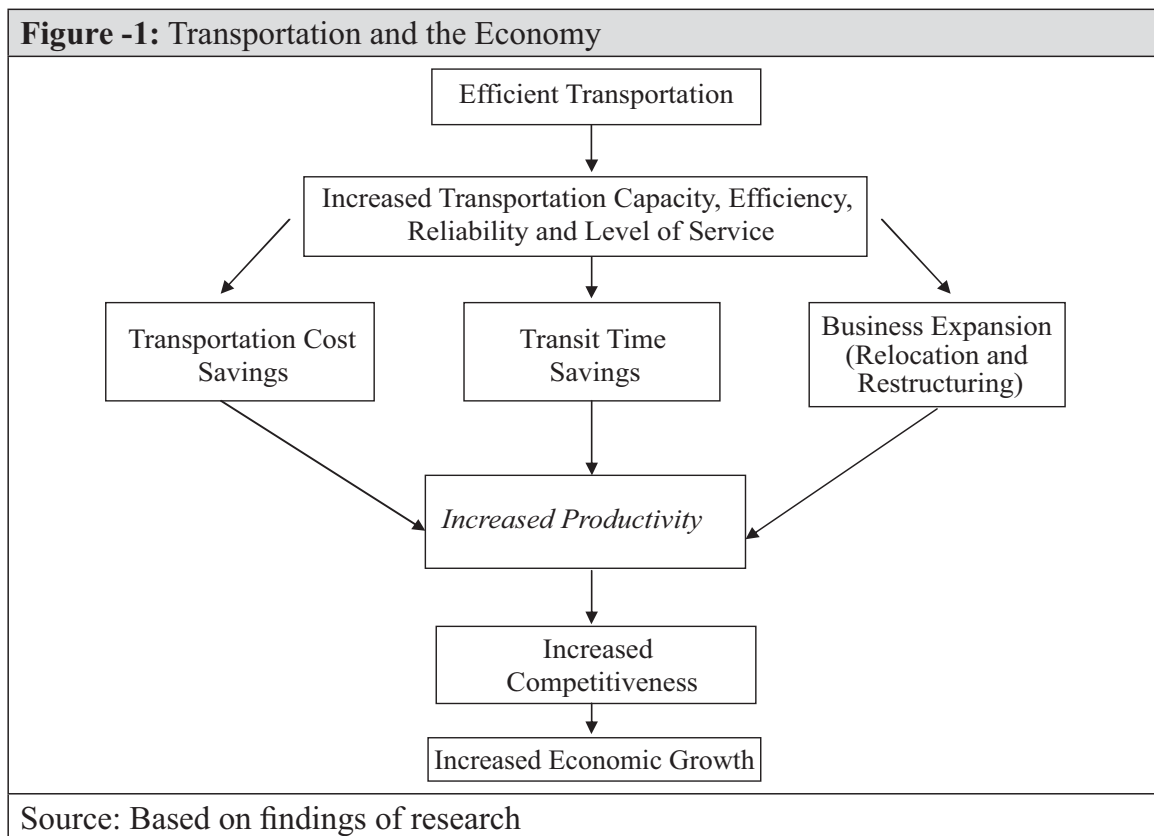
Meghna. The river systems bring about 2.5 billion tons of sediment into Bangladesh each year. Significant amount is deposited on the riverbed causing reduction of river flow.

**Change of Water Course.** The bottom characteristics of river system are mobile in nature. As such, in each year there is a shift in the watercourse. This phenomenon increases difficulty in navigation facilities and very often warrant for fresh survey of river routes.

## CONTRIBUTIONS OF TRANSPORT SYSTEM ON SOCIO-ECONOMIC DEVELOPMENT OF BANGLADESH

### Contributions of Transport

**General.** An adequate and efficient transport system is a pre-requisite for initiating and sustaining economic development. It also helps the generation of economies of scale, increase competition, reduce cost, systematic urbanization, export-led faster growth and a larger share of international trade. The figure below gives us some idea about the possible gains that could accrue from improvements in transportation linkages.



**Economic Impact of Deep Sea Port.** Bangladesh is a littoral state having two international seaports at the Bay, giving access to the markets of East and Southeast Asia, West Asia and Europe through Indian Ocean. Landlocked Nepal, Bhutan, Northeast India and Southwest China among its immediate neighbours, have much to be benefited from an improved multimodal transportation system leading their export goods to these ports. The development of deep sea ports as an economic infrastructure assumes that like roads, communications and other infrastructures, ports have a positive impact on the growth and development of countries (Mahfuz, Shaheen, 2013). For Bangladesh there are at least four significant reasons for establishing a deep sea port in Sonadia, such as:

1. To facilitate uninterrupted coal supply for the power plants which are to be established in Moheshkhali.
2. To support the country's growing sea borne trade needs of the future.
3. To go along with the global shipping trend of moving towards larger tonnage.
4. To utilize our geographical advantage to become a regional access door to the sea.

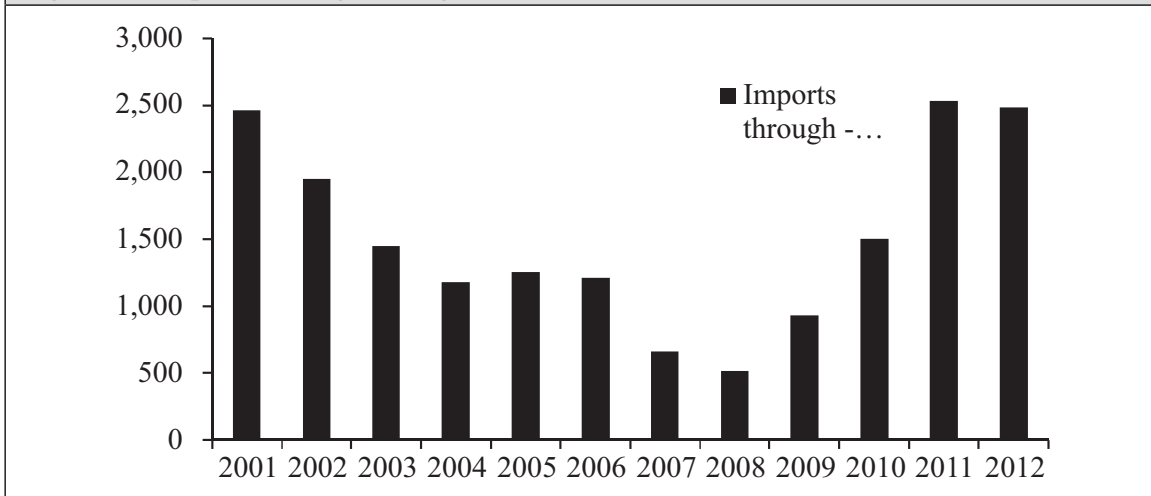
**Economic Benefits from Chittagong Sea Port.** Chittagong Port is considered the heart of the economy of Bangladesh. The geographic location of this port creates the opportunity of easy and cost-effective foreign trade to be carried out through this port with all the South Asian countries as well as other Asian countries. Based on the trade statistics provided in the exhibit above, it can be concluded that it is the most preferred port of Bangladesh for handling sea borne trade. The revenue income and expenditure for the last five years in Chittagong Port is given below:

| <b>Table 1: Income and Expenditure of Last Five Years</b> |                           |                                |                            |
|---|---------------------------|--------------------------------|----------------------------|
| Year  | Income<br>(in Crore Taka) | Expenditure<br>(In Crore Taka) | Surplus<br>(In Crore Taka) |
| 2007-08   | 1057.04                   | 447.15                         | 609.89                     |
| 2008-09   | 1133.73                   | 457.51                         | 676.22                     |
| 2009-10   | 1155.34                   | 624.77                         | 530.57                     |
| 2010-11   | 1453.15                   | 638.42                         | 814.73                     |
| 2011-12   | 1508.93                   | 664.65                         | 844.28                     |
| Source: CPA Over View 2013                                |                           |                                |                            |

**Economic Gains from Mongla Sea Port.** Mongla Port is the second largest port of Bangladesh; during 2012, it handled around 2.6 million tons of sea borne trade. Out of total trade, import accounted for maximum around 95% of the total traffic, which is usually bulk cargo or breaks bulks. The import growth during the last 5 year was around 30% per annum, which is higher than that import growth at Chittagong Port. Some of the

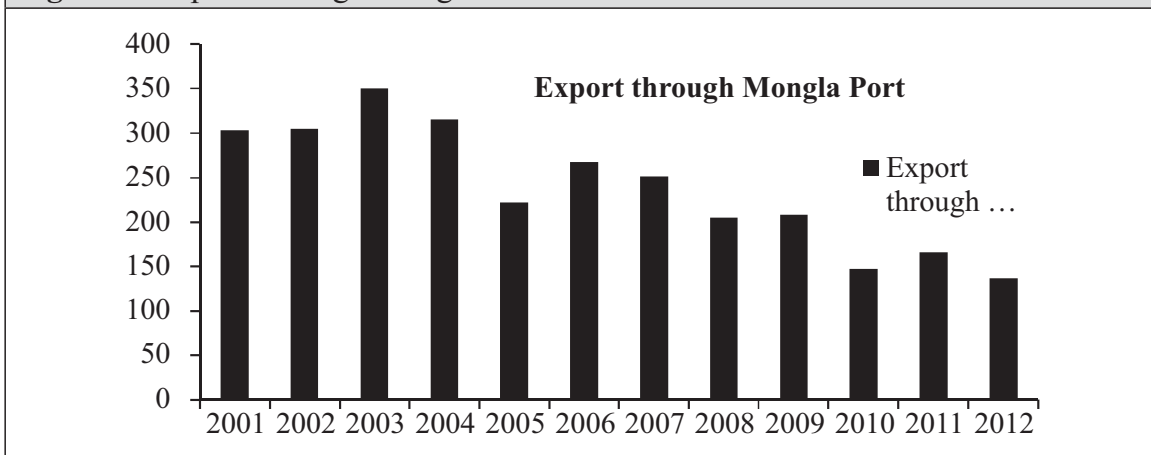
key factor attributing to increasing import of traffic is because Government of Bangladesh has mandated import of some specific commodities through Mongla Port. Total import of traffic and type of traffic handled at Mongla Port during last 10 years are given below:

**Figure 2: Import Through Mongla Port**



Source: Mongla Port Authority

**Figure 3: Export Through Mongla Port**



Source: Mongla Port Authority

Currently, Mongla Port has a handling capacity for around 6.5 million tons of cargo; however it is handling only about 1.6 million tons for the year 2011-12. This is about 24% of the total capacity.

**Socio-Economic Implications of Padma Bridge.** The Government of Bangladesh (GOB) will soon start implementing a plan to construct US \$ 3 billion Padma Bridge on the River Padma which separates depressed Southeast zones and Mongla Port from

Dhaka. The bridge will be the longest bridge of the country. The proposed bridge will be 5.6 kms long, 25 meter wide with four-lane roadway and a railway track, gas pipeline and electricity power transmission line on it. Once this mega project is completed, travel among all the major divisions and cities between the two sides of the river will be easier and faster. According to the feasibility study, it was projected that the traffic volume at the Padma Bridge will reach to 21,300 vehicles per day soon after opening of the bridge and will reach to 41,600 vehicles per day by 2025. This fixed link between centre and Southwest parts of the country will improve accessibility, lower transport costs and delays, and reduce the economic isolation of the Southwest. The construction and operation of Padma Bridge will significantly benefit various sectors of the economy of Bangladesh nationally and regionally (Proposed Technical Assistance Loan to People's Republic of Bangladesh: Padma Multipurpose Bridge Design Project Report and Recommendation of the President to the Board of Directors; Project Number: 35049, Asian Development Bank, November 2007). The road distance from Dhaka to nearly all major destinations in the southwest region will be reduced by 150 km. An estimate of multiplier effects on the Padma bridge investment shows the bridge increasing the national GDP growth rate by 1.2% and the gross product in the southwest region by 35%, as well as generating additional employment opportunities of 743,000 persons per year, which equals 1.2% of the total labor force of Bangladesh. Total road user benefit is estimated to be about million 1,295,840 taka (\$18,512 million) over the 31 year period. The government is constructing Padma Bridge access roads and rail link to capture the full benefit of the Bridge (Bangladesh Development Forum Meeting 2010 : Government of the People's Republic of Bangladesh, Ministry of Communications, Roads and Railways Division. 15-16 February, 2010).

**Transit and Transshipment Issue with India.** Transit to the Northeast India through Bangladesh, which has been a contentious issue between these two countries, is proposed on three grounds. Firstly, this will fetch enormous revenue of US \$ 400 to US \$ 500 million per annum to Bangladesh on account of transshipment charges (at a rate of \$550 from each truck per trip). Secondly, this will make the North east market easily accessible to Bangladeshi goods and services thereby helping Bangladesh bring down the present huge trade deficit over time. This is also expected to institutionalize and regulate the unrecorded trans-border trade. For India it is primarily aimed at reducing transport time and cost. The present distance of 1645 km between Agartala and Calcutta via Siliguri will come down to a mere 350 kms via Bangladesh.

**Connectivity with China and the Association of Southeast Asian Nations (ASEAN) Countries.** A direct multimodal transport (road, rail and riverine) network between Bangladesh and India's Northeast gives Bangladesh the option of opening up access to Kunming, China's the Southwestern economic growth centre. China is also keen to have access to the Indian Ocean through ports in the Bay of Bengal. This better

connectivity will also open up opportunities for Bangladesh of joining the burgeoning economies of Southeast Asian countries that are now on the threshold of becoming first-world economies.

**The Asian Highway.** It is perhaps the Asian Highway project that stands alone as the primary light of hope for improved connectivity in the region in short term. The success will, however, depend on successful negotiations and final implementation of the project. If taken prudently and with far sight, decision to join the Asian Highway will undoubtedly add new dimension to the future directions of Bangladesh economy. Asian Highway is a 32 nation highway project stretching over 1,40,000 km from Turkey in the west to Malaysia in the east. Twenty-eight countries, including Japan, China, Malaysia, Pakistan, Iran, Turkey and all the South Asian nations except Bangladesh, signed the agreement in 2004.

## **NATIONAL SECURITY IMPLICATIONS OF TRANSPORT INFRASTRUCTURES**

### **National Security Issues**

**Collectively Countering Terrorism and Insurgency.** Unfortunately, South Asian States have experienced a steady rise in terrorist activities in the recent past. Many of these attacks originated from across the border. There is an increasing realization that the threat of terrorism can be meaningfully addressed only if the states work together. It is believed that a well-placed regional multimodal transportation system can play a significant role to curb cross border terrorism and insurgency by increasing cross border cooperation in these areas

**Human Trafficking.** Human rights organizations are concerned about the increasing human trafficking in Asia. However, if the connectivity and communication for the cause of Asian Highway increase in the region, it would be really a challenge for the countries to contain increasing trend of human trafficking. The increasing number of transportation and export of different products would increase communication among the people. Hence, it would be easier for the traffickers to continue their illegal network.

**Illegal Migration.** The construction of Asian Highway may increase illegal migration in the region. The issue already remains a major debate between the countries of the region. If the route of Asian Highway activates, it may create more illegal migration, which may hamper social harmony and security of the region. In this respect, Asian Highway has many security concerns for the countries of South Asia. Though the countries of the region are aware of such consequences of Asian Highway, still it is in debate how to contain such security challenges vis-a-vis development issues. However, Bangladesh need to be aware of the security concerns and should develop sufficient mechanisms to face security challenges. However, it would reap up huge development benefits for Bangladesh.



**Small Arms and Drug Trafficking.** These also would be a concern, if the Asian Highway route is implemented. India's North Eastern region, Myanmar and Bangladesh are already facing insecurities due to increasing illicit networks in the region. The opening of Asian Highway network may facilitate such networks in the region. Being at the middle of Myanmar and India, Bangladesh may have to face serious challenges of such illicit networking. The surveillance of such networks also would be very difficult. Bangladesh may have to face such problems more severely.

**Health Security.** The increasing connectivity may increase health hazards in the countries of the region. The endemic disease like HIV can transmit from one country to another by vehicles crossing the border. It may transmit by the poor and less aware people who are working in the vehicles. They poor people are not always aware of such endemic diseases. They will cross border and the diseases may go easily from one country to another. It may create huge insecurity for many countries. Bangladesh is also vulnerable country in this respect.

**Strategic implications.** Many politician, intellectuals and businessmen seem very naively to 'assume' that India will never wage any war against Bangladesh, but for its own independent and sovereign existence, Bangladesh must have its own defence and security strategies independent of the Indian strategy. It does not mean that Bangladesh adopts a militarily hostile policy towards India, Myanmar or China, but by ignoring these aspects and putting the 'security and defence' egg only into Indian basket, the country would invite potential disasters to itself. India is a rising economic and military power and its expansionist and imperialistic ambitions are no longer secret. It considers itself the natural and rightful successor of the British Empire in Asia. To fulfil its imperial ambitions India must 'control' the smaller and less powerful neighbours such as Bangladesh, Nepal, Bhutan, Sri Lanka and Pakistan first before it can dominate countries like Myanmar and Afghanistan. A sovereign and successful Bangladesh with an independent foreign policy and a credible defence system stands in the way of India's economic and strategic domination of the resource rich north eastern and eastern land masses as well as having total control over the Bay of Bengal regions.

## **PRESENT INSTITUTIONAL ARRANGEMENTS: SHORTCOMINGS AND DRAWBACKS**

### **Government Transport Sector Policy and Institutional Arrangement/ Framework**

**National Land Transport Plan.** The government's policy for the transport sector is spelt out in the National Land Transport Policy approved in April 2004. The policy objectives include provision of safe and dependable transport services, and improving the regulatory and legal framework. The policy is designed to play an important role in helping reduce the transport costs of goods for export and in keeping the costs of



Bangladeshi goods competitive in the world market. The policy also introduces an integrated multimodal transport system, linking road, rail and water transport.

**Sixth Five Year Plan.** For transport network development strategy, an optimal mix of “market integration approach” and “poles of development approach” will be adopted. The main elements of the overall transport strategy for the Sixth Five Year Plan are as follows:

1. The two sea ports will be further developed and linked to Dhaka.
2. Railway linkages will be established between the east and the south west zones of the country.
3. Efforts will be made to develop some of the critical inter-modal transport network that will allow connectivity of neighboring countries to the two sea ports of Bangladesh
4. Efforts will also be made to fully participate in global and regional transport connectivity initiatives that will help develop the land route links between South Asia and East Asia through Bangladesh.

**Roads and Highways Department.** The RHD, the highway agency in Bangladesh under the Ministry of Communications is mandated to construct, improve, rehabilitate, and maintain the country’s road network consisting of national, regional and district roads. This also includes providing the people with a safe, cost effective, and well maintained road network.

**Bangladesh Inland Water Transport Authority (BIWTA) and the Bangladesh Inland Water Transport Corporation (BIWTC).** Bangladesh inland water transport system is served by the Bangladesh Inland Water Transport Authority (BIWTA) and the Bangladesh Inland Water Transport Corporation (BIWTC) in the public sector and various large and small private operators under the Private sector. Another government agency called the Director General of Shipping (DG. Shipping) acts as a regulatory authority and executes Inland Shipping Ordinance, 1976, under which IWT sub sector is regulated.

**Local Government Engineering Department (LGED).** The LGED works closely with the local stakeholders to ensure people’s participation and bottom-up planning in all stages of the project implementation cycle. The LGED works in a wide range of diversified programs from construction of roads, bridges/ culverts and markets to social mobilization, empowerment, and environmental protection.

**Chittagong Port Authority.** The Chittagong Port Authority (CPA) owns and controls all facilities, equipments, and operations of the port. The authority is run by a Board consisting of the Chairman as the Chief Executive Officer (CEO) and five other specialist Members and Directors.

## **WAYS FORWARD FOR BETTER SOCIO-ECONOMIC DEVELOPMENT AND NATIONAL SECURITY**

**Need For Transport Policies.** In order to implement strategic transport plan articulated in 6<sup>th</sup> Five Year Plan, a pragmatic, modern and visionary transport policy and implementing institution/arrangement are needed. Therefore, to develop an integrated, efficient and affordable multimodal transport system which is sustainable from social, economic and environmental points of view, the Government needs to take immediate action to adopt a vision together involving all stakeholders. Transport policy should bring out a road map of corridor based developed transport infrastructures focusing the regional connectivity and beyond. Bangladesh should try to provide transport services to the sub-region as a “trade in services” and as a potentially important source of foreign exchange earnings.

**Creation of Ministry of Transport.** For effective coordination and development of an integrated transportation system in the country, all transport related ministries and their parastatals may be brought under one broad based “Ministry of Transport”. The Cabinet Minister in charge of the Ministry could be assisted by several State Ministers, one each for Roads; Railways; Ports, Shipping and inland waterways; and Civil Aviation cum Tourism. There could be several Divisions in the Ministry one for each sub-sector of transport but coordinated by an official of the rank of Principal Secretary. Ministry of Transport should set the policies and regulations, leaving the implementation of those policies to the parastatals and the private sector.

**Formulation of Inter-ministerial Committee.** To address inappropriate modal mix which has led to road transport biased development in the country, a small inter-ministerial committee supported by quality professionals of high standing should be set up immediately to undertake an in-depth study of the full cost (economic costs) of each mode of transport togetherwith cost of externalities created by each mode.

**Rearrangement in Road Transport.** In order to avoid wastage of scarce resources, it is essential to develop road transport, as part of one integrated logistic chain, allowing each mode to play, within the multimodal transport context, a role which is in a better position to serve, keeping in view economic, social and environmental costs. Investment on urban transport infrastructure should be enhanced further, which is insignificant at present. For faster movement and less congestion overall transport may be separated from motorized and non-motorized arrangement/ system. This will also significantly reduce road hazards/accidents.

**Land Management.** To avoid misuse of land, it is essential to develop a land management regime in order to regulate the physical framework in which transport infrastructure, particularly future road development/improvement can take place.

## **Rail Transport**

**Reform in BR.** Bangladesh railway should provide the backbone of intercity, intra-city passenger transit and commuter service. The on-going reforms and reorganization of BR should be completed for transforming the organization into a corporate entity. Dualization of railway should be extended from Dhaka to Chittagong to facilitate regional integration, and provide uninterrupted broad gauge rail service from Raxaul (in Nepal) to Chittagong in Bangladesh. Infrastructure and Operational needs are to be segregated and both operated on commercial principles. Whatever reform has been achieved so far should be consolidated by bringing the changes under the legal coverage.

**Railway Service and Privatization.** The ICD at Kamlapur is not being used optimally. Bangladesh Railway should create facilities to carry more containers between Chittagong and Dhaka. The provision and management of cargo handling should be divested to private sector. The equipments workshop and other facilities of the Port Authority may also be leased out to the said private sector. Further areas of railway operations should be opened up to private sector involvement.

## **Inland Water Transport (IWT)**

**Waterway as the best Mean of Transportation.** The IWT has been characterized as the least-cost, environment friendly, least accident-prone and low maintenance cost transport mode. Moreover, the development of waterways does not even require any cultivable land rather it's very much helpful for development of other sectors of economy including maintaining ecological balance. In addition, there exists a dynamic private sector which leads most of the sector activities such as cargo transport, port management and ship building etc. that help the sector's contribution to shared growth and poverty reduction.

**Development of River Port Facilities.** At present only  $\frac{3}{4}$  numbers of commercial centres are connected with rivers through the port facilities. River port facilities must be developed in required places (already mentioned before) in order to exploit full potential of IWT which should be integrated with other surface modes roads, railway and seaports. Efficient logistic support should be ensured to make it more viable and beneficial to the business entrepreneurs. Development and maintenance of inland waterways for navigation all the year round should be conceived as an integrated project for land development, flood control, irrigation, etc.

**Sea Port Management.** All political parties should participate in a round table conference in order to arrive at a consensus that the country's maritime ports will be allowed to function without outside political interference and the Port Authorities be allowed to manage and operate the Port activities in consultation with the stake holders keeping in view the interest of the country. A Consultative Committee headed by the President of the FBCCI may be established.

**Inland Container Depots (ICD).** They should be established according to demand, at strategic locations, to enable multimodal operation of containers from the premises of the shippers to the premises of the consignees without stuffing and de-stuffing of containers at the ports. ICDs should be well-equipped with proper container handling equipment.

**Private Sector's Involvement.** To promote private sector's involvement in transport infrastructure development and management, Government's functions as a provider should decrease while its functions as a facilitating regulator should increase. To this end, the government needs to develop an institutional framework to create a favourable operating environment for the private sector and at the same time to protect social and environmental interests. To strengthen Public-Private Partnership in transport infrastructure development and management, further improvements are required in a number of areas to create a conducive environment.

**Utilization of Military Expertise and Resources.** For the greater efficiency, transparency, proper implementation of the project without any political prejudice and interest, Government should utilize military resources, their expertise and managerial skill as there has been successful cases already completed by Special Works Organization (SWO), Bangladesh Army. But this organization needs expansion and restructuring. At least one more SWO to be raised immediately which all should be brought under a Division Headquarters like command and control centre directly placed under the Armed Forces Division drawing resources from the Navy and the Air Force for supporting allied infrastructures in internal water/ maritime and aviation domain. Their operational and administrative control may be retained by the parent Service HQ where technical control and budgetary allocation may be exercised by the Ministry of Communication or Transport Ministry if raised in future. This division size SWO can have support and coordination relation with other ministries like, Railway, Water, Aviation and Tourism Ministry, Planning Commission, BIWTA, Chittagong and Mongla Port Authorities. Consultation with military experts for national security implication prior to approving a Communication Infrastructure Project is of paramount importance.

**Budgetary Allocation and Regional Support.** Until recently transport sector of Bangladesh is not given due priority over other ministries. Budget allocations in this sector in last five years are given as Appendix 6.1. If Bangladesh wants to attain GDP growth 8% by 2017, prioritization of integrated transport development and constant review of budget allocation for the transport infrastructures development is must. Therefore, transport sector should receive highest budgetary allocation by the Govt in next five years and thereafter should be allotted basing on their view. All international donors like ADB, WB, IMF should be pursued focusing the transport infrastructures and funded accordingly (Zahid, 2013). While working to improve regional connectivity regional cooperation and grant be arranged from the beneficiary countries in the region. Agenda may be taken up in the SAARC, BIMSTEC, SASEC level meeting even to raise a common transport development fund for the region.

## RECOMMENDATIONS

The following is a set of broad policy recommendations:

1. A well-articulated transport policy focusing the regional connectivity and beyond is needed for the socio-economic development of the country.
2. In view of Bangladesh's unique geographical location, it could become the "transport hub" to serve the entire hinterland comprising Nepal, Bhutan and North-East India. In order to achieve this benefit construction of the Padma Bridge and Deep Sea Port at Sonadia should commence as soon as possible.
3. A continuous and sustainable river dredging plan including a sustainable navigability plan of the Mongla Port should be implemented.
4. The Inland Container Depots (ICD) may be established according to demand, at strategic locations, to enable multimodal door to door operation without stuffing and de-stuffing of containers at the ports. ICDs may be well-equipped with proper container handling equipment.
5. Transport sector should receive highest budgetary allocation by the Govt in next five years and thereafter should be allotted basing on periodical review.
6. For the greater efficiency, transparency and timely implementation of the project Govt should utilize military SWO, their expertise and managerial skill. Therefore, proposed SWO HQ may be approved and SW-North may be immediately raised.
7. National security implications should be given due consideration while implementing transport infrastructures and military experts should be consulted prior to taking up such projects.

## CONCLUSION

Despite the observed growth of transport sector, the overall performance of the transport sector has been generally weak and unplanned. Facing these challenges requires to reexamine priorities and to develop a strategy which can develop a need worthy of balanced transport sector to achievesocio-economic objectives. Therefore, to ensure a sustained economic growth rate more than 6%, Bangladesh needs to focus on the transport demand of the main export industries, which would gain from quicker, less costly transport of containers along the Dhaka-Chittagong corridor, through the port and to its markets.

There is a greater need to analyse the security implications on transport infrastructure and evaluate its effects on military operations. Improvement of transport system will continue for economic reason and side by side this will enhance the speed of deployment and movement of land forces to inaccessible places and bordering areas to countertransnational security threat. The upcoming Padma Bridge and AH will facilitate security

forces operation in countering terrorism, human and drug trafficking, trans-border crimes including other environmental challenges. To create a successful security umbrella, transport system development must be integrated into the strategic plan of the country.

In order to implement strategic transport plan articulated in 6<sup>th</sup> Five Year Plan a pragmatic, modern and visionary transport policy and implementing institution are needed. Adopted Transport Policy should give out a concept on the corridor based transport development. Transport Ministry encompassing the activities of all other transport related affairs may be raised to ensure coordination among the ministries for planned development of transport sector of Bangladesh. Government's functions as a facilitating regulator should increase to promote private sector's involvement in transport infrastructure development and management. If Bangladesh wants to achieve Vision 2021, prioritization of integrated transport development and constant review of budget allocation for the transport sector is of paramount importance.

## BIBLIOGRAPHY

### Books

1. Basil, Sir Liddell Hart, World War II, An Illustrated History, Volume II, (Penguin Publisher, London, 1977).
2. Nafis Ahamed, A New Economic Geography of Bangladesh, (Vikas Publishing House Pvt Ltd, Kanpur 1976).
3. Patrick O'sullivan, Terrain and Tactics, (Green Wood Press, London, 1991).
4. Rao, General K V Krishna, pvtm (retd), Prepare or Parish, A Study of National Security, (Lancer Publishers pvt.Ltd.1991).
5. Asia and the Road Ahead, Robert A. Scalapino, University of California Press, London, 1975.
6. Farazi Binti Ferdous, *Chittagong Sea Port and Inland Transport System of Bangladesh: An analysis of the role of efficient hinterland connectivity to facilitate international trade*. Tokyo. 2011.
7. Theo Notteboom Itmma, *The Relation Between Seaports and the Intermodal hinterland in Light of Global Supply Chains, European Challenges*; University of Antwerp Press, 2008.
8. Rehman Sobhan, Report of the Task Force on Bangladesh (University Press Limited, Dhaka 1991).



### **Interviews**

9. Dr. Bari, Member Planning Commission on 08 April 2013.
10. Dr. Alamgir Muzibul Huq, Professor of BUET on 15 April 2013.
11. Maj Gen Sayed Masud, Consultant Padma Bridge and DG,SWO-West on 16 April 2013.
12. Syed Nasim Manzur, MD, Apex Adalchi Footwear on 26 May 2013.
13. Md Nehar Miah, Chief Engineer, RHD, Dhaka on 29 May 2013.
14. Zahid Hossain, Director, World Bank on 09 June 2013.

### **Lectures Delivered in National Defence College**

15. Prospect and Diversification of RMG Sector in Bangladesh by Md Akbar Hassan on 24 April 2013.
16. Infrastructural Development: Key to Economic Success by Azam J. Chowdhury on 28 April 2013.
17. Bangladesh Economy-Prospects and Challenges by Dr. Fahmida Khatun on 30 April 2013.
18. Potential Challenges Ahead and the Industrial Sector of Bangladesh by Professor Mamun Rashid on 02 May 2013.
19. Entrepreneurship Development and Manufacturing Process in Bangladesh by Syed NasimManzur on 02 May 2013.
20. Bangladesh - Vision 2021: Trade and Commerce Perspective by Mr Abdul Muktaadiron 12 May 2013.
21. Tourism-Regional Perspectives and Prospects for Bangladesh by Lt Col Muhammad Faruk Khan (retired), MP, Hon'ble Minister on 14 May 2013.
22. Power Sector Development: Options for Bangladesh by Dr Tawfiq-e-Elahi Chowdhury, BB on 19 May 2013.
23. Transportation System in Bangladesh by Dr. Mazharul Hoque on 13 June 2013.
24. US-Bangladesh Relation and Contemporary Issues by H.E. Dan Mozena, US Ambassador to Bangladesh on 05 August 2013.

### **Journals / Magazines**

25. Potential and prospects of strengthening transport connectivity in South and South-West Asia by Nagesh Kumar, ESCAP.

26. Chaudhari, SK, 'Cross Border Trade Between India and Bangladesh', *Working Paper 58*, NCAER, New Delhi, 1995.
27. Ozsomer, 1993, *International Journal of Physical Distribution & Logistics Management*; Paris, France.

### **News Papers**

28. Daily Prothom- Alo18 May 2008. Report on the bridge construction.
29. Dr. Abu Reza, Transit for India-Viable use of inland water transport - The Daily Star, Sunday, March 3, 2013.
30. Pradeep S Mehta, Cartelization in the inland water transport sector - The Independent, 21 July 2012.
31. Mahmudul Hasan, "Fencing on Bangladesh-Myanmar border: Disputes need to be resolved through win-win formula", *The Financial Express*, 7 May 2009.
32. The Telegraph, North Bengal Edition, 2 December 2002

### **Pamphlets and Official Documents**

33. Annual Ports and Traffic Report, 1998-1999, Bangladesh Water Transport Authority.
34. Local Government Engineering Department, Summary of Road Inventory, 18 September 2000.
35. Bangladesh Economic Review 2004.
36. Information Book 2006 - Bangladesh Railway.
37. Bangladesh Roads and Highways Department, Ministry of Communications, RHD Road Network Database Annual Report for 2012, Volume I: Main Part.
38. ESCAP, 1983; 1991; 1995d & 1996b; ESCAP/UNDP, 1993
39. Sbramaniam, Uma and John Arnold, *Forging Sub-regional Links in Transportation and Logistics in South Asia*, World bank, Washington, 2001.

### **Publications**

40. People's Republic of Bangladesh: Strategic Master Plan for Chittagong Port, ADB's Technical Assistance Report, Project No: 45078, Policy and Advisory Technical Assistance (PATA), December 2011.
41. Policy Brief on "Transport and Infrastructure" CPD task force report, National Policy Forum Dhaka: 20-22 August, 2001 Organized by: Centre for Policy Dialogue, *Prothom Alo*, *The Daily Star*:

42. People's Republic of Bangladesh, Revival of Inland Water Transport: Options and Strategies Bangladesh Development Series Paper No. 20, The World Bank Office, Dhaka, September 2007.
43. Bangladesh Development Forum Meeting 2010: Government of the People's Republic of Bangladesh, Ministry of Communications, Roads and Railways Division, 15-16 February, 2010.
44. Rahmatullah, M., 2004. "Integrating Transport Systems of South Asia" in Sobhan, Rehamn (ed.) (2004).
45. *Promoting Cooperation in South Asia: An Agenda for 13th SAARC Summit*, Centre for Policy Dialogue and the University Press Ltd., Dhaka.
46. Sobhan, R., 2000. *Rediscovering the Southern Silk Route: Integrating Asia's Transport Infrastructure*, Dhaka, Centre for Policy Dialogue and the University Press Ltd.

#### **Research Papers/ Lecture Script**

47. Md Nuruzzaman, 'Transit, National Sovereignty and Question of Self Development', Dhaka University.
48. A presentation on Communication System Facilities in Support of Military Operations and Operational Logistics during War by Major General Md Ismail Faruque Chowdhury. E in C Army Headquarters, in NDC on Apr 2007.
49. Commandant paper on Implication of Road Network on National Defence by Squadron Leader Md Abu Rayhan, Student Officer, DSCSC2008.
50. Commandant paper on Impact of Asian Highway on The Economy of Bangladesh by Commander (BN) Mohammad, Student Officer, DSCSC 1997.

#### **Seminar Presentations**

51. Policy Dialogue on Strengthening Transport Connectivity among the South and South-West Asian Countries Organized Jointly by UNESCAP and BIISSCountry Position Paper On Railway Transport on 26 June 2013.
52. *Realizing the Potential of Bangladesh's Location through Connectivity* by Dr Mahfuz Kabir, Dr Shaheen Afroze, Senior Research Fellow, BIIS, Research Director, BIIS on 26 June 2013.
53. *Prospects of Strengthening Transport Connectivity in SSWA Region* presented by Dr. M. Rahmatullah, Senior Visiting Fellow, CPD and Former Director of Transport, UN-ESCAP, Bangkok on 27 June 2013.

54. *Connectivity, Economic Welfare & Foreign Policy Paradigm* by Mashiur Rahman on 26 June 2013.

#### **Website**

55. [intranet.unescap.org/ttdw/ppp/reports/Bangladesh1996.pdf](http://intranet.unescap.org/ttdw/ppp/reports/Bangladesh1996.pdf) accessed on 12 June 2013.
56. <http://dns-summit.com> accessed on 12 June 2013.
57. <http://www.bdsdf.org/forum> accessed on 18 June 2013.
58. <http://www.bi-countytransitway.com> accessed on 23 July 2013.
59. <http://www.strategycenter.net> accessed on 27 July 2013.

#### **Author**

*Brigadier General Khondaker Shafiur Rahman, ndc, afwc, psc, G+ was born on 01 January 1967. He was commissioned on 27 June 1986 with 14th BMA Long Course. During his long service career he attended many professional courses both at home and abroad including the Armed Forces War Course at National Defence College, Mirpur. Brig Gen Shafi served in staff, instructional and command appointments in different capacities. He served as Brigade Major of an Infantry Brigade. He also served in BMA as Term, Pl Commander and Deputy Commandant. Besides his mid level regimental appointments, the officer commanded 25 Air Defence Regiment Artillery. After completing his command tenure, he was posted as Director of Special Security Force in Prime Minister's Office and served there until he was selected for AFWC course 2008. He also served as the General Staff Officer First Grade of 55 Infantry Division. Before joining as Deputy Brigade Commander in Western Bde under MONUSCO in DR Congo, Brig Gen Shafi served in NDC as the Directing Staff (Army) in AFWC wing up to 02 March 2012. He obtained Master of Defence Studies degree from National University and Master of War Studies degree from BUP.*

*Brigadier General Shafi served as Military Observer twice in Croatia (UNTAES) and BANARTY-1 (Sierra Leone). Right after coming back from DR Congo where he served as the Deputy Brigade Commander of a Multinational Brigade he was promoted to the present rank and joined NDC-2013. Presently he is serving as the Commander of 10 Arty Bde in Ramu. He visited many countries across the globe. He visited Pakistan, China, Malaysia, Thailand, UK, KSA, UAE, Singapore, Sierra Leone, DR Congo, Croatia, Hungary, Hongkong and India as a member of the military delegation and also travelled many other countries of the world. Brig Gen Shafi is married and father of one daughter and one son. Both of them are students. His wife, Ayesha Siddiqua is a home maker. His hobbies are listening to music and playing golf.*