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PORT COMPETITION IN CAMBODIA

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ABSTRACT

Sihanoukville Autonomous Port and Phnom Penh Autonomous Port are two international ports in Cambodia. Phnom Penh Port is accessible to vessels by the Mekong River through Vietnam; subsequently feeder vessels to/from the Phnom Penh Port can connect with the Cai Mep port in Vietnam for global exports and imports. In this sense, the Sihanoukville and Phnom Penh ports are competing with each other in overseas trade. This study aims to explain the competitive situation of these two Cambodian seaports. Although the water level is unstable due to the seasonal fluctuations of the Mekong River, the Phnom Penh Port with the new terminal is very promising based on the good accessibility to the Cai Mep port located in Vietnam. However, cargo demand itself is expected to grow dramatically in the next decade for both imports and exports due to economic growth in Cambodia; thus, cargo demand at the Sihanoukville Port is also likely to increase.

Keywords: Port completion, Cambodia, Accessibility

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1. INTRODUCTION

Cambodia has two international ports: Sihanoukville Autonomous Port (PAS) and Phnom Penh Autonomous Port (PPAP). Their locations are shown in Fig. 1. PAS is located at the mouth of the Bay of Kompong Som and is the sole international deepwater seaport in Cambodia. The distance from Phnom Penh to PAS is about 230 km, or about four to six hours by car/truck. PPAP is located in the city of Phnom Penh on the Sap River, which is about 3 to 4 km from its junction with the Mekong River. PPAP is accessible to vessels by the river from the South China Sea through Vietnam. The distance is 348 km from the mouth of the Mekong River — about 102 km until the Cambodian border and the rest is in Vietnam.

Cai Mep port is the largest scale seaport with deep draft in Vietnam. Feeder vessels to/from PPAP can connect with the Cai Mep port for exports and imports from the U.S. and other long distance trunk shipping services. Other feeder vessels can also connect with the Cat Lai river port and other local river ports in Ho Chi Minh City (HCMC) for using shipping services within Asia. In this sense, PAS and PPAP are competing with each other for imports and exports in overseas trade. This study aims to explain the competitive situation of these two seaports.



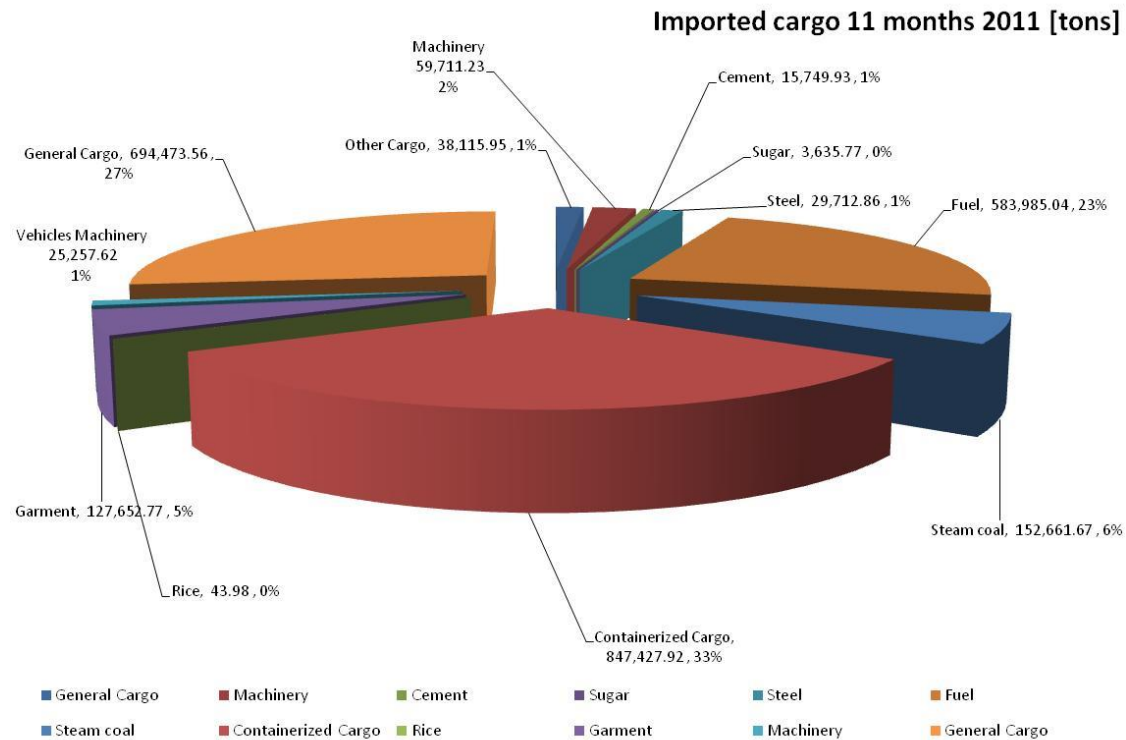
Fig. 1 Location of the two international ports in Cambodia

2. PORT CONDITIONS IN CAMBODIA

2.1 Sihanoukville Autonomous Port (PAS)

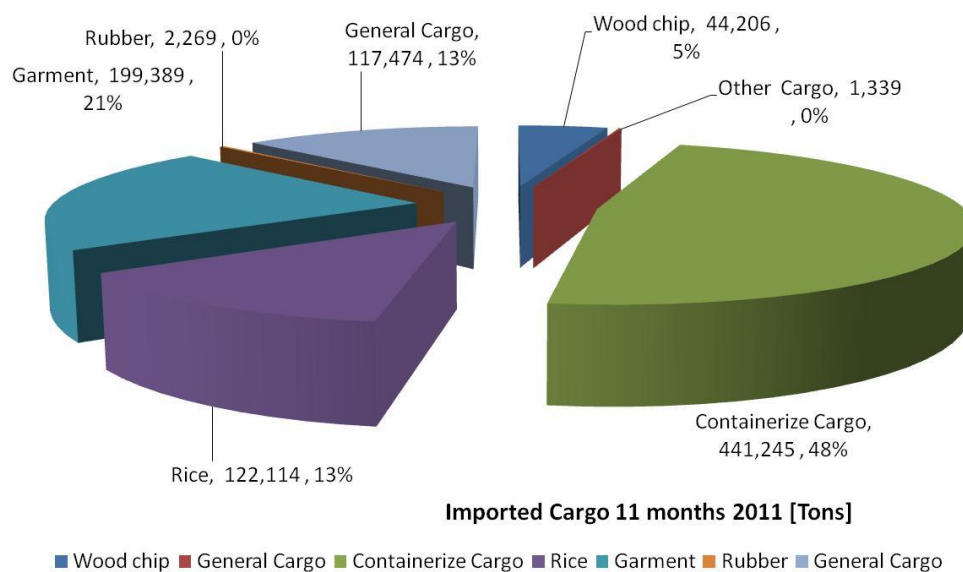
The Sihanoukville port was built in 1959 encompassing the old French-built wharf and adjacent new facilities. Recent development that began in 1997 is being conducted by a Japanese Official Development Assistance (ODA) loan. It has six phases and the Special Economic Zone project was completed as Phase V in 2011. The port can accommodate ships of about 20,000 Dead Weight Ton (DWT) under its official 10.0 m draft. A ship with gross tonnage or deadweight tonnage of 20,000 DWT or more can sail through. It can accommodate container ships ranging in size from 1,300 to 1,600 Twenty-Foot Equivalent Unit (TEU). The maximum size is about 2,000

TEU by adjusting the draft. Import and export cargo broken down by commodity type for the first 11 months of 2011 are shown in Figs. 2 and 3, respectively. Among container cargo, garments (45%) and rice (28%) are the major exports, while imported cargo is more diversified.



Source: Presentation Materials of PAS (2012)

Fig. 2 Volume of Exported Cargo by Commodity Type for 11 months of 2011



Source: Presentation Materials of PAS (2012)

Fig. 3 Volume of Imported Cargo by Commodity Type for 11 months of 2011

Based on a survey conducted at PAS on 17 August 2012, the following results were obtained:

1. PAS is unable to reduce the usage charge of gantry cranes because the electricity supply from the power company is insufficient; therefore, a generator is required. As a result, with a few exceptions, they are using semi-container ships equipped with ship-gear, and the frequency of gantry crane usage is low.
2. Regarding X-ray and gamma-ray inspection, 100% of imported goods are inspected. Exports are inspected randomly with the exception of rice, 100% of which is checked. At times, there is serious congestion of imported containers on the premises waiting for X-ray examination, an area in which improvement is required.
3. The gate is congested from 7 a.m. to 12 noon every Saturday with incoming trucks containing goods for exports. Its peak time is between 9 a.m. and 10 a.m. Although the opening time for the gate has already been shifted to 5 a.m., they are considering changing it to 4 a.m. in the future.

Two reasons behind the current gate congestion are:

(1) Trucks that arrive before its original documents have reached the customs department; therefore, it cannot enter the port because the agent brings the custom documents separately to the truck. As a result, these trucks wait in front of the gate. There is no system whereby the agent can bring the customs-related documents in the truck with the driver. Apparently, the rules say that faxed or copied papers are acceptable; however, it is unclear whether this is uniformly accepted at the port. The current situation, where the agency brings the customs documents after the arrival of trucks has not changed.

(2) Weekly services by shipping companies are concentrated over the weekend. The current departure schedule includes four services on Sunday mornings, one on Monday, two on Thursday, and one on Friday. Therefore, Saturdays morning are congested. It is necessary to understand why shipping companies have more services during the weekend. It is very likely that they are servicing PAS according to the schedule of the main routes to Singapore.

2.2 Phnom Penh Autonomous Port (PPAP)

The Phnom Penh port performs several roles, such as those of a container terminal, domestic bulk terminal, passenger terminal, ICD (Inland Container Depot), and warehouse. Currently, 12-16 weekly calls are operated by four feeder shipping lines. These services mainly use barges of the 160 TEU class vessels.

As shown in Fig. 1, PPAP is connected with the ports of Vietnam through the Mekong River by feeder shipping services. It takes 28 to 32 hours to reach the mouth of the Mekong River from Phnom Penh. The total time taken varies, depending on the flow speed of the river, the size of vessels, direction, and season. As can be expected, smaller ships take more time. There is a plan to construct a new canal (due to be completed in 2015) that can serve as a shortcut to the ports around HCMC, such as the

Cat Lai port from around the mouth of the Mekong River. This would be a route that goes from My Tho City to the Cho Gao canal and then to HCMC via the Van Co river. This is already in use, but is obstructing the passage of barges due to low bridge clearance. The plan is to replace the bridge and widen the waterway.

By land, it is approximately 240 km from Phnom Penh to HCMC, 160 km from Phnom Penh to the Bavet/Moc Bai border, and 80 km from the border to HCMC. After the completion of the Neak Luong bridge over the Mekong River, which is expected in 2015, seamless land transport should become possible in the Southern Economic Corridor of Mekong. Although the border must be crossed, what will be the impact when this land route is opened? To answer this question, we note that given the cost of taking the land route from Phnom Penh to PAS is \$400 and that to the Cai Mep port is \$1,000 versus \$300 if taking the river route, the impact of opening the land route is probably insignificant.

The new container terminal was just completed in 2012. The new terminal is located 30 km south of the existing terminal, and its construction was financed by a soft loan from China. The initial capacity is 120,000 TEUs per year, but is expected to grow to 300,000 TEUs per year in the future. 5,000 DWT is permitted at the new port, up to 3,000 tons (2,000 tons in the existing port) during the dry season and up to 5,000 tons (3,000 tons in the existing port) during the rainy season. PPAP is planning to develop a Special Economic Zone around a new container terminal, which will include facilities such as, a Bonded Warehouse, an Agricultural Processing Zone, and an Industrial Zone.

Based on the survey conducted at PPAP on August 16, 2012, the following plan is clarified. The main functions of the existing port are to serve as the headquarters, handle bulk cargo, and operate as a passenger terminal. The new port is focused on container cargo. In terms of volume, containers are to allocate 75% of cargo to the new port and 25% to the existing port. These plans are based on the Prime Minister's instructions from the standpoint of mitigating congestion on the roads in the city of Phnom Penh. The 25% is accounted for by containers headed to the container-freight station (CFS) that are first handled at the new port and then transported to the existing port on sub-feeder ships.

We now discuss the other results of the survey. The services from the new port to the existing port and the Kilometer No. 6 dry port are operated by sub-feeder ships. There is also a railway link, approximately 2 km long, from the existing port to the Kilometer No. 6 dry port. There is a 6 km railway link from the Phnom Penh railway station to the Kilometer No. 6 dry port. The rate of handling cargo is 12 TEU per hour at the existing port and 18 TEU per hour at the new port using Traveling Cranes or Quay Gantry Cranes. The comment of one major shipping company operator is that they do not mind using trucks for calling the new port because the port's facility would be better utilized and loading and unloading would be faster despite being 30 km away from the new port.

3. PORT COMPETITION BETWEEN TWO PORTS

PAS is located 540 nautical miles (about 1000 km) from Singapore; therefore, most shipping services are connected with the port of Singapore by feeder services. For imports and exports with the U.S., going through PPAP to the Cai Mep port shortens the lead time by at least two days and reduces the cost by \$100 compared to going through the PAS and Singapore. Therefore, container demand at PPAP has been increasing in recent years.

Table 1 shows the recent trends of container handling volume of PPAP and PAS. The data indicate that PAS has not recovered from the late-2008 economic recession, although the total for both ports had already recovered by 2011. Container demand at PPAP has been rapidly increasing, which implies that some of the demand has definitely shifted to PPAP from PAS. Considering the data for the first half of 2012, it is likely that demand will return to 2008 levels in 2012. Meanwhile, the handling volume for PPAP is also trending above last year's volume.

The opening of the North American route of the Cai Mep port in 2009 has contributed to the increased handling volume at PPAP. Shippers have a strong incentive to use global trunk routes for good service with reasonable tariffs. The location of PAS is sandwiched between the Cai Mep port and the Laem Chabang port in Thailand; thus, it is unlikely that PAS will be included in global trunk routes based on current demand from the hinterland. Alternatively, it can be said that the use of PPAP is also dependent on the global trunk route destined for the Cai Mep port. If the global trunk routes to North America were to withdraw from Cai Mep, the use of PPAP would decline. In July 2012, CMA-CGM, a leader in container shipping, withdrew from the Cai Mep port in order to call at Yantian in the Asia-Europe FAL3 Loop, which is the route for the largest full containerships deploying 11,000 to 11,400 TEU ships calling at Cai Mep. However, seven shipping services on global trunk routes are still calling at Cai Mep every week. Cai Mep as well as PPAP can maintain a competitive position by sustaining the global trunk route shipping services.

Table 1 Recent trends of container handling volume at the two ports [TEU]

Year	PPAP	PAS	Total	Share of PPAP	Remarks
2006	38,233	231,036	269,269	14.2%	
2007	47,504	253,271	300,775	15.8%	
2008	47,507	258,775	306,282	15.5%	
2009	43,312	207,861	251,173	17.2%	North American shipping service opened in Cai Mep.
2010	62,256	222,928	285,184	21.8%	
2011	83,631	237,941	321,572	26.1%	

Source: Presentation Materials of PPAP and PAS

Port tariff is one of the factors during port selection by shipping companies. It is stipulated by the Ordinance of the Ministry of Public Works and Transport (MPWT) in Cambodia, and PPAP uses this tariff. Meanwhile, PAS is allowed to determine the cargo handling expenses each year with the shipping companies. The cargo handling fee is virtually determined between the boards of directors of both ports. For the charge per vessel tonnage, etc., both ports use the amount stipulated by the Ordinance, which is not identical as the Ordinance is set per port.

Truck congestion at PAS is one of negative factors for this port; thus, we suggest some measures to reduce it on weekends:

(1) Assign personnel to verify documents at all gates during peak hours. The congested situation will change drastically just by streamlining the number of gates being used. During the aforementioned survey, they said this order has been given; however, there is a problem in implementation.

(2) Construct a holding area for trucks. Separate the trucks waiting for their documents from trucks that are ready to proceed. Although this idea has been proposed, it has not been implemented because it is only going to be used on Saturdays, based on the survey.

(3) Spread out the weekly services of shipping companies to weekdays. Discussions with stakeholders such as shipping companies, cargo owners, PAS, etc. are needed.

(4) Implement off-peak discounts to set weekdays as off-peak and provide a discount on some port charges. However, there is a possibility that the days and hours with discounts will end up becoming congested. That said, services are currently concentrated on Sundays despite the fact that there is an extra port charge during weekends. Although there are discussions about providing a discount of about \$5 to containers that come within a specified time frame, PAS is not enthusiastic about this idea.

(5) Introduce Electronic Data Interchange (EDI) for capital investment. It is a medium-term goal because it requires a budget and a learning period.

4. CONCLUSION

This study details the current condition of Sihanoukville Autonomous Port (PAS) and Phnom Penh Autonomous Port (PPAP) and explains the competitive relationship between the two. Although the water level is unstable due to seasonal fluctuations of the Mekong River, PPAP with the new terminal is very promising based on the good accessibility to the Cai Mep port located in Vietnam. However, cargo demand itself is expected to grow dramatically in the next decade for both imports and exports due to economic growth in Cambodia; thus, cargo demand at PAS should also increase.

On a tonnage basis, exports from PPAP are mainly to North America (50%) and within Asia. On the other hand, exports from PAS are more diversified: United States

(27%), China (16%), France and England (16%), and so on. More than 50% of the imports at PAS are from Singapore, Thailand, and China; the exports to Europe are relatively large compared to PPAP. Therefore, the two ports have different functions due to their geographical location and market conditions.

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