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ADEQUACY AND EFFECTIVENESS OF THE LOGISTICS INDUSTRY IN NORTH INDIA - IMPLICATION FOR EXPORT PERFORMANCE

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Abstract:

The Port of Manila, the largest seaport in the country, has been recognized as the most widely used port in the Greater Capital Region with utilization rate of 71.6% compared to only 2.3% and 6.1% utilization of Batangas and Subic Ports, respectively (NEDA, 2012). The ports of Batangas and Subic were developed in order to accommodate excess traffic in the port of Manila and promote growth and development in CALABARZON and Central Luzon. However, port users still opt to operate in Manila Port. This leads to the congestion of Manila Port and the underutilization of the other two ports in the Greater Capital Region. The situation was intensified during the implementation of the recently lifted Manila truck ban. The study recognizes that issues and problems still persist in the logistics sector even after the regulation was put off. While there are many different institutions in place to regulate logistic market, they are not able enough to eliminate syndicate or carteling particularly in road transport. Nepal has bilateral agreements related to trade logistics with India, Bangladesh and China. Also it is a member of SAFTA, BIMSTEC and WTO. Different provisions of these bilateral, regional and multilateral agreements provide scope for Nepal's export promotion through logistic development. Women participation in export and related logistic business was also examined as part of the study. It is found to be low mainly because of lack of exposure, orientation and skill of entrepreneurship, social environment, uncertainty in property inheritance right, and level of technological know-how. Ultimately, the study provides an extensive list of short, medium and long-term measures to decongest Manila Port and to address the underutilization of Batangas and Subic Ports. The list is complemented with a dynamic timeline of the proposed measures and actions with their corresponding implementing agencies.

Key Words: Infrastructure, Logistics Industry, Truck Ban, Port Congestion, Port Utilization, Rail Connectivity, PNR, Manila Port, Batangas Port & Subic Port

1. Introduction:

The Port of Manila, the largest seaport in the country, is operating at almost full capacity, given the current growth in trade volume. This puts pressure not only on the roads within Manila Port Area, but also along major roads in Metro Manila brought about by port traffic. Recognizing the detrimental effect of such congestion in the streets, the City of Manila imposed a truck ban on February 4, 2014 which would limit the operating hours of container trucks plying the city streets. The truck ban led to the delay in the delivery of goods, accumulation of containers at the port, a slowdown in the logistics chain in and out of the port, and created the problem of returning empty containers. Coupled with LTFRB's policy banning trucks without franchise from operating in the port, the truck ban led to a reduction in the number of trucks available for hauling and an increase in trucking cost. In addition, port congestion raised port costs and shipping line charges. On September 13, 2014, the City of Manila lifted the truck ban indefinitely, but the problem of port congestion, high trucking costs, surcharge imposed by shipping lines related to removing large quantities of empty containers, and the lessening of road use due to DPWH construction projects remains. This study analyzes the issues and problems that gave rise to the congestion of the Manila Port and the underutilization of the Batangas and Subic Ports.

Methodology:

First, the study uses the survey and focused-group-discussion approach to investigate the factors that affect the decision of shippers, freight forwarders, logistics services providers, and truckers on their choice of port and their satisfaction ratings of their chosen port. Second, the study employs network and freight demand models to determine the optimal freight movement in the Ports of Manila, Batangas, and Subic. And finally, the study uses the rail option modeling framework to look at the use of the rail system to transport goods in and out of the ports.

Rail Connectivity of Economic Zones and Ports:

The revival of the PNR network from Bicol region to La Union can provide a convenient and alternative way to travel and ship cargo in the Luzon area. From 1997-2003, ICTSI operated a rail-based transport system between MICT and CICD. This was, however, terminated since the trains could not run at the desired speed and be punctual because of the deteriorating conditions of the PNR rail tracks. Furthermore, it required long turnarounds and waiting times because only one train set was in operation. The current level of freight traffic through Batangas is too small to consider it a major source of potential base traffic for freight

railway. In 2014, the average speed in road segments designated as truck routes during peak hours is 5.2 kph compared with the average speed of 16.57 kph for all other roads. Simulation results show that only 4.17 % of the estimated volume of truck freight would be shifted to rail transport during peak and non-peak hours. The use of rail freight has a negligible effect on the improvement of travel speed along the roads in the GCR.

Impact of the Port Congestion:

Survey results indicate that the cost of shipping at 20-ft or a 40-ft container by truck doubled after the truck ban. Likewise, port congestion led to time delay in cargo releasing. The economic cost of the port congestion during the seven-month period that the Manila Truck Ban was in effect is estimated at PhP 43.85 billion due to BOC revenue decrease, output and productivity losses, and vehicle operating costs.

2. Review of Literature:

Metro Manila is the most populous region in the country with inhabitants reaching roughly 12 million. It is the center of business and commerce and the economic and political capital of the Philippines. To sustain the increasing demands and needs of the metropolis, there has to be a stable flow of goods and services, whether sourced locally or in the global market. Particularly, cargo ferried by land and sea in a complex logistics network is arguably the lifeblood of the metropolis. The economy of Metro Manila, and the Philippines as a whole, is greatly affected by this logistics network and has been and is continuously a point of discussion by a wide range of interest groups, from politicians, academics, economists, and those directly involved in the logistics and transportation industry.

The Port of Manila is the largest seaport in the Philippines, with three main port groups namely, the Manila North Harbor, the Manila South Harbor, and the Manila International Container Terminal (MICT), and is the most important shipping gateway for international trade in the country. It has a rich history with roots in pre-colonial trade with economies from across Asia, such as China, India, and Southeast Asian nations. The port would then become a valuable staging point for Spanish trade during their colonization of the Philippines. It consistently ranks as one of the busiest ports in the world accounting for approximately 2.7 million TEU international cargo traffic per year (JICA, 2013a). According to the Journal of Commerce (2013), the Port of Manila is the 38th busiest port in the world in 2012. The volume of foreign container traffic in the port increased significantly during that year and grew by 6.7 percent compared to the 3 percent growth rate in the preceding year. Shipping lines complete an average of 20 to 30 ship calls in the Port of Manila per week.

One way to discuss the current status of the port and shipping sectors in the Philippines is by analyzing the competition policies and regulatory framework that directly affect the industry. A Philippine Institute for Development Studies (PIDS) Discussion Paper published in 2005 entitled “Competition Policy and Regulation in Ports and Shipping” provided an assessment of the government policies and programs that promoted competition in these sectors. The paper gave a detailed analysis of the state of competition and regulation of ports in the Philippines at that point in time and detailed the many deficiencies as well as improvement measures that were needed to be addressed. The study also provided policy and regulatory reform recommendations that can be of important note for the purpose of this study.

3. Scenario Modeling of Freight Transport through PNR N/W:

Major Assumptions:

The following are the data used in the freight transport modelling through the PNR System.

Trip Generation Growth Rates:

With regards to the background/other vehicular traffic due to people trip movements, the MMUTIS (1999) and JICA (2010) projections were used as shown in Table 1 and Figure 1. These growth rates are used to estimate to total daily trips generated for the design years 2020 and 2030.

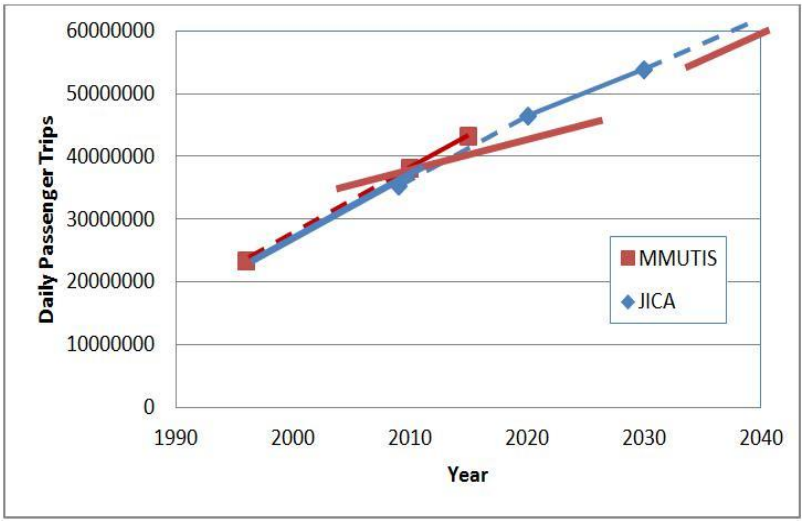
Table 1: Trip Generation Percent Growth Estimates of MMUTIS (1999) and JICA (2010)

	Design Periods		
Year	1996	2010	2015
MMUTIS (1999)	1	1.62	1.84
Year	2009-2020	2021-2030	
JICA (2010)	2.5	1.5	

Table 2: Occupancy Factors of Vehicle Types

Vehicle Type	**Occupancy**
Private Car	3.5
Jeepney	9.3
Bus/Light Truck (2 axle)	30.8
Heavy Truck (3+ axle)	2.6
Source: JICA Study (2010)	

Figure 1: Estimated and Projected Passenger Trips of MMUTIS (1999) and JICA (2010)



Hourly Truck and Other Vehicular Flow Trends. Based from the study by Castro et al. (2003), the shape of the hourly truck traffic does not coincide with the peak hour volume during the day as shown in Figure 2.

Figure 2: Temporal Distribution of Vehicular Traffic at Cordon Stations

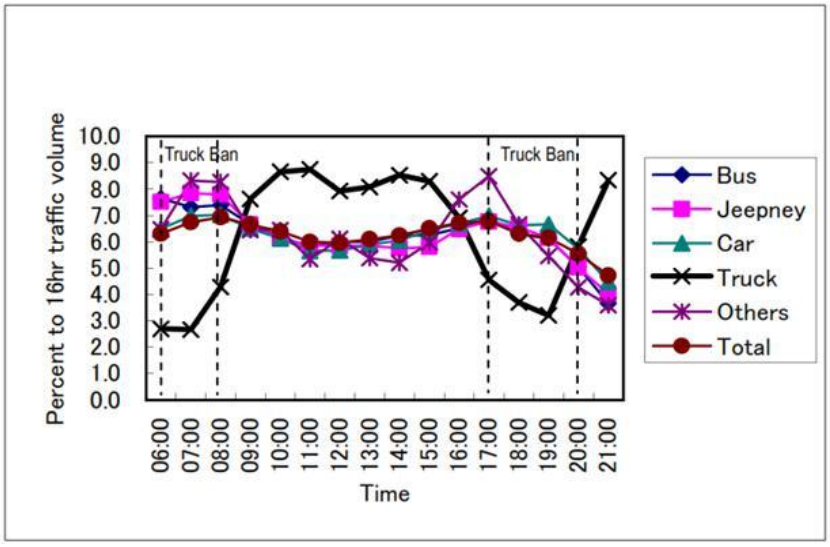
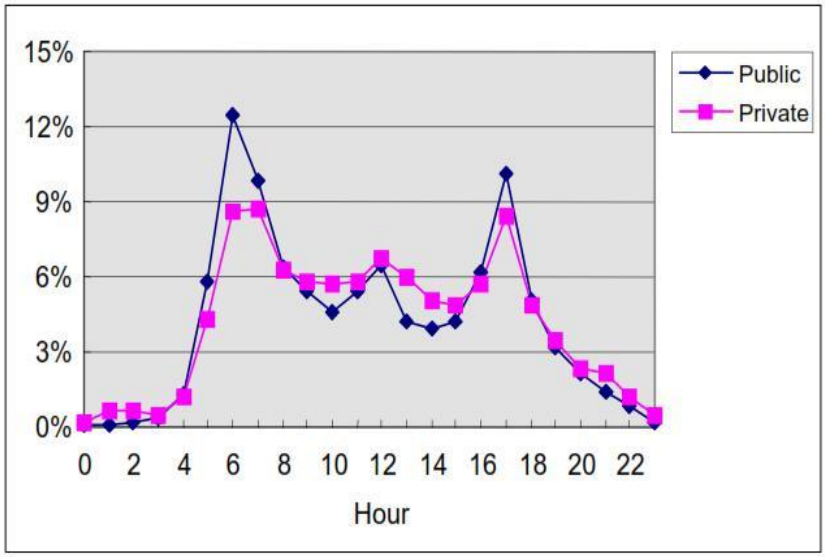


Figure 3: Hourly Trips Generated in Metro Manila



Source: MMUTIS (1999).

Hourly Trip Generation Percentages in Metro Manila:

With regards to the public and private trips that compete with the trucks on the use of the road, Figure 30 above was used from MMUTIS (1999) regarding the hourly distribution of trip generation in Metro Manila.

Cargo Demand Generation:

The JICA (2010) shows that the total generation of cargo demand in the Study Area is expected to increase from 2,565,622 tons per day in 2009 to 3,478,682 tons per day in 2020 and 4,292,515 tons per day in 2030.

Estimating the Economic Effect of Port Congestion:

Survey data indicate that the cost of shipping a 20-ft or a 40-ft container by truck doubled from PhP18,000 before the truck ban to PhP36,000 after the truck ban. Port congestion as a result of the truck ban led to time delay in cargo releasing. For instance, a cargo that took from 3-4 days to be released before the truck ban took from 7-10 days to be released after the truck ban (*see In the News: Japan Automakers Turn to Airlifts as Port Row Hits US Production*). Even before the City of Manila imposed a truck ban, JICA had already estimated that the traffic congestion in Metro Manila causes PhP2.4 billion of losses per day because of lost work hours and business opportunities as well as due to the cost of fuel consumed by vehicles.

Planning Ahead of Capacity: The Bangkok Experience:

Thailand's growing and increasing international trade caused port congestion and traffic gridlock in Bangkok. To decongest Bangkok, the Port Authority of Thailand (PAT) decided in 1991 to develop the Laem Chabang Port with an initial capacity of 4 million containers and leaving some room for future expansion. At the same time, PAT issued a regulation limiting the volume at the Port of Bangkok. Today, Laem Chabang ranks among the top 20 major ports in the world. Since 1947, Bangkok port or Klongtoey port has been the main commercial port of Thailand but had problems in accommodating ships of size higher than 12,000 DWT, length greater than 172 meters or draught of more than 8 meters in relation to mean sea level. The government of Thailand soon had to find a deep-sea port that could facilitate large ships. A feasibility study by the NEDECO (Netherlands Engineering Consultants) concluded that the best location to build a port was Laem Chabang because it is well sheltered, can easily be dredged and had capacious land for port facilities. In 1973, the government started expropriation of land at approximately 130 kilometers from Bangkok, in Tambon Thung Sukhala, Sriracha District and Tambon Thung Lamung, Bang Lamung District of Chon Buri. On November 15, 1987, General Prem Tinsulanonda led a stone-laying ceremony for the construction of the Laem Chabang Port. In 1991, the government of Thailand together with some private investors initiated the port's commercial services with B1 as the first terminal to operate.

4. Analysis toward a Desirable Policy Direction:

On the Policy Regarding Container Traffic Coming from or Going to the South and North of Metro Manila:

Batangas and Subic Ports were designed to complement the Port of Manila and reduce traffic congestion in Metro Manila. In addition, both ports were expected to promote growth and development in CALABARZON and Central Luzon, respectively (JICA, 2013a). During the July 30, 2013 meeting of INFRACOM, DOTC and PPA informed the Committee that there is enough container traffic or demand in the south of Metro Manila and that the government only needs to issue a policy statement that cargoes bound for or coming from the south of Metro Manila should call on the Batangas Port, and that DOTC and PPA (as instructed by the INFRACOM) will provide the timeline on when to implement the restriction on foreign shippers' (exporters and importers) use of Manila Ports for Batangas Port, and to force Laguna-based containers to utilize the Batangas Port. [15] Furthermore, SBMA recommended to DOTC and PPA on August 26, 2014 that cargoes coming from and bound for Central and Northern Luzon shall no longer be allowed to use Manila Port and instead be directed to Subic Port to address port and road congestion in Metro Manila.[16] In support of this policy, Batangas and Subic Ports lowered its rates, starting October 1, 2014, on harbor fee from $0.046 per gross register tonnage (GRT) to just $0.008, and on berthing fee from $0.0345 per GRT per day to only $0.004. But these rates will expire on March 31, 2015, beyond which the rate will increase to $0.0410 for harbor and $0.0200 for berthing. PEZA provided a 50% discount on the processing fees for full container shipments to be discharged or loaded at the Batangas Port. This policy has been recently extended up to December 2015. At the same time, the government imposed higher storage fee for BOC-cleared cargo in Manila Port starting in October 2014. The fee was raised from Php500 per TEU per day after a 5-day free storage period to Php5,000 after a 10-day free storage period. Table 22 shows the new penalty charges on overstaying inbound foreign containers that are already cleared by the BOC for withdrawal and with gate passes (meaning: taxes, duties, and arrastre fees are already paid). These new charges were imposed effective October 2, 2014 on the eleventh day after the imported containers were cleared by the BOC.

On the Proposed Policy to Put a Cap on the Manila Port Capacity:

During the July 30, 2013 INFRACOM meeting, DOTC and PPA also informed the Committee that they already agreed on the restriction of the Manila Port expansion. During its September 11, 2013 meeting, the INFRACOM decided to elevate the issue to the President for appropriate policy decision to provide proper

information dissemination to the private sector investors to assist them in their future investment plans and decisions.

Other Issues:

- ✓ **PNR Expansion and Freight Operation:** Although the rail option may not provide a significant impact on the improvement of road congestion, it, however, gives shippers and locators an alternative way of transporting their goods. Our recommendation rehabilitate and improve the PNR line (in the medium-term) and to pursue total upgrade of the rail system through PPP arrangement (in the long-term) is consistent with DOTC's railway master plan which covers the following lines: (1) Manila to San Fernando, La Union, (2) Manila to Legaspi, Albay, (3) Legaspi to Matnog, Sorsogon, (4) Calamba to Batangas, (5) Tarlac to San Jose, Nueva Ecija, and (6) San Jose to Tuguegarao, Cagayan. These new lines cover more than 700 kilometers and have leeway to accommodate the operation of freight railway.
- ✓ **Lack of Container Depot:** Shipping lines are mandated to operate their own container depot outside the port where their empty containers should be returned. However, the shipping lines are not operating container depots that could accommodate the number of containers they keep, and the shipping lines take advantage of using the port as a container yard. The Study Team recommends that the shipping lines be compelled to provide their own depot for empty containers as stated in their mandate.

5. Conclusions:

Evidently, the Manila Truck Ban triggered congestion at the port of Manila and adversely affected exporters, importers, and manufacturers whose operations have been disrupted and face increasing transport cost. Freight forwarders, logistics services providers, shipping lines, truckers, and terminal operators are likewise negatively affected since congestion at the Port of Manila leads to difficulty to off-load cargoes and resulting to delays and longer waiting time. On the other hand, the Manila Truck Ban was instigated by the congestion of Manila's streets caused by huge cargo traffic coming in and out of the Port of Manila, the lack of depot by shipping lines for their containers, and the lack of depot for cargo trucks which use Manila's streets as their parking garages.

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