

PROSPECTS OF INLAND WATERWAYS FOR FREIGHT TRAFFIC MOVEMENT ALONG DHAKA-CHITTAGONG CORRIDOR AND CONSTRAINT ANALYSIS OF FULL OPERATION OF THE PANGAON INLAND CONTAINER TERMINAL (PICT)

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ABSTRACT

Chittagong Port handles about 75% of containers reaching Bangladesh of which 85% is carried through the Dhaka-Chittagong (DC) economic corridor. According to a recent study, container handling will reach 3 million TEU in 2020 from the current 1.12 million due to consistent annual growth of about 11.25% since 2000. Only about 20% of the Dhaka bound containers moves inland through railways and waterways. This paper discusses various problems associated with the Dhaka-Chittagong highway and freight container trains and the benefits of the use of inland waterways over highways and railways. Bangladesh has one of the largest inland waterway networks in the world. An ADB report states, Bangladesh can raise its foreign trade by 20 percent if the inland water transport logistics systems are made efficient and competitive. Pangaon Inland Container Terminal (PICT) was built to facilitate movement of Dhaka bound freight through waterways. Unfortunately, PICT handled only 1200 TEU containers in the last year which is less than 1% of its total handling capacity. Chittagong Port Authority failed to get desired response from the importers due to a number of reasons. Insufficient number of vessels, poor standard of vessels, lack of dock facilities, delay etc. are some of them. This paper analyses the main reasons behind the inefficient operation of PICT and suggests possible solutions. The successful operation of PICT will help ease the pressure of cargo movement on the Dhaka-Chittagong railway and highway corridors. Moreover, energy consumption and carbon emission will reduce significantly.

Keywords: Containers, freight, inland waterways

1. INTRODUCTION

In the export industry, the competitiveness of business depends on the responsiveness of the supply chains. Inefficiencies such as long cycle times, shortages and logistical deficiencies across chains threatens the competitiveness of the whole import and export supply chain. Bangladesh is a developing country and in the 21st century, Bangladesh earns most of its foreign currencies through exporting goods. On a ranking of major logistics markets for the future Bangladesh climbed 13 places from 25th to 12th position in 2013. According to the Agility Emerging Market Logistics Index (AEMLI) Bangladesh is considered as one of the 45 major emerging markets of the world (Nyenrode 2014). The most popular transport mode for freight transport in Bangladesh is sea freight and sometimes air freight (For high priced materials and emergency cases). These days, both Chittagong and Mongla ports receive huge number of containers because of increased activities mainly in the ready-made garments (RMG) sector. Chittagong port handles about 76% of the country's 10 million tons of annual foreign trade of which 85% is carried through the Dhaka-Chittagong (DC) economic corridor (DCCI). Because of the growth of goods and population within the two major cities of Dhaka and Chittagong, the overall annual growth rate was nearly 8.2% for freight transport (Nasirullah 2011). The consistent annual growth in container handling is about 11.25% in Chittagong Port from the year 2000 onwards. According to a recent study, it will result in 3 million plus TEU's in 2020 from the current 1.12 million. 80% of these containers are Dhaka bound and origin (Ahmed 2012). Dhaka-Chittagong corridor is mainly dominated by road service. Dhaka-Chittagong highway is already congested with heavy traffic and to release the pressure, the highway is being converted into a four-lane one. The policy-makers need to realise that four lanes are not the solution because the highway cannot cater to the increasing number of containers as roads are mainly for passengers. Kamalapur Inland Container Depot (KICD) was built to resolve the container congestion and quick handling of Dhaka based containers, but it could not fulfill the desired demands of the importers. In this paper various problems associated with the Dhaka-Chittagong highway and Freight Container Train has been discussed. In our country, inland water transport is one of the oldest modes for economically efficient and environmentally sustainable transport system. Unfortunately, the inland waterways remained largely overlooked which could have been one of the best ways for the transportation of containers and containerised cargoes from

one part to another. Improved countries used their inland water to the maximum use. For example, In Europe about 8.5 million TEU containers are hauled inland per year by big operators today. In Asia the Yangtze river network alone handles about 70% of China’s international trade in containers(Ahmed 2012). In case of Bangladesh, main hinterland of industry and commerce is in and around greater Dhaka region. It is connected by all season navigable rivers with the country’s two seaports. But due to absence of inland river based container handling infra-structures, the export/import sector of Bangladesh is deprived of proper inland transportation system. This is directly affecting the viable pricing of goods. This paper also aims to show possible advantageous impact of use of overlooked inland waterways on society, economy and environment. The Pangaon Inland Container Terminal (PICT), first inland container terminal of country built at South Keraniganj of Dhaka district is yet to be utilised fully due to non-availability of requisite numbers of transport (vessels) for carrying containers from Chittagong Port and several other reasons even after 2 years of its inauguration. This paper also focuses on the main reasons behind the inefficient operation of newly built PICT.

2. METHODOLOGY

It was expected that construction of PICT will solve the gradually increasing problem of freight transportation on Dhaka-Chittagong corridor. But the business community has shown no interest to use it for import or export due to its various limitations. We tried to find and analyse the reasons behind their reluctance towards PICT. As inefficient use of Pangaon inland container terminal is a very recent issue, due to shortage of data it is very difficult to go to the root of problems and to understand the depth of problems. So we took interview of a lot of people related with the sector. Both structural and non-structural surveys were done. We made survey groups and our main target was collecting opinion of the conscious people like businessmen, shipping agents and clearing and forwarding agents out of their experiences. Some information has been taken from recent reports of newspapers. From the shared experience and advice of these people some means to make the PICT efficient have been suggested. Also we tried to show present container transportation state of our country and how increasing use of inland waterways in this sector can direct the condition to sustainable betterment from various studies.

3. TRAFFIC FLOWS BETWEEN DHAKA AND CHITTAGONG

Estimated traffic on five corridors (Dhaka-Chittagong, Dhaka-Northwest, Dhaka-Khulna, Dhaka-Sylhet and Khulna-Northwest) of Bangladesh indicates that Dhaka-Chittagong corridor ranks first and appears to be the most important one in terms of flow of passenger and freight traffic. It is estimated that freight traffic in between Dhaka and Chittagong has increased from 10.6 million tons in 1995/96 to 18.4 million tons by 1999/2000, and to 42.0 million tons by the year 2014/2015. (BITSS, 1997) (Aman 2014)

Table 1: Freight and passenger traffic between Dhaka-Chittagong (Aman 2014).

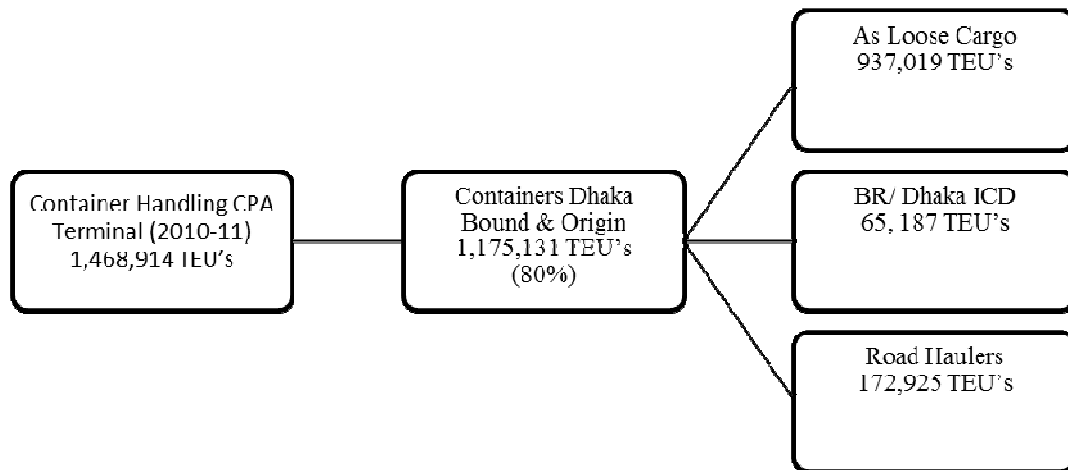
Flows of freight and passenger between Dhaka-Chittagong Period	Freight (Million tons p. a.)	Passenger (Million passengers p. a.)
1992/93	10.4	23.2
1995/96	10.6	26.5
1999/2000	18.4	65.8
2014/2015	42.0	134.

Dhaka-Chittagong (DC) Economic Corridor contains 32%Population, 50% of GDP, 85% International trade. But most of the freight & passenger traffic moves on a congested two lane DC highway and on a Capacity & equipment constrained railway system. Especially freights are carried on road mostly than other modes. Following table shows the comparative growth rate of container handling in Dhaka-Chittagong surface corridor by two modes along with growth rate of container handling at port. The rate is very low for railway and even negative sometimes which shows clearly pressure of freight transportation is increasing on road and it will continue in the same pattern.

Table 2: Container Handling in DHK- CTG Surface Corridor by Different Mode of Transportation (Ahmed 2012)

Calendar Year	Port (TEU's)	Growth Rate at CTG	ICD/BR (TEU's)	Growth rate at ICD/BR	Road Trailers (TEU's)	Growth Rate of Road Trailers
2004-05	6,88,771	13.73%	68,567	2.87%	79,548	13%
2005- 06	7,83,353	13.73%	91,481	14.72%	78,660	15%
2006-07	8,76,186	11.85%	77,567	-1.39%	1,05,203	15%
2007-08	9,60,603	9.63%	80,714	4.06%	1,19,931	14%
2008-09	10,69,999	11.39%	82,458	2.16%	1,35,522	13%
2009-10	12,12,652	13.33%	65,867	-20.12%	1,49,074	10%
2010-11	14,68,914	21.13%	65,187	-1.03%	1,72,925	16%

In 2010-2011, (Ahmed 2012)



3.1 Highway logistics problem

The total fleet of on road motorized vehicles has increased significantly. The growth of truck has increased about 11.2%. Road network from Dhaka to Chittagong is 278 km. Goods movement of these areas is mainly dependent on trucking and it is around 80% of total goods (Chowdhury 2002). Time requires is around 5 hours without any major delaying. Only about 20% of the Dhaka bound/origin containers move inland. The remaining 80% are un-staffed (import) and staffed (export) at Chittagong Port and numerous other off- dock terminals. They are moved as break bulk in overloaded, unsafe trucks. As a result cost becomes higher, delays occur, probability of damages, pilferage and uncertainty increases in the delivery of shipped goods either way. This uncertainty has led to a bone of contention particularly between the apparel exporters and the consignees overseas. FOB (Free On Board) documented goods as loose cargo carried by covered Vans/ open trucks are being handed over to the Carrier's Agent in Chittagong risking loss/ damage to the consignment before actually on board without any liability taken by the Agent. As a result, untoward situations have prompted the exporters to take it up with the Consignees to agree to accept consignment as FCA (Free carrier) rather than FOB to avoid litigation. Few have agreed, but the war is still on according to BGMEA, the apex body for the apparel exporters. Constrained by rail capacity, costly container movement by road in Bangladesh is growing faster than the investment and maintenance capacity available, for the road system.

Other problems are:

1. The fare is the key item of logistics transportation. Presently there are some rules in maintaining the fare policy. In practice these are not followed. Negotiation is done. The cost varies with different situation like weather, political stability etc.
2. As both passenger and freight carrying vehicles move on the same road, congestion is ultimate result. As a result delay occurs.
3. Safety plays an important role for logistics transportation. Safe transportation and safe shipment is ultimate objective. The possibility of accidents and losing of goods is much more on the highway.
4. Environmental pollution is emerging phenomenon in all over the world and current system detracts the environment.
5. During rainy or flood season, roads become unfit and unsafe for use.
6. This mode of transport is unsuitable and costly for transporting cheap and bulky goods over long distances.

3.2 Existing Situation of the Dhaka- Chittagong Freight Container Train Services

Railway container service in Bangladesh started in 1987, with the debut of the Dhaka-Chittagong parcel express train. The exclusive container train was introduced in 1991. The Inland Container Depot (ICD), Dhaka, is near Kamalapur Railway Station. The existing rail road distance between Dhaka-Chittagong is 320.79 route km. The link between Chittagong-Laksam is almost straight and it is 129.60 km. The rail-road distance between Dhaka-Laksam is 191.19 km with a huge rounding loop of about 90 km and thus railway service between Dhaka-Chittagong is time consuming and less attractive. Three containers operate in these regions. Chittagong (Ctg.) yard is near Chittagong port (Chowdhury 2002).

Table 3: Revenue Distribution

No	Name	Number of train	From	To	Revenue per ton (Tk)
1	Container Express	2	Dhaka ICD	Ctg yard	353.74
2	Tank Special	1	Dhaka Cantonment	Ctg yard	Revenue per km.
3	Express Goods	1	Tejgaon, Dhaka	Ctg yard	123.6

Railway throughput remarkably shown negative growth (-22%) in 2009 (Ahmed 2012) and the trend continuing due to multiple reasons but primarily for;

- The number of container trains is insufficient on the Dhaka-Chittagong route. Bangladesh needs more container trains in order to increase the mobility of goods.
- Goods in the Dhaka-Chittagong area suffer greatly from the infrequency of railway departures.
- After unloading from ships container aimed to be carried by train are kept at G-shade of port. There is long queue for railway space at the Port.
- Also there is day time restriction on cargo movement in Kamalapur ICD. So to move goods after unstuffing from ICD, one has to wait till night as cargoes can enter the city only at night.
- The monitoring at the KICD is very poor comparing to that of Chittagong port. If the port of delivery or port of receipt is KICD then huge amount of unofficial cost like bribery has to be given at various steps to various individual bodies.

4. PROSPECTS OF INLAND WATERWAYS FOR FREIGHT TRAFFIC MOVEMENT

Bangladesh has one of the largest inland waterway networks in the world which connects almost all the country's major cities, towns, and commercial centers, occupying about 11 % of the country. About 700 natural rivers & tributaries with an overall 24,000 km- long network are crisscrossing the country. Only about 5,970 km is navigable by mechanized vessels during monsoon period, which shrinks to about 3,970 km during dry period making navigation for mechanized vessels above 500 DWT difficult (Mahmud).

The inland water transport (IWT) infrastructure is not as well-established in Bangladesh as roads and railways. Inland waterways suffer from a gradual decline in navigable length and on account of service quality and safety standards. With the space of time and ignorance in maintenance dredging, the 12,000 km of classified

waterways in 1970 have now dwindled to almost 6,000 km, as the inland water transport network has received little attention from the subsequent governments (TDS 2012).

Until recently, however, the maintenance of river network by dredging and development of IWT sector had received little attention from the Government of Bangladesh with only limited resources allocated to its development. The government now have taken extensive measures to equip itself with 9 new dredgers, enhanced fund allocation by many folds, invited private sector participation in dredging in bigger scale than the past, to revive the dwindling river network, the nation was proud of, once. In 2000, a National Shipping Policy was adopted to introduce reform and private sector participation in ports and inland waterways, which was once the domain of public sector. Approximately, 90% of IWT services are provided by private sector now (Mahmud).

IWT system handles about 40 percent of the nations' foreign trade through five Class I perennial river Routes, navigable (day- night) throughout the year with least available draft (LAD) during the dry season. The LAD in the dry season in Dhaka- Chittagong route is 4 meter and in the Dhaka –Mongla- Kolkata (India) regional IWT system is 3.5 meter. Passenger and cargo facilities are inadequate in terms of landing stages, storage area and handling equipment (Ahmed 2012).

Bangladesh can raise its gross domestic product by 1 percent while foreign trade by 20 percent if the inland water transport logistics systems are made efficient and competitive, according to an Asian Development Bank (ADB) report (TDS 2012).

4.1. Advantages of waterway over roadway or railway

The measure of energy efficiency in transportation is the amount of energy used for the service provided, and can be expressed as the number of BTUs (British Thermal Unit.) required to move one ton of cargo one mile (a ton-mile). In studies comparing rail, truck, and water, shallow-draft water transportation has been proven to be the most energy efficient method of freight transportation for moving bulk raw materials. According to a survey made by the Chinese experts; the energy consumption ratio of highway, railway and waterway transport is 14:1.8:1. (Ahmed 2012)

An analysis of rail and waterway fuel efficiency shows the average BTUs expended per ton-mile totals 433 for water transport, and 696 for rail transport (IRPT). Another study by the American Waterway Operators shows that the distance one gallon of fuel moves one ton of cargo is 59 miles by truck, 202 miles by train and 514 miles by inland barge according to a World Bank report published in 2002. It is much more efficient to move cargo through water than over land.

Size is the key to water transport's efficiency. Vessels are able to carry at least 16 containers whereas the truck can take only two containers and create trouble to passengers of the Chittagong road. If container transportation by trucks pays full cost for road depreciation, the transport cost of containers by road is 50 times higher than that of river transport. (Ahmed 2012)

Transporting cargo safely is an important measure of environmental responsibility, and water transport has the fewest number of accidents, fatalities, and injuries as compared to truck or rail in respect of freight transport. Shallow-draft water transportation has definite advantages over competitive modes: it generally involves less urban exposure than either truck or rail; operates on a system that has few crossing junctures; and is relatively remote from population centres, all factors that reduce both the number and impact of waterway incidents.

Truck and rail tank car spills occur more often than barge/vessel spills. Barges/vessels, because of their much larger capacity, require far fewer units than either rail or truck to move an equivalent amount of cargo, and so the chance of a spill is less likely. Also, design features help to reduce accident frequency

Roadway or Railway freight transport is directly related to the congestion problem on Dhaka-Chittagong corridor. Impacts of traffic congestion includes: accidents, increased energy consumption, environmental damage, increased commuting times, and greater social tension. Water transport, in contrast, does not have congestion problems, and seldom causes them for others. The fact is that far from being congested, the country's water transport system is underutilized. Again, water transport has little impact on densely populated areas: shallow-draft vessels operate in mid-river, well away from shore, and because of the large tonnage moved at one time, are infrequent.

Some of the most pervasive and intrusive sources of noise and air pollution are transportation systems. Road traffic is, by far, the greatest source of air emissions. Water transport, conversely, causes far less air pollution than trucking, and less or comparable amounts, than rail. Environmentally speaking, the ratio of emission per kilograms among roads, railways and inland waterways is 14.8:1.2:1 according to a published report (Ahmed 2012). For the most part, waterway operations are conducted away from population centres, which reduce the impact of its exhaust emissions. Little data exists on noise levels of vessel operations, mainly because they are not considered a problem. They operate well away from shore, with the sound of their engines muffled below the water line, and any noise levels are hardly audible beyond the immediate area. Since most of the right-of-way for water transport is provided by nature, navigation is less likely than other transport forms to compete with non-transportation uses for land area, an important consideration in urban locations. Extensive land area can be taken up by new highways and railroad corridors, but apart from a few connections and waterside terminals, waterways pre-empt very little land.

The developments in the Bangladesh IWT system can bring about a major boon in the domestic shipbuilding with 30-35 Class vessels between 1600-1800 DWT and about 100 river barges, if not more with about 80 TEU capacity each, will have to be built in the next 4-6 years. Shipyards who want to build ships for export will not have to wait for orders from overseas during the current international meltdown but will have an ideal opportunity to sharpen their skill by quality domestic shipbuilding of this magnitude in the meanwhile.

5. CONSTRUCTION OF PANGAON INTERNAL CONTAINER TERMINAL (PICT)

Bangladesh Inland Water Transport Authority (BIWTA) and the Chittagong Port Authority (CPA) jointly built an inland terminal at Pangaon, south keraniganj, Dhaka by the side of the Buriganga river. This is the first inland container terminal of our country. The terminal was expected to play a positive role in the country's economic development by opening up a new horizon in the transportation of exported and imported goods through waterways. The project aimed to help ease the pressure of cargo movement on the Dhaka-Chittagong railway and highway corridors. The distance of the river route from Chittagong to Dhaka is approximately 157 nautical miles. The draft of the river is around 4-5 Meter except some area of swandip but at high tide vessel ranging from 4-5 meter draft can move easily. Presently in this route Bulk cargo, petroleum & other cargo are transported through small vessels.

5.1 About PANGAON terminal

The initial estimation of the project was about 1.77 bn Tk. But the project was completed costing about Tk. 1.54 bn. The terminal has a storage capacity of 3,500 20-foot equivalent units (TEUs) of containers and to handle 116,000 TEU containers annually. The capacity will gradually be raised to 160,000 TEU.

5.1.1 Yard and Jetty

The length of the Jetty is 180 m (Two ships length of 70-75m can take berth at a time) and width of the Jetty is 26 m. Total Yard Area (Within the boundary wall) is 55,000 Sq. m. Total area of van pool (Overflow yard) is 9100 Sq.m. Container holding Capacity of yard is 2400 TEUS. Container Freight Station (CFS) area is 5815 Sq.m. There are 48 Reefer Plug-in points.

5.1.2 Equipment

1 Mobile harbor Crane, 2 Straddle Carriers, 4 forklifts, 2 tractor trailers, 1 cargo lifting crane of 10 ton capacity and 1 cargo lifting crane of 20 ton capacity (under process for shifting to PICT from Chittagong Port).

5.1.3 Power Supply

There is 24 hours uninterrupted electricity and water supplied for the container handling activities. For that two generators capacity of each 1250(KVA/1 MW) has been installed. Another generator capacity of 2.5 MW is under construction. A pump house has been installed for water supply.

5.1.4 Vessels

Three vessels – Pangaon Express, Pangaon Success and Pangaon Vision – have already been procured from China at the cost of Tk 600m to operate the terminal. Each vessel can carry 128 containers (20ft equivalent units or TEUs). (PICT)

6. CONSTRAINT ANALYSIS OF PICT

Pangaon Inland Container Terminal has been inaugurated by Prime minister on November, 2013. The terminal is not popular among the business community for transporting containers due to its various limitations. Some of the problems have been cited here.

6.1. Cost

The businessmen argue that using the Pangaon terminal is not viable for them as unloading containers at the terminal is not cost-effective and the importers still need to hire trailers or covered vans to take the containers to factories. Besides, there are other complexities like double port charges. It costs \$204.14 to transport a 20-foot equivalent unit (TEU) of container from the Pangaon terminal to Chittagong port for industrial units in Dhaka, Narayanganj, Gazipur and Ashulia. The same container could be transported to Chittagong port by rail for just \$78.88 and by road for \$150. Again the store rent for containers in the terminal is much higher than in Kamalapur inland container depot. But the reverse condition was supposed to happen. Moreover, the shipping ministry further increased the container vessel fees by 46.66 per cent for the route of Pangaon-Chittagong Port last week of October 2015. According to a circular issued by the ministry, the vessel rent for the 40 TEUs (twenty-foot equivalent units) loaded container has been increased to \$440 from the current \$300 while the rent for 20 TEUs stuffed container has been hiked to \$220 from \$150. (Editorial 2014)

6.2. Time delay

Some traders said they were less interested to use the terminal as carrying goods to and from Chittagong port to the ICT was taking much longer time than by road. A container-laden vessel to and from Chittagong needs 1.5 days to reach the ICT while it takes only eight hours for a truck to reach the prime seaport from Dhaka. If one wants to use the ICT, he has to carry goods from factory to Pangaon, then stockpile those in godowns, then again load up the vessels and unload those at Chittagong port. Then he has to load up feeder vessels that carry the goods to mother vessels. The whole process causes a long delay.

6.3. No off-doc facilities

Exporters and importers can get private off-dock facilities for stuffing and un-stuffing goods before shipment and after delivery in Chittagong Port but there is no such facility in Pangaon.

6.4. Import tax

There was an import tax on vessels within 3,000 DWT capacities, but during the current fiscal such tax has been imposed on up to 5,000 DWT vessels. The tax imposition might increase prices of the reconditioned container vessels. Fearing losses if vessels are imported under the newly imposed tax system, the businessmen and concerned business agencies, especially those who were given license for the 44 container vessels has not come forward. According to businessmen and shipping agencies, vessels that are between 2,200 and over 5,000 DWT capacities are perfect for transportation of goods from Chittagong Port to Pangaon ICT.

6.5. Insufficient number of vessel

Only 3 ships were carrying containers to Chittagong Port. Chittagong Port Authority could not attract confidence of the exporters through introducing only three ships. At least 50 sea-worthy ships are required to cope with the mounting containers. Otherwise, the situation will remain same.

6.6. Standard of Vessels

None of the rivers from Dhaka meet the Chittagong Port directly but has to cross 60 plus kilometres of volatile sea channel. [14] So the vessels will have to be sea-river container ones to be built under IACS/ IMO regulations to carry international cargo covered under international maritime insurance. Very recently, the Department of Shipping (DoS) instructed the country's shipbuilding firms to construct the vessels meant for the Chittagong-Pangaon route under the supervision of the classification societies. The latest decision has solved complexities with regard to building of the ships. If the main line operators get vessels built under the supervision of the classification societies, it is expected that the businessmen will not hesitate to use the Pangaon terminal any more. The cost of building the vessels will range between Tk 240 million and Tk 250 million. (Editorial 2014)

6.7. Custom Facility

The customs facility at Pangaon terminal is not as well-oiled as in Chittagong. Pangaon Inland Container terminal can be used as port of stuffing during export and as port of delivery during import. The accountability of Custom bodies is less. So clearance requires unofficial cost. Harassment by customs officials in the name of

inspection of imported goods, repeated inspection by several customs agencies including Customs Intelligence and Central Intelligence Cell of the NBR beyond Pangaon has been reported.

6.8. Lack of advertisement

The advertisement required to make newly made PICT among the shippers and the owners was not at all satisfactory. The government had to promote it showing its advantages over other choices of mode to the respective bodies. Initially some additional advantages should have been given.

6.9. Disorganized committee

Port users, however, said the latest move by the authorities is unlikely to bring any meaningful outcome, saying consignees will use the terminal if they consider the terminal suitable for them. They allege that the CPA kept the main line operators, which conduct around 70 per cent of container business with Bangladesh, out of the committee.

The other problems include sense of insecurity of imported goods throughout the waterways from Chittagong to Pangaon, bad condition of road from Postagola rail crossing to Hanif Flyover at Jatrabari etc.

6.10 Present situation

Failing to procure container carriers by the shipping companies, CPA compelled to procure 3 container carriers at a cost of Tk. 60 crores in last year. These procured vessels could not be operated in fullswing despite utmost efforts in last one year. It was hoped earlier that the newly constructed PCT will be able to handle about 3 lakh TEUs containers in a year with its storing capacity of 1.16 lakh TEUs after its full-swing operation. CPA failed to get desired response from the importers to carry their import and export consignments through waterways to Dhaka and vice versa. It took the total to 1614 TEUs in 20 months since the formal inauguration which is less than 1% of its total handling capacity.

Finding no alternatives, CPA has signed a deal with a private shipping company named Bengal Lloyd Shipping Lines recently for expanding the activities of PCT. As per deal, Bengal Lloyd will maintain the newly procured container vessels for PCT from appointment of manpower to its total management and maintenance. To expand the activities and marketing for PCT, Bengal Lloyd started marketing through opening of marketing office in Dhaka and Ctg recently.

7. SUGGESTIONS

The cost of container vessels and other port charges are relatively high as compared to Kamalapur Inland Container Depot. But cost of bringing or sending should have been much less through PICT. Government must take necessary steps so that overall price of the process is less. They should lessen port charges and give subsidy if necessary.

High-speed vessels have to be brought for the ICT to reduce the time required for carrying containers. Besides, the number of vessels has to be increased so that containers can reach Chittagong port timely and load up feeder vessels that carry goods to mother vessels.

Containers cannot be carried in any cargo ship. Therefore, vessel prototype should be country-specific. Otherwise, Protection and Indemnity (P & I) insurance is not covered for the vessels. Private parties are to be active to enter this unexplored new business field because the BIWTC as a public organization may have some problems to materialize this issue for legal and political reasons. This can be overcome through public-private partnership (PPP). The Pangaon terminal is also expected to be able to handle the container vessels through encouraging private parties – local and international. The government should only play the role of a patron.

Custom formalities have to be made easy. Shippers face problems while opening Letter of Credit (LC) as there is no office of shipping agents in the terminal. The NBR has to assure that they can import and export products directly through Pangaon. Otherwise it would not work.

Lack of container and irregular schedule of vessels also discourage importers and exporters. The vessel schedules are now irregular due to lack of containers, but it is possible to overcome soon if the terminal could be made popular by providing other facilities.

There should be huge advertisement among shippers and business community to make PICT popular. It has to be made sure that the community exactly knows the advantages of using Pangaon over other modes. Initially some of the products may be made compulsory to import/export through PICT to make it efficient and full

functioning. The government took same steps to make Mongla Port, the main sea terminal of the country's south-western region located in Bagerhat, functional. The import of a significant portion of food grains and fertiliser were made mandatorily through Mongla while the government initially gave special benefits to the importers to use the port for carrying new and reconditioned cars. Pangaon ICT should provide tax rebate like the benefit provided by Mongla Port to attract users. Initiatives may be taken to make other modes unpopular like imposing increased tax and decreasing facilities.

8. CONCLUSION

The prevailing situation in transport sector is sending unfavorable messages to the inland water transport operators who are getting upset and may shift to more profitable business ventures. This does not augur well for the country as this will lead to further deterioration of the country's inland waterways. The potential of the PCT remains unexploited. Since there is apparent lack of interest among exporters and importers to use the Pangaon Container Terminal, the relevant authorities should identify the reasons behind it and try to address those. Procedural complications should not stand in the way of making the terminal fully functional. What is needed at present is political determination to set priorities properly considering the country's present needs and future aspirations. The immediate aim should be to implement PPP for merchant hauling – the cargo transportation from one port to another port – through Pangaon as the port of destination so that the bill of lading can be issued from the Pangaon terminal if any export vessel leaves from the terminal. Let Pangaon solve a long-standing problem of cargo transportation.

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