5.13. Improvement of maintenance and repair of port facilities and cargo handling equipment

5.13.1 Plan for improvement of maintenance and repair

(1) Current situation and issues of maintenance and repair

1) Organization of maintenance and repair

TMCD (Technical Materials and Construction Department) with a total staff of 155 has the task of maintenance and repair of port facilities and cargo handling equipment, as well as the task of construction of port facilities.

TMCD organizationally consists of two offices and eight sections directly under the Deputy Director. Four of the sections (Strategy of Tech, Materials and Spare Parts, Workshop, Procurement of Fuel and Lubricant, and Equipment Maintenance) implement the task of maintenance and repair of cargo handling equipment. The Construction Office with a staff of 16 has the task of construction, maintenance and repair of port facilities. (See Figure 5.13-1)

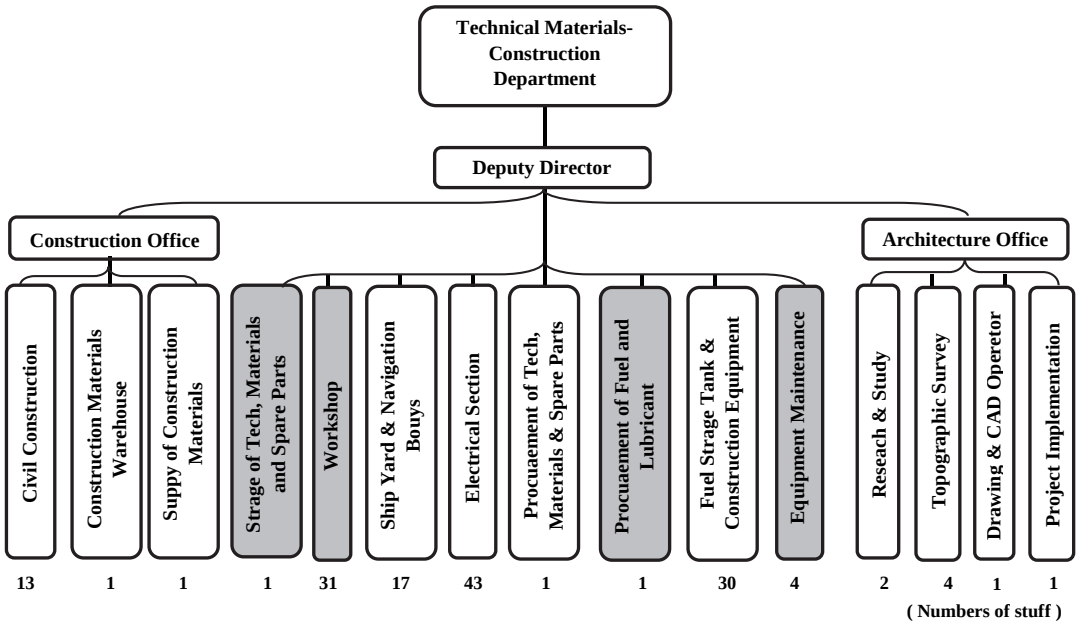


Figure 5.13-1 Organizational chart of TMCD

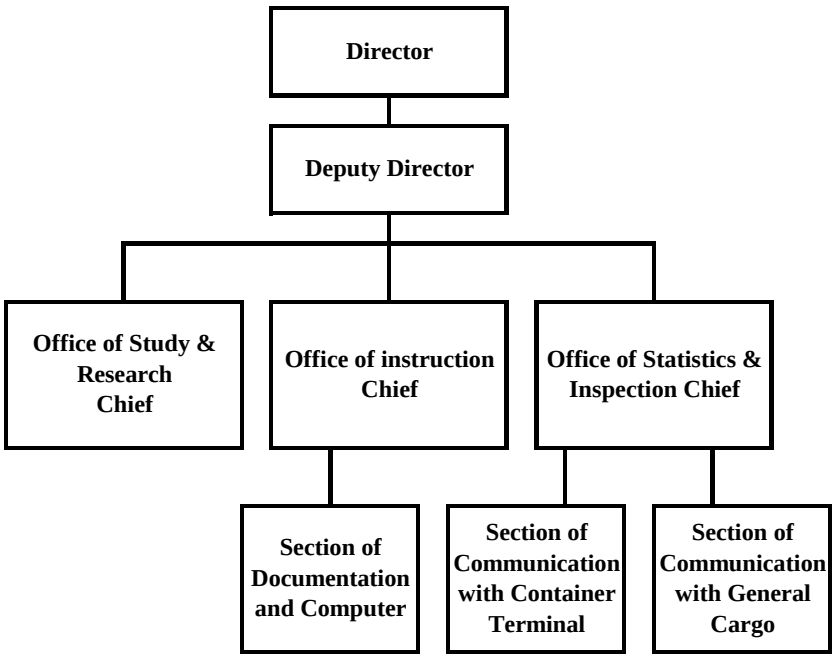
The detailed tasks of TMCD are as follows.

- This department presents the technical specifications of, and/or, the guide books for, cargo handling machines, transportation machines, and construction machines that are used in the PAS, and monitors the maintenance, management and repairs of those machines.
- It implements learning/training programs for every technical matter on fuel, spare parts, construction materials, machines and electric apparatuses.
- It purchases and stores spare parts, parts, fuels, and construction materials that are required for the development, maintenance and repair of port facilities.
- It maintains and repairs all apparatuses, machines and equipment including tug boats.
- It estimates the costs of maintenance, management and repairs, including construction and development projects, at the port.
- It formulates an annual budget plan in view of the estimates of spare parts, electronic parts, and fuels in construction/development projects to be used.

MD (Machinery Department) with a staff of eight has also the task of maintenance and repair of cargo handling equipment (see Figure 5.13-2). However, this department is indirectly involved in the maintenance and repair. Its tasks are to prepare a checklist for regular inspection, aggregate the times of stoppages due to maintenance, and so on. Its major task is documentary management. These are MD's tasks.

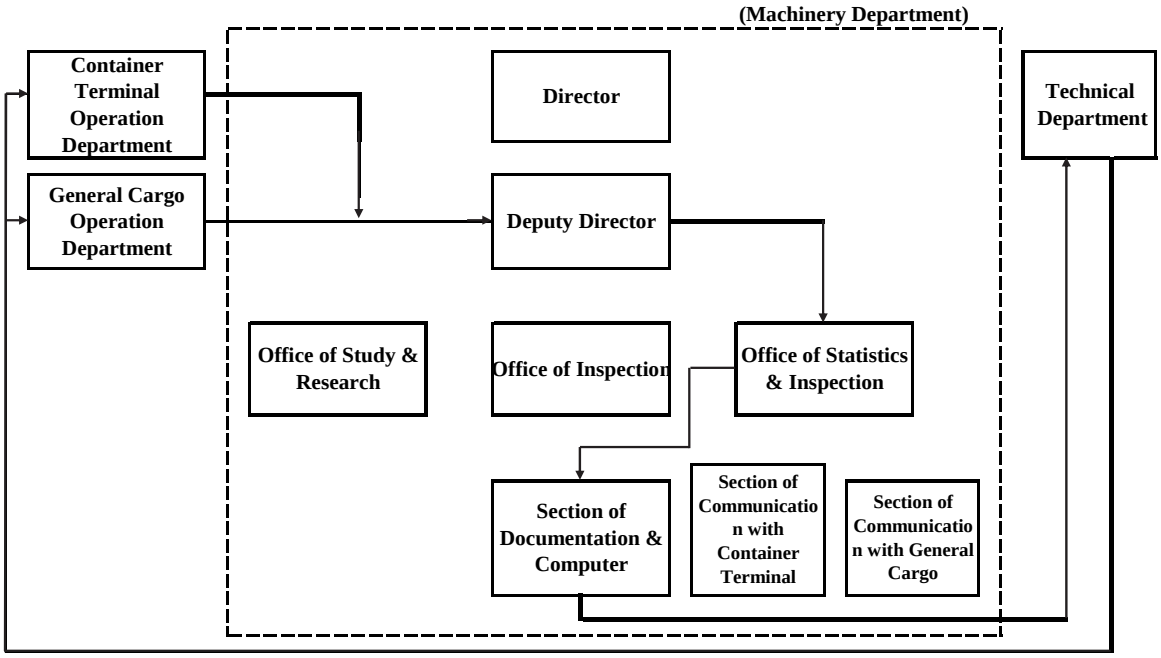
- Documentary work related to maintenance and repair of all the following cargo handling machines
  1) Gantry cranes for containers, RTG, mobile cranes, shore cranes, and forklifts
  2) Spreaders on gantry cranes, etc.
- Preparing instruction manuals for maintenance and repairs for all cargo handling equipment
- Implementing training programs for operators of every cargo handling equipment about operation, maintenance and repair
- Checking routinely that the machines are operated properly
- Follow-up and check of every cargo handling machine repaired
- Formulating repair plans for all cargo handling machines
- Planning other necessary training programs
- Implementing other plans according to the instructions of the management

(Operational relations with other department is shown in Figure 5.13-3)



Source: PAS

Figure 5.13-2 Organizational chart of MD



Source: PAS

Figure 5.13-3 Operational relations with other departments

2) Current situation and issues of maintenance and repair

i) Port facilities

The layout of port facilities at the PAS is shown in Figure 5.13-4. The main facilities include the Old Jetty, the New Quay, the Container Berth, and the north and south breakwaters.

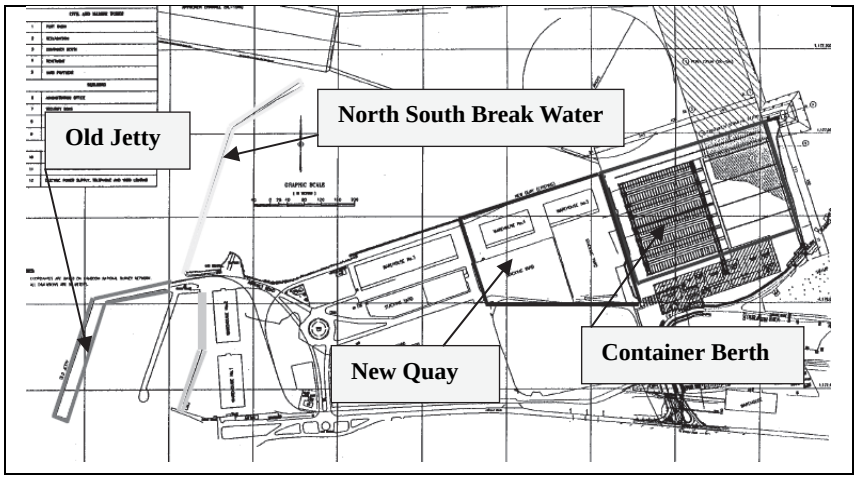


Figure 5.13-4 Layout of main facilities in the Port of Sihanoukville

The Old Jetty has a full length of 290 m, being alongside waters of a depth of 9 m. It was constructed almost half a century ago, in 1964, and has quite degraded over time. Thus, it is necessary to study the degree of deterioration to know what uses it can be applied to. We made visual checks of the fenders and the slab bottoms to see how they were degraded, and checked the beams and slabs by using a Schmidt hammer to see the situation of the concrete. Options for reinforcement and possible uses of the Old Jetty are indicated in 5.2.2 on the basis of the study results. If specific reinforcements

are to be constructed, detailed studies will be conducted and specific plans considered. Figure 5.13-4 shows a damaged support for a newly installed fender on the Old Jetty, and exposed reinforcing bars in a slab and exposed strands in a beam.

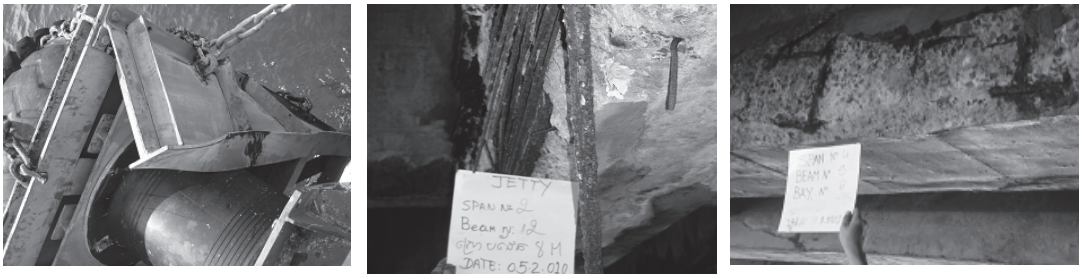


Figure 5.13-5 Situation of deterioration of Old Jetty

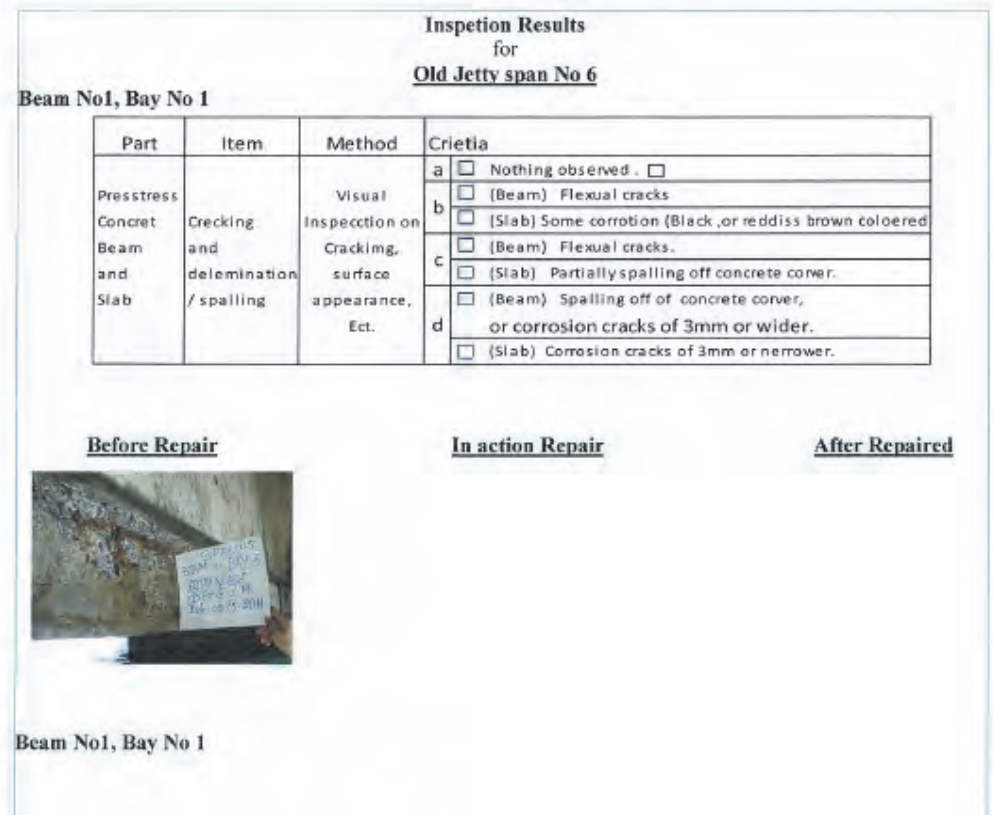
We also made visual checks of the New Quay and the Container Berth to see the situation of deterioration. The New Quay is a berth with a full length of 350 m put into service in 1969, thus more than 40 years ago. It had been used as the principal berth until the Container Berth was constructed. Currently, it is used for loading/unloading general goods and bulk cargoes other than containers. It is a wharf of a block structure alongside waters of a depth of 9 m. We found that fenders were significantly degraded, that water pipe covers were damaged, and that there was subsidence in the yard on the back of the wharf (see Figure 5.13-5). These should be repaired promptly. Nevertheless, no signs of structural problems such as non-uniform subsidence or a bulge on the wharf slopes were found.

Figure 5.13-6 Situation of deterioration of New Quay

The Container Berth has a length of 400 m, being alongside waters of a depth of 11.5 meters, and has been used since 2007. It has two gantry cranes constructed in 2008. The wharf is maintained in good condition, but the yard has some degraded parts, e.g., subsidence on the pavement at the truck traffic line curving to contact the outside. That type of deterioration is commonly seen where heavy machines such as RTGs and container trucks move around. It should be repaired before the damage expands and hinders the traffic of RTGs and container trucks (see Figure 5.13-5). The north yard was constructed at the end of 2011 and is used as a new marshaling yard.

Figure 5.13-7 Situation of deterioration of the Container Berth

The port facilities are maintained and managed according to the guidelines created at an ASEAN-Japan Port Technology Group meeting. A Plan-Do-Check-Action management that includes regular inspections, finding degraded parts, evaluating the deteriorations, determining whether they need to be repaired (observation of the development or implementation of repairs, as necessary), and retaining records, has been implemented. The Old Jetty has been maintained, managed and repaired in that way. It is desirable that this management be established and expanded to other facilities. (See Figure 5.13-6)



Inspetion Results
for
Old Jetty span No 6

Beam No1, Bay No 1

Part	Item	Method	Crietia	
Presstress Concret Beam and Slab	Crecking and delemination / spalling	Visual Inspecction on Crackimg, surface appearance, Ect.	a	☐ Nothing observed . ☐
			b	☐ (Beam) Flexual cracks
				☐ (Slab) Some corrotion (Black ,or reddiss brown coloered
			c	☐ (Beam) Flexual cracks.
				☐ (Slab) Partially spalling off concrete corver.
			d	☐ (Beam) Spalling off of concrete corver, or corrosion cracks of 3mm or wider.
				☐ (Slab) Corrosion cracks of 3mm or nerrower.

Before Repair **In action Repair** **After Repaired**

Beam No1, Bay No 1

Figure 5.13-8 Form of inspection, repair report and after-repair check

ii) Cargo handling equipment

The major cargo handling machines/equipment of the PAS are indicated in Table 5.13-1. For the maintenance and management of cargo handling machines/equipment, the cargo handling machines/equipment other than vehicles are subjected to general start-up checks, weekly/monthly checks, or regular checks every two or three months. The vehicles are subjected to regular checks every travel distance of 5,000 km. They are basically maintained and managed well, e.g., lubrication and greasing. (See Figure 5.13-7)

However, some cargo handling machines including QGCs, reach stackers and straddle carriers are not maintained and managed well enough. In some cases, failed items of equipment were left unrepaired for long periods of time. Such cases have not resulted in any conspicuous problem with the current scale of cargo operation. However, when more efficient cargo handling is required as the volume of cargo increases, it is expected that such cases would lead to problems in the operation.

The departments for the maintenance and management of cargo handling machines/equipment implement training programs for their staff very well. The Machinery Department (MD) takes the lead in holding regular training sessions, and the staff of MD creates training materials and gives lectures by themselves. They hold a two-day or three-day session trice or three times every year for the operators or repair workers of machines/equipment. Such training is important to maintain the skills of repair workers up to standard, and the training is implemented well. (See to Figure 5.13-9)

For the new types of cargo handling machinery/equipment, additional knowledge is needed about, e.g., devices/apparatuses interlocked with a positioning sensor of the spreader or an operation network. It is necessary that the mechanics and engineers acquire that knowledge to maintain and manage those types of machinery/equipment. In order to ensure this, the contents of training should be well created/updated to accommodate the current/future situation. It is advisable that the workers be educated/trained in the field by machine/equipment manufacturers' staff or stay in the field for a certain period to obtain useful pieces of advice from the manufacturers' staff.

Figure 5.13-9 A photo of training class, and education and material

Table 5.13-1 List of major cargo handling machines at PAS

No.	Type of Equipment	Name of Equipmentt	Quantity (Set)		Capacity (Ton, HP)	Owner	Year of Installation	Age	Manufacturer	Main Purpose of Usage	Technical Condition			
			Total	Each							Good	Medium	Acceptable	Bad
1	Quayside Gantry Crane	30.5 Ton	**2**	2	30.5 Ton	PAS	2009	2	MITSUI ZOSEN	Container	O			
2	RTG (Rubber Tired Gantry Crane)	40 Ton-Hyundai	**7**	2	40 Ton	PAS	2001	10	Hyundai	Container		O		
		35.6 Ton-Mitsubishi		5	35.6 Ton	PAS	2009	2	Mitsubishi	Container	O			
3	Reach Stacker	Laden Container	**9**	2	45 Ton	PAS	1995	16	PPM (France)	Container		O		
		Laden Container		2	45 Ton	PAS	1998	13	PPM (France)	Container		O		
		Laden Container		2	45 Ton	PAS	2003	8	Kalmar (Sweden)	Container	O			
		Empty Container		1	7.5 Ton	PAS	2004	7	Kalmar (Sweden)	Container	O			
		Laden Container		2	45 Ton	PAS	2008	3	Kalmar (Sweden)	Container	O			
4	Fork Lift	Fork Lift (Japan)	**9**	1	25 Ton	PAS	1993	18	Komatsu	Container General cargo			O	
		Fork Lift (Japan)		3	2.5 Ton	PAS	1994	17	Komatsu	Cargo Hatch			O	
		Fork Lift (Korea)		2	2.5 Ton	PAS	1993	18	Catterpilla Korea	Cargo Hatch and Stuff			O	
		Fork Lift (Korea)		3	2.5 Ton	PAS	2003	8	Catterpilla Korea	Cargo Hatch and Stuff			O	
5	Trailer Head and Chassis	Mitsubishi	**22**	10	40 Ton	PAS	1998	13	Mitsubishi	Container Cargo		O		
		Nissan		8	40 Ton	PAS	2009	2	Nissan	Container Cargo	O			
		Kamaz		4	40 Ton	PAS	2002	9	Kamaz (Russia)	Container Cargo	O			
6	Fork Lift	Komatsu	**8**	1	10 Ton	PAS	1994	17	Komatsu (Japan)	General Cargo			O	
		Komatsu		2	5 Ton	PAS	1994	17	Komatsu (Japan)	General Cargo			O	
		Lugli		1	5 Ton	PAS	1996	15	Lugli (Italy)	General Cargo			O	
		Lugli		4	5 Ton	PAS	1996	15	Lugli (Italy)	General Cargo			O	
7	Truck	Kamaz (Russia)	**8**	1	10 Ton	PAS	1986	25	Kamaz (Russia)	General Cargo			O	
				2	10 Ton	PAS	1989	22		General Cargo			O	
				1	10 Ton	PAS	1988	23		General Cargo			O	
				1	10 Ton	PAS	1991	20		General Cargo			O	
				3	10 Ton	PAS	2002	9		General Cargo	O			
8	Trailer Head and Chassis	Maz (Russia)	**11**	1	40 Ton	PAS	1985	26	Maz (Russia)	General Cargo Container			O	
				2	40 Ton	PAS	1988	23		General Cargo Container			O	
				1	40 Ton	PAS	1990	21		General Cargo Container			O	
				1	40 Ton	PAS	1992	19		General Cargo Container			O	
				1	40 Ton	PAS	1998	13		General Cargo Container			O	
		Kamaz (Russia)		3	40 Ton	PAS	2002	9	Kamaz (Russia)	General Cargo Container	O			
		Nissan (Japan)		2	40 Ton	PAS	2003	8	Nissan (Japan)	General Cargo Container			O	
8	Trailer Head and Chassis	Maz (Russia)	**7**	1	10 Ton	PAS	1989	22	MAZ (Russia)	General Cargo			O	
		KATO		1	30 Ton	PAS	1994	17	KATO	General Cargo		O		
		Locatelli		1	16 Ton	PAS	1996	15	LOCATELLI (Italy)	General Cargo			O	
		Locatelli		1	25 Ton	PAS	1996	15	LOCATELLI (Italy)	General Cargo			O	
		KOBELCO		2	25 Ton	PAS	2008	3	KOBELCO	General Cargo			O	
		TADANO		1	30 Ton	PAS	2008	3	TADANO	General Cargo	O			
9	Track Crane	MAZ Grue (USSR)	**7**	1	10 Ton	PAS	1989	22	MAZ	General Cargo			O	
		KATO 50 Ton		1	30 Ton	PAS	1994	17	KATO	General Cargo		O		
		ITALY		1	16 Ton	PAS	1996	15	LOCATELLI (Italy)	General Cargo			O	
		ITALY		1	25 Ton	PAS	1996	15	LOCATELLI (Italy)	General Cargo			O	
		KOBELCO		2	25 Ton	PAS	2008	3	KOBELCO	General Cargo			O	
		TADANO		1	30 Ton	PAS	2008	3	TADANO	General Cargo	O			
10	Mobile Harbour Crane	64 Ton (Germany)	**2**	2	64 Ton	PAS	2001	10	Liebherr (Germany)	General Cargo Container		O		
	Source:PAS Machinery Department													

ល.រ	សមាសភាគ	ការត្រួតពិនិត្យ និងការវាយតំលៃ	ពិនិត្យ	សេចក្តីសង្កេត
1E	Control Desk in Cab	• Check item: All Indicator lamps	✓	
2E	Spreader	• Check item: Bolts for limit switches, etc ... . Looseness	Good	
3E	Hoist Limit Switch	• Check item: Show down& stop .....Function	Good	
4E	Trolley Limit switch	• Check item: Show down& stop • .....Good.....Function		
5E 6E 7E 8E 9E	All Motors, Brake & Generator	• Check item: Noise Vibration	✓ ✓	

Figure 5.13-10 Start-up inspection record (daily) and weekly inspection record

5.13.2 Transfer of technologies for improvement of maintenance and repair

(1) Necessity of creating a manual for strategic maintenance and repair

a) Port facilities

Port facilities are generally required to maintain the necessary functions in service for a long time. Not only the initial structural designs are important to meet this requirement, but also appropriate maintenance and repair of those facilities in service are essential for satisfying it.

In order to maintain/improve the level of service at the port facilities, it is necessary to reduce the cost for the maintenance and repair. However, with a limited budget, it would be impossible to meet they expected demand for repairs in the future to ensure that the port facilities continue to function as required with the current system that takes care of machinery/equipment failures on an occurrence basis. It is important to implement more efficient maintenance and repair on a preventive basis to minimize the life-cycle costs of machinery/equipment. The points of checking in inspection of the Port of Sihanoukville are as follows.

i) Frequency of checking

The checking and diagnosis of port facilities are classified into initial check, routine check, regular check and special check according to the purpose and time.

ii) Check items

At the Port of Sihanoukville, the New Quay and Container Berth are gravity-type wharves, but the Old Jetty is a caisson pier with beams that form slabs. The important points of checking in special check and diagnosis of mooring facilities are shown in Table 5.13-2. Allowable limits of deformation

of a gravity-type wharf that affect functions are shown in Table 5.13-3.

Table 5.13-2 Important points of checking in special check of mooring facilities

Position	Check item	
	After earthquake	After violent weather
Super-structure	Irregularities, subsidence and inclination in alignment	-
Apron	Subsidence, inclination and cracks	Subsidence and cracks
Steel sheet pile	Irregularities in alignment	Cracks and damage
Steel pipe pile	Local buckling and damage to anti-corrosion construction	Local buckling and damage to anti-corrosion construction
Backfill material	Subsidence and sucked-out	Subsidence and sucked-out
Bridging slab	Subsidence, displacement and damage	Subsidence, displacement and damage
Fender	-	Damage

Source: "Technical Manual for Maintenance and Repair of Port Facilities" issued by Coastal Development Institute of Technology (CDIT)

Table 5.13-3 Allowable limits of deformation of a gravity-type wharf that affect functions

Position	Check item	Allowable limit of deformation	Reason
Entire wharf	Subsidence	20-30 cm	Flooding, water pooling and safety in cargo handling work
	Inclination	Normal gradient: 3-5%	Safety in cargo handling work
		Reverse gradient: 0%	
	Alignment irregularities	20-30 cm	Safety of ship coming alongside the wharf
Apron	Subsidence (level differences)	Top of apron: 3-10 cm	Safety in cargo handling work, uninhibited running of cargo handling machines, water pooling
		Apron and back land: 30-70 cm	Uninhibited running of cargo handling machines
	Inclination	Normal gradient: 3-5%	Safety in cargo handling work
		Reverse gradient: 0%	Rainwater pooling
	Cracks	Concrete pavement Degree of cracking*: 0.5-2.0 m/m^2	Effects on apron and roadbed, safety in cargo handling work and vehicle running
		Asphalt pavement Percentage of cracking**: 20-30%	
Backfill and backfilling material	Subsidence and sucked-out	Concrete pavement: occurrence of hollows	Safety in cargo handling work and vehicle running because of damage to pavement
		Asphalt pavement: same as in apron	Same as in apron
Accessory equipment	Damage	Mooring post and bumping post: damage	Safety of ship coming alongside the wharf and cargo handling work
		Fender: loosened bolts	Economy, e.g., of repairs

Source: "Technical Manual for Maintenance and Repair of Port Facilities" issued by Coastal Development Institute of Technology (CDIT)

iii) Assessment of checking results

General regular inspections and diagnoses are carried out on each part/member of structures. To identity the deformation of structures, they should be checked and diagnosed regularly and continually. Visual checks should be carried out to find the deformation of facilities that may appear, and the degree of deterioration should be assessed according to appropriate standards. This manual determines the degree of deterioration on a four-step scale: a, b, c and d (refer to Table 5.13-3). The performance of the entire facility is assessed on the basis of the diagnosis results of each part/member of the structures.

As an aid to visual inspection, simple survey devices such as a scale rod, a level and a transit, and a check hammer, binoculars, a crack scale, etc., may be used.

Table 5.13-4 Description of inspection results

Degree of deterioration	Condition of part or component
a	Performance of the component has seriously deteriorated
b	Performance of the component has deteriorated
c	Performance of the component has not deteriorated, but has some deformation occurring.
d	No deformation identified.

Source: "Technical Manual for Maintenance and Repair of Port Facilities" issued by Coastal Development Institute of Technology (CDIT)

b) Cargo handling machines/equipment

For the cargo handling machines/equipment, as in port facilities, a maintenance and repair system that reacts to failures on an occurrence basis will eventually hinder the operation of the port terminal. Thus, a strategic maintenance and repair operation is desirable. It is extremely important to be aware of the condition of cargo handling machines/equipment through routine checks and regular checks, create a checking schedule for them, and check and repair preventively to use them in a good condition. In other words, machines/equipment should be properly maintained to minimize their failures.

For the maintenance and repair of the cargo handling machines/equipment of the PAS, as mentioned in the assessment of the current situation, the basic checks are currently carried out. Further, a plan for implementation of checking should be created, and strategic checking and repairs should be implemented according to the plan. Important points of such checking plan are as follows.

i) Plan for check and diagnosis documents

○ Implementation of checking and repairs according to the manufacturers' instructions

Specific checks should be clarified and organized according to checking implementation items on the basis of the specifications of check such as check items and checking frequency that are described in the manufacturers' instruction manuals.

○ Management and research on status of availability, parts in stock, and supply of parts

Items of management of cargo handling machines/equipment, such as availability time, times of cargo handling operation, and weights of cargoes handled, etc., should be clarified and organized to be managed on the basis of actual data. For fixtures/furnishings, etc., the status and prospect of inventory and supplies by the suppliers should be clarified and organized. The inventory status can be grasped through preliminary arrangements.

ii) Sorting out results of checks and diagnosis, and total assessment

○ For start-up checks and monthly checks, standards for maintenance and repair should be prepared for assessment.

○ For parts, etc., for which limits of use are set, the status of use should be assessed, and they should be replaced according to the limits. When the production of a certain part is planned to be

terminated, it is necessary to consider how such parts will be replaced.

○ Service period extension research (integrity research)

The degrees of aging/deterioration of members of machines/equipment, machines, electric apparatuses, etc., should be assessed on the basis of the results of service period extension researches to determine their remaining service lives if the current maintenance and repair operation is to be extended.

iii) Maintenance and repair system

○ A maintenance and repair plan should be created to organize specific maintenance and repair operations, the ways of implementation of those operations, and points of attention in such implementation, on the basis of the total assessment of checks and diagnosis.

5.14. Master Planning

5.14.1 Public and private partnership in implementing new development

Sihanoukville Port will need further development to meet future demand for container cargo handling, passenger shipcalls, and bulk/break bulk cargo handling. As it is indicated in section 5.8.11 (Scheme for new investment and operation), PAS may change from a service port to landlord port and invite private investors and/or terminal operators for the development and operation of port facilities. The private sector may be involved only in the operation of terminal facilities in the case of operation concession, but heavily involved in the development and operation of port/terminal facilities in the case of development concession.

Several patterns of private sector involvement are introduced in section 4.2.3 "Public Private Partnership (PPP) in port development and operation", i.e. PPP by public initiative, PPP by private initiative and PPP in middle case. In case of PPP by public initiative, the public sector will develop all infrastructure and major superstructure, and the private sector will only prepare cargo handling equipment and operate the terminal. In the case of PPP by private initiative, the public sector will only develop the navigation channel and access road, and the private sector will develop all other facilities and operate the terminal.

For the development of the new container terminal, it may be appropriate to introduce PPP in middle case. If private companies are not so interested in participation, PPP by public initiative shall be taken into consideration. If many private companies are interested in participation, PPP by private initiative shall be pursued. PPP is important not only for reducing public investment but also for involving shipping lines and/or international terminal operators to take advantage of their relations with shippers, consignees and other port users.

As introduced in section 5.8.11 (Scheme for new investment and operation), four patterns for the development and operation of a new container terminal are proposed:

a) PAS develops and operates the new container terminal;

b) PPP by public initiative (PAS develops all infrastructure and large scale superstructure, and a private terminal operator operates the new container terminal);

c) PPP in middle case (PAS develops infrastructure and a private investor/terminal operator constructs the container wharf, installs quay gantry cranes, and operates the new container terminal);

d) PPP by private initiative (PAS and the private investor(s) establish a joint stock company and the company implements container terminal development and operation. PAS carries out channel dredging and access road development).

Advantages and disadvantages of each pattern are detailed in section 4.2.3 (Public Private Partnership (PPP) in port development and operation). PAS shall make a decision on the type of PPP for the development and operation of the new container terminal. Taking into consideration that many service ports around the world have changed or are planning to change to landlord ports[2] or tool ports[3], PAS is required to find a way to change its monopolistic operation.

In this regard, it may be solution to have separate operating departments as with a terminal operator, or to establish a joint stock company together with a private terminal operator and let the company operate the new container terminal.

In order to make Sihanoukville Port competitive, it may be imperative to involve private terminal operators/shipping companies in the development and operation of the new container terminal. Study shall be made on the transformation of PAS from the state owned enterprise to a commercial entity and

[2] See section 4.3.3 (1) 3) Landlord port

[3] See section 4.4.4 (1) 2) Tool port

on the involvement of a private terminal operator. The national port policy of Cambodia shall clarify the transformation of state owned port authorities (PAS and PPAP), and the roles and responsibilities of private port operators.

5.14.2 Collaboration with international development partners

PAS received loans from the Asian Development Bank (ADB) for the improvement of port facilities and the purchase of equipment.

ADB financed a loan to MPWT as an executing agency in 1995. Four project components as shown below are included in the loan among other components in the country.

- Yard pavement, 2 generators, lighting pole
- 1 reach stacker
- Repair of shed roof
- Repair od fenders on the Old Jetty

All the above projects have been completed, however, PAS did not need to repay the loan because the borrower and executing agency was MPWT itself.

On the other hand, JICA has provided 5 loans to PAS through MPWT as shown in Table 5.14-1 from 1999 after the suspension of loans ended in 1969.

Table 5.14-1 JICA Loans for Sihanoukville Port Project

Year of E/N	Project Name	Amount ($ mil.)	Loan Conditions		
			Interest (%)	Grace period (Year)	Return period (Year)
1999	Urgent Rehabilitation Project of Sihanoukville Port	41.42	1.0	10	30
2004	Urgent Expansion Project of Sihanoukville Port	43.13	0.9	10	30
2005	Special Economic Zone Development Project of Sihanoukville Port	3.18	0.9	10	30
2007	Special Economic Zone Development Project of Sihanoukville Port	36.51	0.01	10	40
2009	Multi-purpose Terminal Development Project of Sihanoukville Port	71.76	0.01	10	40

Source:JICA home page, Project Team

Until now, international loans provided to PAS are ADB loan and JICA loans only.

PAS needs to make appropriate investment in order to enhance its service level and attract many customers toward the future. PAS started repayment to JICA through MEF from 2001 and the repayment is expected to be completed by 2056. The repayment amount is about $ 5 million (if ¥77/$) in 2012 and is anticipated to increase to as much as $ 13.4 (if ¥77/$) million in 2025 as the maximum amount during the repayment period. On the other hand, the net profit of PAS is estimated at about $ 2.5 million. This situation implies that the repayment of the JICA loans will become a large financial burden for PAS. In addition PAS faces the effect of fluctuation foreign exchange rates in the repayment. MEF needs to take prudent consideration on the surcharge interest to JICA's preferential low interest taking into account of the repayment capacity of PAS.

PAS's stocks are listed, however, 85% 0f the stocks is seems to be held by the government. This means that PAS cannot expect to raise funds from the market. Consequently, PAS needs to boost the value of stocks and sell them in the market for increasing fund raising capacity. In order to achieve this,

PAS needs to become a highly profitable entrepreneur by increasing the port productivity and gaining customers through investment in facilities.

PAS has to rely on low interest loans from agencies such as JICA for future development due to its current financial situation.

5.14.3 Systemization of port development strategy

A general method of the formulation of port development plan is to determine the scale of facility which is required to meet a shortage of facility against the forecast demand at a target year taking into account utmost use of existing facilities.

The most important aspect to be studied in the formulation of port development of Sihanoukville Port by using the above mentioned method is to estimate the maximum capacity of existing facility when the facilities are used efficiently. At first, the implementation of measures aiming at increase of capacity is required for achieving the maximum use of the existing facilities. It is important to improve service quality of the port including the increase of cargo handling productivity by implementing such measures as below:

- Items for the strengthening competitiveness of Sihanoukville port shown in Figure 4.3-1.
- Items listed in the “Targets” and “Methods” columns in “Service to be improved” of Table 4.3-1.

The increase of cargo handling volume is expected in corresponding with the economic development of Cambodia. In addition, a new cargo handling demand is expected at Sihanoukville port as a result of the efficient use of existing facilities increasing the Port SEZ and industrial development around the port. It is required to develop new facilities to cover the capacity shortage when the estimated future cargo handling volume exceed the capacity of port expected after the implementation of measures for the increase of cargo handling capacity.

For the formulation of port development plan to meet with the shortage of facilities, it is necessary to perform appropriate management of water and land area of PAS, the formulation of appropriate financial and funding plan, the consideration on social and environmental conditions and cooperation with private sector.

It is also necessary to keep in mind the port development plan formulating procedure proposed by JICA’s PENPPAS project in 2011 for the formulation of port master plan. This procedure is not authorized yet by the government. This procedure required the formulation of “National Port Master Plan” by MPWT and subsequently “Port Master Plan” at each port. It is a matter of course that the above mentioned plans are in conformity with “National Strategic Development Plan” which is a basis of national development of Cambodia.

The system described above is illustrated in Figure 5.14-1.

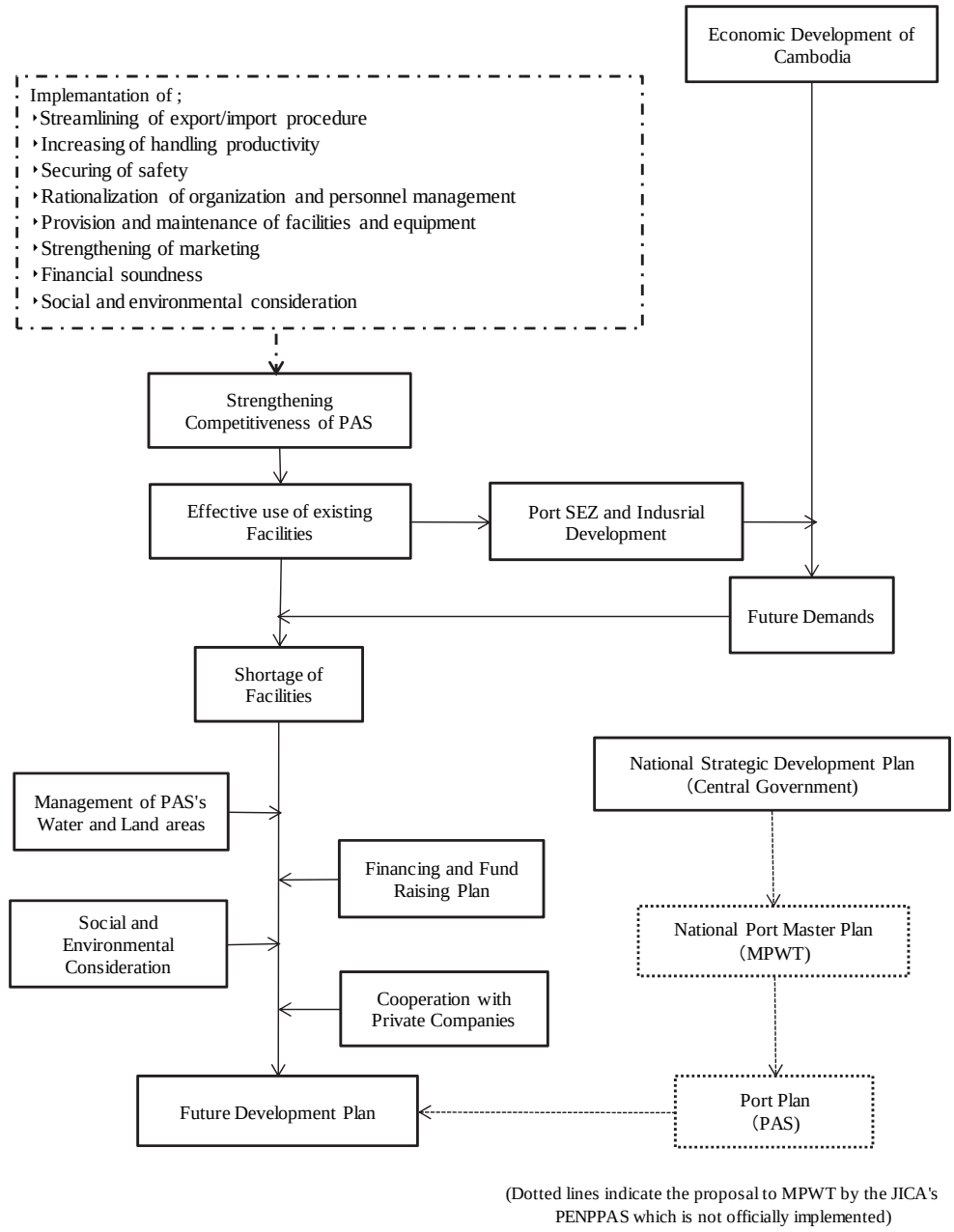


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Figure 5.14-1 System of port development strategy

6. CONCLUSION AND RECOMMENDATIONS

6.1. Conclusion

6.1.1 Mission and vision of Sihanoukville Port

1) Mission

The mission of Sihanoukville Port is set as below;

- To accelerate the economic development of Cambodia by providing bases for maritime transport and internationally competitive coastal industries

2) Vision

The vision of Sihanoukville Port is set as below;

- To become an international trade public sea port which connects Cambodia with overseas ports directly
- To provide an area or base for internationally competitive coastal industries such as export processing, agricultural products processing, marine resource development and tourism development
- To become an internationally competitive port which meets customer's expectation

6.1.2 Comparative advantage of Sihanoukville Port

The followings are revealed by analyzing the differences in transport cost and transport time among several alternative transport routes through neighboring foreign ports.

In terms of the transport cost;

- It would be difficult to lower the transportation cost through Sihanoukville Port by utilizing railway.
- Due to high land transportation cost, Laem Chabang Port is not competitive in container transportation to/from Phnom Penh for all trade lanes.
- For export to East Asia, the combination of cross-border road transport and Vietnamese ports is less competitive than Cambodian ports due to higher land transportation cost. The cost for Sihanoukville Port and Phnom Penh is almost the same.
- For import from East Asia, Phnom Penh Port provides slightly the most economical route.
- The difference of cost between Cambodian ports and the cross-border route which uses Vietnamese ports is smaller than that in export market compared to import
- For export and import to/from USA, Phnom Penh Port also provides slightly the most economical route.
- For export to EU, the costs for Sihanoukville Port and for Phnom Penh Port are almost the same. For import, Phnom Penh Port is slightly more competitive.

In terms of the transport time;

- The determinant of total transit time is duration of maritime transport. Duration of inland transportation or dwell time in ports has less influence on the total transit time.
- As for the transportation to/from East Asia, the cross-border route via Ho Chi Minh Port requires the shortest transit time, followed by road route via Sihanoukville Port. Waterborne transport via Phnom Penh Port and railway transport via Sihanoukville Port require longer transit time.

- Regarding export to the Americas or EU, the cross-border route via Cai Mep Thi Vai Port and road route via Sihanoukville Port require shorter transit time, whereas waterborne transport via Phnom Penh Port and railway transport via Sihanoukville Port require longer transit time.

6.1.3 Role sharing of Sihanoukville Port

In accordance with the results of a computer model analysis which determines the most suitable transport routes from/to Phnom Penh area to/from destinations/origins taking into account of the transport cost, transport time and other conditions, the characteristics of Sihanoukville Port and Phnom Penh Port are analyzed as shown in Table 6.1-1.

Table 6.1-1 Characteristics of Sihanoukville Port and Phnom Penh Port

	Sihanoukville Port	Phnom Penh Port
Containers	➢ Transport to/from the West coast of the USA ➢ Transport to/from Europe ➢ Direct links between the East Asian countries	➢ Transport to/from the West coast of the USA ➢ Regional transport between Viet Nam ➢ Links between the East Asian countries
Break Bulk Carriers	➢ Capable of accommodating large size bulk carriers	➢ Regional transport between Viet Nam
Cruise Ships	➢ Large ocean-going cruise ship routes	➢ River cruise ship routes

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Sihanoukville Port has an advantage over other ports in transporting goods between the West coast of the USA and between Europe and has an advantage in transport between the East Asian countries with its direct links. As the result, Sihanoukville Port will become a base port providing economical transport routes. This will be of great benefit to Cambodia

Sihanoukville Port as an export base for large size ships is expected to handle a large volume of bulk cargo such as wood chip export and rice export which is expected to increase under the national export strategy of Cambodia.

Sihanoukville Port is also expected to serve as a base for the tourism industry by making use of the rich marine tourism resources spread around Preh Sihanouk.

6.1.4 Pilot project for the alleviation of traffic congestion

In order to alleviate the traffic congestion around the Port, an early gate opening pilot project which aims to open the gate from 4:00 AM compared to the normal gate opening time of 7:00 AM was conducted on Saturdays when the traffic congestion is normally heavy. As a result, trucks started to enter the gate from around 6:30 AM compared to the previous gate entry time of about 8:00 AM. This pilot project results in alleviating the traffic congestion around the terminal in some degree.

However, trucks still need to wait for arrival of necessary document and processing before the gate entry. The effect of the early gate entry is still limited. It is necessary to obtain further cooperation for the early gate entry of relevant organizations such customs and Camcontrol and to expect prompt gate entry initiative to realize the expected results.

6.1.5 Strategic targets, critical success factors and action plans

Table 6.1-2 summarizes strategic targets, critical success factors and action plans which aim at improving and innovating such things as organization, business and finance, and operations needed for strengthening the competitiveness of Sihanoukville Port and formulating port master plan to cope with future development. The strategic targets, the critical success factors and the action plans are summarized from the view points of Learning and Growth, Business Process, Customers, Finance and

Nation based on a SWOT analysis and a Cross Matrix analysis which is derived from the SWOT analysis.

Table 6.1-2 Strategic Targets, Critical Success Factors and Action Plans

	Strategic Target		Critical Success Factor		Action Plan	
Learning and Growth	1	Strengthening of growth of organizational development	1	Outstanding human resource capacity of development strategy and implementation	1	Development of human resource for achieving excellent ability of information collection and analyzing
					2	Continuous use and improvement of strategic tools for the organizational growth such as port statistic system
					3	Fostering of ability of taking account of customers' requirement and solution proposing for the requirement
					4	Strengthening of ability of coordination and intermediation among relevant organizations for satisfying customers' requirement
					5	Strategic execution of port business promotion
	2	Systematic increase of port handling capacity based on demands	2	Steady implementation of port development	6	Enhancement of the capability for port planning and revision
					7	Appropriate management of free water area and preventing the spread of illegal occupation
					8	Sound cooperation with private entrepreneurs
					9	Formulation and revision of port planning including rearrangement of existing port area
					10	Common recognition among relevant persons concerning the direction of port development
Business Process	3	Efficiency increase of container handling operation by PAS	3	Appropriate management of container terminal	11	Clear indication of CY area and strict CY entry control
					12	Relocation of buildings for port related organizations outside of the terminal area
					13	Observance of traffic rules in CY
					14	Separation of container inspection area from the terminal area
			4	Effective use of cargo handling equipment and system	15	Increase of the use of gantry cranes
					16	Improvement of RTG operation
					17	Strengthening of the maintenance of handling equipment
					18	Reallocation of CY slots in accordance with the demand
					19	Restructuring of the organizations related to the container operation
					20	Vocational training of CY planner and ship lanner
					21	Acceleration of early entry practice of containers to the container terminal
					22	Complete implementation of loading/unloading works by PAS's staff

	4	Emphasizing on business development and planning capability	5	Establishment of business development and planning organization and prioritized assignment of human resource	23	Strengthening of cooperation between work-site and business development departments
					24	Securing of work-site staff and staff for strategic planning by the appropriate staff treatment in regulation and practice
					25	Promotion of young capable staff to important posts
			6	Effective port business promotion activities	26	Implementation of port promotion based on the growth strategy
					27	Upgrading of mass media tools
					28	Effective use of mass media
Customers	5	Increase of shippers' satisfaction	7	Reduction of the total transport cost	29	Realization of ocean freight reduction
					30	Prohibition of the collection unofficial charges under close cooperation with relevant organizations
					31	Reduction of gate entry waiting time and dwelling time of trucks in the terminal
					32	Coordination with relevant organizations in respect of the lightening of burden in container inspection
					33	Reduction of container handling charges
			8	Enhancement of service quality	34	Strengthening of port business promotion aiming at achieving diversification of navigation routes and high frequency ship calls
					35	Gradual extension of gate opening time aiming at performing 24 hour gate opening operation in the future
					36	Materialization of effective railway access service and strict monitoring and instructing to railway operating company about service quality
					37	Provision of advanced and low price logistic services to companies established in the Port SEZ
					38	Flexible application of container receiving cut-off time in paying attention to shippers and close communications with shippers
					39	Implementation of container cargo reconsolidation practice near the port in close cooperation with private companies
	6	Increase of shipping companies' satisfaction	9	Reduction of the total transport cost	40	Reduction of ship related charges at the port
					41	Reduction of container handling operation time
			10	Enhancement of service quality	42	Deepening of quaywalls and deepening and widening of channels
					43	Releasing burden of shipping companies by the steady conduct of PAS's container operation works
					44	Enhancement of transparency and rationality of port related charges
					45	Strengthening of tug boat fleet

					46	Drastic increase of bulk cargo handling operation productivity
					47	Reduction of clerical burden of PAS's staff by the introduction of EDI
					48	Introduction of container receiving cut-off time with the understanding of shippers
					49	Complete execution of container damage checks
					50	Strengthening of the port security
					51	Strengthening of the ship navigation safety
	7	Increase of cruise ship companies' satisfaction	11	Increase of satisfaction of cruising tourist	52	Development of a cruise terminal
					53	Preservation and improvement of the port environment
					54	Streamlining of the traffic around the port
Finance	8	Maintaining and increasing profits	12	Retention and gaining of customers	55	Strengthening of the port business promotion activity
					56	Improvement of the quality of port service
					57	Aggressive involvement in the promotion of coastal industry development
			13	Effective use of asset	58	Improvement of the port operation efficiency including the effective use of equipment
					59	Land use based on a long-term perspective
					60	Monitoring of business performance of entrepreneurs which have long and exclusive contracts with PAS and renew of the contracts if necessary
					61	Introduction of incentive measures to port users which may contribute for peak shaving of demands
					62	Entrusting operation of the Phnom Penh Dry Port to private companies
					63	Prioritize allocation of PAS resources to large ship operation while traditional small coastal shipping business is entrusted to provincial ports
					64	Conversion of existing port facilities to cope with the new demands
					65	Precautious preservation of the port facilities
			14	Reduction of the operation cost	66	Increase of productivity by the establishment of basic work discipline and staff education
					67	Systematic reduction of PAS's staff number
	9	Decrease of financial risks	15	Strengthening of the risk management	68	Continuous implementation of the risk management of the organization
					69	Reduction of the investment risk by synchronizing the investment with the national port development plan
					70	Strict adherence to work safety measures
			16	Enhancement of	71	Listing of PAS's stocks

					72	Promotion of information disclosure
			17	Temporary decrease of interest rate of long-term loans from MEF	73	Decrease of interest rate of MEF loans to reduce repayment burden during a period of yen appreciation
National	10	Reduction of international transport cost of Cambodia	18	Reduction of ocean freight rates	74	Making use of the scale of economy resulting from the increase of handling volume
					75	Reduction of port related charges
					76	Strengthening of port business promotion for achieving diversification of shipping routes
	11	Promotion of coastal industrial zone	19	Promotion and enlargement of SEZs	77	Promotion of business establishment at the Port SEZ from long-term perspective
					78	Expansion of the Port SEZ
					79	Streamlining of cargo movement from/to coastal SEZs
	12	Contribution to the realization of national strategic target in various fields	20	Effective treatment of strategically important goods	80	Preferential handling treatment of cargo which contributes to the industrial diversification
					81	Increasing of rice export productivity taking into account appropriate use of space in the port
					82	Strengthening of port function as a supply base for off shore resource development

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Recommendations developed by summarizing the above actions are given in 6.3 of this Chapter.

6.1.6 Improvement and innovation of Sihanoukville Port

1) Organization

A streamlined organization and rationalized management are indispensable for strengthening the competitiveness of Sihanoukville Port. A summary of the streamlining of the organization, human resources development and rationalization of the management is provided below;

(1) Administration and personnel sector

As a matter of course, it is important to enhance working knowledge of personnel. The organization should be such that good teamwork and mutual communication are maintained among personnel. Concrete proposal of organization development is shown below;

- Strategy planning department ; to develop business management plans of annual, middle term (3 years) and long term (5 years) which include estimates of cargo volume, profit, number of staff, investment and cash flow.
- Business management information system department ; to collect and manage data of customers, stevedoring works, personnel and finance.
- Business development department ; to conduct servicing works in connection with port activities such as transport, stowage and tourism.
- Marketing department ; to deal with material for public relations, statistics and customers' attitude and to hold seminars for overseas customers and to conduct port promotion works.
- Personnel and training officer ; to sustain mutual communication and to formulate and conduct personnel assignment and training plans.

- Committee for efficiency enhancement ; to increase efficiency of PAS with the participation of all staff.

(2) Cargo handling operations sector

Organizations relevant to cargo handling operations are the container terminal operation department, the general cargo operation department, the technical-materials department, the machinery department and the security office under the administration-human resource department. Currently, container handling operation and general cargo handling operation are conducted individually by utilizing their own equipment and labor and there is no cooperation in the handling operations.

In order to increase cargo handling productivity, labor and well maintained equipment should be used commonly by the container terminal operation department and general cargo department. Functional reorganization is proposed as below;

- Container Terminal Department ; to formulate yard planning and ship planning and to conduct container handling operation by using labor and equipment to be provided by the maintenance and repair department
- General Cargo Handling Department ; to conduct general cargo handling operation by using labor and equipment to be provided by the maintenance and repair department
- Labor Management Department ; to centrally manage labor for general cargo handling operation and container handling operation
- Maintenance and Repair Department ; to maintain and repair equipment needed for handling of containers and general cargo together

For the reorganized department to function effectively, it is important to assign competent personnel under a fair system that includes awards and punishment.

2) Finance

PAS is burdened with high operation cost. It is also expected to pay dividends after listing of PAS's stocks. In addition, the principal repayment and interest payment of the foreign loans will increase according to the repayment scheme. In order to cope with this fact, the following improvement is required together with the efforts of increasing sales and decreasing operation costs.

Item	Measures
Interest Rates of Sub-loans	Recalling that ODA loans are provided to assist development projects of public infrastructure, which are not profitable but important for national economy. Taking into this account, interest rates of sub-loans from MEF to PAS shall be reduced to a level of ODA loans or nearby level.
Interest Rates in Grace Period	At least during the grace period, interest rates of MEF sub-loans shall be reduced to the level of those of ODA loans.
Payment of Interests during construction	MEF shall not collect interest during a period of construction due to the fact that the same amount as interest is financed by ODA loan and recipient is released form payment of interest during construction.

6.1.7 Future development plan of Sihanoukville Port

1) Development concept of Sihanoukville Port

In order to cope with demand targeted at the year 2030, it is necessary to develop new port facilities even after competitiveness of Sihanoukville Port is strengthened. Shihanoulville Port shall be developed as a waterborne transport base as well as a base not only for industry development but also

for tourism development in order to accomplish its mission, namely, to be an impetus for the economic development of Cambodia. Sihanoukville Port shall be developed in the future under the concept mentioned above.

Currently, the calm water area created by surrounding breakwaters at Sihanoukville Port is not utilized sufficiently. The future port development shall be realized on this water area and nearby land area. Implementation of the following is a prerequisite of the future development;

- To clarify the port premise
- To separate general traffic and port traffic
- To develop roads for coastal industrial area
- To develop port access
- To conduct social and environmental consideration
- To review the demand forecast in the year 2020

2) Capacity of existing facilities and additional installations of container handling equipment

The capacity of existing container terminal and required additional installations for increasing capacity is shown in Figure 6.1-1.

The existing facility has a container handling capacity of about 360 thousand TEUs. By the year 2017 when container handling volume is expected to exceed the existing capacity, additional one quay gantry crane (QGC) and 2 rubber mounted transfer cranes (RTGs) will be needed. And by the year 2021 when container handling volume is expected to exceed 450 thousand TEUs, additional one QGC and 2 GTRs will be needed to cope with the demand after the year 2017. After the year 2023, a new container terminal will be needed to handle containers which will overflow from the existing container terminal.

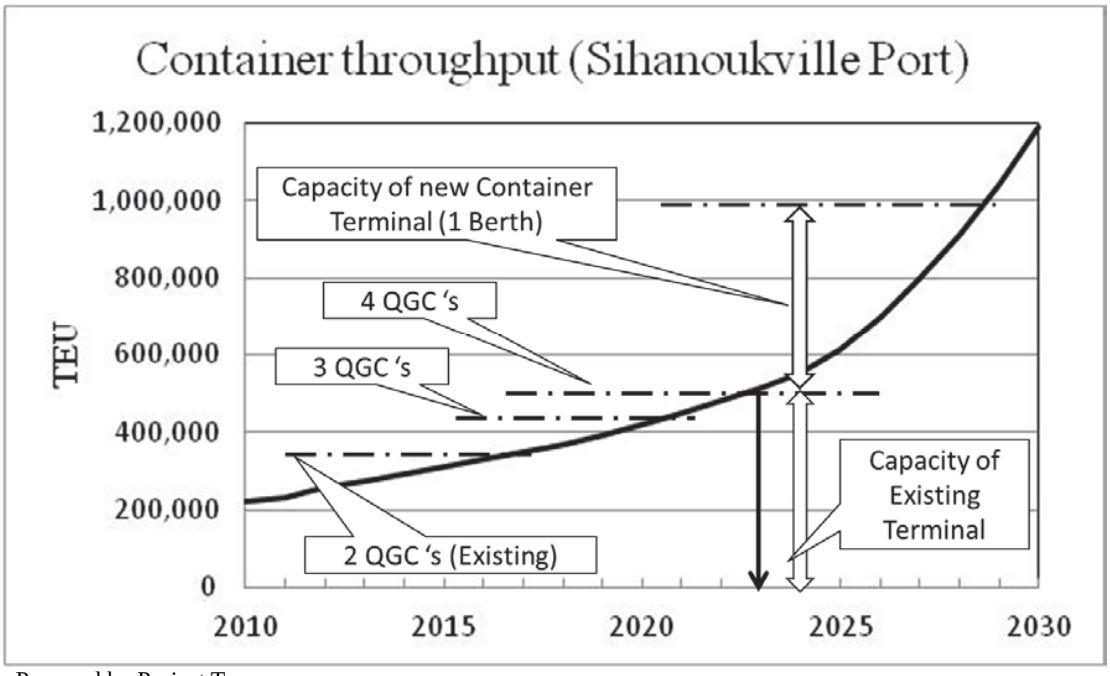

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Figure 6.1-1 Capacity of existing facilities and additional installations of container handling equipment

3) Demand forecast

Number of import and export containers has been increasing during the last decade in the wake of the economic development of Cambodia. Demand forecast is made based on the relations between GDP and import/export cargo in the past decade and the cargo handling share of Sihanoukville in comparison with that of Phnom Penh Port taking into account transport cost and transport time required for import/export from/to major origins/destinations. In addition to conventional container cargoes, rice export containers are expected to increase due to the government's rice export promotion initiative. Import of coal and export of wood ship are also considered in the demand forecast.

Results of the cargo demand forecast and facilities needed for handling the demands are shown in Table 6.1-3.

Table 6.1-3 Cargo demand forecast and required new facilities

Commodity	Unit	2030 Forecast	Container Terminal	New Quay	Multi-Purpose	Required Capacity	Required Facilities
Container	TEU	1,190,000	492,400			**697,600**	New Container
Vehicle	t	194,000				**194,000**	Terminal (2 Berth)
Wood Chip	t	1,921,000			1,921,000	0	
Wheat	t	255,200			255,200	0	
Steam Coal	t	240,000		240,000		0	
Sugar	t	10,000			10,000	0	
Milled Rice	t	933,000				**933,000**	New General Cargo
Other	t	571,000		130,000	285,500	**155,500**	berths (2 berths)
Cruise Ship							

4) Port master plan

The port master is formulated basically to locate port facilities needed to handle future demand adjacent to an export processing zone and/or an agricultural product processing zone which are expected to support the economic development of Cambodia as shown in Figure 6.1-2. By locating such processing zones adjacent to the port, the port will be able to handle cargoes originating from the processing zones. As a result competitiveness of Sihanoukville Port is expected to increase. Implementation of this concept will contribute to the economic development of Cambodia.

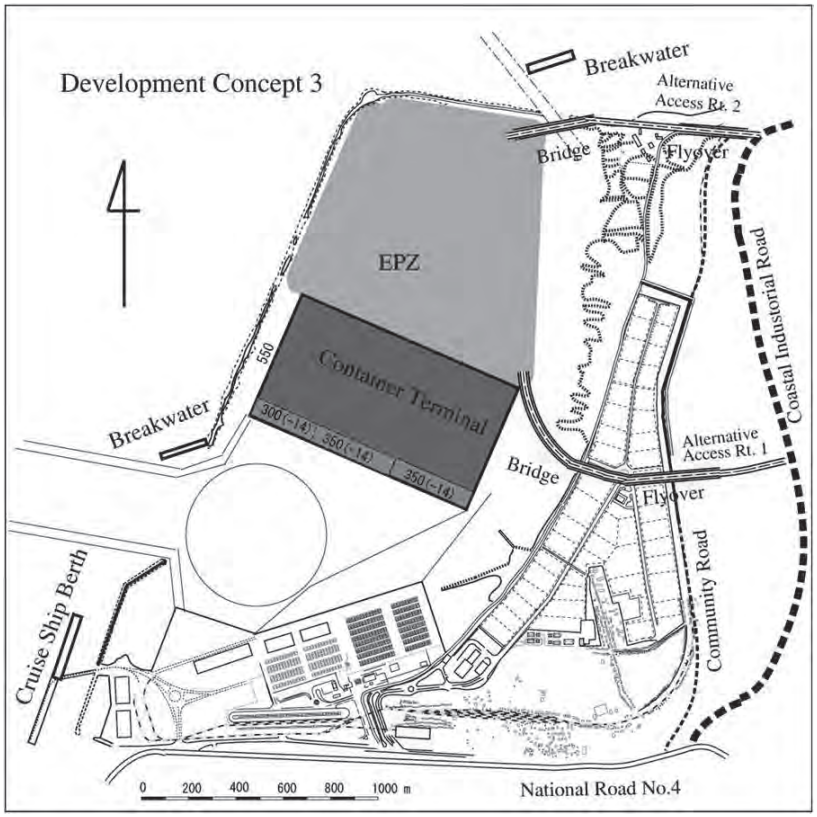

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Figure 6.1-2 Port Development Concept

There are many illegal settlers on the water area surrounded by the breakwaters and nearby land area at Sihanoukville Port. The following consideration shall be made against such settlers. At the same time, PAS should request the responsible organizations to develop social infrastructure such as water supply and sewage systems at the dwelling area.

- To minimize involuntary relocation of settlers
- To minimize adverse effect on the livelihood of settlers
- To minimize separation of communities
- To minimize adverse effect on social infrastructure of settlers
- To minimize contamination of water quality

A port master plan which takes into account the above mentioned concept is shown in Figure 6.1-3.

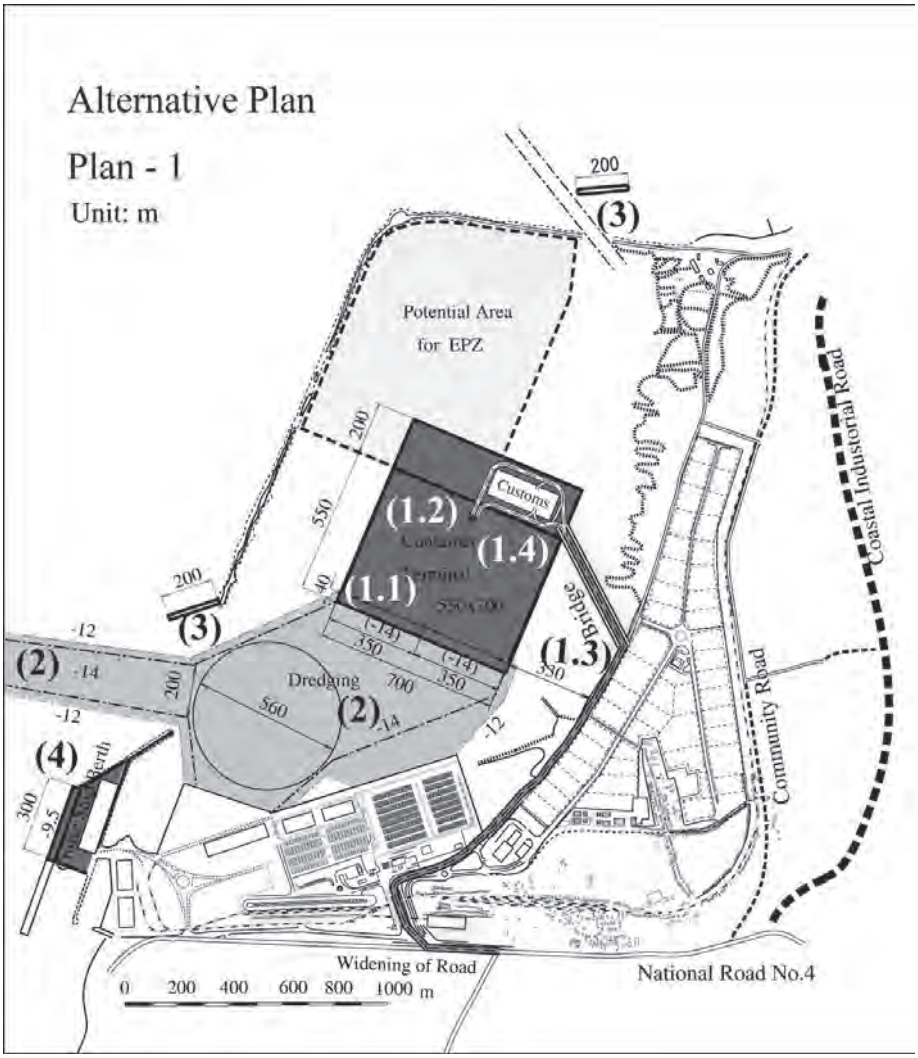

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Figure 6.1-3 Port Master Plan

Two number of a 350m long and 14m deep container berth are required to meet the forecast demand by the year 2030. The opening of breakwater at the north side is required to separate a ship navigation route used by small ships owned by dwellers near the coast in the port water area from the main navigation channel in securing safe ship navigations. The access to the container terminal shall be constructed to allow dwellers' small ships to pass under the access.

The major necessary equipment is 4 QGCs, 18 RTGs, 6 top lifters and 26 sets of tractors and chassiz.

In addition to the above, a cruise ship cum general cargo ship terminal is required to develop out of the south breakwater.

Deterioration of the water quality in the port area is anticipated due to the decrease of the water area by the development of the container terminal of the master plan. In order to alleviate the water contamination, it is required to purify wastewater discharged from houses of the dwellers in the port area. PAS needs strongly to make representation to the local authorities concerned to take necessary actions for the provisions of the wastewater purification systems.

5) Social and environmental considerations

The port environment improvement plan is formulated based on the baseline survey on natural environment such as ecosystem, air quality, water quality, noise and sediment quality.

In respect of the air pollution, dust prevention fences shall be installed as the coal handling terminal. In respect of water quality, the discharge of bilge water from tug boats shall be prohibited and the spilled oil shall be recovered and treated. The monitoring of the quality of treated waste water from the Port SEZ shall be conducted by the establishment of an environmental management department.

The IEE identified the various adverse impacts that may occur through this project. Table 6.1-4 shows the impact factors that require detailed assessment in the EIA (i.e. impact factors that had a negative score in the IEE).

Table 6.1-4 Impact factors that require detailed assessment in the EIA

Natural environment	Pollution	Social environment
Flora, fauna and biodiversity	Air pollution, water pollution, waste, noise/vibration, offensive odor and bottom sediment	Local economy such as employment and livelihood, etc., Land use and utilization of local resources, Existing social infrastructures and services, Misdistribution of benefit and damage, Water usage or water rights and communal rights, Sanitation, Hazards (risk), infectious diseases such as HIV/AIDS Accidents and Landscape

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6) Economic and financial analysis

Economic and financial analysis is conducted to evaluate the viability of the port master. The economic internal rate of return (EIRR) of the container terminal development project is estimated at 9.19%. The financial internal rate of return (FIRR) is estimated at 4.27% in case when PAS invests in infrastructure and necessary equipment and 7.42% in case when PAS invests only in infrastructure and private operators invest in equipment and operate. Hence the project is evaluated to be viable.

7) Business operation scheme

Possible options for the development of new container terminal are as follows:

a) PAS develops all infrastructure and superstructure, and operates container terminal;

b) PAS develops all infrastructure and large scale superstructure, and a private terminal operator prepares cargo handling equipment and operates container terminal;

c) PAS carries out land reclamation and dredging work, and a private investor/terminal operator constructs container wharf and yard, installs quay gantry cranes and RTGs, prepares cargo handling equipment, and operates container terminal ;

d) PAS and private investor(s) establish a joint stock company and the company implements container terminal development including land reclamation, and operate the terminal. PAS carries out channel dredging and access road development as a landlord port authority.

Decision on the method for development of new container terminal shall be made from the viewpoint of commercialization (privatization) of PAS, future increase of container cargo throughput, and government policy for port administration and management.

6.2. Programming of strategies

Action plans shown in Table 6.1-2 which will be needed for the accomplishment of the strategy for strengthening competitiveness of Sihanoukville Port are integrated into several programs as shown in Table 6.2-1. The projects include both software projects and hardware projects. Targets of the projects are indicated in the Table.

Table 6.2-1 Program for PAS's Competitiveness Strengthening

Program	Project		Target of Project	Soft/ Hard	Contents of Project
Operation Improvement	1	Streamlining of export/import procedure	Streamlining of export/import document processing	Soft	*Streamlining of export/import document processing *Streamlining of import container scanning
				Hard	*Introduction of EDI
	2	Increasing of handling productivity	Increasing of handling productivity	Soft	*Expansion of gate opening time *Introduction of incentive to early gate entry *Early preparation of yard planning *Skill-up of cargo handling equipment operators
				Hard	*Strengthening of cargo handling equipment *Installation of customs gate and parking lots *Proper use and maintenance of CTMS
	3	Securing of safety	Securing of safety in the port and navigating ships	Soft	*Exhaustive management of the terminal entry/exit
				Hard	*Preparation of navigational aids *Strengthening of tugs and harbor crafts
Business Improvement	4	Rationalization of organization and personnel management	Rationalization of organization, streamlining of personnel management and strengthening of personnel training	Soft	*Streamlining of the organization *Retrenchment of over supply personnel *personnel management with punishment and reward approach *Establishment of work disciplines *Vocational training
				Hard	*Introduction of IT to office work
	5	Provision and maintenance of facilities and equipment	Provision and strengthening of facilities and equipment, Effective use and management of facilities and equipment	Soft	*Training of maintenance engineers
				Hard	*Development of passenger ship facilities *Proper provision of cargo handling equipment *Installation and strengthening of cargo handling equipment

	6	Strengthening of marketing	Reduction of tariff, Strengthening of marketing, Introduction of privatization, Enrichment of shipping networks	Soft	*Demand generation of passenger, rice bulk and mineral resource development supply ships, *Enhancement of efficiency of port operation *Privatization of operations department *Passenger ship network *Increasing of calling ports *Generation and expansion of demands
				Hard	Non
	7	Financial soundness	Reduction of operation cost, financial soundness, diversification of funds raising	Soft	*Repayment of loans by the PAS's management effort *Reduction of MEF's additional interest on loans *Reduction of personnel expenditure *Listing of PAS's stocks *Raising of private funds *Raising of foreign funds
				Hard	*Reduction of electricity and fuel supply cost (Introduction of outside electricity) *Effective use of the assets
Infrastructure Improvement	8	Social and environmental consideration	Consideration on social and environmental aspects	Soft	*Consideration for natural environment around the port *Consideration for social environment around the port
				Hard	Non
	9	Establishment of port master plan and implementation	Establishment of port master plan, effective use of assets and development of coastal industrial zone, implementation of master plan	Soft	*Formulation of soft and hard plans targeted at 2020 and 2030 *Utilization of calm water area surrounded by breakwaters *Utilization of PAS's land area *Support of industrial development by utilizing the port and SEZs
				Hard	*Utilization of railway and cargo handling equipment *Implementation of the master plan

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A working group which is composed of staff of relevant departments and headed by a deputy chairman concerned shall be established for the implementation of each program.

6.3. Recommendations

Recommendations which need to be implemented by PAS and relevant organizations for the realization of the strengthening competitiveness and the future development of Sihanoukville Port are given in Table 6.3-1.

Table 6.3-1 Recommendations

Items		Recommendation on actions		
1	Strengthening of organization	1	Reorganization	To reorganize such functions as cargo handling operations, business development planning and marketing, and strengthen IT system of PAS. To streamline PAS's personnel.
		2	Personnel management	To perform appropriate personnel management by the enforcement of strict working discipline, personnel assignment under the-right-person-in-the-right-place policy and the fair personnel assignment through punishment-and-awards under the strong leadership of the management.
		3	Human resource development	To train personnel to enhance capacities of the information collection and analysis, business planning, marketing and operations.
2	Enhancement of cargo handling operation efficiency	4	Early gate entry practice	To simplify procedures before gate entry which is requested by such organizations as customs, Camcontrol, police and PAS. To allow gate entry only by checking seals on containers. To process necessary documents after gate entry. To set the cut-off time and provide incentives for early gate entry of trucks and to levy fines on trucks which arrive late. To prepare parking places for waiting trucks.
		5	Enhancement of handling productivity in the container yard	To separate clearly the container yard from other port area by fencing and control the gate entry traffic and container yard traffic appropriately. To enhance container handling operation productivity in the yard by the normal use of quay gantry cranes (QGCs) and rubber mounted transfer cranes (RTGs) and strengthening of equipment maintenance. To conduct cargo handling operations completely by PAS's personnel.
		6	Process of import container receiving	To control the yard traffic by making use of the provision of parking space in the port for trucks which wait for receiving import containers and scanning. To request relevant organizations to conduct sampling scanning and conduct import document processing. rapidly

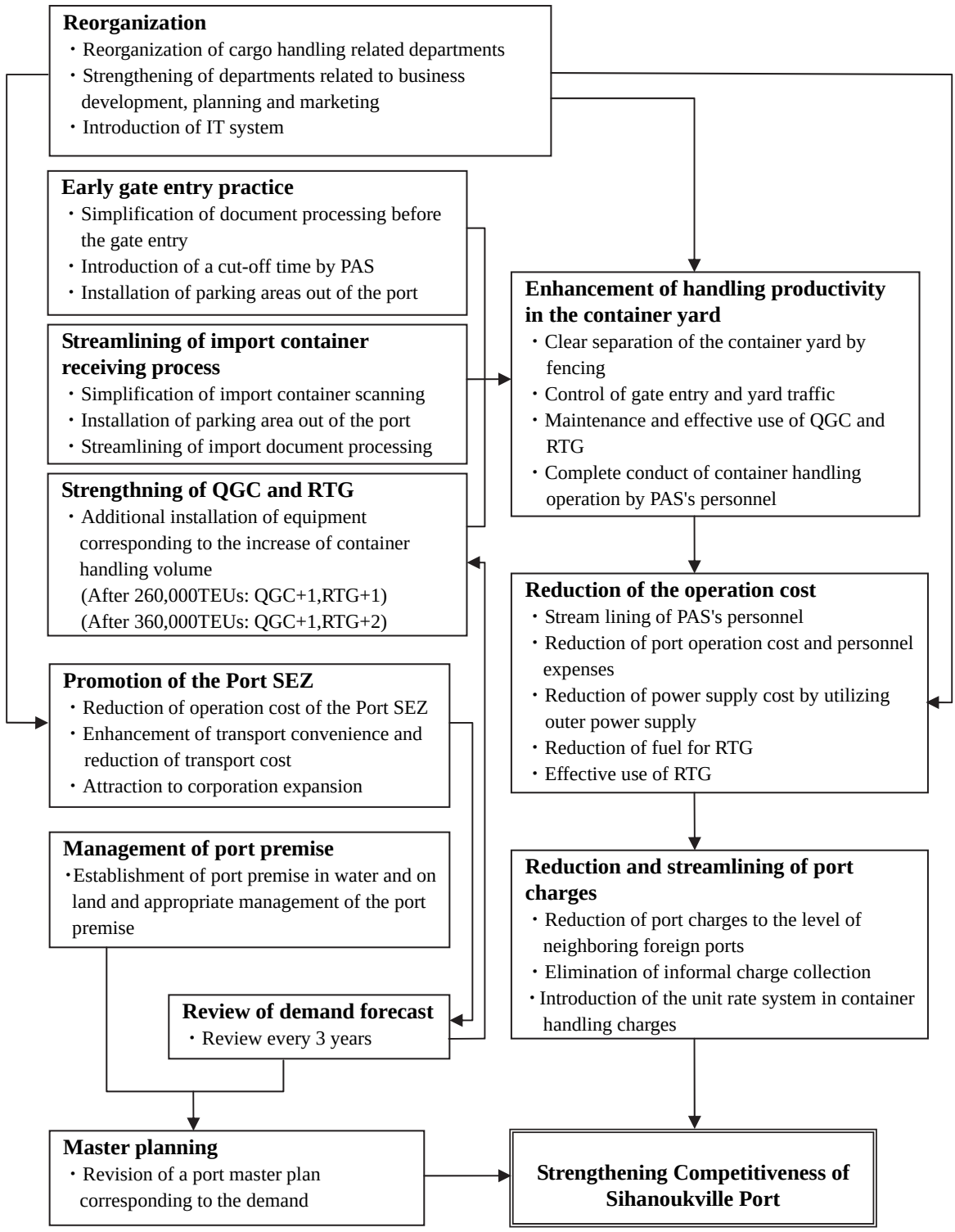
		7	Development and use of port access	To streamline road traffic by the provision of roadside expansion on the port access. To monitor and provide guidance on the railway transport service for the enhancement of the service quality.
3	Enhancement of customers satisfaction	8	Reduction and simplification of port charges	To strengthen competitiveness by the reduction of port charges and increase convenience to port uses by the introduction of a unit rate system. And to eliminate informal charge collections. To enhance the container handling productivity by accelerating the use of QGCs under the unit rate system.
		9	Strengthening of shipping routes	To enhance service quality in such ways as accelerating ocean freight reduction by making use of the reduction of the port charges, the provision of deep quaywalls and channels and increasing of the number of shipping routes and service frequency by shipping lines.
4	Reinforcement of facilities and equipment and their proper maintenance	10	Strengthening of the provision of QGC and RTG	To install additional RTGs and QGCs for the enhancement of container handling capacity taking into account of the trend of container transport demand and the effect of the operation of a new container terminal at Phnom Penh Port.
		11	Maintenance of QGCs and RTGs	To enhance container handling capacity by improving maintenance capability which will lead to a reduction in equipment malfunction.
5	Marketing	12	Demand generation	To increase cargo demand such as containers, rice, wood chip and coal by providing good services and marketing and accelerate realization of economies of scale.
		13	Port promotion	To increase the number of shipping routes and cargo demand by performing port promotion activities by increasing service quality and promotion capability together with the effective use of public relations and mass media and the dispatch of port promotion missions.
6	Safety and environment	14	Securing of port traffic safety	To secure the safety of road traffic by strict terminal access control with the complete separation of container yard from other port area by fencing and the preparation of parking space and roadside widening of the port access. To restrict use of general purpose trucks for container transport.
		15	Securing of the safety of entering/leaving ships	To secure the navigation safety of ships entering/exiting the port by the provision of navigational aids such as leading lights and buoys and the strengthening and proper maintenance of the fleet of port tug boats.

		16	Environmental improvement	To request that relevant organizations install sewage systems in the habitat area near the port in order to prevent water contamination in the port water area. To provide appropriate measures for environmental improvement in the port at the time of the implementation of the future port development plan.
7	Strengthening of financial soundness	17	Reduction of the operation cost	To reduce port operation cost by the streamlining of personnel, the reduction of personnel expenses, power supply cost by utilizing outer power supply and fuel for cargo handling equipment and the efficient port operations.
		18	Increase of profit	To increase profit by increasing revenue with the enhancement of cargo handling productivity and the strengthening of port promotion activities and the reduction of port operation cost.
		19	Effective use of the assets	To use PAS's land from a long term perspective together with monitoring of the land use situation and revising of land use contracts if necessary. And to enhance operation rate of equipment and convert existing port facilities to the facilities to be used for a new demand. To improve or entrust the operation of the Phnom Penh IDC to private companies.
		20	Fund raising	To increase PAS's stock value by the rationalization of the business management, the disclosure of information and the securing of transparency in the business management in order to secure stable fund raising from the private sector. To secure low interest ODA loans and revise the surplus interest rates on loans by the government in order to improve financial soundness of PAS.
		21	Risk management	To reduce risks of investment and exchange rates by enhancing risk management capacity of PAS.
8	Promotion of industrial development	22	Port SEZ	To contribute to the economic development of Cambodia through attractions of industries to the Port SEZ, expansion of the size of the Port SEZ, reduction of operation cost, increased convenience and the reduction of transport cost of the Port SEZ.
9	Formulation and implementation of the future port development	23	Management of the port premises	To prevent expansion of the illegal occupation area by setting the port area and proper management of the area through consultation with the current illegal settlers.

	plan	24	Social and environmental considerations	To obtain the consent of the stakeholders in the formulation and implementation of the future port development plan.And to implement necessary measures for environmental preservation in the port area and request relevant organizations to implement necessary measures for the environmental preservation needed beyond the port area at the time of or before the implementation of the future port development.
		25	Port master plan	To review the demand forecast prepared for the formulation of the port master plan properly and revise the implementation schedule and the master plan if necessary.

Prepared by Project Team

Figure 6-1 shows a road map which indicates the action flow of the important recommendation items in Table 6-1 for the strengthening competitiveness of Sihanoukville Port.



Prepared by Project Team

Figure 6-1 Road map of Important Recommendation

Appendices

Appendix-1

Scope of Works and Minutes of Meeting

実施細則（Scope of Works）

SCOPE OF WORK

FOR

THE PROJECT FOR THE STUDY ON STRENGTHENING COMPETITIVENESS AND DEVELOPMENT OF SIHANOUKVILLE PORT

IN

THE KINGDOM OF CAMBODIA

AGREED UPON BETWEEN

MINISTRY OF PUBLIC WORKS AND TRANSPORT,

SIHANOUKVILLE AUTONOMOUS PORT

AND

JAPAN INTERNATIONAL COOPERATION AGENCY

Phnom Penh, February 21, 2011

Yukihiro Koizumi
Leader of Detailed Planning Survey Team
Japan International Cooperation Agency
Japan

H.E. Tram Iv Tek
Minister
Ministry of Public Works and Transport
Royal Government of Cambodia

H.E. Lou Kim Chhun
Delegate of the Royal Government in Charge as Chairman & CEO
Sihanoukville Autonomous Port
Royal Government of Cambodia

I. INTRODUCTION

In response to the official request of the Royal Government of Cambodia (hereinafter referred to as "RGC"), the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programmes of the Government of Japan, in consultation with the Government of Japan, decided to conduct the technical cooperation for development planning on "The Project for the Study on Strengthening Competitiveness and Development of Sihanoukville Port" (hereinafter referred to as "the Project") in accordance with the relevant laws and regulations in force in Japan. Accordingly, JICA will jointly undertake the Project with the authorities concerned of RGC.

On the part of RGC, Ministry of Public Works and Transport (hereinafter referred to as "MPWT") and Sihanoukville Autonomous Port (hereinafter referred to as "PAS") shall act as the counterpart agencies to the Japanese Project team (hereinafter referred to as "the Team") and as the coordinating body in relation to the other concerned organizations for the smooth implementation of the Project.

This document sets forth the Scope of Work of the Project.

II. OBJECTIVES OF THE PROJECT

The objectives of the Project are;

1) to strengthen competitiveness of Sihanoukville Port
2) to develop the Master Plan of Sihanoukville Port.

III. STUDY AREA

The study area is mainly around Sihanoukville Port shown in APPENDIX 1. In addition, in order to conduct the demand forecast, the study area will entail the whole Cambodia and surrounding countries.

IV. SCOPE OF THE PROJECT

In order to achieve the objectives mentioned above, the Scope of Work for the Project shall cover the following items:

1 Analysis of the present status

1.1 Review of the past documents and the relevant studies

1.2 Analysis on the trend of socio-economic situation and trade environment
1.3 Survey on the port hinterland
  1.3.1 Analysis on the business and trade trend of the principal shippers
  1.3.2 Analysis on the status and development plan of SEZ
  1.3.3 Analysis on the status and development plan of the road and railway
1.4 Survey on the surrounding ports
  1.4.1 Analysis on the status and development plan of the private port(s)
  1.4.2 Analysis on the status and development plan of Phnom Penh Port
  1.4.3 Analysis on the status and development plan of Cai Mep - Thi Vai International Port
1.5 Survey on the existing transport industries and service providers including the shipping companies, forwarders and cargo handling companies
1.6 Analysis on the maritime trend including surrounding countries (trunk line/feeder line)
1.7 Analysis on competitiveness of Sihanoukville Port
  1.7.1 Analysis on the cost and time on the trade alternative routes
  1.7.2 Analysis on the transportation capacity for road, railway and river related to the trade alternative routes

2 Development of strategy to strengthen competitiveness of Sihavoukville Port
2.1 Development of the strategy on port service improvement
  2.1.1 Development of the basic principal on cargo inducement
  2.1.2 Analysis on the improvement plan of the cargo handling and the gate operation
  2.1.3 Analysis on the mitigation plan of the surrounding road congestion
  2.1.4 Analysis on the railway utilization plan
  2.1.5 Analysis on the linkage and the preferential treatment for SEZ
  2.1.6 Development of the improvement plan and the action plan for port procedures
  2.1.7 Development of the port sales strategy
2.2 Analysis on the port management and financial strategy
  2.2.1 Analysis on the financial condition of PAS
  2.2.2 Analysis on the port related cost and the gradual cost revision plan
  2.2.3 Analysis on the role sharing of the public and private for port operation
  2.2.4 Recommendation on the port management and financial strategy
2.3 Analysis on the organizational strategy
  2.3.1 Capacity assessment of PAS (organizational system, staffing and human resource)
  2.3.2 Recommendation on the organizational strategy

3 Development of the Master Plan for Sihanoukville Port
- 3.1 Consideration on the vision of Sihanoukville Port
- 3.2 Analysis on the socio-economic framework
- 3.3 Implementation of demand forecast on the cargoes and passengers
- 3.4 Analysis on the capacity of the present port facilities
- 3.5 Analysis on the necessity of improvement for the port facilities
- 3.6 Natural condition survey including topographic survey, geological survey and bathymetry
- 3.7 Social and environmental survey
- 3.8 Consideration on the impact for the residential area for fishermen around Sihanoukville Port
- 3.9 Study on the necessary port facilities
- 3.10 Implementation of Strategic Environmental Assessment (SEA)
- 3.11 Development of the Master Plan for Sihanoukville Port
- 3.12 Planning of the access road and railway
- 3.13 Analysis on port security
- 3.14 Planning of port environment improvement
- 3.15 Preliminary design and cost estimation
- 3.16 Economic and financial analysis
- 3.17 Analysis on the port operation scheme
- 3.18 Planning of the maintenance program on the port facilities and equipment

4 Conclusion and recommendations

V. SCHEDULE OF THE PROJECT

The Project is estimated for twelve (12) months in accordance with the tentative schedule as described below. The schedule is tentative and subject to be modified when both parties agree upon any necessity of the modification that will arise in the course of the Project.

TENTATIVE SCHEDULE

Month	1	2	3	4	5	6	7	8	9	10	11	12
Work in Cambodia	■	■	■	■	■	■	■	■	■	■	■	
Work in Japan	■											■
Reports	△ IC/R			△ PR/R				△ IT/R			△ DF/R	△ F/R

IC/R: Inception Report
PR/R: Progress Report

IT/R: Interim Report
DF/R: Draft Final Report
F/R: Final Report

VI. PROJECT IMPLEMENTATION MECHANISM

1. Steering Committee
MPWT will establish the Steering Committee to provide overall policy.

2. Collaboration between JICA Project Team and Counterpart Team of PAS
PAS will assign the counterpart personnel to work together with the Project Team.

3. Technical Committee
Technical Committee which consists of both PAS and the Team is to review the findings by the Project and provide comments for improvement of the Project from time to time. The comments and recommendations suggested by the Technical Committee shall be integrated into the Project.

VII. REPORTS

JICA shall prepare and submit the following reports in English to Cambodia.

1. Inception Report:
Thirty (30) copies, at the time of one month after commencement of the Project

2. Progress Report
Thirty (30) copies, at the time of about four (4) months after the commencement of the Project.

3. Interim Report:
Thirty (30) copies, at the time of about eight (8) months after the commencement of the Project.

4. Draft Final Report:
Forty (40) copies, at the time of about eleven (11) months after the commencement of the Project. The RGC shall provide JICA with its written comments within one (1) month after the receipt of the Draft Final Report.

5. Final Report:
Fifty (50) copies, within one (1) month after the receipt of the written comments on the Draft Final Report. In addition, the final report will be translated into Khmer language for ten (10) copies for a reference.

VIII. UNDERTAKINGS OF JICA

For the implementation of the Project, JICA shall take the following measures;

1. to dispatch, at its own expense, the Team to Cambodia and

2. to pursue technology transfer to the counterpart personnel in the course of the Project

IX. UNDERTAKINGS OF THE RGC

1. To facilitate the smooth conduct of the Project; the RGC shall take necessary measures:

(1) To permit the members of the Team to enter, leave and sojourn in Cambodia for the duration of their assignments therein and exempt them from foreign registration requirements and consular fees;
(2) To exempt the members of the Team from taxes, duties and any other charges on equipment, machinery and other material brought into Cambodia for the implementation of the Project;
(3) To exempt the members of the Team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Team for their services in connection with the implementation of the Project;
(4) To provide necessary facilities to the Team for the remittance as well as utilization of the funds introduced into Cambodia from Japan in connection with the implementation of the Project;
(5) To provide necessary arrangement to conduct the field survey to the surrounding countries such as Vietnam, if necessary.

2. RGC shall bear claims, if any arises, against the members of the Team resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the Project, except when such claims arise from gross negligence or willful misconduct on the part of the Team.

3. MPWT and PAS shall act as counterpart agencies to the Team and also as a coordinating body with other relevant organizations for the smooth implementation of the Project, on behalf of the Cambodian side.

4. MPWT and PAS shall, at its own expense, provide the Team with the following, in cooperation with other organizations concerned:

(1) Security-related information on as well as measures to ensure the safety of the Team;
(2) Information on as well as support in obtaining medical service;
(3) Available data (including maps and photographs) and information related to the Project;
(4) Counterpart personnel;
(5) Suitable office space with necessary equipment and facilities such as telephone line, internet, desks, etc. in PAS; and
(6) Credentials or identification cards.

5. MPWT and PAS would be required to comply with the JICA Guidelines for Environmental and Social Considerations (hereinafter referred to as "the JICA Guidelines"), and to take the JICA Guidelines fully into consideration

X. CONSULTATION

1. MPWT, PAS and JICA shall consult with each other in respect of any matter that may arise from or in connection with the Project.

2. The present document will become valid after authorization by JICA Headquarters and the RGC.

APPENDIX -1

Project area

協議議事録（Minutes of Meeting）

MINUTES OF MEETING

ON

SCOPE OF WORK

FOR

THE PROJECT FOR THE STUDY ON STRENGTHENING COMPETITIVENESS AND DEVELOPMENT OF SIHANOUKVILLE PORT

IN

THE KINGDOM OF CAMBODIA

AGREED UPON BETWEEN

MINISTRY OF PUBLIC WORKS AND TRANSPORT,

SIHANOUKVILLE AUTONOMOUS PORT

AND

JAPAN INTERNATIONAL COOPERATION AGENCY

Phnom Penh, February 21, 2011

Yukihiro Koizumi
Leader of Detailed Planning Survey Team
Japan International Cooperation Agency
Japan

H.E. Tram Iv Tek
Minister
Ministry of Public Works and Transport
Royal Government of Cambodia

H.E. Lou Kim Chhun
Delegate of the Royal Government in Charge as Chairman & CEO
Sihanoukville Autonomous Port
Royal Government of Cambodia

In Response to the official request of the Royal Government of Cambodia (hereinafter referred to as "RGC"), Japan International Cooperation Agency (hereinafter referred to as "JICA") , in consultation with the Government of Japan, dispatched the detailed planning survey team headed by Mr. Yukihiro Koizumi (hereinafter referred to as "the Team") from February 14 to March 12, 2011 to discuss the scope of work for "The Project for the Study on Strengthening Competitiveness and Development of Sihanoukville Port" (hereinafter referred to as "the Project").

During the stay in Cambodia, a series of discussions were held with Ministry of Public Works and Transport (hereinafter referred to as "MPWT"), Sihanoukville Autonomous Port (hereinafter referred to as "PAS") and other organizations related to the Project. The list of participants of the meetings is shown in Annex 1.

This document summarizes major items discussed between both sides and is intended to supplement the Scope of Work for smooth implementation of the Project.

1. Project Title

The original requested Project title was "The Study on Next Development of Sihanoukville Port". However, since the scope of work shall cover not only development but also strengthening of competitiveness of Sihanoukville Port, both sides agreed that the Project title is changed to "The Project for the Study on Strengthening Competitiveness and Development of Sihanoukville Port".

2. Target Year

The target year of the master plan will be the year of 2030, corresponding to the world maritime market and the development plan of the domestic port sector. In addition to the target year of 2030 as a long term development plan, the middle term target year is set as the year of 2020 for emergent and/or prioritized measures for port development.

3. Steering Committee and Technical Committee

3-1 MPWT will establish the Steering Committee to provide overall policy. The Steering Committee will be set up for effective and efficient implementation of the Project under the chair of MPWT. The Committee will decide on important matters to promote the output of the Project. The Committee will comprise representatives from the following related organizations.

(1) Ministry of Public Works and Transport
(2) Sihanoukville Autonomous Port
(3) Phnom Penh Autonomous Port
(4) Ministry of Economy and Finance
(5) Ministry of Commerce
(6) Council for the Development of Cambodia

(7) Preah Sihanouk Province
(8) JICA Project Team
(9) JICA Cambodia Office

MPWT shall inform JICA Cambodia Office of the members of the Committee before the commencement of the Project.

3-2 PAS will appoint the Technical Committee members and the focal person with the Team before the commencement of the Project.

4. Transfer of Technology

4-1 The Project team will make an effort to transfer skills and technology through On-the-Job Training to the staffs of PAS.

4-2 With regard to the counterpart training in Japan for technology transfer, the Team will convey its necessity to JICA headquarters. After approval of the request, the number of accepted personnel, field and duration of the training shall be discussed after the commencement of the Project. It was agreed tentatively that the number of the personnel shall be three (3) and duration shall be around two (2) weeks.

5. Counterpart

Both sides agreed that the Project should be conducted in close collaboration between the Cambodian side and the Japanese side. In this context, MPWT and PAS agreed to assign an appropriate number of counterpart personnel.

6. Information sharing among the related organizations and companies

Both sides confirmed that it was essential to consider the vision of Sihanoukville port through the information sharing with the major port users such as garment industries, rice industries and shipping companies.

7. Utilization of the Result of the Project

Both sides confirmed that the study result should be reflected on its port sector policy including the functional differentiation of Sihanoukville port and Phnom Penh Port.

8. JICA Guidelines for Environmental and Social Considerations

The Team explained the outline of the JICA Guidelines for Environmental and Social Considerations (hereinafter referred to as "the JICA Guidelines") and notified that the Project might be dealt with Category "A" in accordance with the JICA Guidelines. The Cambodian side agreed to take the JICA Guidelines fully into consideration to implement the Project.

9. Others

9-1 The Cambodian side requested the Team to prepare each report by Khmer to

promote understanding for the Cambodian side. The Team confirmed the necessity and will convey it to JICA headquarters.

9-2 Both sides confirmed that it was significant to coordinate with "The Project for Establishment of National Port Policy and Administration System", which would draft overall National Port Policy, in order to provide the distinctive role to Sihanoukville Port and Phnom Penh Port.

9-3 Both sides confirmed that it was necessary to review "The study on regional development of the Phnom Penh - Sihanoukville Growth Corridor", which was conducted in 2003, in order to investigate the achievement and issues, and to incorporate to the Project.

9-4 PAS pointed out the difficulties to utilize or modify the system of Container Terminal Management System (CTMS). The Team recognized them and will convey the necessity of technical assistance to JICA headquarters.

9-5 The Team notified RGC that they estimated to start discussions of the Inception Report in June, 2011, subject to JICA's internal procedures.

Annex-1

The List of Participants in the Meeting

CAMBODIAN SIDE

Ministry of Public Works and Transport

H.E. Tram Iv Tek
H.E. Leng Thun Yetheo
Mr. Chan Dara
Mr. Socung Sokong
Mr. Chhim Phalla

Sihanoukville Autonomous Port

H.E. Lou Kim Chhun
H.E. Ma Sunhout
Mr. Sem Kythay
Mr. Chea Yuthdika
Mr. Men Chann
Mr. Ty Sakun
Mr. Ouk Somethy
Mr. Souk Kolchenda
Mr. Srey Narin
Mr. Thay Mengly
Mr. May Marith

JAPANESE SIDE

The Detailed Planning Survey team, JICA

Mr. Yukihiro Koizumi, Leader
Mr. Tomohiro Kobayashi, Port Planning
Mr. Shinya Kawada, Environmental and Social Considerations
Mr. Hiroyuki Yokoi, Project Coordinator

JICA Cambodia Office

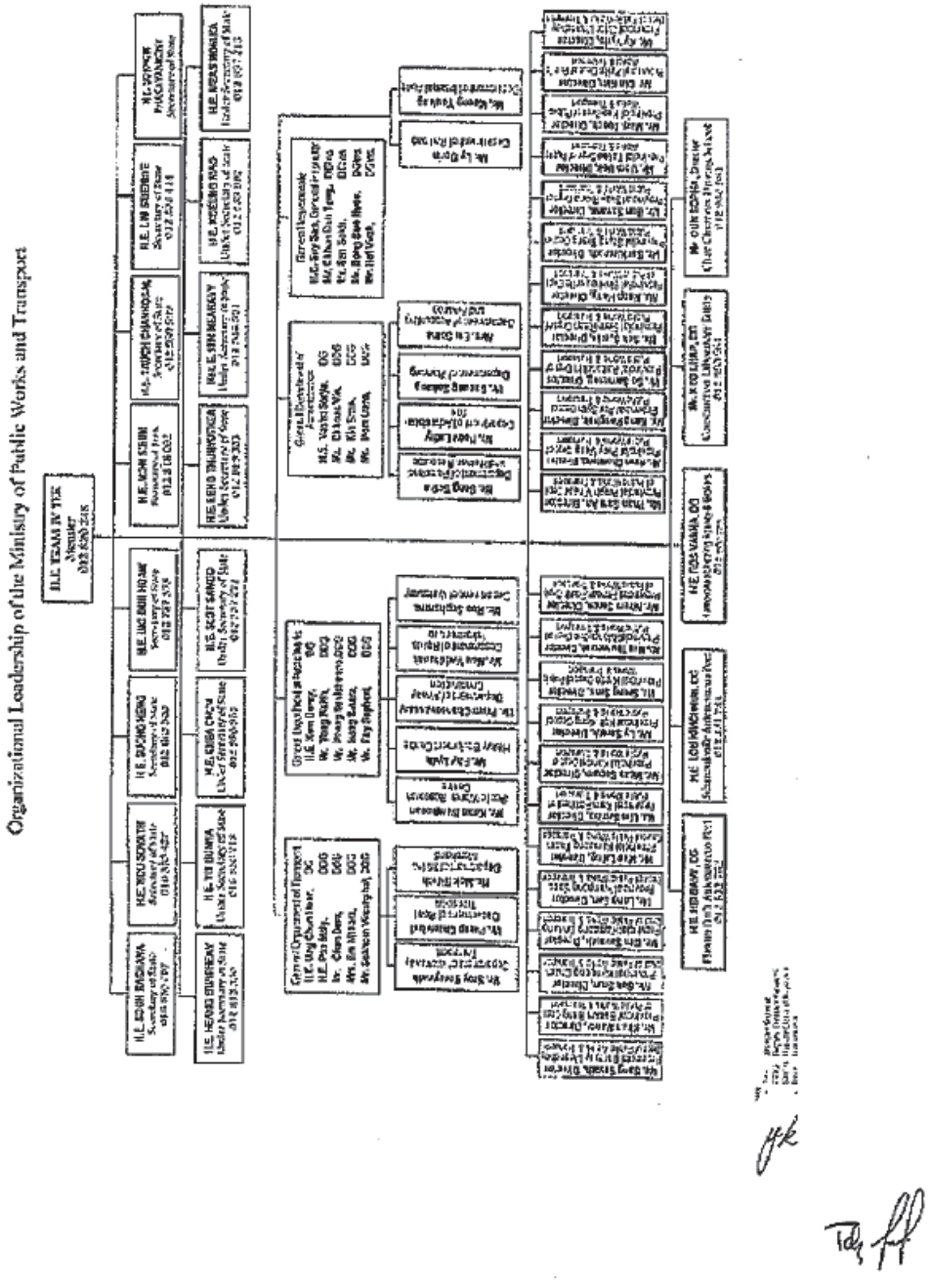
Mr. Yasujiro Suzuki, Chief Representative
Mr. Takanobu Shinodda, Representative

Japanese Expert

Mr. Atsushi Fujii, JICA Expert to MPWT
Mr. Kenji Sosa, JICA Expert to PAS
Mr. Hiroshi Hattori, JODC Expert to Port SEZ

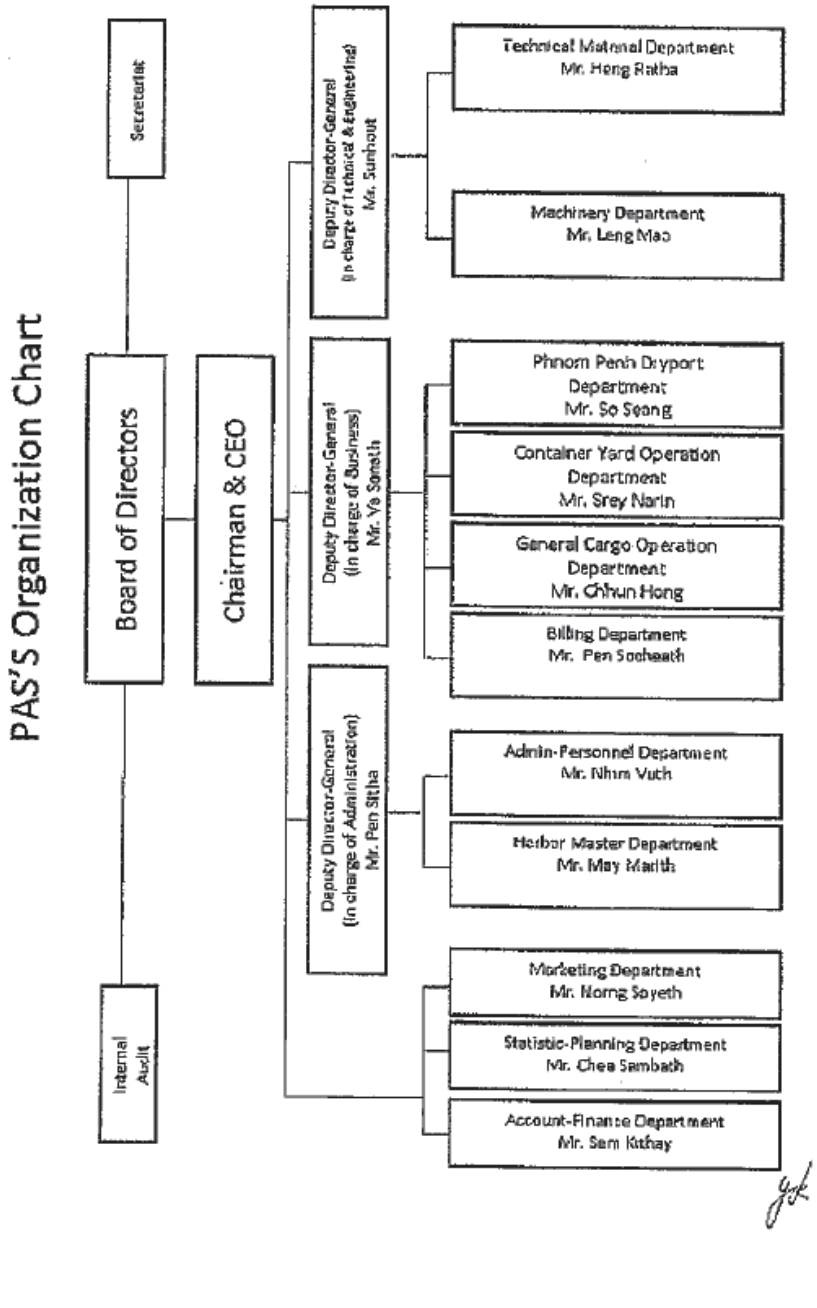
Organization Chart of MPWT

Annex-2



Organization Chart of PAS

Annex-3



Appendix-2

Record of Discussion of The Steering Committee Meeting

RECORD OF DISCUSSION OF THE FIRST STEERING COMMITTEE MEETING FOR THE PROJECT FOR THE STUDY ON STRENGTHENING COMPETITIVENESS AND DEVELOPMENT OF SIHANOUKVILLE PORT IN THE KINGDOM OF CAMBODIA

I. INTRODUCTION

The First Steering Committee Meeting was held on August 9, 2011, at the Ministry of Public Works and Transport in Phnom Penh. The meeting was chaired by H.E. Tram Iv Tek, Minister of Public Works and Transport.

The objective of the meeting was to discuss and approve the Inception Report for the Project for the Study on Strengthening Competitiveness and Development of Sihanoukville Port submitted to the Committee by the JICA Project Team.

The list of participants is attached to this record of discussion.

In the opening remark, H.E. Tram Iv Tek appreciated the implementation of the Study Project and emphasized the importance of strengthening the competitiveness of ports in Cambodia.

Then, Mr. Yasujiro Suzuki, the Chief Representative of JICA Cambodia Office, in his remark, stressed the importance of improving efficiency and capacity of Sihanoukville Port and requested the strong commitment of MPWT and PAS toward the achievement of this goal.

Following the speeches, Dr. Tadahiko Yagyu and Mr. Takashi Kadono of the JICA Study Team made a presentation on the contents of the report.

II. CONCLUSIONS

1. The Inception Report was endorsed by the Committee.

2. The Committee decided to invite a representative from the General Department of Customs and Excise of Cambodia as a member of the Committee.

3. The Committee requested the Project Team to implement the Project duly taking into consideration the comments made in the meeting.

4. The major comments are as follows:
   - PAS is ready to reform itself in collaboration with the Project Team in order to strengthen the competitiveness of Sihanoukville Port.
   - "Cooperative competition" is an important concept. Sihanoukville Port and Phnom Penh Port shall complement each other through fair competition.

- The Project is expected to deliberate the port strategy which can be referred in the formulation of the next basic strategy of the country. For example, the idea in which the whole area of a province is defined as a Special Economic Zone shall be examined in the formulation of the port strategy.
- Considering the listing of PAS's stock, the improvement of transparency of PAS is required.
- Security shall also be studied in the Project.
- Efficiency improvement and cost reduction of port access are important issues to be examined in the Project.
- Ideas of stakeholders such as Cambodia Investment Board shall be reflected in the port strategy.
- Precedent studies such as "The Study on National Integrated Strategy of Coastal Area and Master Plan of Sihanoukville for Sustainable Development (JICA, 2010)" and the study on waterborne transport on Mekong River carried out by MRC shall be reviewed and utilized in the Project.

Phnom Penh, August 16 , 2011

H.E Tram Iv Tek
Minister
Ministry of Public Works and Transport

2

RECORD OF DISCUSSION OF THE SECOND STEERING COMMITTEE MEETING FOR THE PROJECT FOR THE STUDY ON STRENGTHENING COMPETITIVENESS AND DEVELOPMENT OF SIHANOUKVILLE PORT IN THE KINGDOM OF CAMBODIA

I. INTRODUCTION

The Second Steering Committee Meeting was held on November 16, 2011, at the Ministry of Public Works and Transport in Phnom Penh. The meeting was chaired by H.E. Tram Iv Tek, Minister of Public Works and Transport.

The objective of the meeting was to discuss and approve the Progress Report for the Project for the Study on Strengthening Competitiveness and Development of Sihanoukville Port submitted to the Committee by the JICA Project Team.

The list of participants is attached to this record of discussion.

In the opening remark, H.E. Tram Iv Tek appreciated the implementation of the Study Project and emphasized the importance of strengthening the competitiveness of ports in Cambodia.

Then, Mr. Yasujiro Suzuki, the Chief Representative of JICA Cambodia Office, in his remark, stressed the importance of improving efficiency and capacity of Sihanoukville Port and requested the strong commitment of MPWT and PAS toward the achievement of this goal.

The Project Team submitted the Progress Report to the Committee, and explained the main points of report.

In the presentation, the Project Team, Dr. Tadahiko Yagyu and Mr. Takashi Kadono, stressed the importance of the continuation of early port gate opening initiative and its announcement to port users.

II. CONCLUSIONS

1. The Progress Report was endorsed by the Committee.

2. The Committee requested the Project Team to implement the Project duly taking into consideration the comment made in the Committee Meeting.

3. The major comments are as follows:
   - The Project Team shall analyze in detail the reason why many trucks don't come into the port gate even the gate opens early in the morning.

- The Project Team shall study the difference of total time required for international transport among gateway ports, since time is one of the decisive factors of competitiveness of logistics routes.
- The Project Team shall study the conditions of vehicles which carry containers to/from Sihanoukville Port from the view point of securing transport safety.
- The Project Team shall assess the rationality of toll fee system for trucks carrying very heavy containers.
- The Project Team shall revise the data regarding time required for Customs clearance at border posts.

4. PAS expressed its intension as follows:
   - To conduct further analysis on the competitiveness of the port in cooperation with the Project Team.
   - To study and implement measures for enhancing the competitiveness of the port in cooperation with the Project Team.
   - To continue the early gate opening initiative and to request port users to come in the terminal earlier.

Phnom Penh, December 02, 2011

H.E Tram Iv Tek
Minister
Ministry of Public Works and Transport

RECORD OF DISCUSSION OF THE THIRD STEERING COMMITTEE MEETING FOR THE PROJECT FOR THE STUDY ON STRENGTHENING COMPETITIVENESS AND DEVELOPMENT OF SIHANOUKVILLE PORT IN THE KINGDOM OF CAMBODIA

1. INTRODUCTION

The Third Steering Committee Meeting was held on March 14, 2012, at the Ministry of Public Works and Transport in Phnom Penh. The meeting was chaired by H.E. Tram Iv Tek, Minister of Public Works and Transport.

The objective of the meeting was to discuss and approve the Interim Report for the Project for the Study on Strengthening Competitiveness and Development of Sihanoukville Port submitted to the Committee by the JICA Project Team.

The list of participants is attached to this record of discussion.

In the opening speech, H.E. Tram Iv Tek appreciated the implementation of the Study Project and emphasized the importance of strengthening the competitiveness of ports in Cambodia. H.E. Minister mentioned that this project for strengthening competitiveness of Sihanoukville Port is not only beneficial to the PAS but also contributive to All Cambodian as well as to development of international trades.

Then, Mr. Hitoshi Hirata, Senior Representative of JICA Cambodia Office, in his remark, stressed the importance of improving efficiency and capacity of Sihanoukville Port not only for development of Cambodian economy and industry but also Cambodian people's welfare.

The Project Team submitted the Interim Report to the Committee, and explained the main points of report.

In the presentation, the Project Team, Dr. Tadahiko Yagyu stressed Mission, vision and strategic targets of the Project, necessity of service improvement. Members of the Team, Mr. Sumio Suzuki and Mr. Koji Kobune followed to present financial status and issues and demand forecast and concept of the future port development respectively.

II. CONCLUSION

1. The Interim Report was endorsed by the Committee.
2. The Committee requested the Project Team to proceed to the finalization of the Project duly taking into consideration the comments made by the Committee Members.
3. The major comments are as follows:

- PAS is ready to follow the Project Team's recommendation on enhancement of port competitiveness, though by type of recommendation, it takes some time for their realization
- PAS's role is to contribute to the Nation's economic development and PAS has tried to do its best for such direction. In this respect, the Government is expected to consider and take a measure of the surplus interest payment to the Government.
- PAS shall make every effort for rationalization of management through streamlining its organization.
- New practice of gate opening in early Saturday morning is progressing toward expected direction. It is attributable to Customs office's speedy cooperation on this matter.
- The vision of the Port indicated by the Project Team seems too broad. Another vision such as "Green port" proposed by IAPH (International Association of Ports and Harbors) or "Feeder port or Hub port" seems to be worth for consideration.
- Husbandry service should be taken into consideration as one of port services.
- It is urgent to realize legislation of Maritime Code, Inland Waterway Law and Port Act as soon as possible.
- Sihanoukville port has a potential to become an internationally competitive port.

4. PAS expressed its intensions as follows:
   - To implement measures for enhancing the competitiveness of the Port as recommended by the Project Team.
   - To continue implementation of the early gate opening initiative and to request port users to come in the terminal earlier.

5. It was tentatively agreed the fourth Steering Committee Meeting to be held on June 5, 2012 at 8:30 am at MPWT, a Stakeholders Meeting and a Seminar for Technology Transfer to be held on June 6-7, 2012 in Sihanoukville.

6. Finally, in his closing remarks, H.E. Tram Iv Tek, Minister of Public Works and Transport stated that the Study was progressing as scheduled and the Study result was acceptable.

Phnom Penh, March 30, 2012

H.E Tram Iv Tek
Minister
Ministry of Public Works and Transport

Record of Discussion
of
The Fourth Steering Committee
for
The Project for the Study on Strengthening Competitiveness and Development of Sihanoukville Port in the Kingdom of Cambodia

1. Proceedings

The Fourth Steering Committee Meeting was held on 05 June, 2012, at the Ministry of Public Works and Transport in Phnom Penh chaired by H.E. Tram Iv Tek, Minister of Public Worked and Transport. The participants list is attached to this record of discussion.

The agenda of the meeting was Draft Final Report of the Project for the Study on Strengthening Competitiveness and Development of Sihanoukville Port submitted to the Steering Committee by JICA Project Team.

H.E. Minister Tam Iv Tek expressed his appreciation for the implementation of the Study recalling that the Government of Japan and JICA in Cambodia continuously extend technical cooperation and financial assistance to the Royal Government of Cambodia. H.E. Minister also pointed out that it is imperative to make Cambodian ports more competitive to implement the ASEAN agreement on a single market and production base effectively, and declared the opening of the meeting.

Mr. Yasujiro Suzuki, Chief Representative of JICA Cambodia Office, made an opening speech stressing that the emergence of a new port in the South Vietnam changes logistic flow from/to Cambodia, and it is important that Sihanoukville port and Phnom Penh Port shall play each role in accordance with National Port Policy. Sihanoukville port shall implement organizational self-reform to survive from competition with other ports.

The Project Team explained the main points of the Draft Final Report, which was submitted to MPWT and PAS on 17 May 2012.

Through the presentation, Dr. Tadahiko Yagyu recalled the strengths, weakness, threats and opportunities of PAS and emphasized that important actions are strengthening of organization, enhancement of cargo handling operation, improvement of customer's satisfaction, and strengthening financial soundness. Dr. Sumio Suzuki explained necessary actions to improve financial soundness, and Dr. Koji Kobune introduced the concept for future port development.

H.E. Chan Sothy, Ministry of Economy and Finance inquired the amount of annual repayment including interest and principal, and pointed out that payment of PAS is the revenue of the Government which is not a loss of Cambodian people. The Project Team replied that annual repayment for principal and interest is estimated and shown in the DF report, page 4-125, and commented that ODA loans are provided to assist not-profitable but socially important projects, therefore interest rates shall be lowered.

H.E. Minister inquired whether gate congestion was resolved through the pilot project, what was the key factor for the improvement of gate operation, and H.E. Lou Kim Chhun, Chairman of PAS, explained that gate congestion was considerably eased owing to early gate opening and change of customs procedure, i.e. the acceptance of a copy instead of the original document and only checking the customs seal at the gate.

H.E. Chairman, PAS, introduced that the cut-off time for container entry and a loading list submission will be implemented next month, and containers and the list arrived after 10 am will be charged penalty for loading on the same day. Through introducing cut-off time, PAS staff can prepare a loading plan, which improve the operation productivity of PAS.

H.E. Chairman recalled that financial problem of PAS is not only caused by interest rates of sub-loans but also by appreciation of yen, exchange rate of Yen and USD, which is 78 yen/USD today, appreciated from 115 yen/USD when yen loan was agreed. H.E. Chairman, PAS, also recognized needs of reorganization and staff number reduction.

H.E. Minister made closing remarks and expressed appreciation to the JICA Project Team for implementing the Study and reporting important recommendations on strengthening competitiveness and development of Sihanoukville Port, and requested continuous support of JICA.

2. Conclusions

1. The Draft Final Report was accepted by the Steering Committee.

2. The Project Team requested and the Steering Committee agreed to submit comments on the DF Report by 17 June 2012.

3. The Ministry of Economy and Finance will review the situation of sub-loans to state companies and take the recommendation on financial soundness into consideration, from the viewpoint of one standard for all state owned companies.

4. The Project Team will hold the Stakeholders Meeting on 06 June 2012 and the Seminar on Strengthening Competitiveness and Development of Sihanoukville Port on 07 June 2012. The Steering Committee agreed to show a conceptual plan of future development at the Stakeholders Meeting and the Seminar.

Phnom Penh, 15 June, 2012

H.E. Tram Iv Tek
Minister of Public Works and Transport

Steering Committee Participants		
ឯកឧត្តមត្រាំអ៊ីវតឹក H.E. Tram Iv Tek	MPWT	រដ្ឋមន្ត្រី Minister
ឯកឧត្តមលូគឹមឈន់ H.E. Lou Kimchhun	PAS	ប្រតិភូរាជរដ្ឋាភិបាលកម្ពុជាទទួលបន្ទុកជាអគ្គនាយកកំពង់ផែស្វយ័តក្រុងព្រះសីហនុ Chairman&CEO
ឯកឧត្តមឡេងធនយុទ្ធា H.E. LengThunyuthea	MPWT	អនុរដ្ឋលេខាធិការ Under-Secretaty of State
ឯកឧត្តមអៀងវេងសុិន H.E. EangVengsun	PPAP	អគ្គនាយករង Deputy Director General
ឯកឧត្តមចាន់សុធី H.E. Chan Sothy	MEF	អគ្គលេខាធិការរង Deputy Secretary General
ឯកឧត្តមសំសំអាត H.E. Sam Samath	Sihanoukville	អភិបាលរងខេត្ត Vice Governor
លោកជំទាវហេងសុគន្ធ H.E.Mrs. HengSokun	CDC	អគ្គលេខាធិការរង Deputy Secretary General of CRDB
លោកឈួនវិន Mr. Chhoun Vin	MPWT	អគ្គនាយករង Deputy Director General
លោកចាន់ហ៊ុង Mr. Chan Houng	MOC	អគ្គនាយករង Deputy Director General
លោកជា សេងយី Mr. CheaSengyi	MEF	ប្រធានការិយាល័យ Office Chief
លោកល័ស ពិនិត្យ Mr. LorsPinit	MEF	ប្រធានការិយាល័យ Office Chief
JICA Expert to MPWT and PAS		
Mr. Takashi SHIMADA	MPWT	JICA Expert to MPWT
Mr. Takahiro JONISHI	PAS	JICA Expert to PAS
JICA Representative and JICA Study Team		
Mr. Yasujiro Suzuki	JICA Cambodia	Chief Representative
Mr. TakanobuShinoda	JICA Cambodia	Representative
Mr. NhepTinat	JICA Cambodia	Program Officer
Dr. TadahikoYagyu	Project Team	Project Manager
Dr. Koji Kobune	Project Team	Port Planning
Dr. Sumio Suzuki	Project Team	Economic Analysis, Port Management and Finance
Mr. Takeshi Sato	Project Team	Environmental Considerations
Ms. Kumi Saito	Project Team	Social Considerations

Appendix-3

The Establishment of a Counterpart Team

Kingdom of Cambodia
Nation Religion King

8/3. from Men Chann

Sihanoukville Autonomous Port

Terak Vithei Samdech Akka Moha Sena Padei Techo Hun Sen, Sangkat N°. 3, Tel: (855) 34 390 456 Fax: (855) 34 933 693
Preah Sihanouk City, Preah Sihanouk Province. Website: www.pas.gov.kh, Email: paspmu@camintel.com/ admin@pas.gov.kh

N°. 210 SSR/PAS.Admin.HM

Preah Sihanouk Province. July 29, 2011

Decision

On

The establishment of a Counterpart Team for Cooperation and Implementation of the Project for the Study on Strengthening Competitiveness and Development of Sihanoukville Port

Delegate of the Royal Government of Cambodia in Charge as Chairman & CEO of Sihanoukville Autonomous Port

- On the basis of the Royal Decree No. NS/RKT/0808/944 dated August 18, 2008 defining the appointment of H.E Delegate of the Royal Government of Cambodia.
- On the basis of Sub-decree No. 50 ANKr. BK dated July 17, 1998 defining the establishment of Sihanoukville Autonomous Port (PAS).
- Referring to PAS's necessary work proposals.

Hereby Decided

Article 1: Established a counterpart team for cooperation and implementation of the Project for the Study on Strengthening Competitiveness and Development of Sihanoukville Port with the following components:

1-	**H.E Lou Kim CHHUN**	Delegate of the Royal Government of Cambodia:	Team leader
2-	**Mr. Va Sonath**	Deputy Director General	: Dty.Team leader
3-	**Mr. Pen Sitha**	Deputy Director General	: Member
4-	**H.E Ma Sunhout**	Deputy Director General	: Member
5-	**Mr. Chea Sambath**	Director of Planning	: Permanent Member
6-	**H.E Sem Kythay**	Director of Financial & Accounting	: Member
7-	**Mr. Sam Heng**	Deputy Director of Admin-HM	: Member
8-	**Mr. Pen Socheat**	Director of Billing	: Member
9-	**Mr. Chea Yuthdika**	Director of Technical, Materials & Construction:	Member
10-	**Mr. Norng Soyeth**	Director of Marketing & SEZ	: Member
11-	**Mr. May Marith**	Director of Harbor Master	: Member
12-	**Mr. Srey Narin**	Director of Container Terminal Operation:	Member
13-	**Mr. Chhun Hong**	Director of General Cargo Operation	: Member
14-	**Mr. So Seang**	Director of Internal Audit	: Member

15- **Mr. Leng Mao**	Director of Machinery	: Member
16- **Mr. Sar Satya**	Director of Phnom Penh CWT Dry Port	: Member

This counterpart team has an obligation to cooperate with Japanese work team (OCDI) in order to successfully implement the Project for the Study on Strengthening Competitiveness and Development of Sihanoukville Port.

Article 2: Established an implementation working group to undertake direct cooperation with Japanese work team (OCDI) with the following components:

1- **Mr. Thay Rithy**	Deputy Director of Billing	: Team leader
2- **Mr. Thong Viro**	Deputy Director of Admin-HM	: Dty. Team leader
3- **Mr. So Seang**	Director of Internal Audit	: Member
4- **Mr. Ty Sakun**	Dty. Director of Technical, Materials & Construction	: Member
5- **Mr. Heang Sophal**	Dty. Director of Container Terminal Operation	: Member
6- **Mr. Chiv Chansophal**	Deputy Director of Internal Audit	: Member
7- **Mr. Thay Mengly**	Dty. Director of Container Terminal Operation	: Member
8- **Ms. Chey Sokunthea**	Deputy Director of Marketing	: Member
9- **Mr. Mean Keung**	Chief of Architect Office	: Member
10-**Mr. Rath Seyla**	Chief of Administration Office	: Member
11- **Mr. Ouk Vannara**	Official of Technical, Materials & Construction	: Member
12-**Mr. Som Kakrona**	Official of Planning & Statistics	: Member
13-**Mr. Men Chann**	Chief of Internal Audit Office	: Secretary
14-**Mr. Pith Prakath**	Chief of Human Resource-IT Office	: Secretary

This implementation working group has an obligation to undertake direct cooperation with Japanese work team (OCDI) and shall file reports to the counterpart team relating to the implementation of the Project for the Study on Strengthening Competitiveness and Development of Sihanoukville Port.

Article 3: H.E - Deputy Director Generals, Directors of all departments concerned, and the aforesaid titulars shall undertake to cooperate with the work team in order to effectively implement in accordance with the essence of this decision from the signing date onwards.

Delegate of the Royal Government of Cambodia
In Charge as Chairman & CEO

PORT AUTONOME DE SIHANOUKVILLE

Lou Kim CHHUN

CC:
- All departments under PAS's management
- Same as Article 3
  " For implementation"
- File-Chronicle.

Appendix-4

Summary of The Stakeholder Meeting

Summary on the 1st Stakeholder Meeting on the Project for the Study on Strengthening Competitiveness and Development of Sihanoukville Port in Kingdom of Cambodia

Date/time: November 18th, 2011 / 9:30-13:00
Venue: New Beach Hotel
Participants: see Attachment 1
(Summary prepared by JICA Project Team)

1. Opening remarks

Mr. Va Sona, the Deputy Director General of PAS welcomed all the participants for attending this meeting. He explained about the ongoing traffic congestion in front of the port gate, and how PAS is working with the JICA Project Team and local authorities to solve this ongoing problem.

2. Introduction of the Project

Mr. Yagyu, the team leader of the JICA Project Team introduced to the stakeholders the background and objective of the Project.

3. Environmental and social consideration of the Project

Mr. Sato, the environmental expert of the JICA Project Team, made a brief presentation on how this Project will consider environmental and social impacts during the process of formulating the port development plan.

4. Q&A session

Q1: Mr. Benjamin Wilson, MAERSK

Other than the early opening of the gate, what kind of initiatives is the Project Team considering to improve the gate congestion?

Answer from Mr. Yagyu:

Following are some options that are been considered:

- Establishment of traffic rules in the container yard to avoid conflict between cargo trucks and port's cargo handling fleet
- Expansion of coverage area of CTMS
- Speeding up of document clearance process
- Development of truck parking lot outside the port
- Utilization of some sections of the container yard currently under construction

Answer from Mr. Va Sona:

Improvement of port operation will be discussed in the public-private joint meeting of MPWT, and all stakeholders will be invited to express their views and opinions.

Q2: Mr. Lee Pray, Sangkat 2

What is the strategy of the Project Team to alleviate pollution impacts from traffic?

Answer from Mr. Yagyu:

The key strategy is to reduce the current traffic congestion such as by early gate opening, development of truck parking lot, speeding up of document clearance process.

Q3: Mr. Sophal, PAS

How does the local economy improve by strengthening the competitiveness of the port?

Answer from Mr. Yagyu:

There will be a range benefits to the local economy through strengthening the competitiveness of the port, because increase in port cargo will directly and indirectly lead to increase in local economic activities and employment opportunity.

Answer from Mr. Va Sona:

If the port does not strengthen the competitiveness of the port, the port will lose its customers to other ports. So it will be important that the port maintains its competitiveness by providing good services and reasonable rates to the customers. Export and import from the port is also expected to grow (e.g. rice). It is also important, so that the port can accommodate the various ongoing development projects such as port SEZ and multi-purpose terminal.

5. Other comments

Around 30 comments were submitted from the participants after the meeting. The main comments are summarized below:

Comments on traffic congestion:

- Posting of security force or police along Road no.4 so that the trucks move in one line. This may reduce the traffic jam by 50%.
- PAS should take measures so that truck drivers strictly comply with traffic law.
- Opening of gate at 4 am seems to have limited effect.
- Provision of label or map along the gate.
- Reinforce the road from Angkor beer factory to Sihanoukville port in order to reduce the traffic jam.

Comments on port efficiency:

- A key factor to improve the efficiency of the port is the processes and activities of all involved in the cargo handling. This includes customs, port, cam-control, immigration, shipping lines, Kamsab. I feel not all of these stakeholders have a willingness to assist in improve efficiency, particularly some government agencies. Efficiency is not always their primary interest.
- The focus seems to be on yard and gate efficiency, but is crane productivity also considered in scope? The number of moves per crane per hour is a critical measure for port customers [Shipping lines], limited cargo handling facilities and processes are also a concern for future growth.
- Project team should think more about support of the quality of handling by increasing cargo handling equipment such as QC crane that is always broken.
- Maintenance of machinery is important to reduce breakdown time and increase operation time.
- Since the planning of cargo handling is inefficient, it is affecting vessel operation.

Comments on environmental impacts:

- There will be higher risk of shipping accident with the fishing boats.
- Port expansion will affect the fishing village of Tomnob Rolok.
- What are the strategies to reduce impact of truck traffic on the environment.
- The people that live in Tomnob Rolok should be relocated to prevent pollution.
- Please disseminate to the citizens the importance of environmental protection.

Other comments:

- In terms of competitiveness, one key issue that not seems to be addressed by the project is the cost of the port for customers compared to both Phnom Penh Port and other ports in neighboring countries.
- The road and bridges should be reformed so to increase the current maximum loading limit (23

tons)

- Stakeholders need not just to listen and know what the project is, but furthermore they should be encouraged to be more actively involved in the program.
- The next meeting should have more participants from related institution to have a wider range of opinions.
- The duration of the meeting seems to be too short. The documents should also be distributed beforehand.

Attachment 1 Participant list

No.	Name	Organization
1	HAK SOMBO	Representative of Sang Kat 3
2	HOUY VUTHY	Representative of Sang Kat 1
3	UNG CHHALY	Steung Hav district
4	LY PRANG	Steung Hav district
5	SEM KYTHAY	Director of A/C F/N (PAS)
6	VA SONATH	Deputy Director General(PAS)
7	BUN VISET	Dept. of Public Work & Transport
8	CHETHA YUVANNY	Assistance of JICA Expert
9	THAY RITHY	PAS
10	LENG MAO	PAS
11	MAY MARITH	Director of Harbor Master(PAS)
12	YING KOY	Kamsab
13	KORM SOKAN	PAS
14	SOM KOL	Environment Department
15	TEP VISETH	Customs Branch, Sihanoukville
16	CHIN SARIN	Governor of City Hall
17	CHEY SOKUNTHEA	Deputy of Marketing Dept.(PAS)
18	SOM HENG	Deputy of Admin Dept.(PAS)
19	SUM SAROEUN	RCL, Shipping Line
20	HEM VICHEA	UME, University
21	PROM SOPHAN	Agent Benline
22	CHETH VANNA	Min. Social Welfare
23	CHHUN HONG	Director of General Cargo Dept.(PAS)
24	CHIV CHANSOPHAL	Deputy Director of In. Audit Dept(PAS)
25	SO SOK	Land Management Department
26	CHEA SOMBATH	Director of Planning Department(PAS)
27	SENG KHA	Tourism Department
28	TY SAKUN	Technical Department(PAS)
29	SOK NIMOL	APL, Shipping Line
30	SREY NARIN	Director of Con. Ter. Op. Dept.(PAS)
31	PRAK VISAL	Provincial Hall S.H.V
32	HENG SIROEUN	Financial Department
33	CHAO VANRATANAK	Container Terminal(PAS)
34	SEK SOVANNARA	Container Terminal(PAS)
35	MEN CHANN	Internal Audit Department(PAS)

36	PITH PRAKATH	Human Resources/IT manager(PAS)
37	NONG SOYETH	Director of SEZ Department(PAS)
38	MA SUNHUT	Deputy Director Gerneral(PAS)
39	SO KUNVIRAK	ITL, Shipping Line
40	VAN NARITH	Cam control
41	Mann Rathsopanha	BBU, University
42	NOP PHEAN	Deputy Governor. Prey Nop District
43	SO SEANG	Director of Internal Audit Dept.(PAS)
44	BUN CHIV	Customs of S.H.V
45	MEAN KOEUNG	Port
46	CHEAM SATHARITH	Provincial Department Health
47	Chiv Chan Sopheap	Internal Audit Department(PAS)
48	THAY MENGLY	Deputy Director of C.Ter.Op.Dept.(PAS)
49	HEANG SOPHAL	Deputy Director of General Affair.Dept
50	CHEA SOPHAL	Cots Shipping
51	RATH SELA	HMR. Department(PAS)
52	SING SENO	Harbour Department(PAS)
53	NOP SAMBATH	UME/SHP
54	BEN WKSON	MAERSK/MCC
55	OUK SOVANNARA	PAS

2nd Stakeholders Meeting on the
JICA Project for the Study on Strengthening Competitiveness and Development of Sihanoukville Port in the Kingdom of Cambodia

Date: March 15, 2012
Venue: New Beach Hotel
Registration: 8:30-9:00
Agenda:

Time	Topic	Presenter
09:00 - 09:05	Opening Remarks	Representative of PAS
09:05 - 09:35	Topic 1: Strategies to strengthen competitiveness of Sihanoukville Port	Dr. Tadahiko Yagyu / Team leader of JICA Project Team
09:35-10:00	Coffee break	
10:00 – 10:30	Topic 2: Master plan of Sihanoukville Port	Dr. Koji Kobune / Planning expert of JICA Project Team
10:30 – 12:00	Q&A session	
12:05 - 12:10	Closing Remarks	Representative of PAS
12:10 -	Lunch	

Outline of presentation topics

Topic 1: Strategies to strengthen competitiveness of Sihanoukville Port (to be presented by Dr. Tadahiko Yagyu/Team leader of JICA Project Team)

1) Future vision and strategies of Sihanoukville Port

- Formulation of mission and future vision of Sihanoukville Port
- Establishment of strategic targets, critical success factors and action plan to achieve the future vision of Sihanoukville Port

2) Competitiveness and role sharing of Sihanoukville Port and Phnom Penh Port

- Comparison of transport cost and time via Sihanoukville Port and Phnom Penh Port
- Roles of Sihanoukville Port and Phnom Penh Port

3) Service improvement of Sihanoukville Port

- Current export procedures of container cargo
- Services that require improvement and improvement methodologies
- Contents and results of Urgent Pilot Project (Early gate opening on Saturday)
- Recent progress in service improvement
- Truck overloading and improvement of transport safety

Topic 2: Master Plan of Sihanoukville Port (to be presented by Dr. Koji Kobune/Planning expert of JICA Project Team)

1) Demand forecast

- Forecast of cargo volume (up to year 2030)

2) Concept of future port development

- Required capacity of port facilities
- Environmental and social consideration
- Potential areas for development

Summary of The 2nd Stakeholders Meeting on the Project for the Study on Strengthening Competiveness and Development of Sihanoukville Port in the Kingdom of Cambodia

Date/Time: March 15, 2012/ 9:00 AM-1:30PM

Venue: New Beach Hotel

Participants: See Attachment 1

(Summary prepared by JICA Project Team)

1. Opening Remarks

H.E. Lou Kim Chhun, Chairman/CEO of PAS welcomed all the participants for attending the meeting. He addressed this was the 2nd Stakeholders Meeting after the first one was done for which issues related to traffic congestion at the port gate and process of entry documentation were raised. Today's presentation will be related to the port vision, competiveness, service improvement, demand forecast and concept of the future port development.

2. Vision, Competitiveness, Role Sharing and Service Improvement

Dr. Tadahiko Yagyu, the team leader of JICA Project Team, explained the study flow of the Project and proposed PAS's mission which is set to provide bases for maritime transport and coastal industries. Under the mission, 3 visions are designed such as international trade public sea port, coastal industries and meeting customer's expectation. To achieve those visions, 11 major strategic targets are proposed. He indicated port dues and charges of PAS is higher than those in neighboring countries and explained transportation advantages and role sharing of PPAP and PAS and listed out the facing problems concerning container handling operation and types of services have to be improved as well as methods to do all those improvements. For urgent pilot project, some progresses and results are notified. Furthermore, he also mentioned the safety transport and over-weight trucks & penalty as well as the substandard container truck for which 10% of containers are carried.

3. Demand Forecast and Concept of the Future Port Development

Dr. Koji Kobune, Port Planning Expert, explained the forecasted increases of import & export compared with GDP growth rate for which it has to be optimistic as well as the shares of container handling volume at PAS and PPAP. He also presented the estimated TEUs by modes and directions at PAS and PPAP as well as estimated TEUs and capacity of PAS's terminal just between forecasted years from 2020 to 2025. He made forecast of general cargo (e.g. container traffic, dry bulk and break bulk) and the number of needed QGCs. Finally, he

explained the concept of the future port development from the viewpoint of well-defined port zone before the project commences, separation of port-related traffic, development of coastal industrial road and port access road, social and environmental consideration as well as revaluation of the port performance by 2020. He suggested solutions for social environmental considerations and proposed ideas of the future port configuration which is integrated not only maritime transport but also industrial zones, for instance, SEZ and EPZ.

4. Q & A Session

1) Comments from Bun Chiv, Chief Officer of Customs, SHV

(1) *Late arrival of garment containers on weekend:* It is not because of the customs procedure at the port gate but the garment manufacturers themselves. Most of them don't own warehouses, thus have to rent. They import materials and accessories for weekly productions for weekly exports – that is from 500 to 600 import containers and 400 to 500 export containers. For exports, sometimes customs documentation is already completed, but the factories request to delay due to either wrong or late container arrangements which cause the delay of arrival of garment containers.

(2) *Scanning:* not all the export containers need to be scanned unless there is an instruction for scanning or in case of dangerous cargoes. For most of garment containers to be exported, scanning is not necessary.

(3) *PAS CTMS:* it is noted that the system is successfully applied in Cambodia but not in other countries such as Vietnam and Lao. With this regards, he wonders if waiting just for 4 or 5 minutes at the port gate for processing is an issue of congestion. The customs inspection only targets at those types of prohibited cargoes. He supports the idea of information exchange among customs, harbor master and CAMCONTROL, and actually such work is being implemented for pilot project in PPAP concerning IT Manifest connecting the port and other organizations as a single window. Serious onboard inspection by customs officers targets at prohibited types of cargoes by government while others are allowed to be discharged for latter inspection in order not to interrupt ship operations as the customs officers try their best to minimize inspection time less than 15 minutes.

(4) *Port gate opening at 4:00am:* the trucks can't go in until 6:30am. The issue is because the stay-up-late of the customs brokers who are required to proceed documentation for gateway entry as early as possible, but they get up sometimes until 7 or 8 am while the containers arrive at the gate. When calling, they rush up until 6:00 am or a little later than that to proceed the document for the truck entry. The drowsiness of the truckers when they have to drive on Friday night from Phnom Penh to Sihanoukville is also a problem. Another issue is the delay of complete customs documents proceeded by customs brokers from Phnom

Penh, which is required by shipping line to arrive before 12:00. If not, penalty of $65 per container ($50 per container box + $15 for documentation) will be charged. For this regard, he makes a request whether JICA study team can find way to discuss this issue with the shipping line to eliminate such penalty because it may affect the business of customs brokers.

(5) *JIR*: actually, this has been implemented so long not just recently. Cargoes such as garments transited from Phnom Penh are not required to apply for any customs procedure at all except verifying seal with related documents from Phnom Penh and the seal is cut after all. Scanning is not necessary unless there is an instruction from GDCE – only seal is checked whether it is a copied or just faxed one, and that is clearly authorized by GDCE for utilization within 3 to 10 days before its original one has to be sent back to the customs. Then, the cargoes can move to the terminal and wait for loading to the vessel. The source of JIR was made under the recommendation of the head of government (premier) and signed by both Customs and CAMCONTROL. With the official signature of any of the two organizations (Customs and CAMCONTROL), the investor can refer it as an official one to proceed his cargo exports. Just before JIR, there was applied Customs Clearance and Authorized Letter from CAMCONTROL, and then investors raised a complaint in PPF regarding the two procedures. Finally, JIR was decided by the head of government. However, several months ago, the World Bank's customs experts who came to assist customs requested to eliminate JIR, but GDCE claimed it was the recommendation of the premier, and it thus could not be eliminated unless the premier did.

(6) *Seal cutting*: this was not applied until after 2004 since there was an instruction from GDCE to cut seals at all port gateways to avoid customs responsibility onboard because there was an event taking place before 2004 in relevance with the allegation of Cambodian customs responsibility of narcotics trafficking.

Answer from Dr. Yagyu:

- He shares common understanding on late arrival of containers of garment products for export due to weekly import for weekly production and for weekly export that the container shipment is much concentrated on Friday night;
- Why trucks can't enter the terminal is that the fact JIR should be processed at PAS and for that processing, general arrival of JIR should wait until morning since proceeding the documentation by customs broker from Phnom Penh to Sihanoukville may take time;
- As indicated, waiting for 3 to 4 minutes is not a problem but the problem is the trucks wait for document processing such as JIR. But recently, it has been proposed to

eliminate that kind of JIR processing, but only allow trucks to enter the gate by checking the seal. If that could be done, many containers can enter the terminal in early time and the container terminal can start making loading plan, and that is made to enhance productivity of the port and this is expected to take effect after 3rd March

- *Scanning:* export containers are subject to scanning, this is common in the world. But regarding imports, all import containers are also scanned, so it takes time for the truck to wait for clearing the scanning process. No truck should wait in the port area, which results in congestion and it becomes another point to be solved to eliminate the traffic jams and to increase container handling efficiency;
- *Penalty of $65 per container by shipping line* for late arrival of container after 12:00; The port should give incentive to the container trucks which enter the gate earlier by the opening time, if late, penalty shall be made. The shipping company penalty is proposed to be replaced by this practice;
- *Seal checking for export containers:* it is a basic scheme that all customs procedures have been completed by only checking seal without additional documentation.

Additional comments by H.E. Lou Kim Chhun, CEO/Chairman of PAS

- *Regarding JIR:* Sometime ago containers could be allowed to enter the port only finishing documentation process at the port with JIR. But later only copied or faxed one was enough for documentation process. And later, it was agreed by customs that after 3rd March, no need of JIR, only seal checking is enough for the gate entry. Thus, it doesn't mean JIR is not needed but just allowed for pre-entrance. However, when clearing for the vessel departure, JIR is needed. Hence, it does not mean to eliminate JIR;
- *Discussion with Mr. Kim Lee:* when the container arrives the port, as applied like PPAP to avoid traffic congestion, only with seal number is noticed – that means the customs brokers when arriving at the port has to record the seal numbers of customs and CAMCONTROL for showing to the customs to proceed permission for the container to enter the port. Entrance is allowed only in the terminal/yard but later until loading to the vessel. However, before the vessel departure, all documents must be made available including original JIR. If any container already loaded to the vessel is not clarified with original JIR, it has to be unloaded to apron and the cost of doing so shall be born by shipping line;
- *Stages of gateway entrance*: responsibilities are incurred in 3 stages. 1) customs brokers record the seal numbers of customs and CAMCONTROL for showing to the

gateway authority/ clerk to check whether it is proper. 2) The container is allowed to enter to the yard but the key issue is about ship planning, which may take time at least 3 or 4 hours. If waiting until receiving all documents to do ship planning, it may waste of time. Anyway, when the container enters without notifying the customs, it is the port's responsibility. 3) However, when the container is onboard, it is attached with proper seal but JIR is not original, original JIR is required before the vessel departure, the container will be unloaded and the cost of doing so is born by the shipping line;

- *Cut-off Time & ship planning:* cuff-off time means the container must arrive at the port at usual time. Unlike Laem Chabang and Bangkok Ports where cut-off time is applied 24 hours before the arrival of the vessel while Japan is between 30-40 hours. In case of PAS, if it is applied 24 hours, none of the containers will use PAS. However, to push this, penalty will be reinforced. The question is who resists (?) the difficulty? Who is in charge of ship planning? Ship planning was previously done by the shipping line, but now among 8 ships, 4 ships are planned by PAS. And in the future, PAS will take over ship planning for all ships. Thus, who will resist (?) the difficulty? Surely will it be PAS. Then, penalty must be done by the port;
- *CTMS, EDI & ASUCUDA System:* CTMS is a computer system which assists with ship planning when it is beyond the ability manually done by people. Concerning EDI and ASUCUDA system, in the future, PAS will apply EDI system and ASUCUDA in practice as a part of EDI.

2) Dr. Koji Kobune: Concerns about the future port expansion plan

Dr. Kobune asked the stakeholders of any concerns regarding the future port expansion plan in terms of livelihood, environment, safety, traffic, water quality and so on.

Comments from Mr. Sin Satharath, Deputy Chief Officer of Marine Fishery Administration, SHV

(1) *Dredged materials:* the port plans to dredge the navigation channel up to -17 m for about 2 km and has contacted the Marine Fishery Administration to study the resource in the coastal areas of Sihanoukville. To avoid damage of marine resources, dredged materials should be considered for landfill for future port development. Dredging activities may affect fisheries, aquaculture and other marine animals up to a distance of 5-10 km. The port is requested to have discussion with the communities to avoid any conflict regarding the development impacts over their fishing activities.

(2) *Fishery port:* the idea of fishery port was proposed by JICA project since 2000, namely

Tomnop Rolok port. There should be a project to establish a fishery port next to Tomnop Rolok port under the competency of his administration in terms of fishing vessel movement and safety. The objective of the fishery administration in the future will supervise the fishing vessel of 10-12 meters in depth. Thus, the fishery department also require a large-scale fishery port although currently the fishing vessels are small – just 3-4 meters at most and can berth at Tomnop Rolok port.

(3) *Effects of dredging on fishing activities*: not much affect fishing activity but may affect marine resources in the sea bed such as corals around the islands of Koh Tas and Koh Pos. The dumped dredged materials will spread to other areas and this may lead to the damage of some types of corals in the sea bed, although it may appear normal on the surface. The 2nd-phase dredged materials will be much more than the previous, and as far as he knows the sea bed in the dredged channel is rocky so explosives will be used to assist with dredging work.

Answer from Dr. Koji Kobune

- It is hard to use dredged material for landfilling as the seabed is comprised of silty material. We currently plan to dispose the dredged material in the existing dumping site.
- *Fishery port:* as requested to construct the fishery port of 12-meter deep, it is very different from the existing ones which are just small and already deployed in the breakwater.

Additional comments by Mr. Kim Sitharath, Deputy Chief of Marine Fishery Administration

Currently, Cambodia has the rights to do fishing in international sea. Then, some countries have requested for Cambodian license, using Cambodian-flag vessel to do fishing in international sea. Thus, as mentioned up to 2030, Cambodia will reach that status either. That means Cambodian will be able to have such type of large-scale fishing vessel for fishing in the international sea – this is a vision for the future. When the project is implemented, it should also consider the fishing port.

Additional confirmation by H.E. Lu Kimchhun, CEO/Chairman of PAS

- The depth of the navigation channel will be -13 meters not -17 meters.
- Dumping of dredged material will be conducted during periods of minimum tidal movement, which is when water currents are not strong. This will reduce the spread of

dredged material. The depth of the dumping site is roughly 50 meters and not 20 meters.

- Construction of fishery port should be requested.

5. Other comments

Around 20 comments were submitted from the participants after the meeting. The main comments are summarized below:

Comments on Port Gateway Congestion:

- The port gateway congestion has already been relieved; however, to handle this properly and sustainably, joint taskforce or committee consisting of PAS, Customs, CAMCOTNROL, police, KAMSAB, representative of shipping companies, representative of garment factory association and representative of Chamber of Commerce of Sihanoukville shall be established;
- For enhancement of economic efficiency and quality of PAS as well as the entire SHV province, JICA shall build a detour separating from NR 4 in the point of Yeay Mao (Pech Nil) toward Tonop Rolok and to the port to avoid traffic congestion at the port gateway;
- JICA shall request the shipping companies to find the parking lot themselves in order to avoid parking their trucks along national road;
- In case Japan is not able to build such a detour, the government shall request for financial assistance from Chinese government;
- Elimination of informal charge is a good idea if that could be reinforced, and which will lead to the relief of traffic congestion at the port gateway;
- On Friday evening and Saturday, it is observed that after the expansion of the project some successes have been made meanwhile disruption is not usually avoided (randomly the accident occurs). If possible, another access road should be constructed or just expand the existing one.

Comments on Cut-off-Time & Ship Planning:

- Cooperate together to obtain cut-of-time at 10:00 for export container on Saturday morning or 3 hours prior to loading container to the vessel;
- The Container Dept. makes the vessel plan itself for which the vessels call from Sunday to Thursday. It tries its best to make ship planning for Friday & Saturday

calls but the difficulty is about shipping line who does not provide sufficient information such loading general plan, booking list, list load...etc.;

- PAS, JICA experts and port users have met and discussed many times to find solution of reducing procedures and seeking methods to increase container handling capacity.

Comments on Reduction of Port Tariff:

- Cambodian situation is not like Vietnam and Thai for which its electricity cost is 2 or 3 times different. The handling charge by QC, RTG and truck trailer is 2 times higher than the neighboring countries due to high costs of fuels and electricity supplies.

Comments on other proposed projects & business development:

- The project on development of industrial zones/ EPZ along NR 4 shall be worth a study due to many unutilized land areas and also electricity supplies shall be taken into account. If only solely establishing EPZ in the coastal area, it may fight against the tourism development;
- To achieve the potentialities of economic development of Cambodia, some factors have to be considered such as (1) the port users are required to understand logistic services and the port procedures, (2) improvement of road infrastructure which enables bigger loading capacity, (3) reduction of import/export document procedures as well as steps of cargo clearance process.

Comments on Strengthening the Competiveness of PAS:

- Increase of cargo generation for exports from SHV (mainly from Port SEZ)
- Continue cooperating with the port's stakeholder;
- Continue increasing the container loading and unloading productivities.

Other Comments:

- The time for meeting is very limited, which cannot allow participants to share more comments;
- The meeting materials shall be distributed in advance for possible comments to be prepared;
- It is important for port and stakeholders to exchange ideas and get information of how valuable findings of JICA Study Team has done to strengthen and develop the port in the future. It is very important to understand and see how the port and other related

party have tried to work hard in order to make growth of maritime business of Cambodia;

- Request for training on logistic services and port procedures in any possible seminar/workshop for the port users;
- Changes won't be made unless there is sound cooperation between port users and competent authorities at the port;
- Support and appreciate SEZ of PAS project and consider it is very useful and will be fruitful for city development of Preah Sihanoukville City especially it contributes to urban planning work;
- The meeting has shown that there is a big growth for the port's future. Therefore, they are looking forwards in the future and be their best to support PAS.

ATTACHMENT-01/01

LIST OF ATTENDANTS

2nd Stakeholder Meeting on the Project for the Study on Strengthening Competiveness and Development of Sihanoukville Port in the Kingdom of Cambodia

Date/Time: March 15, 2012/ 9:00 AM-1:30PM

Venue: New Beach Hotel, Preah Sihanoukville Province, Cambodia

No	Names	Positions/Organization
1	**Ly Vannda**	Deputy Governor of Preah Sihanoukville City
2	**Prum Paov**	Chief Officer of Provincial Traffic Police
3	**Sin Satharath**	Deputy Chief of Marine Fishery Administration, SHV
4	**Sok Nimol**	Representative of APL Shipping Line
5	**Kim Heang**	Representative of Provincial Agricultural Dept.
6	**Yeong Sokkeong**	Deputy District Chief of Khan Pey Nop
7	**Khouk Makara**	Staff of Planning and Statistic Dept. of PAS
8	**Pen Socheat**	Director of Commercial Dept. of PAS
9	**Serng Seno**	Deputy Director of Harbor Master Dept. of PAS
10	**Va Sonnath**	Deputy Director-General of PAS
11	**Thai Rithy**	Deputy Director of Commercial Dept. of PAS
12	**Seang Leng**	Chief of Border Immigrant Police Division
13	**Heang Sophal**	Deputy Director of Container Operation Dept. of PAS
14	**Norng Soyeth**	Director of Marketing & SEZ Dept. of PAS
15	**Pen Kim Ieang**	Representative of MCC Shipping Line
16	**Soum Sareon**	Representative of Kos Santhepheap newspaper
17	**Khem Sitha**	Chief of Statistic and Contract Office of PAS

18	**Ban Chethra**	Representative of BEN Shipping Line
19	**Leng Mao**	Director of Machinery Dept. of PAS
20	**Roth Sella**	Chief of Administration and Human Resource Office of PAS
21	**Thong Viro**	Deputy Director of Administration and HR Dept. of PAS
22	**Pith Prakat**	Chief of Administration and IT Office of PAS
23	**Chhun Hong**	Director of General Cargo Operation Dept. of PAS
24	**Ty Sakun**	Deputy Director of Construction and Technique Dept. of PAS
25	**Thai Mengly**	Deputy Director of Container Operation Dept. of PAS
26	**Lim Samean**	Director of Provincial Public Health Dept.
27	**Srey Narin**	Director of Container Operation Dept. of PAS
28	**Ouk Vannara**	Chief of Maintenance Section of PAS
29	**Cheap Sotheary**	Representative of ADHOC
30	**Lou Kim Chhun**	Chairman & CEO of PAS
31	**Hor Sothy**	Chief of Auditing Office of PAS
32	**Thork Reaksa**	Representative of Custom & Excise of Prea Sihanouk Province Branch
33	**Ying Koy**	Representative of Kamsab Sihanoukville Branch
34	**Barim Bakdaphal**	Representative of Immigration Police at PAS International Gate
35	**Bun Chiv**	Representative of GDCE at PAS International Gate
36	**Seng Sopha**	Staff of Administration and Human Resources of PAS
37	**Kanh Loeung**	Chief of Sangkat No. 3 (Commune No. 3)
38	**Huy Virak**	Representative of BBU University

39	**Nop Sambath**	Representative of UME University
40	**Kim Leang vouch**	Representative of Provincial Tourism Dept.
41	**So Kok**	Director of Land Management Dept.
42	**Se Rasmey**	Representative of LICADHO Sihanoukville Branch
43	**Sokun Virak**	Representative of ITL Transportation Company
44	**Ma Sun Hout**	Deputy Director-General of PAS
45	**Chea Sophal**	Representative of COST Shipping Line and Kamsab Sihanoukville Branch
46	**Meng Nhor**	Representative of Camcontrol Sihanoukville Branch
47	**Dem Sothea**	Representative of Derm Am Pil Daily News

Summary on 3rd Stakeholders Meeting on the Project for the Study on Strengthening Competitiveness and Development of Sihanoukville Port in the Kingdom of Cambodia

Date/Time: June 06, 2012/ 9:00 AM-1:30PM

Venue: New Beach Hotel

Participants: See Attachment 1

(Summary prepared by JICA Project Team)

1. Opening Remarks

Mr. Va Sonath, Deputy Director General of PAS welcomed JICA Study Team as well as other participants as directors of key departments, provincial officers, port users and competent authorities concerned. He addressed the 1st & 2nd Stakeholders Meetings, which were also held here, were provided with some good comments, and for the 3rd Stakeholders Meeting, he hoped the participants would provide more and even better comments to improve the Project for the benefit of the port and country development. The contributions of the participants were to evaluate the preparation for competitiveness and future development of PAS.

2. Strategy for Strengthening Competitiveness of Sihanoukville Port

Dr. Tadahiko Yagyu, the team leader of JICA Project, opened his presentation by introducing DRF which will be finalized after obtaining comments for Cambodian side. Then, he presented the objectives of the Project, which focus on economic development, appropriate management and operation of the ports and strengthening competitiveness of SHV port by operational improvement and preparation of concept for future port development. The recommended important actions for strengthening competitiveness of PAS are to improve operation and financial/ managerial soundness, then reduce port charges and enhance shippers/ consignees, shipping line satisfaction. As recommended, short-term action plan covers (1) strengthening of organization, (2) enhancement of cargo handling operation efficiency, (3) enhancement of customer satisfaction, (4) strengthening of financial soundness and (5) promotion of industrial development, as for

long-term action plan such as (1) reinforcement of facilities and equipment and (2) formulation and implementation of the future port development plan.

3. Concept for future development of Sihanoukville Port

Dr. Koji Kobune, Port Planning Expert, explained the forecasted increases of import & export compared with GDP growth rate for which it has to be optimistic as well as the shares of container handling volume at PAS and PPAP. He also presented the demand and capacity of terminal and the number of needed QGCs. He explained the concept of the future port development from the viewpoint of well-defined port zone before the project commences, separation of port-related traffic, access road, initial environmental examination (IEE) by each development concept, potential impacts of channel dredging and disposal of dredged materials. He gave overall evaluation of the alternative plans in terms of social and environmental impacts and finally the recommendations: (1) the proactive approaches PAS should take and (2) avoidance of environmental impacts on the local community.

4. Q & A Session

Q1: Mr. Doung Sambath, Director of Fishery Administration

(1) Dredged materials and disposal area:

- Suggested that the disposal of dredged materials should be done at any appropriate land area rather than water area in order to avoid environmental impacts on biodiversity/ecosystem as well as maritime life in the water area;

(2) Relocation of aquatic area:

- Several years ago, JICA donated USD 10 million for constructing Center of Aquaculture. In case of relocation for port development, the center will be relocated, then it will affect the cost of the construction;

(3) Resettlement of the residential/fishing area along the project site:

- In case of resettlement of residential area to nearby Center of Aquaculture, he is afraid the residents will degrade the water quality.

Answers from Dr. Kobune:

- What has been done so far is just a concept for future development. Still more actions will be taken in next step for which further studies will be conducted to look for suitable location whether it is in water or land area. However, according to the survey, it is found that condition of subsoil is too soft for reclamation, so it should be dumped to the sea;
- For the outlook of future image, the development is done not only for the port itself but also the whole area as a port town which secures healthy livelihood, business and fishing areas. Even without the development project, livelihood in the planned relocation area is still unhealthy such as in case of fire, all houses will be burned out. So, development should be necessary;
- Relocation of fishing village is required for long future, and it is believed that the development can be achieved without fighting with fishing village and fishing port. The project can provide water area outside or inside the breakwater for the development of export processing zone;
- This is just a concept planning stage. For implementation in the future, the feasibility study will be needed to conduct the methods of dredging and disposal;

Adjustment by Mrs. Saito:

- In terms of development, impacts are inevitable – they can be direct and indirect impacts. However, it is to be notified that the Project does not cause any resettlement. It just provides concept for future port development.

Additional confirmation by Mr. Sato:

- (In case of Slide 19: IEE) Alternative Development Concept-1: A means high risk of water quality degradation, B means potential noise/ vibration and air pollution impacts on local residents. Alternative Development Concept-2: A means high risk of water quality degradation and B means potential noise/vibration and air pollution impacts on local residents.
- There is misunderstanding by Mr. Doung Sambath that the relocation of

residential/ fishing village along the coastal area in Development Concept-2 is done to Point B where is a Center of Aquaculture donated by JICA of USD 10 million. Actually, there is no such relocation but only in Point B which is an access road due to noise/ vibration and air pollution on local residents who are dwelling along the road.

Q2: Mrs. Chim Kalyaney, Deputy Director of Environment Department

(1) Dredging work:

- According to the Law on Environment, sea dredging work is prohibited. Not everybody can do this. How much volume of dredging and how large is the dredged area? Cooperation should be necessary with Department of Environment in order to conduct EIA before dredging and disposal works start operation since (1) dredging will affect ecosystem in the sea and (2) disposal of dredged materials will affect the dumping area;

(2) Disposal area:

- There should be a safe dumping area for the disposal to avoid the impacts on the land, general environment as well as the residents. Technical discussion should be necessary with departments concerned especially Ministry of Environment for sustainable developments in order to minimize impacts on environment such as management of liquid and solid wastes, dredging and construction should be consulted/ discussed with ministries concerned, and all these works shall comply with the laws;

(3) Port expansion plan of -12m depth:

- She notices that presently it is impossible to dredge up to -12m depth. How to achieve such expansion plan?

(4) Zoning Plan:

- She strongly supported the idea of zoning plan as recommended. However, she reminded that CMO (Coastal Management Office) of the city hall as represented by Mr. Prak Visal designed a coastal strategy in 2003, which covered such zoning plan. So, for the development plans up to 2030, certain discussions should be necessary with CMO for the designated areas to avoid some social and environmental impacts.

Answer from Mr. Va Sonath:

- Appreciated for Mr. Sambath's comments of 3 points and Mrs. from Department of Environment in response to the port development request on purpose to avoid the environmental impacts;
- Ancestors had left the port formerly known as Kampongsom Port since 1950s with combination works of French and Khmer engineers and architectures. They conducted studies on the coastal areas from Koh Kong along border with Thai and Vietnam in order to build a port. The studies were carefully done to build such present port which is productive for all aspects: (1) the deepest sea-port area compared with the coastline stretching hundreds of meters in Cambodia, (2) islands as wind barrier and big wave protection for efficient port operations and (3) it is also politically productive in terms of location when it is not too close to Thai and Vietnamese borders like in Koh Kong and Kampot;
- Many studies had been conducted since the regime of French colony up to Khmer Rough regime, and then State of Cambodia, Russian experts were invited to conduct studies for several months and concluded that the previous studies by the ancestors was the right decision to develop the port here;
- Up to now, with the grants from the government of Japan in 3 to 4 phases, almost USD 200 million is granted for the development in the area. JICA envisages that in order to strengthen the competitiveness of PAS, additional container terminal should be developed. From the 2nd Meeting, multi-purpose terminal was proposed and this time container terminal. Because up to 2030, container throughput will increase 1.2 million TEUs and our capacity is just 400,000 TEUs. So development is envisaged as necessary. All these problems are addressed to obtain the concepts from all the participants so that the Study Team can conclude ideas for future development;
- Please be notified that all the images presented are just the concept of the study team. H.E. Chairman/ CEO and port experts have not approved of

Point A, B or C or any other point yet. North breakwater affects the aquaculture, residential area and other private ports while south breakwater is independently under control of the port. Any change of the development images is subject to the port management's consideration and decision. According to H.E. Lu Kimchhun, any development affects the benefits or feelings of the residents; if possible, it should be avoided.

- All countries wish to be independent on exports, so it has to construction the port. In case of non-maritime countries, they develop roads and airports for imports and exports. Cambodia is a maritime country with a deep seaport. Like in Vietnam, they developed the port -16 m water depth, which can accommodate the large vessels. In Singapore, the vessels of -18 m water depth can be accommodated, and presently, trillion tons of land is reclaimed to expand its country island. In Thailand, Laem Chabang, which has similar seawater condition to us, they have paid lots for the development of container terminal. So, all these constructions always affect environment, benefits of the residents and others including fishing and so on. However, by all means, without development, we just depend on Laem Chabang, is it easy for us to survive or to promote international trade? Or just depend on Cai Mep-Thai Vai or Ho Chi Minh ports for imports and exports without our port expansion, what problems will we face?
- So, such development is to bring independence on trading with the world by not just depending on those neighboring ports. Comments to achieve all these visions are much critical. We don't just finish from this step which starts from the port level but still move forward to the ministry level when all the projects are approved by the government;

<u>Answers from Dr. Yagyu:</u>

- (Coming back to the comments from Mrs. from Department of Environment): Concerning all these points, simply say, we will follow the laws applied in Cambodia. So, if you have EIA system, we will follow. That will be done during the feasibility study. This is only concept job site. So, for actual implementation, maybe sometime years later.....

Q3: Mr. Prak Visal, Coordinator for CMO

(1) Development of Port Town:

- (In Presentation) Reading>>> "In the future, to reduce social and economic impacts, we want to prepare a modern port area going along with the existing community...." please, all participants especially those from the fishing community, do not confuse with the development of new town of the port, which may cause confusion that later on the port will develops a town so all constructions must move there. People may make up an idea to expand the area further and further...I think this is not a good idea. What the Study Team wants to present is just objectively they must have a well-organized, healthy, sanitary and environmentally preparations;

(2) Recommendations regarding Port Expansion Plan:

- Port expansion does not mean relocation of the residential area is unnecessary. In the recommendation, relocation of the local community to an alternative and more suitable location may be an option, if adverse impacts on the local community are likely to be significant and unavoidable. That means we have to study how to minimize the impacts on relocation. If without relocation at all for port expansion, I think, it is impossible. Relocation somehow will be necessary.

Q4: Mr. Chan Chomroeun, ADHOC

Requests:

- (1) I supported the comments of Mrs. from Department of Environment as well as Mr. from Fishery Department. So, all items in terms of technical aspects shall be published and notified to departments/ ministries concerned in order to seek solutions for minimizing impacts and for sustainable development;
- (2) If affecting the residents, public consensus must be obtained;
- (3) The port needs competitiveness. This is concerned with human resource. Of course, the port has its human resource but it is recommended by the study team to apply the concept of right-person-in-the-place;

- (4) The port should reduce brokerage and be convenient for port users.

Answer from Mr. Va Sonath:

- Thanks to Mr. Representative of Adhoc. I support your comments. To the truth, any development which may affect the residents must be notified and obtain consensus between the authority and residents. This is what we have done so far. For this matter, we can accept your comments;
- If this project is approved by the government for implementation, the impacts will be discussed. The port will invite civil organization to join the discussion so that all problems can solved among the government, civil organization, residents and authority;
- Regarding the development of human resource, the study team proposes to promote capable young staffs in the right place and reduce labors. For this matter, the port is considering. Presently, H.E Chairman/CEO assigns the specialist team comprising of young staffs with higher degree to assist him and join all ordinary and extraordinary meetings which are necessary and related for contributing ideas and knowledge;

Q5: Mr. Men Chann, PAS Audit Department

- Concerning port dues and charges, in the recommendation, port dues and charges of PAS should be decreased when they are higher in comparison with the ports in neighboring countries like Thailand and Vietnam. However, due to higher fuel price, higher tax on cars and transportation and others, it is hard to decrease port dues and charges. Will there be another option besides the recommended decrease of port dues and charges?

Answer from Dr. Yagyu:

- The Seminar will be held tomorrow joined by all PAS employees. The issue of port dues and charges will be included in the Seminar.

5. Other comments

Around 14 comments were submitted from the participants after the meeting. The main comments are summarized below:

- (1) PAS should be further developed due to the increasing calls of container vessels from year to year especially general cargo vessels but the problem is draft restriction that PAS should dredge up to -13m as a standard of international port;
- (2) Increase of PAS operation productivity is important since it enables financial soundness. However, not PAS alone can do this but needs cooperation with the stakeholders in order to improve operations step by step;
- (3) Repairing and maintenance of the equipment are necessary. So, more trainings by both software and hardware provided to the maintenance team should be necessary to build capacity for the competitiveness and development of PAS in the future;
- (4) Reconsidering Concept-2 with regards to (1) environmental impact is smaller than the Alternative Concept-1 because the resettlement/ relocation of fishing arms are easier than at the Quarter Tom Nop Rolok (breakwater) and the project cost is cheaper and (2) avoiding the weekend traffic congestion in front of the entrance gate by constructing detour road at Klang Leur as an access road to the new container terminal;
- (5) For strengthening the competitiveness, PAS should set a good strategy, tactics and operation, then to manage and control them, all port users should support and cooperate with PAS for great success, all authorities concerned must join and have good relation with the port and port users in terms of business activities;
- (6) Should find solution for the vessel calls for loading and unloading in early weekdays to avoid weekend traffic congestions on Fridays and Saturdays (*to increase efficiency of cargo handling operation); the vessel crane should stop using for loading/discharging container; sufficient beacons/ spotlights must be equipped in the front of vessel, warehouse and yard...; weekend traffic congestions should be eliminated; additional procurements of handling equipment and machineries...etc.;

- (7) Should establish the business management division of PAS; further trainings for vessel planners and container yard planners; within 24 hours before the vessel arrives, the cargoes must be ready for loading at the yard;
- (8) The same to Point (3);
- (9) According to the presentation, only plan for developing container terminal is raised but not passenger terminal;
- (10) PAS dues and charges are considered highest in the regional countries, but everything is very expensive now. E.g. fuel is very costly and because of this, the actual costs of all kinds of cargoes increase sharply while the port tariff is still in the same status, and if we reduce the price, the port dues and charges will adversely affect the port business especially the indemnification of both interests and principles to Japan. Others than the reduction of port tariff, are there any other options to cope with this sensitive issue?
- (11) Port has to reduce cost and increase profits. However, by reducing personnel expenses or laying off labors which helps reduce lots of cost for the port. But if we look at another point of view, it may demotivate the workers or maybe even affect PAS's reputation. Demotivated workers lead to less productivity and affect the port performance;
- (12) Strengthening competitiveness of PAS against PPAP and other ports, considering the social and environmental impacts;
- (13) Need to improve productivity, encourage stevedores to perform their jobs properly and more accurately, manpower is important, need 1 or 2 more gantry cranes to operate the vessel to increase productivity and reliability, take over ship operation by using the port stevedores, reduce additional cost or non-charge when performed discharge/ load cargo by using gantry cranes; gate must open 24 hours on Fridays and Saturdays to avoid traffic congestions and to have more export containers at terminal;
- (14) Well processing with good organization

ATTACHMENT-01/01

LIST OF PARTICIPANTS

3rd Stakeholders Meeting on the JICA Project for the Study on Strengthening Competitiveness and Development of Sihanoukville Port in the Kingdom of Cambodia

Date/Time: June 06, 2012/ 9:00 AM-1:30PM

Venue: New Beach Hotel

No.	Name	Position/ Organization
1	Chea Sambath	Director of Planning Dept., PAS
2	Som Savoern	Operation, RCL
3	Klok Makara	Planning Dept., PAS
4	Sok Nimol	APL
5	Bun Samon	DPWT of SHV
6	Chetha Yuvanny	Assist. to JICA Expert, PAS
7	Chim Kalyaney	Deputy Director of Department of Environment
8	Sao Phin	PAS
9	Cheourn Vibol	Deputy Director of Dept. of Economy and Finance
10	Ouk Sovannarith	Chief of Technical handling
11	Seang Leng	Police (police office of SHV)
12	Leng Mao	Director of Machinery Dept., PAS
13	Ouk Vannara	Technical Department, PAS
14	Rath Sela	Admin-HR Dept., PAS
15	Pith Prakath	Admin-HR Dept., PAS
16	Naoki Kado	NIPPON KOEI
17	Ying Koy	KAMSAB
18	Kong Sophea	PAS
19	Chea Sophal	COTS Shipping
20	Cham Chomrpoeun	Adhoc
21	Prak Visal	City Hall of SHV
22	Som Kolchenpa	PMU, PAS
23	Thay Mengly	CT, PAS
24	Va Sonath	Deputy Director General, PAS
25	Sokun Virak	IIL

26	Srey Narin	Container Terminal, PAS
27	Ban Chetra	Ben Line
28	May Sam-aun	Chief of General Cargo Handling Office, PAS
29	Heang Sophal	Deputy Director of Container Operation, PAs
30	Thay Rithy	Deputy Director of Billing Department, PAS
31	Mean Koeung	PAS
32	Leang Heangchor	NIPPON KOEI
33	Reach Sovan	Provincial Deputy Governor of SHV
34	So Seang	Director of International Audit, PAS
35	Seang Kha	Provincial Department of Tourism, SHV
36	Bun Chiv	Customs, SHV
37	Norng Soyeth	SPSEZ
38	Men Chann	Audit Dept., PAS
39	Keth Sopheak	Deputy Director of Land Traffic Office, SHV
40	Sek Sovannara	Container Terminal Dept., PAS
41	Doung Sam-ath	Director of Fishery Administration, SHV
42	Bros Sameourn	University of Management and Economics
43	Peng NGA	CAMCONTROL, SHV
44	Cheth Solkey	Billing Department, PAS
45	Norng Sinal	Port Security, PAS
46	Jonishi Takhiro	JICA Advisor for PAS
47	Chin Sitha	Warehouse #4, PAS
48	Kong Vibol	PAS
49	San Puth	Maersk Representative
50	You Leng	PAS
51	Prak Chanrasmei	PAS
52	Chhun Hong	PAS
53	Min Sokunthea	Deputy Director of Health Dept., PAS
54	Kim Heang	Fishing Village
55	Seng Sopha	PAS

(1)

LIST OF ATTENDANTS

3rd Stakeholders Meeting on the JICA Project for the Study on Strengthening Competiveness and Development of Sihanoukville Port in the Kingdom of Cambodia

N°	Name	Positions /Organization	Signature
1-	CHEA SAMBATH	PAS. planning Dept.	
2-	Sem Sakeem	RCL operation	
3-	Klok Makara	PAS. Planning Department	
4-	SOK NIMOL	APL	
5-	BUN. SAMON	DPWT (Provincial)	
6-	Chetha Yuvanny	Asc. Jica Expert	
7-	CHIM KALYANEY	Deputy Director of Depart. of Environment	
8-	SAO PHIN	PAS	
9-	[illegible]	[illegible]	
10-	OUK SOVANNARITH	chief Technich Land	
11-	SEANGLENG	Police(port)	
12-	Leng Mao	PAS, Director machinery Dept	
13-	Ouk Vannarg	PAS. Technical Dept.	
14-	Rath Sela	Pas Admin	
15-	PITHAPRAKATH	PAS - Admin - HR Dept.	

LIST OF ATTENDANTS

3rd Stakeholders Meeting on the JICA Project for the Study on Strengthening Competiveness and Development of Sihanoukville Port in the Kingdom of Cambodia

N°	Name	Positions /Organization	Signature
1-	Naoki Kudo	Nippon Koei	
2-	Ying Koy	Kamsab	
3-	Kong Sophea	PAS	
4-	CHEA SOPHAL	COTS SHIPPING	
5-	Chan Chomroeun	ADHOC	
6-	Prak Visal	Preah Sihanouk provincial Hall	
7-	Soun Kolchenda	PAS - PMU	
8-	Thay. mengly	PAS. CT	
9-	Va. Sonath.	Dep. Gen. Dire. of PAS.	
10-	Sokunvirak	ITL.	
11-	Srey. narin	Terminal Container	
12-	Ban. Chetra	Ben Line	
13-			
14-			
15-			

(3)

LIST OF ATTENDANTS

3rd Stakeholders Meeting on the JICA Project for the Study on Strengthening Competiveness and Development of Sihanoukville Port in the Kingdom of Cambodia

N°	Name	Positions /Organization	Signature
1-	May Sam Aun	Chief of G. C handling office	
2-	Heang Sophal	D.ty Director of Container operation	
3-	Thay Rithy	D.ty Director. Billing Dpt	
4-	MEAN KOELIVO	PAS Architect	
5-	LENG HENG CHE	Nippon Koei	
6-	Reach Sovan		
7-	SO SEANG	Director of Internal Audit of PAS	
8-	SENG KHA	Tourism Department	
9-	Buon Chiv	Costom Stv.	
10-	Norng Soyoth	SPSEZ	
11-	Mon Chann	PAS Audit Dept.	
12-			
13-	SEK SOVANNORA	Container Terminal Dept	
14-			
15-			

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LIST OF ATTENDANTS

3rd Stakeholders Meeting on the JICA Project for the Study on Strengthening Competiveness and Development of Sihanoukville Port in the Kingdom of Cambodia

Nº	Name	Positions /Organization	Signature
1-	Doung Samath	Director Fishery Administration	[signature]
2-	Bros Sameourn	University of Management and Economics	[signature]
3-	PENG NGA	CAM CONTRON	[signature]
4-	Cheth Salday	Billing Department	[signature]
5-	Norng Sinal	Port Security	[signature]
6-	Jonishi Takahiro 上西 隆弘	PAS JICA Advisor	[signature]
7-	CHIN SITHA	WAREHOUSE # 4	[signature]
8-	KONG VIBOL	PAS	[signature]
9-	San Rith	Maersk Representative	[signature]
10-	YOU LENG	PAS	[signature]
11-	PRAK CHAN RASMEI	PAS	[signature]
12-	Chhum Hong	PAS	[signature]
13-	Hin Sokunthea	Deputy Health Deparment	[signature]
14-	KIM HEANG	Fishing Village.	[signature]
15-	SENG SOPHA	PAS	[signature]