

# Public-Private Partnerships Case Study #5

## Regulation in PPP projects: the case of Port Klang

by Mathieu Verougstraete, Ferdinand Marterer and Clovis Eng (March 2015)

*The Malaysian government has improved the capacity and efficiency of its port infrastructure by involving the private sector. This case study reviews the development of the largest port in the country, Port Klang, and considers the role of the public partner when ports are privately operated.*

### PRIVATE PORT OPERATORS

To improve port efficiency, many governments around the globe have introduced private participation in port operations. Different models have been tested. The most common one is the Landlord Port Model in which the private partner leases a port terminal and is responsible for both the operation and related investments (e.g. wharf expansion, cranes and office buildings). However, the public authority remains in charge of common facilities such as breakwaters, entrance channels, utilities and road and rail access to the port.<sup>1</sup>

While private operators could boost productivity, there might be a need to regulate them. In particular, should tariffs be set freely by private companies or controlled by a public authority?

Competition might not always be the optimal price mechanism as the number of terminal operators competing within the same port area is limited by nature. For example, cargo volumes might not be enough for two or more stevedores to run a profitable and effective business.<sup>2</sup> But in monopolies, private operators might be tempted to use their situation to overcharge users (particularly for captive cargoes that have no viable transport alternative than using the port).

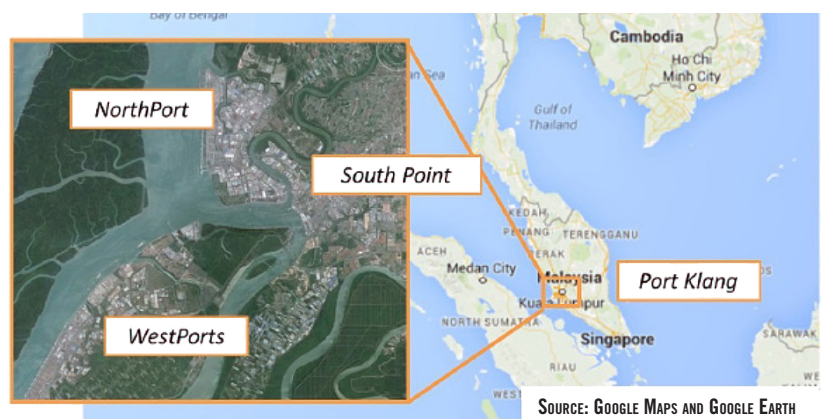
This paper reviews the case of Port Klang and investigates how the Government of Malaysia has reformed its port sector, improved efficiency of Port Klang and prevented anti-competition behaviours while adopting regulation and tariff mechanisms to ensure competitiveness and operational capability.

### THE CASE OF PORT KLANG

Malaysia was one of the first countries to introduce private port operators by the end of the 1980s. Improving port efficiency was a rising priority in order to reduce dependency on Singapore for external trade. Involving private stevedores was seen as the best way to compete in the Strait of Malacca – one of the world's most crucial trade waterways with an annual throughput of 70,000 ships, for transshipment operations.<sup>3</sup>

The introduction of private operators began in 1986 with Port Klang, which is located on the Malaysian west coast, about 40 km from Kuala Lumpur, the capital city. The process started in 1985 when Port Klang Authority (PKA) incorporated Klang Container Terminal (KCT) as its wholly owned subsidiary. Following a sale-lease agreement, PKA sold movable assets and leased immovable assets to KCT for 21 years – including berths and lands. In 1986, PKA subsequently sold 51 per cent of KCT shares to a private company, Konnas Terminal Klang (KTK).

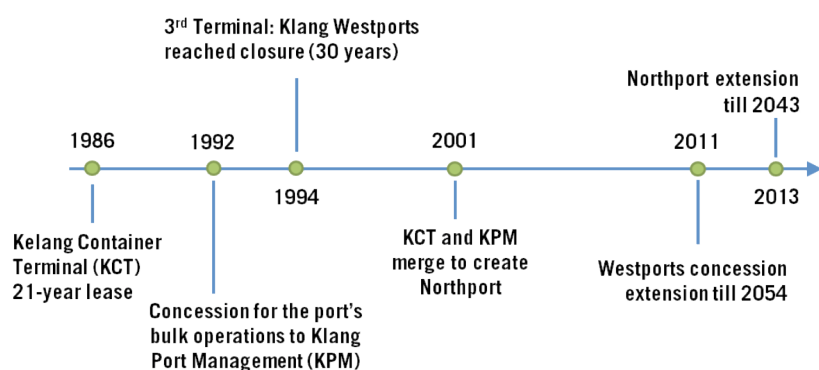
FIGURE 1: PORT KLANG



*ESCAP supports governments in Asia-Pacific in implementing measures to efficiently involve the private sector in infrastructure development. This case study is part of this effort and promotes exchange of experience among the countries of the region.*

*For further information consult ESCAP's website [www.unescap.org](http://www.unescap.org)*

FIGURE 2: PRIVATIZATION TIMELINE



*Private operators fund port facility developments and are committed to increasing port capacity*

In 1992, the rest of the facilities not operated by KCT in Northport and Southpoint were privatized following the same model to Klang Port Management Sdn Bhd (KPM). KCT and KPM merged to become Northport (Malaysia) Bhd in 2001.

In 1994, PKA handed Westports to Kelang Multi Terminal Sdn (KMT) to develop a greenfield port. At that time, there were only initial facilities on the island Pulau Indah with a 1 km wharf developed by PKA.<sup>4,5</sup> KMT considerably expanded the infrastructure and the facilities, which became fully operational at the end of 1994. KMT consortium later became Westports Malaysia Sdn Bhd.

Today, both Northport and Westports companies are governed by term concession agreements with the port authority, PKA. In 2012, Northport handled 28 per cent (2.9 million TEUs/ Twenty Foot Equivalent) and Westports 72 per cent (7.5 million TEUs) of the total box throughput.<sup>6</sup>

## RESULTS

### Productivity

The privatization of Port Klang operations contributed to improve operational performances with more commerce-oriented management. Port performance indicators in the table below illustrate the evolution of productivity before and after privatization.

Today's berth productivity ranks high in international comparisons. In 2013, Port Klang ranked 8th worldwide in berth productivity for transshipment ports with 68

moves per hour (mph), three ranks behind Singapore (73 mph).<sup>7</sup> Crane handling rate in Westports rose from 20 mph in 1996 to 35 mph in 2013.<sup>8</sup> Today, there is usually no waiting time for vessels in Port Klang as berthing is done on arrival.

### Capacity

Private involvement went hand in hand with port-capacity expansion. While capacity increases resulted mainly from productivity gains in the period 2000-2006, infrastructure investments were required afterwards to cope with growing demand.

There were only 35 operational berths and 16 cranes in Port Klang in 1995.<sup>9</sup> In 2014, 58 berths were operational with additional ones in development. These berths are equipped with 81 quay cranes. Wharfs were also developed to accommodate larger vessels.

Port Klang has maintained the volume handled at an equivalent of 70 per cent of the capacity, leaving a buffer of 30 per cent for further growth. In 2015, the capacity of the port stands at 15.5 million TEUs and is expected to reach 18 million TEUs per year by 2020.<sup>10</sup>

The licensed operators fund all port facility developments and concession agreements incorporate commitments from private operators to increase port capacity. The lease period is sufficiently long to recoup these investments with revenues generated from port operations.

To offer more capacity and specialized services, subleasing is also a possible option in Port Klang. The lessee (operator) can transfer the leasehold rights to a third party. In 2010, Shell Malaysia signed a 14-year lease agreement with Westports to build and operate a liquid bulk terminal with three petroleum tanks for downstream operations.<sup>11</sup>

### Volume

Port Klang emerged quickly after the PPP implementation as a major port in South-East Asia and a regional hub. Port Klang has experienced an annual TEU throughput increase of 10 per cent on average for the last 15 years.

In 2014, 11 million TEUs (12th worldwide), and 217 million tons of cargo (17th) were handled. Figure 3 illustrates the fast evolution of its container activities in the last two decades compared to some of its direct competitors.

TABLE: PERFORMANCE INDICATORS OF PORT KLANG BEFORE/AFTER PRIVATE INVOLVEMENT

Port	Crane handling rate (TEUs/hour)	Turn-around time per vessel (hours)
Port Klang, Malaysia	Before PPP (1985)	19.4
	After PPP (1987)	27.3
		13.4
		11.3

SOURCE: SALLEH, PORT KLANG, MALAYSIA, P. 379 FROM M. TULL ET AL. (2001)

## PORT KLANG AUTHORITY (PKA)

In Malaysia, each port has its own Port Authority, which is a government agency overseeing the port. Port Klang is under the jurisdiction of Port Klang Authority (PKA), which is under the purview of the Ministry of Transport. Having a dedicated authority per port allows implementation of tailored policies in each port without systematically relying to a central body.

After privatization, PKA's role evolved from port operator to trade facilitator, landlord and regulatory body, its core functions being: (i) trade facilitation, (ii) port planning and development, (iii) regulatory oversight of privatized facilities and services, (iv) free zone authority, (v) asset management.<sup>12</sup> The rest of this study will analyse the role of PKA in its regulatory capacity.

### Tariff Regulation

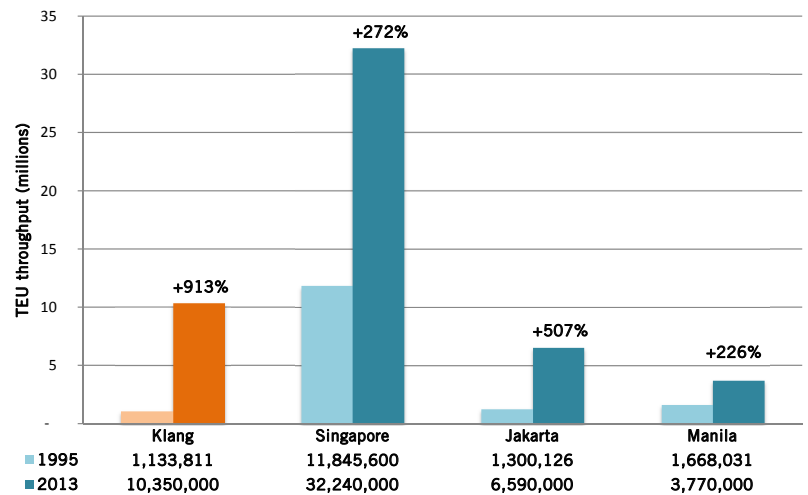
Tariff setting is one of the most critical elements to regulate as it impacts the project viability. It could also indirectly influence the competitiveness of the whole country given the importance of maritime transport for international trade.

Different mechanisms exist to set tariffs. Free tariff setting by private operators might be optimal when competition is sufficient to drive the price down. For example, there is no tariff limitation by a public entity at the New Busan port in the Republic of Korea. Conversely, tariff could be regulated to control monopolistic situations. It often takes form of "ceilings which are not to be exceeded for individual shipments or – more rarely – in aggregate."<sup>13</sup>

Unlike many ports in the world, in Port Klang both companies have to set tariffs for port users within the price cap set by PKA.

**Tariff setting:** PKA controls tariffs to ensure that prices remain competitive and to avoid anti-competitive practices that could occur in a duopoly situation. Tariffs are regulated with cost-based pricing as per the provisions under the Port Authorities Act and Port Privatization Act. The authority observes the costs of providing the services and facilities and incorporates an agreed rate of return for investments made by the port operators. PKA also benchmarks tariffs in other ports of the region like Singapore while taking into account country specificities (e.g. labour cost in Malaysia is cheaper than in Singapore).

FIGURE 3 : CONTAINER HANDLING AT PORT KLANG AND SELECTED PORTS IN SOUTH-EAST ASIA



SOURCE: 1995 (CONTAINERIZATION INTERNATIONAL) / 2013 (INTERNATIONAL ASSOCIATION OF PORTS AND HARBOURS)

**Tariff revision:** In Port Klang, a substantial demand for changes in tariff can be submitted to the Port Consultative Committee (PCC) with full justification. The PCC includes members of the government from different ministries, representatives of port users, such as shipping associations, terminal operators and PKA. Aside from scrutiny from the authority based on various factors, comments and feedback from port users are also taken into consideration before recommendations are made to the Ministry of Transport. If the proposal is rejected, the operators may appeal directly to the Ministry.

A tariff revision in Port Klang occurred in 2004 when Northport and Westports increased marine charges, along with a new rate for dangerous goods cargo to adjust operation and investment costs, which were not included in the previous rate. Another revision took place in 2012 mainly dealing with general cargo tariff that had seen little changes over the last 40 years.

The tariff review mechanism has worked well in a manner that allows all stakeholders to be engaged in the decision-making process. It has also provided a platform for port users to participate at a critical juncture to voice out any shortcomings or weaknesses in the services provided.

### Other Regulation

Safety and environmental regulations must be separated from commercial activities to ensure that these issues are not compromised by profit-making considerations. Hence, PKA leads security services, marine operations,

*TEU throughput increased on average by 10 per cent annually for the last 15 years at Port Klang.*

fire services and dangerous goods control. The latter is critical as the International Maritime Organization (IMO) estimates that more than half of global freight is classified as hazardous.<sup>14</sup>

The ASEAN Ports Association, which PKA is part of, also works on three main topics: safety, human resources standards and efficiency. Adequate regulation on these issues is essential to make maritime transport sustainable.

## THE REGULATOR AS A KEY PARTNER

*Beyond its regulatory role, PKA has also a key role to play to enhance port attractiveness.*

In a PPP, the public partner has a critical role to play to make the infrastructure project successful. For instance, by facilitating trade through streamlined procedures, PKA is enhancing the port attractiveness, which should result in more business opportunities for the private operators. Likewise, the development of a free zone by PKA creates the need for more transport services.

The regulator also needs to ensure that access to the port infrastructure is adequate. In this respect, the government has invested heavily in enhancing road connections to the port with the development of bridges and flyovers. The objective is to reduce congestion in the port and improve last mile connectivity.<sup>15</sup> Dredging is another component of port accessibility. While terminal operators support wharf dredging costs, PKA finances dredging of common channels to enable port access to larger ships.

PKA also develops the long term vision for the port. A master plan was conceived for the 2010-2030 period. Three key issues are addressed in the plan: (i) saturation of the terminals by 2018, (ii) channel dredging for growing vessels and (iii) hinterland connectivity for the last mile travelled. The master plan also specifies growth targets (throughput and capacity-growth rates per year). These targets are part of the concession agreements signed by the private operators and PKA monitors whether sufficient investments are made to accommodate these future volumes.

## CONCLUSION

The privatization of Port Klang is a success in the light of productivity gains and growth in throughput volumes observed over the years. Significant improvements were achieved, enabling the port to be one of the top 20 ports in the world for the last decades

in terms of freight volume handled. The partnership between PKA and the private operators has been decisive in this respect. First, the regulator has managed to keep prices competitive without jeopardizing the financial viability of the operators. Second, private operators have significantly increased port efficiency making it one of the most competitive in the world. Third, the regulator has taken a series of actions to enable the observed growth in port activities and benefited from this growth through profit-sharing arrangements incorporated in concessions.

In the future, the existing facilities are likely to reach their maximum capacity and there might be a need to establish a third port. An effective partnership between the regulator and the future operator will again be critical to the success of such an additional development.<sup>16</sup>

Tariff review mechanisms might also have to be revisited to respond more quickly to market trends. For instance, automatic price adjustments could be introduced to take into account inflation changes and to reduce administrative burden linked to the current price review system. In the long run, the need for price control mechanisms might be revisited in light of international competition from other ports in the region. Regulation needs vary, however, according to the specificities of each country and of each port.

## End Notes

<sup>1</sup> World Bank, Public-Private Partnership in Infrastructure Resource Center.

<sup>2</sup> World Bank, Port Reform Toolkit.

<sup>3</sup> Qu, X. et al., The Economic Importance of the Straits of Malacca and Singapore. National University of Singapore.

<sup>4</sup> EDI World Bank, A. Mody (1997), Infrastructure Strategies in East Asia, The Untold Story.

<sup>5</sup> Hamid, A. (2013), Northport Corporate Presentation.

<sup>6</sup> Port Klang Malaysia, 2013 Annual Report.

<sup>7</sup> JOC Port Productivity Database.

<sup>8</sup> Westports, 2013 Annual Report.

<sup>9</sup> Tull, M. et al. (2001): Privatisation of Ports. University of Wollongong.

<sup>10</sup> Westports and Northport websites: westportsmalaysia.com, northport.com.my (Accessed Mar 26, 2015)

<sup>11</sup> Free Malaysia Today, Bahrom, S. (Apr 12, 2013), Shell completes third phase of terminal expansion.

<sup>12,15</sup> Port Klang Authority, pka.gov.my (Accessed Mar 5, 2015)

<sup>13</sup> Farrell, S. (2010): Observations on PPP Models in the Ports sector.

<sup>14</sup> International Maritime Organization (1996): IMO and Dangerous Goods at Sea.

<sup>16</sup> Maybank IB Research (2013): A Safe Harbour