9. Vietnam

9.1 Ho Chi Minh Port

(1) Outline of the Port

(a) Location and Roles

Ho Chi Minh Port is located in Ho Chi Minh City, the largest city in Vietnam and act as an indispensable logistics platform for the economic activities in the Southern Focal Economic Zone of the country. Ho Chi Minh Port consists of many terminals developed on the banks of the rivers streaming in Ho Chi Minh City including the Sai Gon River, Dong Nai River, Nha Be River, Soai Rap River, and Long Tau River.

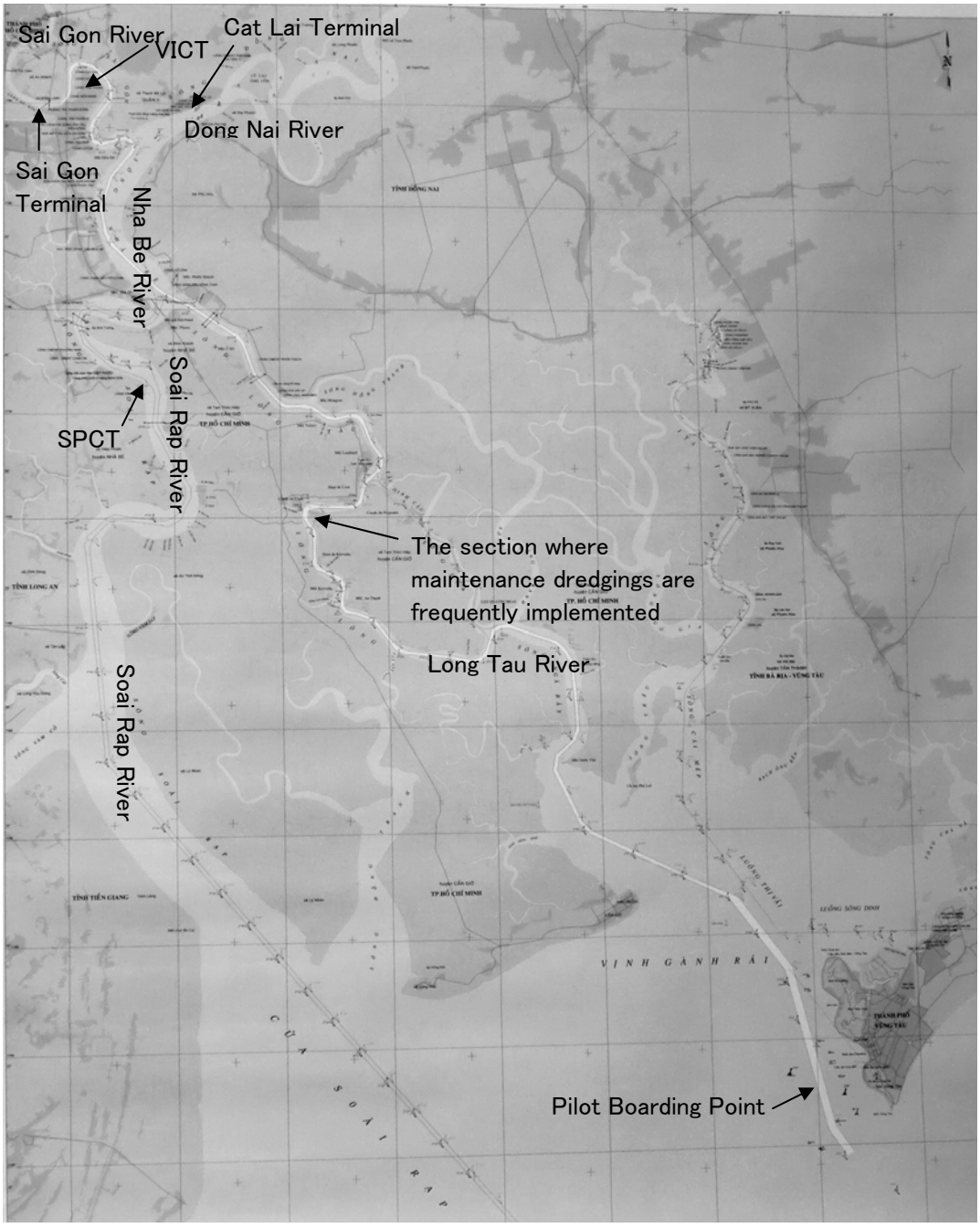


Figure 9.1-1 Location of Ho Chi Minh Port

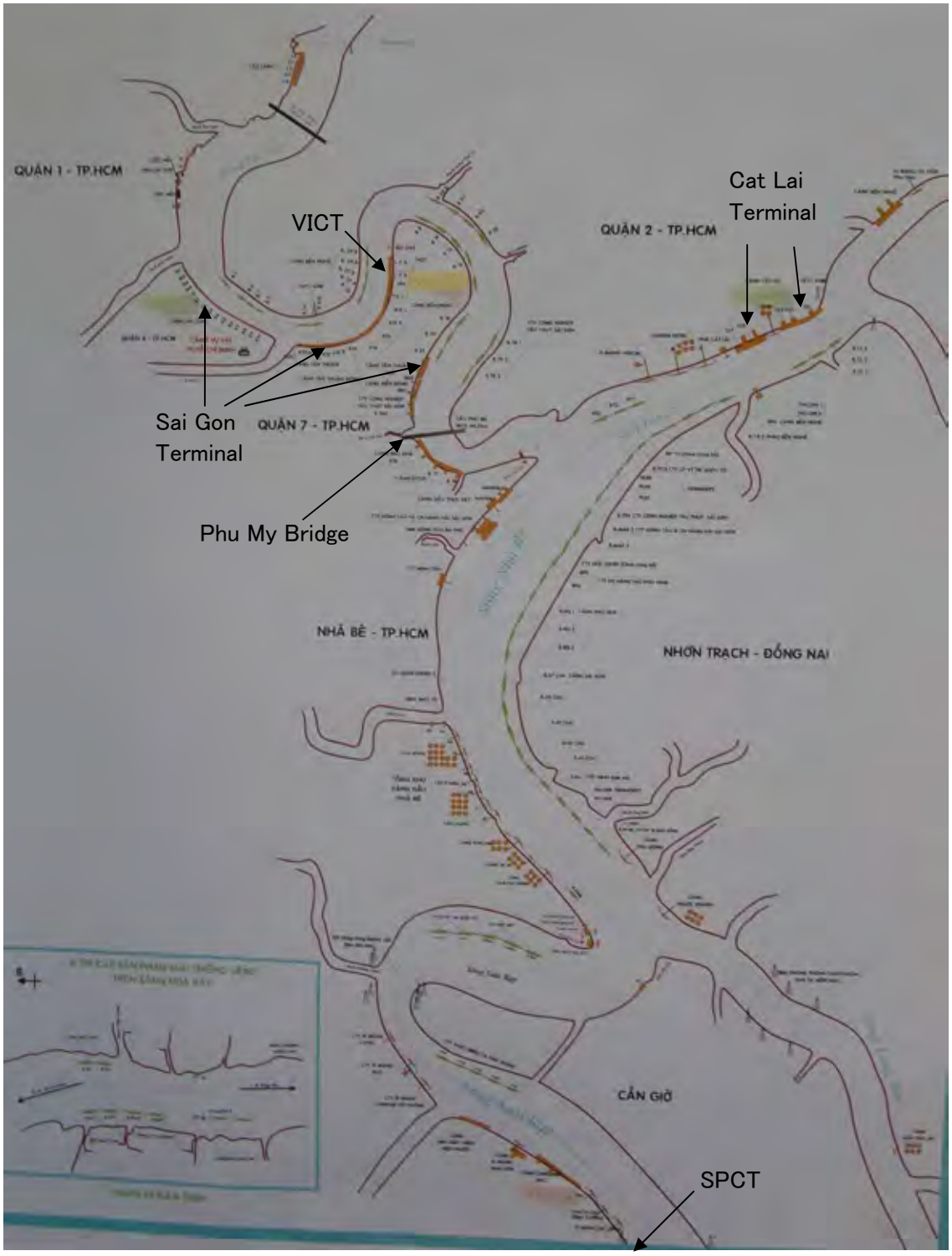


Figure 9.1-2 Layout of Terminals in Ho Chi Minh Port

(b) Operation and Management

The Maritime Administration of Ho Chi Minh City, a local arm of Vietnam Maritime Administration (Vinamarine) is in charge of port entry clearance and administration &maintenance of approach channels. Development, operation, and maintenance of terminals are implemented by respective terminal companies based on the investment licenses approved by the Vietnamese

government.

(2) Use of the Port

(a) Cargo Throughput

The cargo throughput of Ho Chi Minh Port in 2008 was 64.59 million tons in total.

The container throughput of Ho Chi Minh Port in 2008 was 3.43 million TEUs in total.

Table 9.1-1 Cargo Throughput of Ho Chi Minh Port in 2008

(unit: tons)

	Container	Break Bulk	Dry Bulk	Liquid	RoRo	Othres	Total	Container (TEU)
Int'l	30,454,470	756,394	13,037,052	7,075,040	24,515	184,803	51,532,274	2,941,476
Inport	14,094,358	15,942	5,520,499	659,803	0	71,550	20,362,152	1,504,974
Export	16,360,112	740,452	7,516,553	6,415,237	1,760	113,253	31,147,367	1,436,502
TS	0	0	0	0	22,755	0	22,755	0
Domestic	6,444,348	464,945	4,805,029	1,275,389	0	69,128	13,058,839	492,145
Total	36,898,818	1,221,339	17,842,081	8,350,429	24,515	253,931	64,591,113	3,433,621

Source: Questionnaire

(b) Ship calls

The number of ships calling Ho Chi Minh Port in 2008 was 8,771 in total, of which 4,860 were by foreign ship and 3,911 were by domestic ship.

Table 9.1-2 Ship Calls of Ho Chi Minh Port in 2008

	Total	Container	Conventional	Dry Buk	Tanker	Passenger	RORO	Others
Foreign	4,860	2,530	1,317	234	586	83	6	104
Domestic	3,911	837	1,389	161	1,398	9	0	117
Total	8,771	3,367	2,706	395	1,984	92	6	221

Source: Questionnaire

(c) Port Procedures

Pre-arrival notification to maritime administration is required 8 to 24 hours before entering the port. Paper-based applications to customs, immigration, and quarantine are required. The documents required by respective authorities are not yet unified.

Applications for berthing and request for tug services are submitted to terminal operators.

(3) Outline of the Port

(a) Waterway

i) Approach Channel and Anchorage

Long Tau Channel, a main approach channel of Ho Chi Minh Port lies from Vung Tau to terminals along the rivers upstream via Long Tau River. This channel is 85km long (from Vung Tau to Sai Go Terminal) and 8.5m deep.

The average tidal range is 2.2m. The need of maintenance dredging is limited to some short sections.

Air draft is limited to 55m due to high voltage transmission lines across Long Tau channel. In addition, a ship which calls Sai Gon Terminal and VICT is subject to another air draft limitation of 45m due to Phu My Bridge, a new bridge across downstream of Saigon River completed in September 2009.

Night navigation is applicable only for a ship with a length overall of 175m or less.

According to the Maritime Adminstration of Ho Chi Minh City, Soai Rap Channel, which directly connects to the sea without detouring via Long Tau Channel, is planned to be deepen up to 9m in a couple of years. The dredging of the section between SPCT and the confluence of Soai Rap and Long Tau River up to 8.5 has already completed.

ii) Pilot

Pilotage is compulsory for foreign ships of 100GT or over and domestic ships of 2,000GT or over which enter Ho Chi Minh Port.

(b) Terminals

Ho Chi Minh Port has terminals managed by various entities. Most of thoese entities are state owned enterprises (SOEs). Major terminals which handle public cargo are Sai Gon Terminal, VICT, and Cat Lai Terminal. In addition, SPCT started operation in October 2007. The function, size, and performances of those facilities are as shown in the following table.

Table 9.1-3 Major Terminals in Ho Chi Minh Port

Terminal Name	Function	Administrator/Operator	Quay Length(m)	Ship Call	Cargo Throughput (ton)	Cargo Throughput (TEU)
Sai Gon	Multipurpose	Saigon Port	2,673	1,819	13,166,000	510,498
VICT	Container	FLD	678	1,014		540,164
Cat Lai	Container	New Saigon Port	1,189	1,985	27,000,000	2,018,105
SPCT	Container	SPCT	500	―	―	―

Source: Questionnaire

[Sai Gon Terminal]
Outline

Sai Gon Terminal is located in the northern area of Ho Chi Minh Port. Sai Gon Terminal consists of 4 wharves including Nha Rong, Khanh Hoi, Tan Thuan, and Tan Thuan2. Nha Rong and Khanh Hoi, which are situated consecutively upstream, handle break bulk, dry bulk, and container. Tan Thuan, which is situated downstream of Khanh Hoi, handles container. Tan Thuan 2, which is located downstream, handles industrial materials. In addition to those wharves, the terminal has 34 buoy berths in Sai Gon River where barge operations are implemented. No liquid cargo is handled in the terminal. Sai Gon Terminal is managed by the Saigon Port Company under a maritime SOE group, Vinalines.

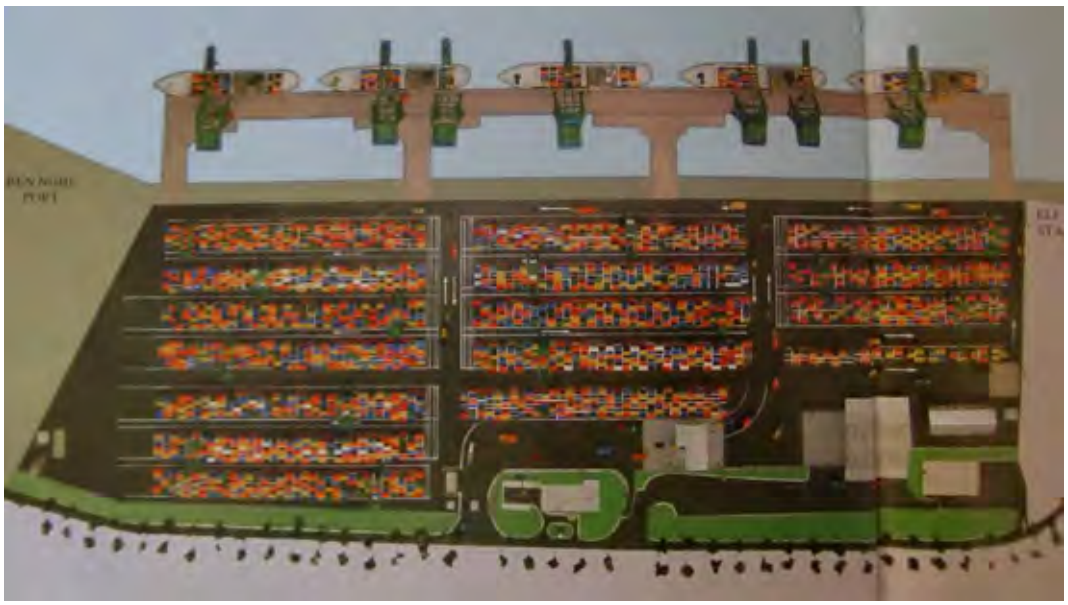
Source: Sai Gon Port Company

Figure 9.1-3 Layout of Sai Gon Terminal

[Vietnam International Container Terminal (VICT)]

Outline

VICT is located along the Sai Gon River. VICT is the first dedicated container terminal in Vietnam and owned and managed by the First Logistics Development (JV) Company (FLD). FLD is a joint venture company established by an SOE under the Ministry of Transport, Southern Waterborne Transport Corporation of Vietnam (SOWATCO) and foreign investors.



Note: The existing gate is located at the left end of theterminal.
Source: FLD

Figure 9.1-4 Layout of VICT

Container Throughput

Container throughput in 2008 was 540 thousand TEUs, 6 percent less than the previous year.

Table 9.1-4 Container Throughput of VICT in 2007 and 2008

(unit: TEUs)

	2008			2007		
	Total	Laden	Empty	Total	Laden	Empty
Inward (incl. transshipment)	269,999	233,509	36,490	276,962	239,685	37,277
Int'l (excl. transshipment)	266,802	230,312	36,490	274,778	237,501	37,277
Domestic	0	0	0	0	0	0
Outward (incl. transshipment)	270,165	224,752	45,413	295,058	240,936	54,122
Int'l (excl. transshipment)	266,968	221,555	45,413	292,874	238,752	54,122
Domestic	0	0	0	0	0	0
Total (incl. transshipment)	540,164	458,261	81,903	572,020	480,621	91,399
Int'l (excl. transshipment)	533,770	451,867	81,903	567,652	476,253	91,399
Domestic	0	0	0	0	0	0

Source: Questionnaire

Facilities

The container terminal has 4 berths in total. Its quay is 678m long and 10.5m deep and is equipped with 7 quayside gantry cranes. The terminal has an area of 13ha with a cargo handling capacity of one million TEUs and is equipped with 2,990 ground slots and 372 reefer plugs.

The yards are operated with 16 RTGs, 4 reach stackers and 6 top/side lifters.

Operation

FLD, as a terminal developer/operator, owns quay and quayside cranes and yard equipment, and provides services such as berthing, stevedoring, stacking export containers, delivering import containers.

The gross productivity of the quayside crane is 25 moves/hour/crane and the net productivity is 26moves/hour/crane. The berth productivity is 50 moves/hour/berth.

Cargo handling services are provided 24 hours a day using 3 shifts. One gate with 6 lanes is open for 22.5 hours.

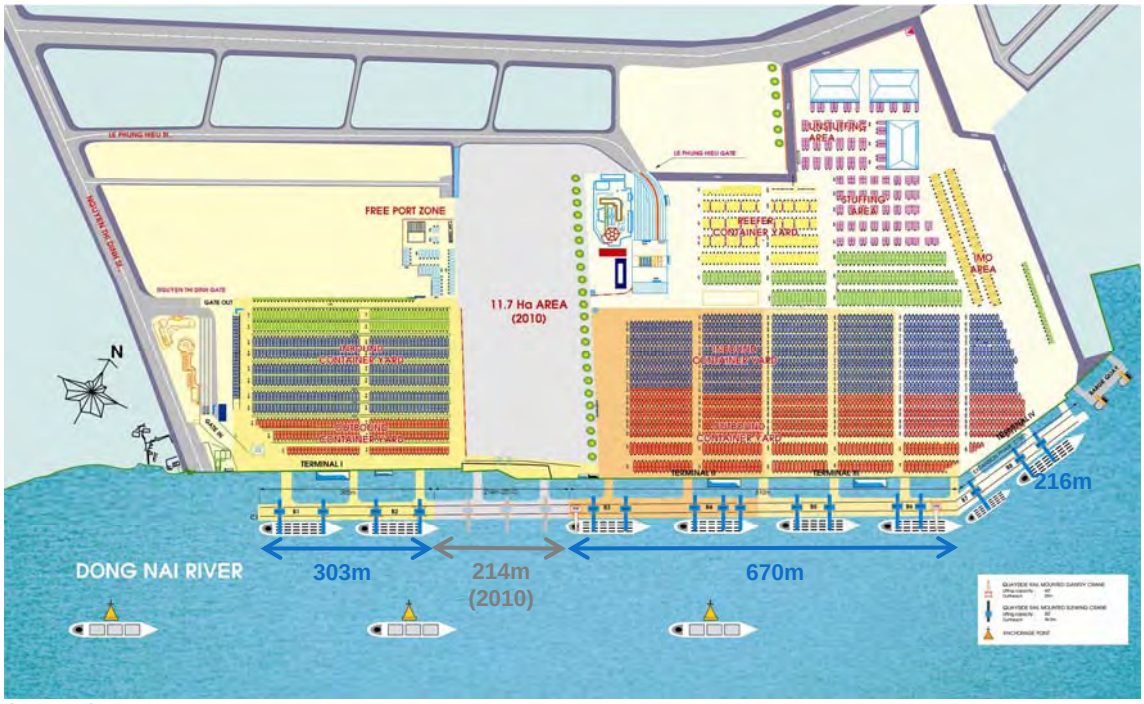
Documentation

The application for berthing is to be submitted from a shipping company or a shipping agent to the control room of the terminal at least one day before the estimated time arrival. A ship calling for the first time is requested to submit necessary information including the ship particulars by fax, email, or a hardcopy.

[Cat Lai Terminal]

Outline

Cat Lai Terminal is located along the Dong Nai River and is the busiest container terminal in Vietnam handling approx. 40 percent of the nationwide container throughput. The terminal is owned and managed by a SOE under the Ministry of Defence, Saigon New Port Company (SNP). SNP was established in 1989 and transformed into a holding company in 2006.



Source: SNP

Figure 9.1-5 Layout of Cat Lai Terminal

Container Throughput

Container throughput in 2008 was 2.0 million TEUs (27 milion tons), an increase of 9% over the previous year.

Table 9.1-5 Container Throughput of Cat Lai Terminal in 2007 and 2008

(unit: TEUs)

	2008			2007		
	Total	Laden	Empty	Total	Laden	Empty
Inward	975,283	813,067	162,216	930,069	700,140	229,929
International	975,283	813,067	162,216	930,069	700,140	229,929
Domestic	0	0	0	0	0	0
Outward	1,042,822	885,759	157,063	921,076	819,789	101,287
International	1,042,822	885,759	157,063	921,076	819,789	101,287
Domestic	0	0	0	0	0	0
Total	2,018,105	1,698,826	319,279	1,851,145	1,519,929	331,216
International	2,018,105	1,698,826	319,279	1,851,145	1,519,929	331,216
Domestic	0	0	0	0	0	0

Source: Questionnaire

Facilities

The container terminal has 7 berths in total. Its quay is 1,189m long and 12m deep and is equipped with 15 quayside gantry cranes. The terminal has an area of 80ha with a cargo handling capacity of 2.5 million TEU and a storage capacity of 40,000 TEUs for laden containers and 3,000TEUs for empty containers.

The yards are operated with 49 RTGs, 32 reach stackers and 22 top lifters.

Operation

SNP, as a terminal developer/operator, owns quay and quayside cranes and yard equipment.

SNP provides services including berthing, stevedoring, stacking export containers delivering import containers, and tug services. Pilotage is provided by a subsidary company, Tan Cang Pilot Co. Ltd

Cargo handling services are provided 24 hours a day using 3 shifts. Two gates are open around the clock.

Documentation

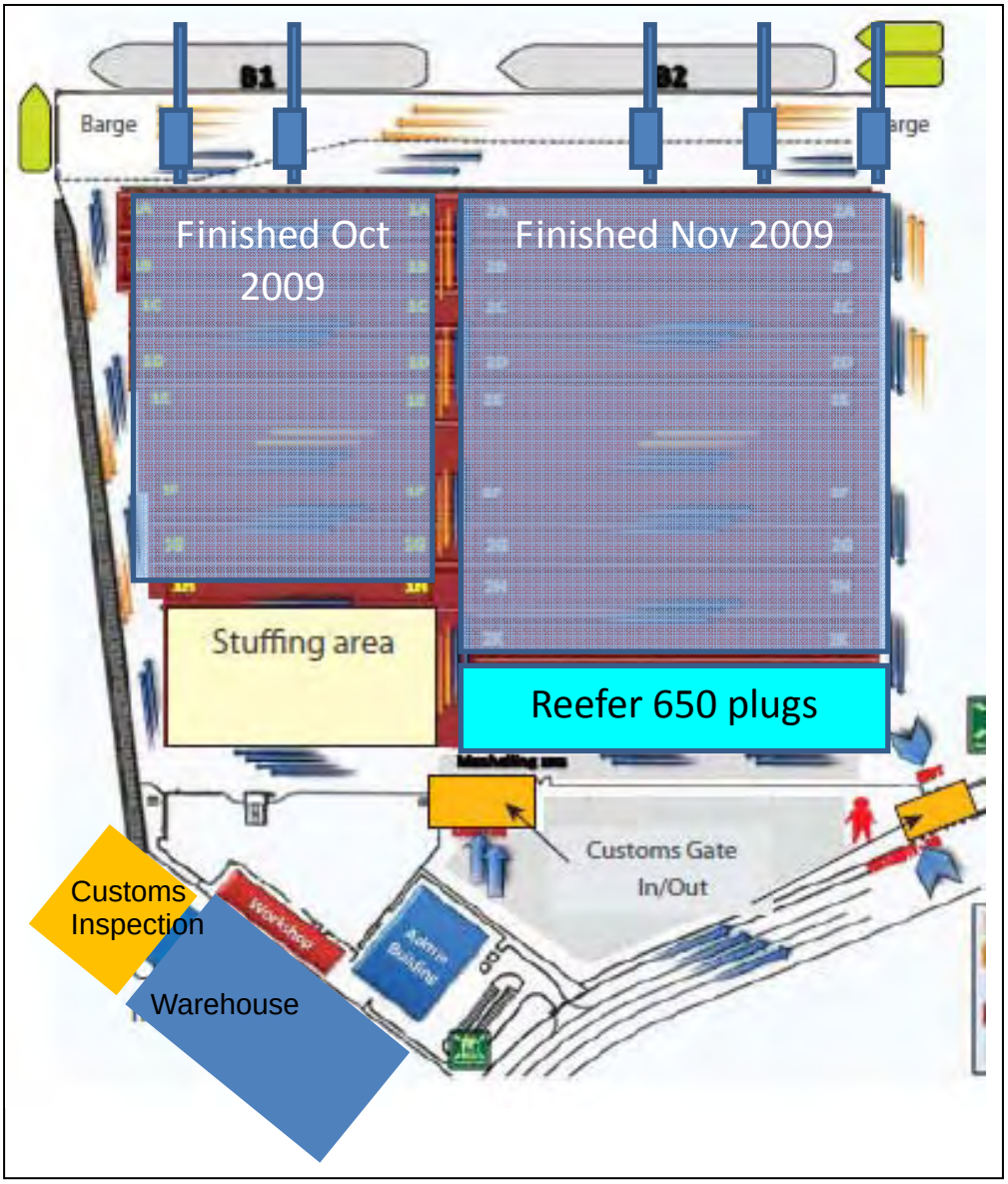
EDI system is not introduced yet. Paper-based manifests of cargo are submitted.

［Saigon Premier Container Terminal (SPCT)］

Outline

SPCT is a new container terminal which started operation in October 2009 and is located along the Soai Rap River.

The terminal is owned and managed by Saigon Premier Container Terminal (SPCT). SPCT is a joint venture company established by a SOE under Ho Chi Minh People Committee, Tan Thuan Industrial Promotion Company (IPC), and DP World.



Source: SPCT

Figure 9.1-6 Layout of SPCT

Facilities

The container terminal is being constructed in phases. In the first phase which has already been completed, 2 berths were constructed. Its quay is 500m long and 14m deep and is equipped with 5 quayside gantry cranes with an outreach of 14 container rows. The terminal has an area of 23 ha in total of which 20ha is for the container yard with 4,328 TEU ground slots and 648 reefer plugs. The yard are operated with 13 RTGs and 3 reach stackers.

Operation

SPCT, as a terminal developer/operator, owns quay, quayside cranes and yard equipment, and provides services such as berthing, stevedoring, stacking export containers and delivering import containers.

The cargo handling services are provided 24 hours a day using 3 shifts. One gate with 8 inbound lanes and 4 outbound lanes is open around the clock.

Documentation

EDI system is available for transmitting manifests.

(4) Landside Transportation

VICT

The VICT terminal is linked to main roads via a two-lane access road which is available around the clock, but trucks and trailers are prohibited from using the main roads near the terminal from 6 am to 9 am and from 4 pm to 7 pm in order to reduce traffic congestion.

Three inland container depos operated by depo operators are utilized. Transportation modes between the depos and the terminal are trucks and barges. Railway is not used for landside transportation. The modal share of the container transportation by road to barge is 63 to 37.

Cat Lai Terminal

The Cat Lai terminal is linked to main roads via two-lane access road which is available 24hours a day. An expressway is 7km away from the terminal.

Two inland container depos operated by a subsidiary company are utilized. Railway is not used for landside transportation. The modal share of the container transportation by road to barge is 70 to 30.

SPCT

A main road with 6 lanes directly connecting to the SPCT terminal is being constructed by Ho Chi Minh City and planned to be completed in the second quarter in 2009. Currently, the only access road to the terminal is an unpaved road with a bad drainage running through a village. The section at the village is a bottleneck where the trucks are forced to run quite slowly.

SPCT contracts with depo operators to secure spaces in four inland container depos. Transportation modes between the depos and the terminal are trucks and barges. The distance and transit time by berge the depos and the terminal are 32km and 4 hours, respectively. Railway is not used for landside transportation.

(5) Future Plan

Sai Gon Terminal

A large part of Sai Gon terminal excluding a passenger terminal is planned to be converted to an urban development site and the cargo handling functions will be transferred to the new terminals at Cai Mep – Thi Vai area in Vung Tau Province and Hiep Phuoc because the existing terminal is situated downtown and subject to traffic congestion.

Cat Lai Terminal

Tanks and a jetty for handling petroleum which are located between two yards of the terminal are planned to be removed for developing an additional yard with an area of 11.7 ha and quay with a length of 214m.

SPCT

Besides the first phase quay with a length of 500m, the second phase quay with a length of 450m is planned to be added to which will bring the total quays length to 950m.

9.2 Haiphong Port

(1) Outline of the Port

(a) Location and Roles

Port of Hai Phong, opened in 1876, is located in the downstream of Cam River, and distance from Hanoi is about 100km by national road no.5. The port is also connected to Hanoi by the road no.18 through north route and to Thai Binh province by the road no.10. Necessary travel time from Hanoi to the port is about 2.5 hours by passenger car and 4-6 hours.

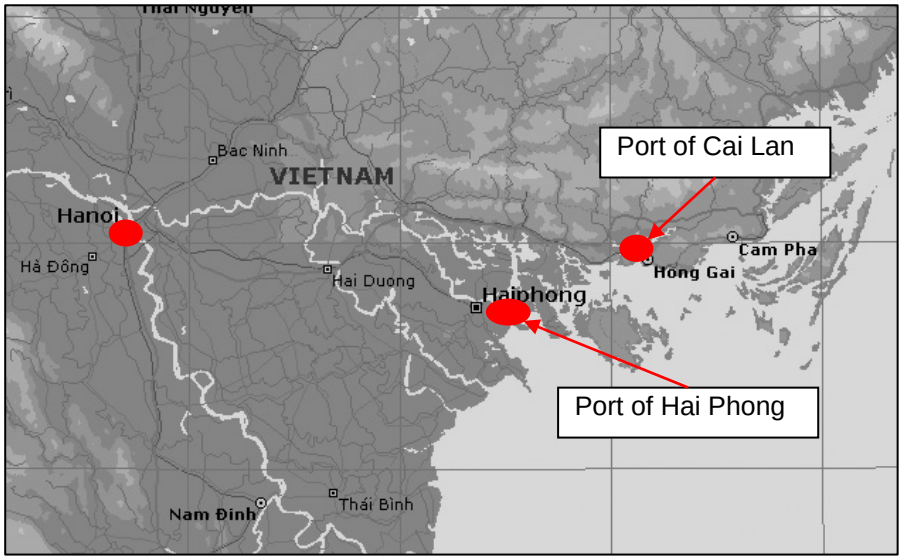


Figure 9.2-1 Location of Hai Phong Port and Cai Lan Port

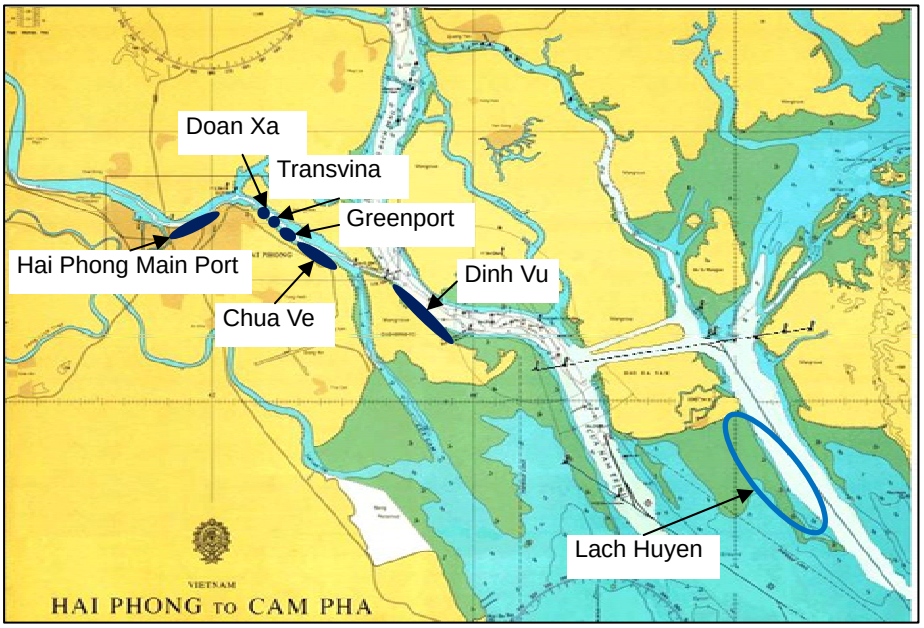


Figure 9.2-2 Terminal Layout in Hai Phong Port

(b) Operation and Management

Local office of VINAMARINE[1], Ministry of Transport, is responsible for ship entry, navigation safety, channel maintenance and regulations on port waters. The local office is called

[1] Vietnam Maritime Administration

Hai Phong Maritime Administration and plays a role of port authority. Terminals are developed and managed by private operating company or state owned company. Bulk cargo handling facilities are built and operated by private industrial companies.

(2) Use of the Port

(a) Cargo Throughput

Total cargo throughput of Hai Phong Port is 25 million tons in 2008, of which imports accounted for 10.6 million tons, exports 3.9 million tons, domestic cargo 9.7 million tons and transship cargo 0.9 million tons. Container throughput amounted to 1,151,000 TEUs in 2007 and 1,399,000 TEUs in 2008. Empty container ratio was 53% of export containers and 11% of import containers in 2006.

Table 9.2-1 Cargo Throughput of Hai Phong Port (2007)

(tons)

	Liquid	Dry	Container	Transshipment	Total
Export	-	680,542	3,168,592	-	3,849,134
Import	1,422,734	3,666,180	5,502,372	-	10,591,286
Domestic	345,733	4,308,286	5,057,953	-	9,711,972
Total	1,768,467	8,655,008	13,728,917	901,635	25,054,027

Source: VINAMARINE Statistics

Table 9.2-2 Conainer Throughput of Hai Phong Port

(TEUs)

	2005	2006	2007	2008
Export	212,766	247,986	386,988	-
Import	220,433	264,501	438,529	-
Domestic	105,208	135,260	325,348	-
Total	538,407	647,747	1,150,865	1,398,654

Source: VINAMARINE Statistics

(b) Ship Calls

Number of shipcalls at Port of Hai Phong was about 11,500, and total ship tonnage was 47 million GT in 2008. Ratio of foreign flag vessels was 42% and domestic vessels 58% in 2008.

Table 9.2-3 Shipcalls at Hai Phong Port (2008)

	No. of shipcalls	Gross Tonnage (GT)
Foreign Vessels	4,852	30,845,547
Domestic Vessels	6,623	15,830,719
Total	11,475	47,278,330

Source: VINAMARINE Statistics

(c) Port Procedures

One stop service office is established in Hai Phong MA with participation of customs, immigration and quarantine officers. Unified declaration forms are used by these organizations, but each organization requests additional documents of their own form. Documents are required on papers and digital data, which cause additional work for applicants. Hai Phong MA issues port entry permit, which may take one day for approval.

(3) Port Facilities

(a) Waterway

Total length of approach channel to Port of Hai Phong is 36km, of which Lach Huyen Channel has a width of 100m and depth of 7.5m, Ha Nam Canal and Bach Dang Channel have a width of 80m and depth of 5.5m. Container ships therefore navigate the channel during the time of high tide. Maximum size of calling vessels is 16,000 DWT at Transvina Terminal and 40,000 DWT at Chua Ve Terminal.

Pilotage is compulsory for foreign ships over 100 GT and domestic ships over 2,000 GT. State pilot company provides pilot service for entering and leaving ships.

(b) Terminals

There are 28 terminals in Port of Hai Phong, of which 6 terminals are used for container handling. Others are small scale private facilities of industrial companies. The six terminals are listed in Table 9.2-4. Main Port and Chua Ve Terminal are managed by Hai Phong Port Company under VINALINES[2]. Doan Xa, Transvina, Green Port, and Dinh Vu terminals are operated by individual port companies, some of which VINALINES has shares.

Table 9.2-4 Terminals of Hai Phong Port

Terminal	Function	Operator	Berth Length (m)	Area (m^2)	No. of Cranes (units)
Main Port	Conventional	Port of Hai Phong Co.,	1,717	163,000	(26)
Chua Ve	Container General	Port of Hai Phong Co.,	500 348	179,400	[6] (5)
Doan Xa	Multi Purpose	Doan Xa Port Joint Stock Co.,	235	120,000	Mobile 2
Transvina	Multi Purpose	Vietnam Hi-Tech Trans-portation Co.,	169	41,200	(1) Mobile 1
Green Port	Multi Purpose	Vietnam Container Shipping JSC.	320	105,000	Mobile 3
Dinh Vu	Container	Dinh Vu Investment and Development JSC	420	187,200	(2)

Note: () is portal crane, [ ] is quay gantry crane
Source: On-site visit and port brochures

Table 9.2-5 Container Throughput by Terminals (2007)

Terminal	Total Throughput (1,000 tons)	Container Throughput (1,000 tons)	Container Throughput (TEU) (Port Company)	Container Throughput (TEU) (MA statistics)
Main Port	6,653	1,016	98,193	123,408
Chua Ve	5,647	5,536	585,496	509,667
Doan Xa	2,281	2,224	120,500	111,665
Transvina	1,071	-	106,000	104,198
Green Port	1,937	-	173,759	173,759
Dinh Vu	2,029	1,978	131,211	123,993
Others	5,435	-	-	-
Total	25,054	-	-	1,150,865

Source: Questionnaire and On-site visit

[2] Vietnam National Shipping Lines

[Chua Ve Terminal]

Chua Ve terminal is the largest container terminal in Hai Phong. The terminal has a total area of 18ha, three berths of a total length of 500m and 6 quay gantry cranes. Container throughput was 585,000 TEUs in 2008. During the first semester of 2008, the terminal experienced heavy congestion due to a sharp increase of container cargo. After the world recession since October 2008, the congestion was eased but the development of new terminal is indispensable.

(4) Landside Transportation

Cargo transportation from Hai Phong Port to Hanoi City mainly depends on the national road no.5, but track's return traffic from Hai Phong to Hanoi takes one day due to traffic congestion. Railway tracks are in poor condition and cannot transport loaded containers. Development of new highway is ongoing in the south of national road no.5.

(5) Future Plan

New Port Development in Lach Huyen

Main terminals of Hai Phong Port are located in Cam River, therefore the size of calling vessels are limited to 900-1,200 TEU ships. In order to meet the demand for larger container vessels, development of deep sea terminal is indispensable. New port is planned in Lach Huyen and feasibility study is ongoing.

Expressway between Hai Phong and Nanoi

Construction of new expressway from Hai Phong to Hanoi has already started in some sections. Origin of the expressway is Dinh Vu Terminal in Hai Phong and it passes the south of Hai Phong City. After its completion, access to Hai Phong Port H ad will be improved considerably.

9.3 Da Nang Port

(1) Outline of the Port

(a) Location and Roles

Port of Da Nang is located along the east coast of Central Vietnam, at 16° 07'N and 108° 12'E, facing Pacific Ocean.

It is the largest port in Central Vietnam, supporting the economic activities of the region. The port also plays a role as the gateway to Laos and Thailand, connected by the East-West Economic Corridor.

Figure 9.3-1 Location of Da Nang Port

Source: Fairplay

Figure 9.3-2 Terminal Layout

(b) Operation and Management

Port of Da Nang is under the management of the Maritime Administration of Da Nang (MA-Da Nang) of Vietnam Maritime Administration (VINAMARINE), and operated by Danang port Holding Liability Company.

(2) Use of the Port

(a) Cargo Throughput

The annual cargo throughput at the Port of Da Nang was about 2.8 million tons in 2008, including 640,387 tons (61,881 TEUs) of containers (see Table 9.3-1).

(b) Ship Calls

A total of 1,327 ships, including 303 container vessels, entered the port in 2008. The number of ship calls is almost the same as that recorded in 2007.

Table 9.3-1 Ship Calls at Port of Da Nang in 2008 and 2007

	2008	2007
Container Vessel	303	290
Conventional Cargo Vessel	974	1,017
Others	50	57
Total	1,327	1,264

Source: Questionnaire

(c) Port Procedures

Permission to enter the port is under the control of MA-Da Nang. Vessels should forward their initial estimated time of arrivals to Ma-Da Nang, the harbor master, on departure from the last port. Subsequent estimated times of arrival should be sent each 48 hours after departure from the last port and then 72, 36, 24, 12, 6 and 4 hours prior to arrival.

(3) Port Facilities

(a) Waterway

i) Approach Channel and Anchorage

The length of the approach channel to the Port of Da Nang is 6.3 km, the width is 110 m and the water depth is 10 m. There are four anchorages; the water depth is 8 to 15 m and vessels up to 30,000 DWT can be moored.

The tidal range is 0.9 m on average.

ii) Pilot

Pilotage is compulsory for foreign vessels larger than 100 GT, and for domestic vessels larger than 2,000 GT (larger than 1,000 GT for tankers).

(b) Terminals

There are six terminals in the Port of Da Nang, and containers are handled at No.5 berth of Tien Sa Terminal.

Table 9.3-2 Terminals at Port of Da Nang

Name of Terminals	Type of Terminal	Quay		Total DWT	Total Cargo (tons)	Container (TEUs)
		Berth Length (m)	Water Depth (m)			
Tien Sa No.5	Container	225	12	5,928,857	640,387	61,881
Tien Sa No.1, 2, 3, 4	Multipurpose	740	12		1,092,257	
Hai Son	General Cargo Liquid Bulk	250	5	143,154	96,611	
Song Han	General Cargo	528	7	682,827	631,789	
Nai Hien	Liquid Bulk	20	4	141,952	98,566	
Song Thu	General Cargo	450	4	158,120	135,291	
Hai Van	General Cargo	100	4.1	114,336	89,616	
Total		2,313		7,169,246	2,784,517	61,881

Source: Questionnaire

[Tien Sa Terminal]

There are five berths at Tien Sa Terminal. Containers are mainly handled at No. 5 berth, and woodchips and general cargoes are handled at No. 1 - 4 berths.

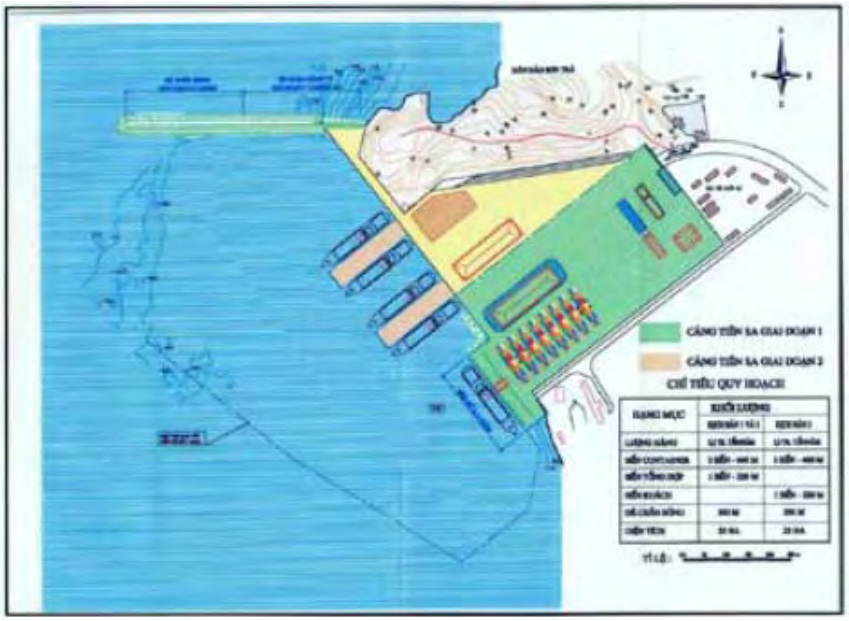


Figure 9.3-3 Layout of Tien Sa Terminal

Cargo Throughput

Container throughput at Tien Sa Terminal in 2008 was 61,881 TEUs, an increase of 24 % compared to the throughput in 2007.

Table 9.3-3 Container Throughput at Tien Sa Terminal

Name of Network Port		Port of Danang			
Name of Terminal		Tien Sa Terminal No.5			
Type of Terminal		Container Terminal			
Container Throughput		Year 2008		Year 2007	
	Total TEUs	61,881		49,850	
	Total Boxes	40,870		32,458	
	Total Tonnage (tons)	640,387		560,683	
	Landed Containers TEUs	Total TEUs	26,616	Total TEUs	24,287
		Laden TEUs	23,565	Laden TEUs	20,283
		Empty TEUs	3,051	Empty TEUs	4,004
	Imported Containers	Total TEUs	26,616	Total TEUs	24,287
		Laden TEUs	23,565	Laden TEUs	20283
		Empty TEUs	3,051	Empty TEUs	4004
	Domestic Containers	Total TEUs		Total TEUs	
		Laden TEUs		Laden TEUs	
		Empty TEUs		Empty TEUs	
	Shipped Containers TEUs	Total TEUs	35,265	Total TEUs	25,563
		Laden TEUs	23,600	Laden TEUs	18,077
		Empty TEUs	11,665	Empty TEUs	7,486
	Exported Containers	Total TEUs	29,756	Total TEUs	22,148
		Laden TEUs	22,845	Laden TEUs	17278
		Empty TEUs	6,911	Empty TEUs	4870
	Domestic Containers	Total TEUs	5,509	Total TEUs	3,415
		Laden TEUs	755	Laden TEUs	799
		Empty TEUs	4,754	Empty TEUs	2,616

Source: Questionnaire

Facilities

The length of No. 5 berth is 225 m, the water depth is 12 m. The annual container handling capacity is 150,000 TEUs.

Two quay-side gantry cranes, with 36 ton lifting capacity and applicable up to 12 rows, are installed. There are also two transfer cranes, two reach stackers and one side lifter.

The total area is 13.8 ha and the area of 10 ha is used for the container yard. The storage capacity for laden containers is 4,800TEUs and the storage capacity for empty containers is 2,400 TEUs. Sixty reefer plugs are installed.

Operation

The gross and net productivity of the quay-side cranes is 22 and 28 moves/hour/crane respectively. The berth productivity is 50 moves/hour/berth.

Stevedoring services are available 24 hours a day in four shifts, and there is one gate available around the clock.

(4) Landside Transportation

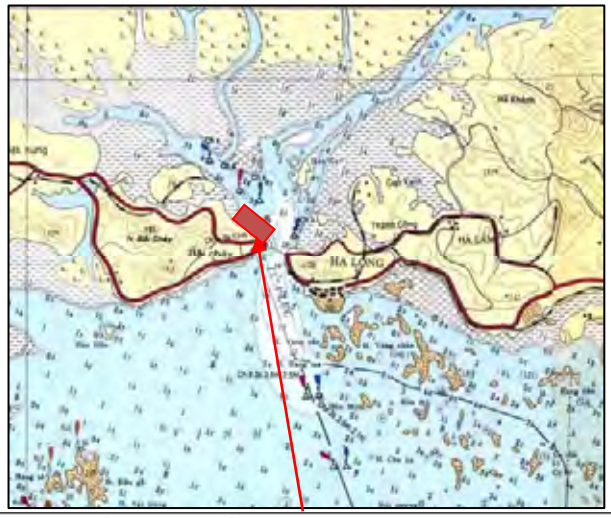
An access road with six lanes is available to the port 24 hours a day.

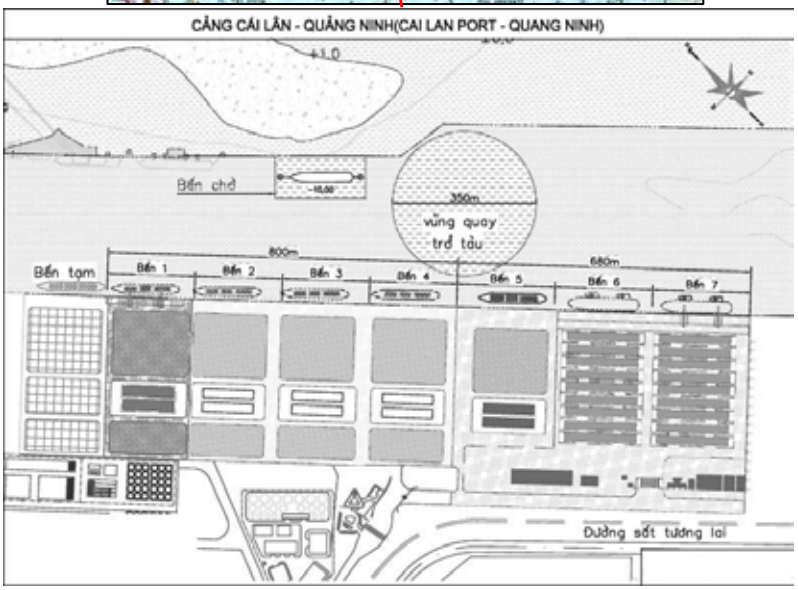
9.4 Cai Lan Port

(1) Outline of the Port

(a) Location and Roles

Port of Cai Lan is located in Quang Ninh Province and part of Hon Gai Seaport stipulated by Vietnamese port system[3]. Distance is 160km from Hanoi and 60km from Hai Phong. National road no.18 connects the port to Hanoi, through which it takes about 3 hours and half by passenger car. Tracks travel time from Cai Lan to Hanoi is about 5-6 hours. The port was developed and opened in 2004 to cope with larger vessels which cannot be accommodated in Hai Phong Port. Location and terminal layout is shown in Figure 9.4-1.





Note: No.1and Nos.5-7 were completed but Nos.2-4 are constructed.

Figure 9.4-1 Location and Terminal Layout of Cai Lan Port

(b) Operation and Management

Local office of VINAMARINE, Maritime Administration of Quang Ninh, is responsible for ship entry, navigation safety, channel maintenance and regulations on port waters. Container terminal is developed by Ministry of Transport and operated by Quang Ninh Port Limited Liability

[3] Prime Minister Decision No. 16/2008, Declaration of Classification List of Viet Nam Seaports

Company.

(2) Use of the Port

(a) Cargo Throughput

Total cargo throughput of Cai Lan Port is 2.7 million tons in 2008, of which exports amounted to 1.3 million tons and imports 0.7 million tons. Container throughput was about 100,000 TUEs in 2008, of which exports accounted for 15,000 TEUs and imports 19,000 TEUs as shown in Table 9.4-1.

Table 9.4-1 Cargo Throughput of Cai Lan Port (2008)

(tons)

	Breakbulk	Dry Bulk	Liquid	Container	Total
Export	222,567	945,100	6,696	96,157	1,270,520
Import	-	322,296	182,389	150,867	655,552
Transshipment	-	36,604	28,102	628,555	693,261
Domestic	73,715	23,570	21,493	2,589	121,367
Total	296,282	1,327,570	238,680	878,168	2,740,700

Source: Questionnaire

Table 9.4-2 Container Throughput of Cai Lan Port

(TEUs)

	2005	2006	2007	2008
Export	14,941	18,033	11,046	15,411
Import	38,955	28,540	17,012	19,230
Transshipment	25,427	48,606	69,873	67,033
Domestic	67,106	80,329	6,470	387
Total	146,429	175,508	104,401	102,061

Source: Questionnaire

(b) Ship Calls

Number of shipcalls at Cai Lan Port was 481 in 2008, of which container ships accounted for 114, bulk carriers 266, tankers 50, passenger ships 47. Bulk carriers can use only No.1 berth, congestion is therefore caused for ship entry and ship waiting time sometimes reaches 305 days.

Table 9.4-3 Shipcalls at Cai Lan Port (2008)

	Container	Conven-tional	Bulk Carriers	Tankers	Passenger	Others	Total
Foreign	112	-	132	34	33	2	313
Domestic	2	-	134	16	14	2	168
Total	114	-	266	50	47	4	481

Source: Questionnaire

(c) Port Procedures

One stop service office is placed in Quang Ninh MA with participation of customs, immigration and quarantine officers. Unified declaration forms are used by these organizations, but each organization requests additional documents of their own form. Documents are required on papers and digital data, which cause additional work for applicants. Quang Ninh MA plays a role of port authority in terms of water area management.

(3) Port Facilities

(a) Waterway

Approach channel to Port of Cai Lan consists of three sections, namely section from Hon Bai to Hon Mot has a length of 20km and depth of 12m, section from Hon Mot to Hon Gay has a length of 10km, depth of 10m and width of 130m, section from Hon Gay to Cai Lan has a depth of 8.5m and width of 130m. Total length of the approach channel is 34.5km and maximum size of calling vessel is 40,000 DWT. Chanel dredging was made in 2008 and maintenance depth is minus 10m under the chart datum. Air drat is limited to 55m under the Bai Chay Bridge. Pilotage is compulsory for foreign ships over 100 GT and domestic ships over 2,000 GT. State pilot company in Quang Ninh provides pilot service for entering and leaving ships.

(b) Terminals

There are several terminals in Cai Lan Port. Multi-purpose terminal and general/bulk terminal is operated by Quang Ninh Port Co., as public berth. Oil terminal called B12 is operated by Petro Vietnam. Coal jetty is operated by a cement company. Details of present terminals are shown in Table 9.4-4.

Table 9.4-4 Terminals in Cai Lan Port

Terminal	Function	Operator	Berth Length (m)	Water Depth (m)	Area (m^2)	No. of Cranes (units)
No.1	General/ Bulk	Quang Ninh Port Co.	166	(9.0)	15,000	-
No.5-7	Multi-Purpose	Quang Ninh Port Co.	680	10.0 (12.0)	127,000 (Container yard 49,000)	[2] Mobile 2
B12	Liquid	Petro Vietnam	-	-	-	-

Note: [ ] Quay Gantry Crane, ( ) in Water Depth is the depth of berth front
Source: On-site visit and port brochures

(4) Landside Transportation

National road no.18 is a two lane road connecting the port to Hanoi. The road is used for local transportation and need a separation of container traffic in the future. Railway connection is planned to the port but not realized.

(5) Future Plan

Development of berths no.2-no.4 is implemented by Cai Lan Investment Joint Stock Company, a private terminal operator affiliated by SSA Marine. It is planned to start the construction in 2010. This plan may be in conflict with the development plan of Lach Huyen.