# Ho Chi Minh City Sea Port Relocation: A Case Study of Institutional Fragmentation

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#### Introduction

Economic development consists of shifting land, labor and capital from low to higher productivity activities. At very low levels of income, growth can be achieved by mobilizing unutilized or under-utilized resources, for example bringing fallow land and idle labor into the production of new export crops. As incomes rise, increasing productivity requires the application of more complex technologies, often in larger scale enterprises producing more sophisticated goods and services.

Vietnam has achieved rapid growth rates for more than two decades, largely on the basis of extensive growth, in other words bringing underutilized resources in production. Two-thirds of exports consist of a limited range of agricultural commodities, fish and shellfish and production by foreign invested enterprises, much of which is made up of labor intensive goods such as garments and footwear. The challenge facing the country is to diversify production and exports to include higher value added goods and services.

One of the main obstacles to raising productivity in Vietnam is the quality of the country's economic institutions. Institutions are the economy's "rules of the game," in other words the laws, regulations, norms and habits that facilitate economic transactions. Each country's institutions are a product of its specific history, society and culture, as well as the capacity of powerful groups and individuals to shape rules and norms to their own advantage (North 1994, 360).

Institutions create incentive structures that have a direct bearing on productivity growth. Well-functioning economic institutions reduce the costs of doing business, and make it easier for investors to acquire long-life capital assets by reducing the uncertainty associated with investment over the long period. Dysfunctional institutions discourage investment in capital assets and technological capabilities, and lead investors to favor one-off transactions, speculation and the acquisition of highly liquid assets.

Vietnam's public and private sector economic institutions are highly fragmented with the dominance of small, uncoordinated units. This is apparent from even casual observation of the country's government institutions and state-owned enterprises. The country's population of 90 million is divided into 63 provinces, which means that the main unit of regional government is smaller in Vietnam than in other countries in the region. Vietnam's state-owned economic groups could be more accurately described as collections of small companies rather than large scale enterprises. For example, before its restructuring in 2010, Vinashin, the state-owned shipbuilder, managed 445 subsidiaries in addition to twenty joint-venture companies.

Fragmentation is a problem because it increases the costs of coordination, which can result in a loss of efficiency. Small units are unable to achieve economies of scale and scope, and find it more difficult to acquire complex technologies and capabilities. A fragmented regulatory system generates conflicting rules. Fragmentation of public investment results in duplication and waste.

This study examines the case of port development in Ho Chi Minh City (HCMC) and the surrounding provinces as an example of institutional fragmentation in Vietnam. The HCMC port system consists of numerous small ports, most of which are operated by central or local state agencies on their own or in collaboration with foreign investors. The fragmentation of ports and port ownership does not necessarily imply inefficiency. Given a coherent and consistent incentive structure that promotes market competition, a large number of small ports could conceivably provide good, low-cost services to importers and exporters. Unfortunately, such an incentive structure does not yet exist. Fragmentation has created a situation of over-capacity, poorly planned and implemented supporting infrastructure and road congestion and pollution in the city center.

The study finds that the origins of institutional fragmentation in the HCMC port system can be traced to three main causes: i) poorly specified and enforced property rights; ii) a failure to separate regulatory responsibilities from participation in the market; and, iii) the absence of regional coordination mechanisms to achieve greater efficiency in public investment.

The rest of the case study proceeds as follows. The next section approaches the problem of institutional fragmentation from the theoretical perspective. The third section describes the development of the HCMC port system and the main problems caused by institutional fragmentation, including overcapacity, the failure to relocate ports away from the city center, delays in the completion of supporting infrastructure and other shortcomings in the planning process. The penultimate section proposes solutions to the problem of institutional fragmentation, and the final section concludes.

# **Institutional Fragmentation**

The legacy of central planning still weighs heavily on Vietnam's economic institutions. Although markets are now the main mechanism of resource allocation, they often function poorly because the underlying institutions are missing, poorly formed or incomplete. Absent or dysfunctional institutions do not necessarily pose problems for small-scale, one-off transactions, but they do act as a brake on slow gestating, large-scale investments that require the acquisition of expensive capital assets, technology and skills.

Chief among the institutional problems facing Vietnam are poorly specified and enforced property rights. Insecurity of property increases the uncertainty associated with investment in large-scale and long-life assets. Property rights in Vietnam are often contingent on access to political protection and influence, and the legal system does not provide impartial adjudication of competing property claims. This is one of the main causes of the "missing middle" in Vietnam's industrial structure, in which private firms remain small, while only public, quasi-public and foreign companies achieve significant scale of production. There are few middle sized firms, since small private companies remain wary of investing in non-liquid assets that they cannot protect from predation or from the loss of market share to firms with stronger connections to the state.

Another legacy of central planning is the failure to create impartial regulating agencies that are not at the same time participants in the market. Government agencies at all levels that are responsible for setting and enforcing market rules are also active market players. The Ministry of Health regulates pharmaceutical production and is also engaged in producing drugs. The Ministry of Transport owns Vietnam Airlines and is also the airline regulator. The Ministry of Agriculture and Rural Development regulates pesticides and also produces them. These conflicts of interest motivate the agencies involved to favor their own enterprises at the expense of others.

Firms without political protection find themselves at a disadvantage, which acts as a disincentive to investment and an obstacle to competition.

A third, and related, legacy of central planning is the continued importance of state-owned enterprises in nearly every economic sector in Vietnam. Although equitization has transformed many of these enterprises into joint-stock companies, many are still under the direct control of state agencies by full or partial ownership or are linked to the state through their managers' long-standing personal and political relationships with government officials.

As a result of these and other characteristics of Vietnamese economic institutions, non-market means of resource allocation remain important. This is particularly true in relation to access to land and capital. Tenev and colleagues report that processing times for land use right certificates are *two hundred times greater* for private firms than for SOEs (Tenev et al. 2003, 67). As a result, many private firms are forced to lease land unofficially from SOEs at inflated prices. Malesky and Taussig find that access to credit is closely associated with connections to the party, government or state-owned enterprises (Malesky and Taussig 2008, 574).

Market access is also easier for connected firms. Government agencies and state-owned enterprises prefer to do business with SOEs, which forces private firms to sub-contract to SOEs rather than sell directly (Van Thang and Freeman 2009, 240). Hakkala and Kokko report that public sector bidding is skewed by eligibility requirements, and private firms cannot afford kickbacks on the scale of their public sector competitors (Hakkala and Kokko 2007, 16).

The legal system does not protect unconnected firms from these forms of favoritism. As private firms lack confidence in the courts, SOEs are more likely to seek legal redress since they can mobilize informal networks to ensure favorable decisions. Even if an objective verdict could be obtained from the courts, enforcement is the responsibility of the local authorities. This leaves outsiders at a distinct disadvantage, as the local government may decide simply not to implement a court decision that goes against companies with strong local ties (Tenev et al. 2003, 57).

Weak institutions are a major source of corruption, since the inability to secure one's property rights or enforce contracts forces firms and individuals to seek protection by bribing public officials. Firms use bribes for the most part to gain access to public services, to win government contracts and to resolve tax matters. Larger private firms are more visible and therefore are more likely to pay bribes, which is a disincentive for private firms to achieve larger scale of production (Rand and Tarp 2010, 12). Another cause of corruption is the high level of inconsistency in laws and regulations. Firms are subject to conflicting regulations emanating from different central ministries and local agencies. It is often impossible to comply with all of them, since they are mutually incompatible. The only way to "square the circle" in cases of conflicting rules is to bribe

These problems are magnified because of the absence of coordination among government agencies at all levels. Governance surveys routinely conclude that central and local authorities have wide discretion over policy formulation and implementation. Provincial authorities vary considerably in the degree to which they implement central government policies (Tran, Grafton, and Kompas 2009, 11). Local officials sometimes use this discretion to promote investment and trade, but more often than not their efforts are directed towards supporting local networks of agencies, state-owned enterprises and other connected businesses. Coordination among central government agencies is also weak. Ministries issue regulations that directly conflict with those promulgated by other agencies, and mechanisms do not exist to either ensure consistency or adjudicate between competing claims of regulators. The so-called "silo effect" refers to a

tendency for ministries to communicate vertically within the internal hierarchy of the organization but to avoid horizontal communication with other agencies.

Poorly specified and enforced property rights, the absence of impartial regulation and adjudication and poor coordination among government agencies leads to institutional fragmentation. The weak property rights regime opens the way for politically negotiated, nonmarket allocation of resources, particularly land and credit, but also market access and government procurement. The blurred divisions between regulators and market participants create additional incentives for rent-seeking and political manipulation of markets. Poor coordination between central and local government agencies, and among agencies at the central and local levels, ensures that power resides at the lower levels of the system.

The development of the HCMC port system provides a good example of the impact of institutional fragmentation on an important sector of the economy and on public investment policy. Ports are capital intensive, long-life investments that require a strong institutional framework and close coordination between public investment, regulation and private investment. Market competition creates incentives to lower costs and improve service, but competition in the absence of a level playing field does not necessarily result in efficient outcomes.

A number of state agencies and state-owned enterprises are active in the HCMC port system. Competition among state-owned companies does not necessarily imply suboptimal outcomes from society's perspective. A healthy market for port services could develop in the Southeast if the institutional framework included clearly specified property rights, fair and transparent rules of the game, impartial regulation and adjudication of disputes and possibilities for coordinated action among local authorities. Unfortunately, none of these conditions is met in Vietnam. The result is a highly fragmented system in which state agencies and firms compete largely in the political realm for favors and state assets. The actions of these entities are directed towards maximizing private benefits, with little or no regard for costs imposed on society. None of the agencies involved has an incentive to produce the public goods required to ensure that the system functions, while each directs its efforts towards controlling valuable state assets and revenue flows.

The following section describes the development of the HCMC port system. The government has produced numerous plans for the development of ports in the Southeast, but none has been implemented in full. Repeated directives to relocate ports from the city center to a natural port area on the coast have been ignored. Port operators in Ho Chi Minh City—for the most part state agencies and state-owned enterprises—have replicated the city's fragmented port ownership structure at the new location in Ba Ria – Vung Tau, while at the same time continuing operations in the city. The result is overcapacity at the new site and continued congestion and pollution in the city center. Meanwhile, essential infrastructure linking the new port system to the industrial areas of HCMC and the surrounding areas has not been completed, and in some cases not yet begun.

The underlying cause of the haphazard development of the port system is institutional fragmentation. Poorly specified and enforced property rights, the active participation of regulators as market players and the absence of coordination among government agencies has created a situation in which individual agencies work for private advantage while none has a strong incentive to maximize public benefits and ensure the sustainability of the system.

# The Ho Chi Minh City Port System

# **Background**

Over the past ten years, Vietnam has emerged as an important trading country. Starting from a low base, Vietnam's container throughput grew by more than 20 percent per year on average from 2000 to 2009. As shown in Table 1, this was the fastest container volume growth rate in Asia during this period. The development of new deep-sea ports to accommodate trade growth is a national priority. The sea ports in HCMC are the most important port system in Vietnam, supporting international commerce not only in the greater Ho Chi Minh City area but also the entire southern part of the country. HCMC accounted for 55 percent of total throughput in 2010 among the major port systems that regularly receive container vessels in Vietnam (see Table 2).

Table 1: Container Throughput in Selected Asian Countries

	Conta	iner	Growth		
	Volume (r	nil TEU)	Rate (%)		
	2000	2000-09			
Vietnam	1.03	5.40	20.25		
China	41.00	105.98	11.13		
Malaysia	4.64	15.84	14.61		
India	2.45	7.89	13.87		
Indonesia	3.80	6.39	5.96		
Thailand	3.18	5.90	7.11		
Korea.	9.03	16.05	6.60		
Philippines	3.03	4.12	3.46		
Singapore	17.10	25.87	4.71		
Bangladesh	0.46	1.18	11.16		
NY COUNTY					

*Note*: TEUs are twenty-foot equivalent units. One 20-foot container equals one TEU.

Source: The World Bank, World Development Indicators.

Table 2: Container Throughput in Major Vietnamese Ports in 2010

	Container '	Volume
	TEU	Share
Northern Ports		
Hai Phong	1,732,697	26.8%
Quang Ninh	204,129	3.2%
Central Ports		
Da Nang	89,199	1.4%
Quy Nhon	72,224	1.1%
Southeastern Ports		
HCMC	3,569,829	55.1%
Ba Ria - Vung Tau	628,611	9.7%
Binh Duong	96,538	1.5%
Others	80,674	1.2%
Total	6,473,901	100.0%

*Source*: Data reported by port operators to the Vietnam Port Association (VPA).

In the mid 2000s, shippers and shipping lines began warning about port congestion in HCMC as container handling facilities were operating close to full capacity and there was little room for expansion at existing sites (APL 2007, 49). It became increasingly clear that sustaining rapid growth in trade required the development of a new port complex with modern facilities, and that the new ports would be located outside of the city center.

Globally ports have been moving out of cities because of the need to accommodate larger vessels, the rising opportunity cost of inner-city land and traffic congestion caused by port operations. Recent examples of port relocation and new port developments in Asia include Busan port to Busan New Port in Korea, Waigaoqiao to Yangshan port in Shanghai, China, Bangkok to Laem Chabang port in Thailand, and Mumbai to Nhava Sheva port in India.

The Cai Mep – Thi Vai river in Ba Ria – Vung Tau (BRVT) was identified as the preferred site for Vietnam's main international gateway port (see Map in Appendix 1).<sup>2</sup> With a depth of 14

<sup>&</sup>lt;sup>1</sup> Ho Chi Minh City ports are part of Port Group Number 5 as designated by the Vietnam Maritime Administration, which also covers other provinces in the southeast including Binh Duong, Dong Nai, and Ba Ria – Vung Tau.

<sup>&</sup>lt;sup>2</sup> Hiep Phuoc in Nha Be District in the south of Ho Chi Minh City is also selected as a second place for relocation. However, it will require dredging of 30km access channel to accept ships to 30,000DWT.

meters and the absence of significant sedimentation, the site could accommodate dedicated deep-sea container terminals to handle post-panamax vessels for direct shipment to North America and Europe.<sup>3</sup> One concern with this new location was that it is 80 km from Ho Chi Minh City and therefore supporting infrastructure, particularly connecting roads, would be required.

The HCMC port relocation policy was strongly supported by the business community. The port operators were willing to make very large investments in the new ports. However, almost a year after the deadline in 2010, all but one port in HCMC still remained at their original locations.

## The Constraints on Existing Inner-city Ports

As illustrated in Appendix 2, the HCMC port group is actually a cluster of numerous port terminals operated by different companies including central state-owned, local state state-owned, military-owned, and foreign entities. Sai Gon Port is the oldest port stretching back to the colonial era. Its terminals, Nha Rong, Khanh Hoi and Tan Thuan, occupy the largest land area. The port is now a subsidiary of Vinalines, the national shipping general corporation, supporting both domestic and international commerce. Ben Nghe port is operated by a local state-owned company under the People's Committee of HCMC, also serving domestic and international shipping. The Vietnam International Container Terminal (VICT), the country's first purposebuilt container terminal, is a joint-venture between the state-owned Southern Waterborne Transport Corporation, the NOL Group of Singapore, and Mitsui & Co. of Japan. Sai Gon New Port (SNP) is another dedicated container port established by the People's Navy in the late 1980s. The Ba Son Shipyard, which was historically a shipbuilding facility, is also located in the port area, and is operated by the Ministry of Defense's General Department of Military Industry.

In addition, there are a number of smaller ports. Tan Thuan Dong Port, which is run by Sai Gon Transport Services Company, handles international and domestic general cargo. Vegeport (Rau Qua) in the south of Tan Thuan Export Processing Zone, handles mainly grain and fertilizer cargo. South of Vegeport is Lotus Port, a joint-venture of Viettrans, Vosa, and Ukraine-based Blassco. This port handles containers, general cargo, and heavy goods.

**Table 3: Ho Chi Minh City Ports** 

					(5)
Port	Number	Total berth	Area	Vessel Size	Relocation Plan (*)
	of Berths	length (m)	(ha)	(DWT)	
Sai Gon New Port	4	733	31.9	5,000	To Cat Lai (Dong Nai River, HCMC)
					by 2006 and to Cai Mep by 2010
Ba Son Shipyard	6	754	26.4	6,000-10,000	To Cai Mep by 2010
Sai Gon Port, Nha	10	1,750	32.2	10,000-30,000	To Cai Mep (BRVT) and Hiep
Rong & Khanh					Phuoc (HCMC) by 2010.
Hoi Terminals					, , ,
Sai Gon Port, Tan	5	995	13.6	10,000-30,000	No expansion
Thuan Terminal					•
Tan Thuan Dong	1	149	2.9	15,000	Relocate by 2010
Port				·	·
Ben Nghe Port	4	816	32.0	10,000-30,000	Change of use after 2020
VICT Port	4	678	28.3	15,000-20,000	Change of use after 2020
Vegeport	1	222	7.2	20,000	Relocate by 2010 (if Phu My Bridge
					is constructed)
Lotus Port	2	275	6.0	30,000	<u>-</u>

(\*) The relocation plan is from The Prime Minister of Vietnam, Decision 791/QĐ-TTg on the approval of the Detailed Master Plan of Sea Ports in HCMC, Dong Nai, and Ba Ria – Vung Tau, 12 August 2005. *Source*: Authors' surveys of existing ports.

<sup>3</sup> Container terminals in the area can be constructed to receive "mother ships" capable of carrying 8,000-10,000 TEU (100,000-120,000 DWT).

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All the ports in HCMC are river ports, occupying riverfront land in the central business district and nearby areas. The rapid growth of exports and imports and the shift toward containerization in ocean shipping in the early 2000s have created critical challenges facing HCMC ports. Draft and length limits prevent large vessels from calling at these ports. As a result, export and import goods have to be transshipped on feeder ships via ports in Singapore and other Asian countries, raising the cost of shipping to and from Vietnam in terms of time and money. Furthermore, the location of the ports deep inside the city center causes major traffic problems as trucks have to go through busy urban districts to get to the ports. The city is also undertaking large urban development projects on the eastern side of the Saigon River at Thu Thiem. When bridges are built across the river, it will be effectively impossible for large vessels to pass below them. Perhaps most importantly, the land under the existing ports has risen in value over the past decade. The failure to redevelop this land for commercial and residential use represents a missed opportunity for the city in terms of revenue generation and positive externalities in the form of demand for complementary investment and services.

The idea of relocating HCMC inner-city ports was first proposed in the late 1990s. However, it was not until 2005 that a firm decision was taken by the central government to identify Ba Son Shipyard and four ports—namely Saigon New Port, Sai Gon Port (Nha Rong and Khanh Hoi terminals), Tan Thuan Dong Port, and Vegeport—as the specific facilities that were to be moved out of the city by 2010 at the latest.<sup>6</sup>

When the relocation deadline passed, Sai Gon New Port was the only facility that had moved further downstream from the city center. The new facility at Cat Lai is now the largest and most successful port in the area. In 2010, the container throughput of the New Port reached more than 2.5 million TEU, recording an impressive annual growth rate of 12.6% during 2009-2010, a period of slow growth in trade. Over the same period, Sai Gon Port and VICT both saw substantial declines (see Table 4). With its superior location and larger area of land under military control, the relocated New Port is more accessible to customers and offers larger storage facilities. Furthermore, as a military-run business, the port in its new location is able to provide integrated services, particularly fast-track customs inspection.

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<sup>&</sup>lt;sup>4</sup> In 2005, the number of containers handled by Sai Gon New Port surpassed one million TEU, a volume threshold for international shippers to consider using "mother ships" for direct shipment of goods between Vietnam and North America or Europe.

<sup>&</sup>lt;sup>5</sup> In fact, the debate over construction of bridges and port relocation has been a constant headache for policymakers during the planning and project implementation process from the mid 1990s until now. The decision to build the costly Thu Thiem tunnel (which is part of the HCMC East-West Highway project) instead of a bridge in 2002 was due to the need to allow passage of vessels to existing ports upstream. At present, two new bridges are completed, namely Thu Thiem 1 bridge near the Sai Gon New Port site and Phu My bridge near Vegeport and Lotus ports. The Thu Thiem development project still calls for three more bridges, Thu Thiem 2, 3 and 4 plus a foot bridge.

<sup>&</sup>lt;sup>6</sup> The Prime Minister of Vietnam, Decision 791/QĐ-TTg on the approval of the Detailed Master Plan of Sea Ports in HCMC, Dong Nai, and Ba Ria – Vung Tau, 12 August 2005.

<sup>&</sup>lt;sup>7</sup> Cat Lai Port is now a listed joint-stock company with the Navy's Sai Gon New Port being the largest shareholder. The other major shareholder is HCMC Youth Volunteers Corporation, which is controlled by HCMC People's Committee.

<sup>&</sup>lt;sup>8</sup> The New Port area in Cat Lai is 72 ha compared to less than 40 ha at the old location.

<sup>&</sup>lt;sup>9</sup> Based on authors' interviews with port operators and shippers.

**Table 4: Container Throughput in HCMC Ports (TEU)** 

				Annual growth
	2008	2009	2010	rate, 2008-10
New Port (Cat Lai)	2,018,104	2,460,000	2,559,305	12.6%
Sai Gon Port	510,496	378,226	401,982	-11.3%
VICT Port	536,176	300,000	297,561	-25.5%
Ben Nghe Port	188,815	140,922	210,549	5.6%

Source: Data reported by port operators to the Vietnam Port Association (VPA).

The relocation of the other HCMC ports has stalled. Reasons cited by port operators include the need to receive assurances that new sites are economically viable, and financial constraints on new investments. Among the new locations proposed, Cai Mep – Thi Vai has the greatest potential because of the site's natural endowments and its proximity to HCMC and surrounding provinces. Moreover, HCMC ports were required to relocate to Cai-Mep Thi Vai by a prime ministerial decision. However, as we shall see, the absence of coordination among agencies, clear lines of authority and accountability, and well-defined property rights have resulted in a situation in which firms and government agencies act in accordance with short-term interests that often generate socially suboptimal outcomes.

#### Cai Mep - Thi Vai Port Complex: Early Development Attempts

In the late 1980s, the Ministry of Transport started to look for new port locations in the greater HCMC area. Commissioned by the Ministry of Transport, in 1991 Tedi South consultants<sup>10</sup> produced the first study of the Thi Vai – Vung Tau Deepwater Port System, which led to the first master plan of the port complex in 1992.<sup>11</sup> The plan called for port development in three areas, namely, Go Dau in Dong Nai Province, and Phu My and Cai Mep in BRVT. Essentially, the plan called for port developments to be linked with adjacent manufacturing activities in Go Dau Industrial Park (Dong Nai), heavy industries in Phu My Industrial Park (BRVT) and future oil and gas activities in Cai Mep. There was, however, no mention of the need to build dedicated container terminals or relocation of HCMC's ports.

As the pace of industrial development quickened in the second half of the 1990s, several specialized ports were built, including Phuoc Thai – Vedan (MSG materials) and Unique-Gas (liquid products) in Go Dau, Baria-Serece (bulk cargo and liquid products) in Phu My, and LPG port in Cai Mep. In early 1998, the port master plan was adjusted, regrouping the complex into four port areas and identifying sites for several general cargo and container terminals.<sup>12</sup>

In 2001 and 2002, the Japan International Cooperation Agency (JICA) conducted its Port Development Study in the South. In its report, JICA proposed a plan of general cargo and container ports with moderate capacities in Cai Mep – Thi Vai. Six general cargo berths with 3.3-6 million ton throughput were planned for the Thi Vai section. Eight container berths with a total capacity of 2.7 million TEU were planned for the upper and lower Cai Mep sections. This was in line with the fact that container throughput in HCMC in 2002 was only 855,000 TEU. Although the overall plan was logical and detailed, investors were skeptical about the government's commitment to develop the supporting infrastructure (Thanh 2010, 11). As a

<sup>10</sup> The port unit within Tedi South, which undertook the study, later became the independent Portcoast Consultant Corporation.

<sup>&</sup>lt;sup>11</sup> Decision 55/Ttg of the Prime Minister on the approval of the Master Plan of the Thi Vai – Vung Tau Deepwater Port System, 5 November 1992.

<sup>&</sup>lt;sup>12</sup> Decision 50/Ttg/1998/QĐ-Ttg of the Prime Minister on the approval of the adjustment and addition to the Master Plan of the Thi Vai – Vung Tau Deepwater Port System, 28 February 1998.

result, the few facilities for which construction began in the early 2000s were again specialized terminals serving only industrial plants nearby. Large international port projects with expected foreign participation did not proceed beyond the planning stage. In particular, the Thi Vai International Port, a joint-venture among Vung Tau Shipping and Services (VTS), Vietnam Steel Corp (VSC), and Japan's Kyoei Steel, received a license in 1997 covering 41 ha of waterfront harbor land, but so far has made no actual investment.<sup>13</sup>

## The Role of ODA in the Emergence of New and Modern Ports

JICA's study paved the way for Japanese ODA financing. In March 2005, the Japan Bank for International Cooperation approved an ODA loan of \(\frac{4}{3}6.4\) billion (US\\$328.6\) million) for the Cai Mep – Thi Vai port complex. The loan is part of a US\\$700\) million project managed by the Ministry of Transport involving channel dredging and navigational equipment installation, construction of connecting roads and bridges, and development of Thi Vai International General Cargo Terminal and Cai Mep International Container Terminal. The project fell within the detailed master plan for port development in the Southeast covering HCMC, Dong Nai and BRVT. The Prime Minister's decision approving the plan in August 2005 set explicit deadlines for the relocation HCMC's inner-city ports to Cai Mep – Thi Vai (and Hiep Phuoc in the south of HCMC) by 2010. Compared to JICA's study, the 2005 plan significantly increased the number of ports in the complex. There were now 19 ports in the plan, of which four were dedicated container terminals with 18 berths. The decision to add new capacities to the port complex was made as the Ministry of Transport's forecast of container throughput in the greater HCMC area was revised upward to 4.1 million TEU in 2010 and 6.2 million in 2015.

For some time, Vietnam has been on the radar screen of international port operators who were aggressively diversifying their operations with investments in ports in addition to their original bases of operation. The major shipping lines were also eager to achieve more control over port operations by taking equity stakes in the fastest growing ports in the world, including Vietnam. Domestic port operators in HCMC, under the pressure to relocate, were also quick to secure land in the port area. As mentioned earlier, before 2005 they were still not convinced that the government would devote sufficient resources for port development. The ODA project proved to be pivotal in attracting private investors' to the location. Confident about the government's commitment to developing necessary supporting infrastructure with ODA funds, a number of world-class port operators and shipping lines rushed to apply for investment licenses in late 2005 and early 2006, before Vietnam's formal accession to the WTO.

Within a very short time span from October 2006 to February 2007, five investment licenses were issued for the development of dedicated container terminals. Among them, the Tan Cang Cai Mep Container Terminal (TCCT) is the only 100% domestic investment by the Sai Gon New Port Company. Sai Gon New Port later entered into a joint-venture with three international shipping lines to set up the Tan Cang Cai Mep International Terminal (TCIT). Three projects are joint-ventures between the same domestic partners, namely, Sai Gon Port and Vinalines with international port operators. SP-PSA is a joint-venture with the Port of Singapore Authority (PSA). SSIT is a joint venture with SSA Marine of the US. CMIT is a joint venture with APM terminals, a subsidiary of the Maersk Group. Lastly, SITV was formed between Sai Gon

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<sup>&</sup>lt;sup>13</sup> The Prime Minister in October 2007 even asked the BR -VT People's Committee to withdraw the project's license.

<sup>&</sup>lt;sup>14</sup> It is a yen-denominated loan carrying 0.4-percent interest rate and 40-year maturity/10-year grace period under the Special Terms for Economic Partnership (STEP) program. (Source: JBIC and Japan Official Development Assistance, JBIC's ODA Operations in Vietnam, April 2008.)

<sup>&</sup>lt;sup>15</sup> Sai Gon Port is a subsidiary of Vinalines, but both joined the ventures separately, to together control 51 percent of the stake in each project.

Investment Construction and Commerce (SICC), a domestic joint-stock company and Hong Kong-based Hutchison Port Holdings (HPH).

The five non-public container projects all went ahead with their investment plans. After two years of construction, SP-PSA and TCCT became operational in 2009. SITV, CMIT, and TCIT also opened in late 2010 and early 2011. The dredging and installation of navigational equipment in Cai Mep Channel, important components in the ODA project, were also completed. As soon as the terminals were opened, 16 post-panamax vessels started direct service to the ports.

# Challenges Facing the New Ports in Cai Mep - Thi Vai

However, the enthusiasm of the port operators was short-lived as container volume fell well short of expectations. As reported by the port operators, actual container throughput was 28 percent of total capacity in 2010 and only 12.9 percent in the first 8 months of 2011. In May and June 2011, four shipping line services (out the original 16) were canceled due to insufficient demand.

Initially, the investor consortium in each port thought that the container terminals would be developed in a prioritized sequence to make sure that supply matched demand. As illustrated in Figure 1 below, the original plan called for four container terminals with a total capacity of only 3.3 million TEU by 2015. What happened, however, was that a number of investment licenses were granted by the government at the same time. Thus, by early 2011 the four container terminals under operation (SP-PSA, TCCT-TCIT, SITV, and CMIT) have a combined capacity of 5.2 million TEU (see Table 5). The likelihood that excess capacity will be reduced is small as more terminals will be opened in the coming years. The construction of SSIT is due to be finished in early 2012, increasing the total capacity of the complex to 6.4 million TEU. The two ODA terminals are expected to be completed in 2013. Another joint-venture container terminal between Gemadept and France-based CMA-CGM, which currently has the largest land area and longest berth length, is still under construction.

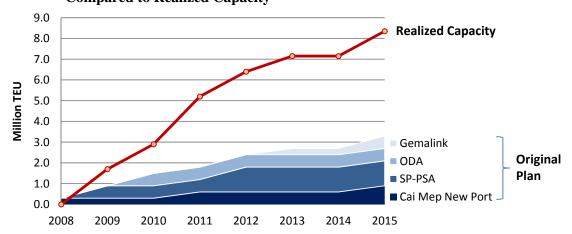


Figure 1: Original Plan's Phased Development of Container Terminals Compared to Realized Capacity

Source: The original plan's capacity is from Vietnam Maritime Administration (Vinamarine) and realized capacity is from Table 5.

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<sup>&</sup>lt;sup>16</sup> Data reported by the ports to the Vietnam Port Association.

<sup>&</sup>lt;sup>17</sup> Cosco, Kline, Yangming, and Hanjin announced the Cai Mep suspension for their Asia-Europe route in May 2011, and CSAV withdrew from its Cai Mep – US West Coast direct route in June 2011.

When Thailand started developing its new deep-sea port in Laem Chabang to replace the Klong Toey port in Bangkok in the late 1980s, only one container terminal was built with a capacity of 0.6 million TEU. Over time, more terminals were added and now the port complex has seven container terminals and one multi-purpose port. It is now ranked 22<sup>nd</sup> among the world top container ports, handling 5.2 million TEU in 2010. Nhava Sheva port, developed to relieve pressure on Mumbai Port in 1989, currently has only three terminals with a total of five berths. It handled 4.3 million TEU in 2010.

Table 5: Dedicated Container Terminals in Cai Mep – Thi Vai

	Opening	Vietnamese	International	Capacity	Volume in 2010	Volume in 2011, 1 <sup>st</sup> 8 m
Terminal	Year	Partner	Partner	(mil TEU)	(mil TEU)	(mil TEU)
SP-PSA International			PSA International			
Port (SP-PSA)	29 May 09	Sai Gon Port	Port	1.1	0.182	0.114
Tan Cang - Cai Mep						
Container Terminal						
(TCCT)	03 Jun 09	Sai Gon New Port	-	0.6	0.295	0.204
Tan Cang – Cai Mep			Wanhai Lines,			
International			MOL and Hanjin			
Terminal (TCIT)	15 Jan 11	Sai Gon New Port	Shipping	1.2	_	0.084
Sai Gon International						
Terminals Vietnam			Hutchison Port			
(SITV)	24 Aug 10	SICC	Holdings (HPH)	1.2	0.025	0.045
Cai Mep International						
Terminal (CMIT)	30 Mar 11	Sai Gon Port	APM Terminals	1.1	-	0.032
SP-SSA International			SSA Holdings			•
Terminal (SSIT)	2012	Sai Gon Port	International	1.2	-	
Cai Mep International			JBIC (Japanese			•
Container Terminal	2013	PMU 85	ODA)	0.75	-	
Terminal Link Cai Mep						•
(Gemalink)	-	Gemadept	CMA-CGM	1.2	-	-

*Note:* According to the latest plan, six more container-dedicated and multi-purpose terminals will be built. *Source:* Authors' compilation from the port operators, Vinamarine and VPA.

As the Cai Mep – Thi Vai detailed plan was repeatedly altered after 2006, more ports were added and almost all of the harbor-front land has now been claimed (see Appendix 3). In the final report on the detailed plan made by Portcoast in April 2011, there was only one reserve area left in the entire complex and this was designated as a maritime services base. In August 2011, when the plan was approved, even this reserve area had been turned into another general cargo port. Therefore, according to the detailed plan of 2011, the Cai Mep – Thi Vai Complex now has 34 ports in total, of which 14 ports are already under operation including container terminals, multi-purpose terminals, general cargo ports, and specialized ports.

The government's decision to segment the port into several terminals, and then award development and operation rights to different investors, was justified on both theoretical and practical grounds. The existence of multiple operators would foster competition, and rivalry among them would ensure good services and low costs (World Bank 2007, 24). In India, the first terminal of Nhava Sheva Port is operated by the Jawaharlal Nehru Port Trust (JNPT), but the other two are operated by private consortiums involving foreign and domestic operators. In

(http://www.worldshipping.org/about-the-industry/global-trade/top-50-world-container-ports)

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<sup>&</sup>lt;sup>18</sup> World Shipping Council. Retrieved 10 October 2011.

<sup>19</sup> Ibid.

<sup>&</sup>lt;sup>20</sup> The port is named Ban Thach General Cargo Terminal in the 2011 detailed plan.

<sup>&</sup>lt;sup>21</sup> The Minister of Transport, Decision 1745/QĐ-BGTVN on the approval of the Detailed Plan for the Southeast's Sea Port Group (Group 5) up to 2020 with 2030 orientation, 3 August 2011.

Thailand, the seven container terminals in Laem Chabang port are also leased to different operators.

The problem in this case is not the use of the market to promote competition. Rather, it is the ability of numerous state agencies and companies to extract favors from the government, and the absence of coordination among these entities. Land in the port complex was divided into many small pieces under pressure from state-linked special interest groups to grant investment licenses to as many investors as possible. No consideration was given to the viability of these investments, which in the end resulted in the misappropriation of public resources. Small terminals cannot achieve economies of scale, which have become increasingly important in port operations as technology has evolved and larger ships have become the norm. Unable to achieve greater efficiency, the ports are forced to engage in destructive pricing to survive, particularly in a context of slow growth in world and regional trade. Remarkably, the same state-linked entities that have invested in Cai Mep – Thi Vai continue to operate ports in HCMC itself, which is major cause of overcapacity in the new port system. Facing excess capacity, the container terminals are competing aggressively to keep customers. As reported by the Vietnam Port Association (VPA), the operators are pricing their services so low that they are unable to cover costs.<sup>22</sup> To generate revenue, some of the container terminals even used their under-utilized container terminals for general cargo handling and cruise ship docking.<sup>23</sup>

#### Supporting Infrastructure

The problem of capacity underutilization was made worse by the government's failure to complete the necessary supporting infrastructure. The Cai Mep – Thi Vai Port Complex is 50km from Bien Hoa, Dong Nai and 80km from HCMC. Containers moving by road have to use the only existing four-lane national highway, NH51 (see Appendices 1 and 2). The only alternative to trucking is barging on inland waterways from the existing inner-city ports in HCMC. Compared to trucks, barges are more environmentally friendly and are less costly taking into consideration the cost of fuel and informal levies. However, barges are slow, taking 6 to 8 hours per trip.<sup>24</sup> While barges continue to be an important mode of transport, over-reliance on barging will soon cause traffic congestion and accidents along Nha Be, Sai Gon and Dong Nai rivers.

As mentioned earlier, the construction of container terminals in Cai Mep – Thi Vai started in early 2007. However, it was not until late 2009 that the project improving NH51 was launched. Even when completed, the widened NH51 will still be inadequate. Trucking companies complain about their inability to carry heavy loads given the constrained capacity of the existing highways, speed limitations, and dangers posed by the mixing of four and two-wheeled vehicles.<sup>25</sup> A new limited-access expressway system is urgently needed to allow heavy container trucks to travel at high speed. The HCMC-Long Thanh-Dau Giay Expressway, which promises to cut the travel distances and increase speed, was scheduled to be completed at the end of 2012. However, this will likely be pushed back to late 2013 or early 2014. The Bien Hoa - Vung Tau expressway also must be started soon to complete the road network.

<sup>&</sup>lt;sup>22</sup> At the Annual General Meeting of the Vietnam Port Association in September 2011, it was revealed to the media that the service fee currently charged by the container terminal operators in Cai Mep – Thi Vai to shipping lines is only US\$32 per TEU, while the terminals need to collect US\$88 per TEU to break even (Tuoi Tre Newspaper, "Cảng biển lỗ nặng" (Sea ports suffering heavy losses), 21 September 2011.)

<sup>&</sup>lt;sup>23</sup> Authors' observation during the site visit in 21 October 2011.

<sup>&</sup>lt;sup>24</sup> APL/APL Logistics.

<sup>&</sup>lt;sup>25</sup> The current speed of container trucks along these highways is within the 35-60 km per hour range.

While the poor condition of the highway system is damaging the port complex, it is not the most pressing problem in terms of lack of connecting infrastructure. Nothing could be more obvious than the need to finish a connecting road between the Cai Mep port complex and NH51 (the so-called Road 965) in time for the operation of the container terminals. As of October 2011, this 8.5km road was still several months from completion (see Table 6). The existence of many terminals in the complex points out the need to build a high capacity inter-port road. This was also recognized by the government and financed by government bonds, but construction has been delayed. A freight rail line between Bien Hoa and Cai Mep – Thi Vai has been proposed, but the economic and financial viability of the project is open to question because of its short distance (less than 80km).

Table 6: Supporting Road Infrastructure for Cai Mep – Thi Vai Port Complex

Project Name	Investment	Length	No of	Investor/	Financing	Completion
	Cost (VND bil)	(km)	Lanes	Implementation Agency		Date
Road 965	1,500	8.5	4-6	Ministry of Transport,	ODA (JBIC)	End of
				PMU 85		2011
Inter-Port Road	2,838	21.3	6-8	BRVT People's	Government	2012
	(Phase 1)			Committee	Bonds	(Phase 1)
HW51	3,200	72.7	6	Bien Hoa-Vung Tau	BOT	Feb 2012
Expansion				Expressway		
				Development (BVEC)		
HCMC-Long	18,882	55	4	Viet Nam Expressway	ODA (ADB	Early 2014
Thanh-Dau Giay				Development (VEC)	& JBIC)	
Expressway						
Bien Hoa -	15,000	76	4	Bien Hoa-Vung Tau	BOT	-
Vung Tau				Expressway		
Expressway				Development (BVEC)		

Source: Authors.

Again, the Laem Chabang experience offers valuable lessons on the need to develop comprehensive infrastructure to support port development. Laem Chabang is situated 120 km from Bangkok. To promote the new port, modern expressways were developed to connect it to Bangkok and the industrial zones of the Eastern Seaboard Region. Barging along the Chao Phraya River is also a viable option. Another key to Laem Chabang's success is the rail line linking it not only to Bangkok but also the fast-growing inland container depot (ICD) at Lat Krabang.

The most important question remains the overcapacity in Cai Mep – Thi Vai and the continued use of ports in the city center. New container terminals boasting state-of-the-art facilities have been constructed in Cai Mep – Thi Vai with a capacity to handle 6.4 million TEU. While only a fraction of this capacity is used, most of the container cargo remains with existing HCMC ports operated by the same domestic investors. The decision to continue operating ports in HCMC is rational from the perspective of the individual investors, since these ports were profitable even during the slow growth years of 2009-10.<sup>26</sup> However, this is costly from the perspective of society due to negative externalities such as traffic congestion and pollution the opportunity cost of using prime urban land for ports rather than commercial and residential development.

If some of the 4 million TEU currently transported through HCMC ports were to be moved to Cai Mep – Thi Vai, the under-capacity problem would be reduced. It is worth noting that even with all the connecting infrastructure in place, Laem Chabang Port only took off when the Thai

<sup>&</sup>lt;sup>26</sup> After tax profits of Sai Gon Port and Cat Lai New Port in 2010 were VND 64 and 73 billion respectively. (Source: 2010 Financial Statements of the Port Companies.)

authorities imposed a cap of one million TEU on the Klong Toey Port in 1996 so that shipping lines were forced to switch to the new container terminals (ADB 2009, 17).<sup>27</sup> This experience points to the need to identify and remove obstacles in the relocation of HCMC's inner-city ports, and the role of the government in promoting society's interests over the private interests of individual firms.

# Relocation of HCMC Ports: Land Use Planning and Property Rights

Port operators hold land use rights that give them authorization to use state land for the specific purpose of operating a port. They do not own the land in the sense of having the right to sell, lease or mortgage it, or to develop the land for other purposes, such as commercial and residential use. The current operators therefore have an incentive to maintain some nominal maritime activities at their existing locations in order to control the land. At the same time, the port operators need capital to invest in new port projects in Cai Mep – Thi Vai and other locations.

Much of the political power of the various port operators derives from the fact that they are both port operators and regulators. The government of Ho Chi Minh City must approve land use plans for the city but also operates ports. The Ministry of Transport and the navy also have regulatory roles in addition to their business operations.

The total land area of the inner-city ports is more than 167 ha in Districts 1, 4 and Binh Thanh. The area of the shipyards and the four ports that must be relocated is 107.5 ha. The largest financial benefit from port relocation would be the sale of land-use rights as the land-use purpose is changed from port operations to commercial and residential development. Transparent land-use planning and clear land titles are needed to facilitate the relocation efforts and land transactions, particularly with regard to Sai Gon Port, Sai Gon New Port, and Ba Son Shipyard, whose terminals occupy the largest land area in the city's prime locations. However, the multitude of port operators in the area and the involvement of different levels of government have led to institutional fragmentation and lack of coordination with the end result of lengthy delay in the port relocation.

Two options involving port land transactions are possible. One option is for the relocating port companies to sell the land-use rights of their port areas. The other option is for the port companies to redevelop the areas either by themselves or through joint-ventures with other investors. The state, however, has the right to take the land for public, social or national defense purposes, but needs to compensate the current port operators. In both cases, proceeds from the land transactions would be used to pay for the costs incurred during the relocation process and to subsidize the investment costs made by state-owned entities in the new locations. Any surpluses out of the land transactions would go to the state budget. For Sai Gon Port, Tan Thuan Dong Port, and Vegeport, the surpluses would go to the HCMC budget to finance the city's

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<sup>&</sup>lt;sup>27</sup> While the cap was a strong signal from the Thai government to help direct container traffic to the new port, Klong Toey Port was never relocated and still handles about 1.3 million TEU a year although with no growth. In early 2011, some Thai politicians of the ruling party started calling to redevelop the port land into a recreational park. Thailand's Ministry of Transport reacted saying it had its own proposal with no plan for port relocation (Bangkok Post, "Democrats unveil plan to move port, build park", 22 April 2011).

<sup>&</sup>lt;sup>28</sup> The current land value in Ho Chi Minh City's central business ranges from US\$6,000 to 10,000 per m<sup>2</sup> (based on land price surveys reported weekly by VietRees). Taking the lower bound value to account for the fact that urban land in Vietnam is generally overvalued and a 50-percent construction density ratio, the land of the inner-city ports has a value of at least US\$5 billion (or US\$3.2 billion for just the area of the relocating sites).

infrastructure development. For Saigon New Port and Ba Son Shipyard, the surpluses would be kept by the Ministry of Defense to use for national defense purposes.<sup>29</sup>

Given the above stipulations, it is not surprising that the port companies all chose the redevelopment option since it has the potential to deliver larger financial benefits while allowing them to maintain control of the land. Sai Gon Port already has a "land-conversion" plan to redevelop its port area so that revenue generated can be used to finance its new port in Hiep Phuoc. According to Sai Gon Port's Board for Relocation and Change of Port Purpose, the company will convert its two cargo terminals, namely Nha Rong and Khanh Hoi, into a cruise ship terminal, a maritime service center with supporting commercial facilities (see Appendix 4: A & B). This plan on paper conforms to the requirement that in order to use the redevelopment option, the redevelopment projects must fall within the business area of the port company.

As a second condition for Sai Gon Port to go ahead with their project, it has to be approved by relevant authorities in accordance to the land-use plan of HCMC. It means that a detailed land-use plan covering the port site has to be in place before any redevelopment effort.<sup>30</sup> As of mid 2011, the HCMC People's Committee (PC) has not approved the plan. Only in 2009 did the City's Department of Planning and Architecture start the land-use planning process covering the port area in the city center. Like many efforts of the government to implement policies, a steering committee involving all relevant agencies was set up in April 2008 to "direct and coordinate the activities of central and local agencies in carrying out the implementation of the port relocation plan."<sup>31</sup> In each and every meeting of the steering committee during 2008-2011, the land-use planning issue was raised. The diagram below shows the series of deputy prime ministerial/prime ministerial directives setting deadlines for HCMC to finalize its land-use planning of the city center following recommendations of the steering committee. However, as each deadline was missed, a new directive was announced setting a new one (see Diagram 1).

# Diagram 1: Timeline of Central Government Directives to HCMC Involving the City Center Land-use Planning

28 Apr 2008: Port Relocation Steering Committee was set up.

12 May 2008: First Steering Committee Meeting with the Transport Minister stressing the importance of land-use planning for future inner-city ports

<u>01 Apr 2009</u>: Transport Minister officially requested the Prime Minister to order HCMC PC to *soon* approve inner-city port land-use plans.

18 Jun 2009: Deputy Prime Ministerial directive set the land-use planning deadline for Sep 2009.

13 Jan 2010: Deputy Prime Ministerial directive set the land-use planning deadline for Feb 2010.

10 Aug 2010: Deputy Prime Ministerial directive set the land-use planning deadline for Q4 2010.

29 Mar 2011: Deputy Prime Ministerial directive set the land-use planning deadline for *Jun 2011*.

02 Jun 2011: Prime Ministerial directive reiterated the land-use planning deadline as Jun 2011.

Source: Official documents 219/TB-BCD dated 27 May 2008, 1949/BGTVT-KHDT dated 1 September 2009, 178/TB-VPCP dated 18 June 2009, 11/TB-VPCP dated 13 January 2010, 217/TB-VPCP dated 10 August 2010, 70/TB-VPCP dated 29 March 2011, and 132/TB-VPCP dated 2 June 2011.

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<sup>&</sup>lt;sup>29</sup> Detailed clauses governing the land transactions are stipulated in the Regulation on HCMC Port Relocation Financing which accompanies the Prime Minister's Decision 46/2010/QĐ-Ttg on 24 June 2010.

<sup>&</sup>lt;sup>30</sup> By law, the local government authorities are responsible for preparing, ratifying, and enforcing detailed land-use plans at the 1:2000 scale. Only with the completion of these land-use plans, investors can prepare detailed land-use plans at the 1:500 scale and make investment proposals.

<sup>&</sup>lt;sup>31</sup> Prime Minister's Decision 458/QĐ-Ttg dated 28 April 2008 establishing the HCMC port relocation steering committee.

To further complicate the issue, the HCMC People's Committee in 2009 decided to develop the cruise ship terminal further downstream in the Phu Thuan Park Project (see Appendix 4: C). The Vietnam Maritime Administration (Vinamarine) concurred by pointing out that because of the Phu My bridge, cruise ships with capacity of 50,000 GRT or higher would not be able to go up to the Sai Gon Port's proposed location. The city's authorities went further in suggesting the Cruise Ship Site proposed by Saigon Port in Khanh Hoi should be scrapped and the entire area given over to commercial, residential, entertainment, and park developments. The loss of a cruise ship terminal and possibly other maritime-relative projects would substantially weaken Sai Gon Port's claim to be the land redeveloper after relocation and would give the city control over any future development project.

The Ministry of Transport's 2011 decision ratifying the detailed plan for the Southeast's sea port group aimed at a compromise that would allow a cruise ship terminal at the location suggested by the HCMC People's Committee's and a domestic passenger ship terminal at the Saigon Port site. The problem is that this approach does nothing to resolve the uncertainty surrounding the land-use planning and property rights relating to the port relocation and real estate redevelopment. Facing the prospect of not being able to control the land after relocation, Sai Gon Port's best strategy is to stay put. At the same time, HCMC has every incentive to proceed slowly and cautiously with its detailed land-use planning. Whether a passenger ship terminal and a maritime service center will be in the final land-use plan of HCMC is anyone's guess. As reported by *Tuoi Tre* Newspaper in October 2011, the Chairman of HCMC People's Committee has ordered "a temporary halt to the provision of planning and architecture information to projects which are under study, being prepared for investment or waiting for planning standards in the existing city center area (i.e. the 930ha area)". The People's Committee also instructed the Department of Planning and Architecture and its consultant Nikken Sekkei to finalize the city center plan by the end of November 2011.<sup>35</sup>

The origins of the present impasse lie in the absence of clear property rights, the inability to resolve competing claims through impartial adjudication and conflicts of interest resulting from the fact that market participants also retain regulatory functions. Resolution of the problem therefore demands clearly specified property rights to promote market transactions in land, and a clear distinction between regulators and market participants.

One option would consist of clearly dividing the area into segments, and awarding one segment to Saigon Port to enable the company to sell, lease or mortgage the land to cover the relocation costs and investment needs in the new location. The remaining segments would be awarded to the HCMC government, which could then award the land use rights to commercial developers based on a competitive process.

Compared to Sai Gon Port, the relocation of Sai Gon New Port and Ba Son Shipyard is less of a challenge. At the outset, it was made clear that any financial surplus arising from land transactions would be credited to the Ministry of Defense. Property rights are also not an issue since the land-use rights belong and must be reassigned by the Ministry. Knowing that it still has control over the existing land (and the soon-to-be-completed Thu Thiem bridge preventing large ships calling at its port), Sai Gon New Port decided to move to Cat Lai in 2008. The land-use

<sup>34</sup> See Official Document 2250/CHHVN-KHÐT issued by the Director of Vinamarine on 28 October 2008.

<sup>&</sup>lt;sup>32</sup> See Official Document 1637/UBND-DTMT issued by HCMC People's Committee on 14 April 2009.

<sup>&</sup>lt;sup>33</sup> 50,000-70,000GRT cruise ships are large ships capable of carrying 1,200-2,000 passengers.

<sup>&</sup>lt;sup>35</sup> Tuoi Tre Newspaper, "Tạm ngưng cung cấp thông tin quy hoạch khu trung tâm TP.HCM" (Temporary stop to information provision regarding the plan of HCMC's city center), 10 October 2011.

planning problem still remains, preventing the company from redeveloping the 38.7 ha of the old port. According to the Sai Gon New Port Company, the old port site is now used for transshipment of containers to/from Cat Lai Port and Cai Mep Container Terminals, and shipment of "military equipment." However, part of the land is already being used as an outdoor resort complex. The question from society's point of view is whether the Ministry of Defense is the appropriate entity to manage resort complexes and ports.

As already mentioned, Sai Gon New Port Company is currently running both Cat Lai and Cai Mep container terminals. Cat Lai is still in HCMC and containers going through it need to be transshipped elsewhere. Cai Mep terminals are far away, but their containers can be shipped directly to final destinations. Clearly, Sai Gon New Port is hedging, and this strategy appears to be paying off as Cai Mep faces difficulties, while Cai Lai is still growing. The problem is that container traffic cutting through the city to reach Cat Lai is causing more congestion. With supporting infrastructure in place for Cai Mep – Thi Vai in the near future, the government should consider following the Bangkok Port experience and imposing a cap on the number of containers handled at Cai Lai. If Sai Gon New Port is to make some financial surplus from land transactions based on the city-approved land-use plan, it could be encouraged to focus its resources in Cai Mep and to abandon its hedging strategy.

The situation at Ba Son Shipyard is quite different from that of Sai Gon New Port although both are under the Ministry of Defense. The reason is that the Navy has much greater financial strength and bargaining power relating to land acquisition than does the General Department of Military Industry.<sup>37</sup> Thus, Ba Son Shipyard lacked funds to finance its relocation and development of a new facility in the Cai Mep area.<sup>38</sup> In September 2010, on the order of the Prime Minister, the Ministry of Finance lent VND240 billion (US\$12.3 million) out of the Treasury to Ba Son Shipyard. As the treasury loan was not sufficient to complete construction, the Ministry of Defense made a proposal to "socialize" the project (i.e. to attract financing from other sources). As the proposal was approved by the central government, the process started to gather momentum and a new deadline for relocation was agreed just for Ba Son Shipyard.<sup>39</sup> Some of the most polluting activities at the Shipyard were moved immediately to Nha Be and Can Gio in the south of Ho Chi Minh City, and construction work in Cai Mep began.

There are several other ports in the inner-city which are not yet subject to relocation, one of which is the Vietnam International Container Terminal (VICT). As a joint-venture with a foreign investment license, VICT will not be relocated at least until 2020. While still profitable and having some spare capacity, VICT has seen its container volume decline precipitously (see Table 3). As a result, the joint-venture may be willing to be bought out. If that is the case, the government should consider stepping in to claim back the land for redevelopment and move VICT's containers to Thi Vai – Cai Mep.

#### Keeping the Ports in HCMC

While accepting the obvious physical and economic constraints of the inner-city ports, the HCMC People's Committee still stresses the importance of sea ports to the local economy and

<sup>&</sup>lt;sup>36</sup> In a way, Sai Gon Port is also following a similar strategy by maintaining its existing activities and entering into three separate joint-ventures in Cai Mep – Thi Vai.

<sup>&</sup>lt;sup>37</sup> More and more resources are being directed toward strengthening the Vietnamese Navy. And by nature, the Navy is at ease in making claims to coastal land. Cat Lai land was originally earmarked for the Naval Regiment 125. While the regiment is still there, most of the land has been turned over to SNP.

<sup>&</sup>lt;sup>38</sup> Appendix 3 has the new location for Ba Son Shipyard.

<sup>&</sup>lt;sup>39</sup> The deadline for relocation of Ba Son was officially extended to 2015.

wants to keep a share of traffic flows in the city. Thus, the rapid development of Cai Mep – Thi Vai in BRVT poses two major concerns for the city authorities. First, logistic firms and other port-supporting businesses will move out of HCMC to be nearer to the new container terminals. Having declared that its future development will rely more heavily on services than on manufacturing, HCMC is keen to maintain its status as the country's center of logistic services. Second, the large revenues from trade taxes generated by imports through HCMC's ports is at risk. In 2010, HCMC collected VND57 trillion (US\$2.8 billion) in export and import duties, accounting for 40 percent of its total budget revenue. And since 2005, this ratio has been around 40-46 percent. While it is true that a substantial portion of the trade taxes goes to Ha Noi, HCMC People's Committee relies on using its large trade tax base to keep more tax revenues in the city.

HCMC People's Committee is eager to retain ports in the city even after relocation. The city does not have an alternative revenue stream to replace the loss in trade taxes and fees that would result from relocation of the ports. Under Vietnam's public finance system, no regional coordination mechanisms exists to share taxes and fees among the provinces served by the southeast port system.

It turns out that only Ba Son Shipyard is to be moved to Cai Mep – Thi Vai. Sai Gon New Port was moved to Cat Lai, which is still within the boundaries of HCMC. Sai Gon Port (and possibly Tan Thuan Dong Port) will be moved to Hiep Phuoc in Nha Be, the southern rural district of HCMC (see Appendix 1). As opposed to the international gateway status of Cai Mep – Thi Vai, Hiep Phuoc is designated as the hub for the country's Southeast region with multiple general cargo and container terminals.

In December 2005, the city-owned Tan Thuan Industrial Promotion Company (IPC) entered into a joint-venture with Dubai Ports World (DB World) to develop the Saigon Premier Container Terminal (SPCT) in Hiep Phuoc. <sup>43</sup> Compared to Cai Mep – Thi Vai, Hiep Phuoc is only 15 km from the city center. However, the biggest drawback of Hiep Phuoc is that its Soai Rap channel is too shallow to accommodate even the ships that are calling on the inner-city ports. <sup>44</sup> The first phase of dredging in 2008 only increased the water depth to 7.0m. The second phase of dredging to reach the depth of 9.5m has stalled. <sup>45</sup> As a result, the performance of SPCT is even worse than the container terminals in Cai Mep – Thi Vai. In 2010, only 94,934 TEU<sup>46</sup> went through SPCT, accounting for 12.8 percent of the terminal's capacity.

There is no potential for container shipment using large vessels in Hiep Phuoc.<sup>47</sup> But a general cargo port like the one being built by Sai Gon Port should be feasible. The project, named Sai Gon – Hiep Phuoc Port, was started in early 2009 with an investment cost of VND3,000 billion (US\$175 million). Financed by an advance from the state budget and a commercial bank loan,

<sup>42</sup> The total revenue does not include non-tax sources such as revenue of crude oil export or transfers.

<sup>&</sup>lt;sup>40</sup> HCMC People's Committee, Five-year Socio-economic Development Plan 2011-2015.

<sup>&</sup>lt;sup>41</sup> HCMC Statistics Office, HCMC Statistical Yearbook 2010.

<sup>&</sup>lt;sup>43</sup> In its first phase, the terminal covers an area of 23 ha with two berths and a capacity of 750,000 TEU a year.

<sup>&</sup>lt;sup>44</sup> Long Tau instead of Soai Rap is the main channel for ships (see Appendix 1).

<sup>&</sup>lt;sup>45</sup> As Tan Thuan IPC struggled to mobilize VND1,743 billion (US\$85 million) for the second-phase dredging, the project was turned over to HCMC's Department of Transport in July 2011.

<sup>&</sup>lt;sup>46</sup> Figure reported by SPCT to Vietnam Port Association.

<sup>&</sup>lt;sup>47</sup> When entering into the SPCT joint-venture, DB World also asked and was allowed to participate in the adjacent real estate projects.

the port is expected to be completed at the end of 2012.<sup>48</sup> As mentioned above, the entire investment cost will be reimbursed by money generated through land transactions of Nha Rong and Khanh Hoi terminals. SPCT and Sai Gon – Hiep Phuoc Port are shown in Appendix 5.<sup>49</sup>

As things stand, the Greater HCMC area now has two new port complexes.<sup>50</sup> Given the fact that costly investments have already been made and modern facilities have already been built, the challenge is to make use of both of the ports. In order for it to work, a well-coordinated policy decision has to be made to give Cai Mep - Thi Vai top priority in handling long-distance containers, shifting the locus of general cargo and regional containers at the old inner-city ports to Hiep Phuoc. Even if that is done, the capacity of the two ports can only be utilized if Vietnam can restore its growth momentum achieved in the first half of 2000s. In particular, the success of Hiep Phuoc depends on Vietnam's ability to join regional production networks to allow for rapid growth of intra-Asia trade. However, if trade volumes do not pick up, it will be impossible to spread exports and imports over the two ports. One will have to be closed down.

# **Overcoming Institutional Fragmentation**

Institutional fragmentation has resulted in haphazard development of the Ho Chi Minh City port system. Repeated calls to move ports out of Ho Chi Minh City have been met with either inaction or unplanned development of suburban ports. The government has granted too many licenses to develop ports in the new port area of Ba Ria – Vung Tau, but has failed to build the necessary supporting infrastructure. Port operators in the city are fighting to retain control over valuable land assets, and the city government—which is also one of the key regulators—is reluctant to allow ports to move beyond the city limits because it depends heavily on revenues from trade taxes and fees.

The various actors in the Ho Chi Minh City port saga are powerful government agencies, several of which also have responsibility for regulating the sector or for regional planning. The government of Ho Chi Minh City operates ports through its local SOEs, depends on ports for tax revenue and is responsible for urban planning and zoning. The Ministry of Transport operates ports through its state-owned companies and produces plans for port system development and supporting infrastructure. The navy is the largest port operator in the region and benefits from access to land controlled by the military.

These agencies possess land use rights to operate ports, but do not possess title to the land they control. Thus the port operators have no right to sell, lease or mortgage the land under their ports. As a result, the competition to control port land is fought out in the political arena rather than in the market. Each agency tries to use its political influence and authority to retain control over land assets or to trade for equally or more valuable assets. Since none of these entities—with the probable exception of the navy—is able to prevail in the political arena, the outcome is a stalemate, in which each agency hedges its bets by acquiring land and licenses to operate in BRVT (and Hiep Phuoc) while also fighting to retain control over HCMC ports.

<sup>&</sup>lt;sup>48</sup> Initially dependent on state budget funding, construction was carried out slowly. In June 2011, Sai Gon Port finally was able to borrow VND2,000 billion from Maritime Bank, which is partly owned by Vinalines, the parent company of Saigon Port.

<sup>&</sup>lt;sup>49</sup> Just like all other projects, an important missing link for the port is a 3.5km access road.

<sup>&</sup>lt;sup>50</sup> Long An and Tien Giang are also promoting the development of their own port complexes very near Hiep Phuoc in the downstream of Soai Rap River. Technically, the two ports are not part of the Port Group No. 5, but if developed they will in effect serve the same market base and further disrupt the balance of supply and demand for port services.

Moving beyond the present stalemate will require concerted action to overcome institutional fragmentation. This section proposes three policies to reach this objective: i) clarifying and strengthening property rights to force competition for land into the market and out of the political arena; ii) the creation of an impartial agency to regulate ports and port development; iii) a mechanism to share port revenues among local authorities to reduce incentives to retain ports in Ho Chi Minh City and the surrounding provinces.

#### Clarify and strengthen property rights

Land is the most important asset in Vietnam. Land can be converted into lucrative commercial and residential developments, industrial estates and it can be used as collateral for loans and for equity contributions to joint venture companies. Studies in Vietnam have shown that state agencies and state owned enterprises enjoy an advantage over private companies and individuals in gaining control over land. However, even these state entities do not have clearly specified property rights to the land. Land use rights generally allow use of the land for a specific purpose, for example for residential use, manufacturing, mining or agriculture. Maintaining control over the land while converting the use right from one sector to another is an important means of creating and transferring wealth in Vietnam.

Because land use rights are administrative in nature, the struggle to retain control over land and convert land use rights is carried out in the political realm and not in the market. This is apparent in the case of the HCMC port system. The port operators in Ho Chi Minh City have disregarded calls for them to transfer their operations to the new port areas. Instead, they have hedged their bets by acquiring licenses to operate in BRVT while also maintaining operations in Ho Chi Minh City. Meanwhile, they have sought to retain control over their HCMC properties on the basis of political action. Vinalines wants to transform its HCMC port into a passenger terminal in the city center to justify its plans for a commercial development. The Ho Chi Minh City government would like to build the passenger terminal further downstream, and reserve the land under the present Saigon Port for commercial and residential developments and parks. Since neither party has sufficient political authority to win an outright victory, the result has been a stalemate, with the city center port remaining in operation,

One way to move beyond the present stalemate is to move the struggle out of the political arena and into the market by awarding more clearly specified and tradable land-use rights to the parties involved based on a fair division of the land. This would transform the competition for land from a zero sum political contest into a market transaction, in which the various parties would be compensated for surrendering their control over land. Vinalines would be able to monetize its claim to land in District 4, and would no longer need to insist on the development of a center city passenger terminal.

## Create an impartial port regulator

A second cause of institutional fragmentation is the absence of clear boundaries between regulators and market participants, central government ministries and local authorities, and even among units of one agency.<sup>51</sup> The port system in the Southeast is like a football match in which there are multiple referees, and these referees are also players for one of the teams on the pitch. Under these conditions, the rules of the game are unclear and unenforced. Raw power is more important than skill or strategy.

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<sup>&</sup>lt;sup>51</sup> The Ministry of Transport's Vinamarine has three separate units overseeing shipping and port operations in the Southeast, namely, the Maritime Administration of HCMC, the Maritime Administration of Dong Nai, and the Maritime Administration of Vung Tau.

The imposition of simple, enforceable rules would go a long way towards reducing the degree of fragmentation. For example, Thailand reduced the use of inner city ports by imposing a cap on volumes in these ports, forcing operators to develop and use ports situated on the coast.

It is unlikely that the current system will generate impartial and enforceable rules because the regulators are also market participants. This problem could be addressed through the creation of a new Port Authority of the Southeast with responsibility for regulating the port system in the region. Many countries around the world have established government or quasi-governmental port authorities to administer and regulate port systems that serve more than one locality. While in some cases the port authority is also a port operator, in others the main responsibility of the authority is to set standards and create a level playing field to ensure fair competition among operators.

#### Public finance incentives for regional coordination

The government of Ho Chi Minh City is reluctant to lose its ports because it is dependent on revenues from trade. The absence of a regional mechanism for revenue sharing creates competition among local authorities to attract ports regardless of natural endowments and the impact of ports on the urban environment.

The establishment of a Port Authority of the Southeast would provide an instrument to redistribute tax revenues and fees that accrue to port districts to reduce the financial incentives to retain local ports. Since the ports serve all of the Southeast provinces, it is equally unfair if these revenues are captured by Ho Chi Minh City, Ba Ria – Vung Tau or any other province along the river and coast. The role of the Port Authority would be to collect relevant taxes from the ports and reinvest them in supporting infrastructure to overcome the coordination failure that has resulted from turning over road building to individual provinces. The Port Authority would also have an incentive to ensure that the requisite infrastructure was completed in a timely fashion to enable the smooth functioning of the ports.

All revenues not invested in supporting infrastructure would be distributed among the provinces served by the Southeast ports to reduce the incentive to build ports in each province, a situation that leads to excessive fragmentation of the port system.

#### Conclusion

Vietnam's economy has expanded more than fivefold since 1986. Economic growth has made possible an historic improvement in living standards and a sharp fall in the proportion of Vietnamese citizens living in poverty. According to the World Bank, the proportion of the population living on less than one dollar per day (in purchasing power parity terms) fell from 64 percent in 1993 to 13 percent in 2008. Economic restructuring during this period made it possible for Vietnamese households and firms to bring under or unutilized resources into production, and to shift from very low to higher productivity activities.

Sustaining growth in the future will require deeper forms of institutional change. Markets are now the primary mechanism for allocating resources in Vietnam, but they often perform poorly because the basic institutions of the market are incomplete or missing. Gaps in the institutional framework discourage investors from acquiring long-life assets or risking their resources in slow-gestating projects. Weak institutions lead businesses and households to favor short-term, liquid transactions that enable them to minimize risk. However, these investments will not generate the productivity growth that Vietnam needs to diversify production and exports and increase incomes.

This case has examined the Ho Chi Minh City port system as an example of institutional fragmentation in Vietnam. By institutional fragmentation we mean the dominance of small, uncoordinated units in both the private and public sectors. We have seen that fragmentation is a response to three kinds of institutional failure: i) poorly specified and enforced property rights; ii) a failure to separate regulation from market participation; iii) the absence of regional coordination mechanisms to achieve greater efficiency in public investment.

These institutional failures remove decisions relating to the allocation of resources from the marketplace and force them into the political system. This is particularly true in the case of land and credit, with the result that state-owned enterprises and other connected entities have enjoyed preferred access to land and capital regardless of the efficiency with which they deploy these resources. The government at all levels has been unable to impose discipline on these companies, in large part because many of the agencies responsible for regulating the economy are also market participants that benefit from preferential treatment.

Fragmented units of government result in inefficiency and duplication of public investment, as every province seeks to secure its own seaport, airport, university, power plant and beer factory.

The case of the Ho Chi Minh City port system demonstrates the impact of these institutional problems on public investment, infrastructure development and economic efficiency. Numerous state agencies and state-owned enterprises are involved, with each operating to maximize private gain with little or no consideration of social costs and benefits. Insecure property rights drives the resulting economic competition out of the market and into the political sphere, where various state agencies seek to use their regulatory authority and political influence to win concessions from the others. The result is a fragmented port system, with overcapacity in the new ports and a failure to relocate old ports from the city center. Competition over land has resulted in a political stalemate, with each agency proposing its own scheme to retain control over land and port revenues.

We have proposed three policies to overcome the effects of institutional fragmentation and align the interests of port operators with the wider interests of port users and society. First, clarification and enforcement of property rights would enable state agencies to receive compensation for land surrendered in the city center, thereby reducing incentives to fight in the political arena to retain control over land. Market transactions would be able to replace political competition in the allocation of land.

Second, we propose the creation of a Port Authority as an independent and impartial regulator of the port system. The Port Authority would reflect the interests of the port users and the citizens of the Southeast. Regulatory decisions would be taken out of the hands of agencies that also operate ports in the region. This would enable Vietnam to follow the successful examples of other countries in gradually reducing the use of city center ports as capacity is made available in coastal sites.

Third, the Port Authority could take a leading role in inter-provincial coordination. This is particularly important in relation to public finance. At the moment, each province seeks to retain its ports and develop new ports in order to guarantee a stream of tax and fee revenues. This amounts to a beggar thy neighbor policy, since revenues collected in one province are not available to others. Moreover, provinces have no incentive to build supporting infrastructure for ports not within their provincial boundaries. If taxes and fees were used to build supporting infrastructure, with the surplus distributed among all of the provinces of the region in an equitable manner, provinces would have less incentive to hold on to their ports. More specifically, the government of Ho Chi Minh City could be convinced to allow its ports to leave

the city, where they presently impose traffic congestion and pollution on residents and delays on port users.

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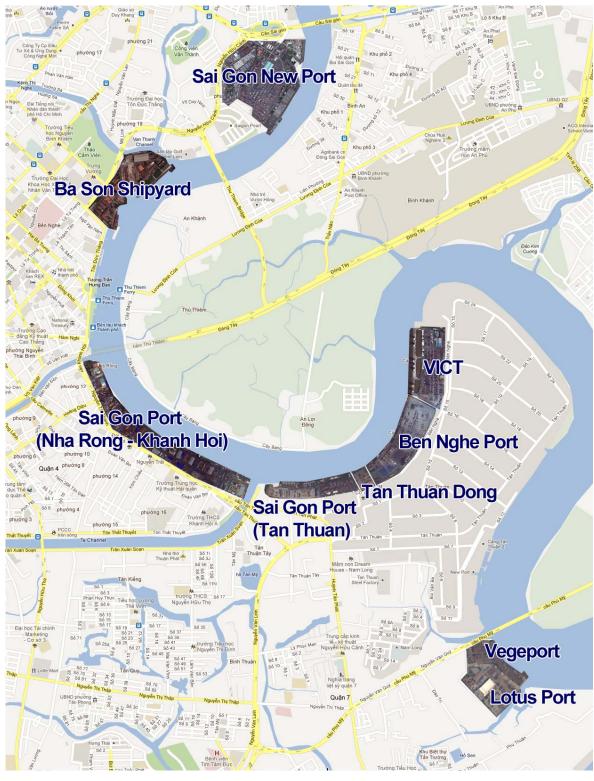
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HO CHI MINH CITY Inner-city Ports DONG NAI -Ba Son Cat Lai Sai Gon Port Vegeport **Hiep Phuoc** Cai Mep Thi Vai BARIA -**VUNG TAU** 

Appendix 1: Inner-city Ports in Ho Chi Minh City and the Relocation Plan

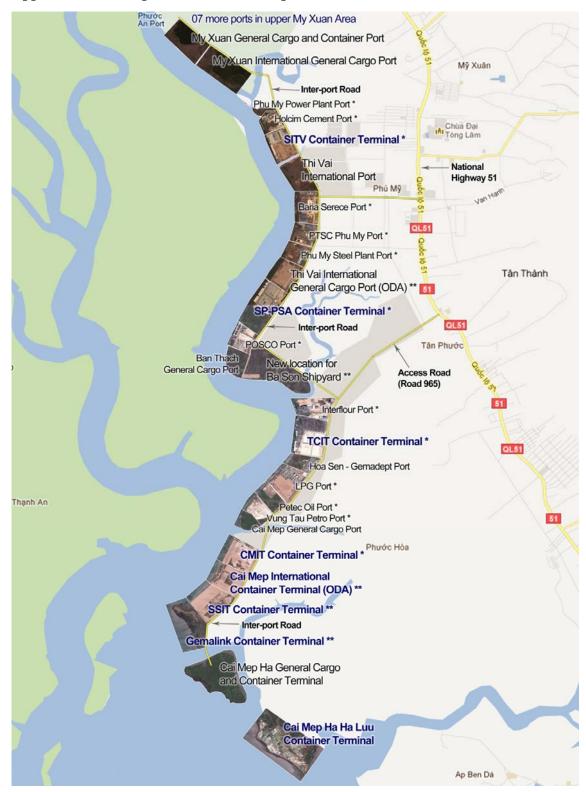
*Source*: Nguyen Xuan Thanh and Tran Thanh Phong (FETP). Base map is from Google. Port sites and names are based on information of existing ports and Ministry of Transport, Detailed Plan of the Southeastern Sea Port Group (Port Group No. 5) toward 2020 with 2030 orientation, August 2011.

**Appendix 2: Existing Inner-city Ports in HCMC** 



*Source*: Nguyen Xuan Thanh and Tran Thanh Phong (FETP). Base map is from Google. Port sites and names are based on information of existing ports.

Appendix 3: Cai Mep - Thi Vai Port Complex



*Source*: Nguyen Xuan Thanh and Tran Thanh Phong (FETP). Base map is from Google. Port sites and names are based on authors' site visits, government's investment licenses given to port investors, and Ministry of Transport, Detailed Plan of the Southeastern Ports (Port Group No. 5) toward 2020 with 2030 orientation, August 2011.

Appendix 4: Redevelopment Plans for the Existing Sai Gon Port Site

# (A) Existing Nha Rong and Khanh Hoi Terminals of Sai Gon Port (32.2 ha in Area)



Source: Google Map, downloaded in October 2011.

# (B) Redevelopment Proposal by Sai Gon Port



Source: Portcoast, "Qui hoạch di dời và tình hình triển khai thực hiện di dời các cảng trên sông Sài Gòn và Nhà máy đóng tàu Ba Son" (Relocation Plan and Current Situation of Relocating Ports in the Sai Gon River and Ba Son Shipyard), March 2011.

# (C) Phu Thuan Cruise Ship Terminal Approved by HCMC People's Committee



Source: Google Map, downloaded in October 2011.

**Appendix 5: Hiep Phuoc Port Complex** 



Source: Google Map, downloaded in October 2011.

**Appendix 6: Cargo Throughput in HCMC ports** 

	Sai Gon New Port	Sai Gon Port	Tan Thuan Dong Port	Ben Nghe Port	VICT	Vegeport	Lotus Port
2010	INGW I OIL	1 011	Dong i oit	1 Oit	VIOI	vegeport	1 011
Volume in 1,000 tons	31,132	11,815	532	4,412	3,146	208	853
Import	16,163	5,073	530	1,288	1,512	208	799
Export	14,969	1,364	2	,208	1,512	0	799 24
Domestic	14,909	5,378	0	,206 2,916	1,570	0	30
	2,850,000 <sup>(*)</sup>						
Volume in TEU 2009	2,850,000	401,982	0	210,549	297,561	0	4,498
	22.000	14.000	606	4 254	2 200	200	1 107
Volume in 1,000 tons	33,000	14,008	696	4,354	3,300	299	1,127
Import	13,073	4,375	693	1,948	1,500	0	13
Export	19,927	4,615	0	455	1,800	0	1,100
Domestic	0	5,019	3	1,951		299	14
Volume in TEU	2,460,000 <sup>(*)</sup>	378,226	0	140,922	300,000	295	23,896
2008							
Volume in 1,000 tons	26,965	13,166	556	4,199	5,360	308	1,134
Import	13,016	5,413	498	1,512	2,670	294	1,040
Export	13,949	2,845	36	500	2,690	14	94
Domestic		4,908	22	2,187	0	0	0
Volume in TEU	2,018,104	510,496	0	188,815	536,176	0	24,252
2007							
Volume in 1,000 tons	25,600	13,618	531	4,060	8,580	485	1,200
Import	12,660	7,307	444	998	4,154	250	1,130
Export	12,540	2,114	1	181	4,426	188	50
Domestic	400	4,197	86	2,881	0	47	20
Volume in TEU	1,800,000	350,418	0	218,004	571,998	0	24,000
2006							
Volume in 1,000 tons	20,000	11,127	315	3,680	n.a.	991	865
Import	9,192	6,286	257	1,033	n.a.	418	705
Export	9,958	2,016		223	n.a.	476	160
Domestic	850	2,825	58	2,424	n.a.	97	
Volume in TEU	1,400,000	220,569		191,048	n.a.	0	17,583
2005		·					
Volume in 1,000 tons	14570	10,744	304	3,384	n.a.	869	800
Import	6330	4,965	300	1,468	n.a.	373	700
Export	7604	2,549	0	454	n.a.	375	100
Domestic	636	3,230	4	1,462	n.a.	121	
Volume in TEU	1,056,000	284,506	0	163,810	n.a.		21,000
2000	, ,	- ',		,			,
Volume in 1,000 tons	4642	9,701	144	2,708	n.a.	636	280
Import	2018	4,527	139	1,614	n.a.	305	270
Export	2200	3,088	5	666	n.a.	227	10
Domestic	424	2,086	0	428	n.a.	104	0
Volume in TEU	411,627	237,331	0	110,000	n.a.	0	0

Note: (\*) Including volume in the new container terminal in Cai Mep (TCCT). Source: Data provided by port operators to Vietnam Port Association (VPA).