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**APR 24 2017**

**PPA MEMORANDUM CIRCULAR**

**NO. 02 -2017**

**T O** All Port Managers  
All Department Managers  
All Unit Heads  
Others Concerned

**SUBJECT : Revised Manual on Port Statistics and Port Performance Indicators**

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In the interest of establishing a uniform set of procedures for the collection, processing and reporting of port statistical data as well as generating port performance indicators that can be adopted to assess the performance level of each port and facilitate comparison of performance among similarly situated ports, a Revised Manual on Port Statistics and Port Performance Indicators is hereby issued for implementation in the Philippine Ports Authority (PPA). The Corporate Planning Department (CPD) is the lead Responsibility Center which shall see through the proper utilization of the Manual by all concerned. The CPD will ensure that updates, clarifications or changes, as necessary and warranted, are introduced to the Manual timely and disseminated for the information of users. All Responsibility Centers are enjoined to provide needed support for the realization of the objectives of the Manual.

This Order takes effect on 01 May 2017 and shall remain in force until revoked and/or amended.

For compliance

**JAY DANIEL R. SANTIAGO**  
General Manager

**VISION**

*By 2020 PPA shall have provided globally competitive port services in the Philippines characterized by increased productivity, efficiency, connectivity, comfort, safety, security and environmental sustainability.*

**MISSION**

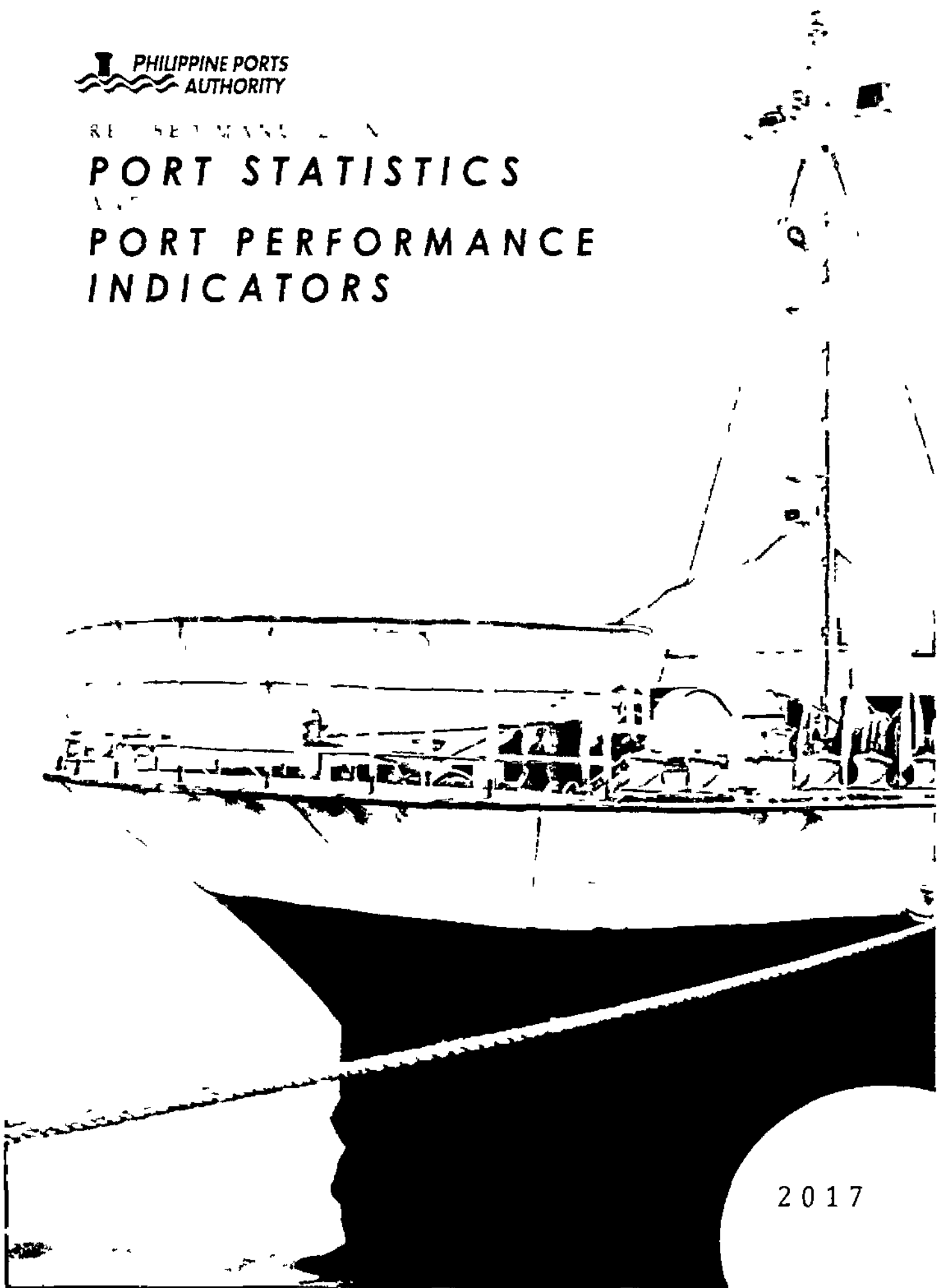
- 1. Provide reliable and responsive services in ports, sustain development of communities and the environment, and be a model corporate agency of the government.*
- 2. Establish a mutually beneficial, equitable and fair relationship with partners and service providers.*
- 3. Provide meaningful and gainful employment while creating a nurturing environment that promotes continuous learning and improvement.*
- 4. Establish a world-class port operation that is globally competitive, adding value to the country's image and reputation.*



RE SETMANAN

# PORT STATISTICS

## PORT PERFORMANCE INDICATORS



2017

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## Port Statistics

The Philippine Ports Authority (PPA) is a Government-Owned and Controlled Corporation (GOCC) attached to the Department of Transportation (DOTr), with the power and authority to supervise, control, regulate, construct, maintain, operate and provide facilities and services as are necessary in the ports belonging to the Authority. It has jurisdiction over base ports and terminal ports (government and private). Based on GCG Memorandum Circular No. 2014-10 dated March 2014 (Rationalization of the Philippine Ports Authority), there are twenty-six (26) Port Management Offices (PMOs) and eighty-two (82) Terminal Management Offices (TMOs) comprising PPA, besides the Head Office.

Port Statistics, among others, is used as basis for important management decisions involving infrastructure planning, port operations and organizational development. With evidence of growth as indicated in port data, operational improvement and/or physical development should follow. Increasing trend in port data indicates growing economic activities to which the port must be able to respond. The efficiency of maritime transportation has become imperative to national competitiveness. The contribution of ports services to the economy is accounted for under the Transportation, Storage, and Communications in Gross Domestic Product (GDP) and the share of water transportation is deemed significant, the Philippines being an archipelago. Over the years, the gathering and reporting of PPA port statistics have continuously evolved prompted by the improving standards of measurements of port performance with influence largely introduced by UNCTAD and other organizations promoting best practices.

The Revised Manual on Port Statistics and Port Performance indicators is designed to guide those performing data collection, report preparation and data analysis roles on the types of data to be gathered, the use and importance of each type of data, the timing of preparation and submission of reports and other reference data to be considered when handling and interpreting port statistics. Based on the generated reports and studies that use port statistical as inputs, proper authorities can be guided in formulating well thought of policies and making decisions that can influence the development planning and operational landscapes of the ports.

The Revised Manual on Port Statistics and Port Performance Indicators is expected to be dynamic and needs to undergo regular review and updating to reflect the best practices in measuring port performance.



## Chapter 1

### **PORT MANAGEMENT OFFICES**

(Under each PMO is a list of ports and/or piers under them and the type of traffic that they handle, i.e. Non-RoRo and/or Ro-Ro. Non Ro-Ro can be specialized or a combination of breakbulk, bulk or containerized type of cargo. Port can be a Baseport, Other Terminal Port, Other Government Port or Private Port.)

New Nomenclature of PPA Port Management Offices (PMOs)

Manila/Northern Luzon Port Management Offices

Southern Luzon Port Management Offices

Visayas Port Management Offices

Northern Mindanao Port Management Offices

Southern Mindanao Port Management Offices

## New Nomenclature of PPA

### Port Management Offices (PMO)

(Based on GCG Memorandum Order No. 2014-10 dated 25 March 2014)

OLD NAME	NEW NAME	CODE
<b>MANILA/ NORTHERN LUZON PORT MANAGEMENT OFFICES</b>		
PMO South Harbor	PMO NCR South	NCS
PMO North Harbor	PMO NCR North	NCN
PMO San Fernando	PMO Northern Luzon	NLZ
PMO Liray	PMO Bataan/Aurora	BNA
<b>SOUTHERN LUZON PORT MANAGEMENT OFFICES</b>		
PMO Batangas	PMO Batangas	BGS
PMO Legazpi	PMO Bicol	BCL
PMO Puerto Princesa	PMO Palawan	PLW
PMO Calapan	PMO Mindoro	MDO
	PMO Marinduque/Quezon	MRQ
	PMO Masbate	MSB
<b>VISAYAS PORT MANAGEMENT OFFICES</b>		
PMO Dumaguete	PMO Negros Oriental/Siquijor	NOS
PMO Iloilo	PMO Panay/Guimaras	PNG
PMO Tacloban	PMO Eastern Leyte/Samar	ELS
PMO Pulupandan	PMO Negros Occidental/Bacolod/BREDCO	NBB
PMO Ormoc	PMO Western Leyte/Biliran	WLB
PMO Tagbilaran	PMO Bohol	BHL
<b>NORTHERN MINDANAO PORT MANAGEMENT OFFICES</b>		
PMO Cagayan de Oro	PMO Misamis Oriental/Cagayan de Oro	MOC
PMO Iligan	PMO Lanao del Norte/Iligan	LNI
PMO Nasipit	PMO Agusan	AGS
PMO Sungao	PMO Surigao	SUG
PMO Ozamiz	PMO Misamis Occidental/Ozamiz	MOZ
<b>SOUTHERN MINDANAO PORT MANAGEMENT OFFICES</b>		
PMO Davao	PMO Davao	DVO
PMO General Santos	PMO SOCSKSARGEN	SSG
PMO Cotabato	PMO Cotabato	CBO
PMO Dapitan	PMO Zamboanga del Norte	ZDN
PMO Zamboanga	PMO Zamboanga	ZBA

**LIST OF PORTS**

**2.1 MANILA/NORTHERN LUZON**

**A PORT MANAGEMENT OFFICE OF NCR NORTH (PMO NCN)**

NAME	RORO	NON-RORO	REMARKS
<b>BASEPORT</b>			
1 PIER 2	✓	✓	
2 PIER 4	✓	✓	
3 PIER 6		✓	
4 PIER 8		✓	
5 PIER 10	✓	✓	
6 PIER 12		✓	
7 PIER 14		✓	
8 Marne Slipway (MSW)	✓	✓	
<b>TMO - VITAS</b>			
<b>PRIVATE PORTS</b>			

**B PORT MANAGEMENT OFFICE OF NCR SOUTH (PMO NCS)**

NAME	RORO	NON-RORO	REMARKS
<b>BASEPORT</b>			
1 PIER 3		✓	
2 PIER 5		✓	
3 PIER 9		✓	
4 PIER 13***		✓	
5 PIER 15		✓	
6 ANCHORAGE/IBW/OBW		✓	
<b>TMO - PASIG RIVER</b>			
1 OTP PASIG BANK - GOV'T COASTWISE		✓	
2 OTP TERMINAL PASIG BANK - GOV'T BAY & RIVER		✓	
<b>PRIVATE PORTS</b>			

Note For Rehabilitation

**MANILA INTERNATIONAL CONTAINER TERMINAL (MICT)**

- 1) Manila International Container Terminal

**C PORT MANAGEMENT OFFICE OF BATAAN/AURORA (PMO BNA)**

NAME	RORO	NON-RORO	REMARKS
<b>BASEPORT</b>			
1 LAMAO		✓	
<b>TMO - DINGALAN</b>			
1 OTP DINGALAN		✓	
<b>TMO - CAPINPIN</b>			
1 OTP CAPINPIN		✓	
<b>TMO - CASIGURAN</b>			
1 OTP CASIGURAN		✓	
<b>OTHER GOVERNMENT PORT</b>			
1 MARIVELES (Anchorage)		✓	
<b>PRIVATE PORTS</b>			

**D PORT MANAGEMENT OFFICE OF NORTHERN LUZON (PMO NLZ)**

	NAME	RORO	NON-RORO	REMARKS
<b>TMO - BATANES</b>				
1	OTP BASCO, BATANES		✓	
<b>TMO - CAGAYAN/ISABEL/ILOCOS</b>				
1	OTP APARRI (Anchorage)		✓	
2	OTP CURRIMAO		✓	
3	OTP CURRIMAO (Anchorage)		✓	
<b>TMO - PANGASINAN</b>				
1	OTP SUAL		✓	
2	OTP SUAL (Anchorage)		✓	
<b>OTHER GOVERNMENT PORTS</b>				
1	ALAMINOS (Anchorage)		✓	
2	BALANGUI (Anchorage)		✓	
3	CABUGAO (Anchorage)		✓	
4	CALAYAN		✓	
5	CALAYAN (Anchorage)		✓	
6	CLAVERIA		✓	
7	DINAPIGUE (Anchorage)		✓	
8	ITBAYAT, BATANES PORT		✓	
9	MACONACON (Anchorage)		✓	
10	MATALVIS		✓	
11	PASUQUIN		✓	
12	SANCHEZ MIRA		✓	
13	SALOMAGUE (Anchorage)		✓	
14	SALOMAGUE (Anchorage)		✓	
15	STA CATALINA		✓	
16	SUAL (Anchorage)		✓	
17	VALANGA PORT		✓	
<b>PRIVATE PORTS</b>				

**2.2 SOUTHERN LUZON****A PORT MANAGEMENT OFFICE OF BATANGAS (PMO BGS)**

NAME	RORO	NON-RORO	REMARKS
<b>BASEPORT</b>			
1 BATANGAS	✓		
2 BATANGAS PHASE 1		✓	
3 BATANGAS PHASE 2		✓	
4 BATANGAS (Anchorage)		✓	
<b>TMO - BAUAN</b>			
1 OTP BAUAN		✓	
<b>TMO - TABLAS</b>			
4 OTP TABLAS	✓	✓	
<b>TMO - ROMBLON</b>			
1 OTP ROMBLON	✓	✓	
<b>OTHER GOVERNMENT PORTS</b>			
1 AMBULONG	✓	✓	
2 AZAGRA	✓	✓	
3 CAJIDIOCAN	✓	✓	
4 CALATAGAN		✓	
5 NASUGBO		✓	
6 SAN JUAN		✓	
<b>PRIVATE PORTS</b>			

**B PORT MANAGEMENT OFFICE OF BICOL (PMO BCL)**

NAME	RORO	NON-RORO	REMARKS
<b>BASEPORT</b>			
1 LEGASPI		✓	
<b>TMO - BULAN</b>			
1 OTP BULAN	✓	✓	
<b>TMO - MATNOG</b>			
1 OTP MATNOG	✓		
<b>TMO - CAMARINES</b>			
1 OTP PASACAO		✓	
<b>TMO - PIO DURAN</b>			
1 OTP PIO DURAN	✓		
<b>TMO - TABACO</b>			
1 OTP TABACO	✓	✓	
<b>TMO - CATANDUANES</b>			
1 OTP VIRAC	✓	✓	
<b>OTHER GOVERNMENT PORTS</b>			
1 BACACAY		✓	
2 BALATAN		✓	
3 BONGALON		✓	
4 CABUGAO, CATANDUANES		✓	
5 CARAMOAN CAM SUR		✓	
6 CASTILLA		✓	
7 CALANGCAWAN		✓	
8 CODON		✓	
9 GARCHITORENA		✓	
10 JOSE PANGANIBAN		✓	
11 LARAP OR CALAMBAYUNGAN		✓	

12	MALOBAGO RAPU-RAPU		✓	
13	NATO		✓	
14	PANTAO		✓	
15	PILAR		✓	
16	RAPU-RAPU		✓	
17	RAGAY		✓	
18	SAN JOSE SABANG PORT		✓	
19	SAN JOSE, SABANG TALISAY PORT		✓	
20	SAN ANDRES	✓	✓	
21	SORSOGON CITY		✓	
22	SULA BACACAY ALBAY		✓	
23	TAMBAN (Tinambac)		✓	
24	TANDOC (Siruma)		✓	
<b>PRIVATE PORTS</b>				

**C PORT MANAGEMENT OFFICE OF PALAWAN (PMO PLW)**

	NAME	RORO	NON-RORO	REMARKS
<b>BASEPORT</b>				
1	PUERTO PRINCESA	✓	✓	
2	PUERTO PRINCESA(Anchorage)		✓	
<b>TMO - BROOKE'S POINT</b>				
1	OTP BROOKE'S POINT		✓	
<b>TMO - CORON</b>				
1	OTP CORON	✓	✓	
2	OTP CORON (Anchorage)		✓	
<b>TMO - CULION</b>				
1	OTP CULION		✓	
<b>TMO - CUYO</b>				
1	OTP CUYO	✓	✓	
<b>TMO - EL NIDO</b>				
1	OTP EL NIDO		✓	
<b>OTHER GOVERNMENT PORTS</b>				
1	LIMINANGCONG		✓	
2	NARRA		✓	
3	TAYTAY - POBLACION		✓	
<b>PRIVATE PORTS</b>				

**D PORT MANAGEMENT OFFICE OF MINDORO (PMO MDO)**

NAME	RORO	NON-RORO	REMARKS
<b>BASEPORT</b>			
1 CALAPAN	✓	✓	
<b>TMO - LUBANG/TILIK/LOOC</b>			
1 OTP TILIK	✓	✓	
<b>TMO - PUERTO GALERA</b>			
1 OTP PUERTO GALERA	✓	✓	
<b>TMO - ROXAS</b>			
1 OTP DANGAY ROXAS	✓	✓	
<b>TMO - SAN JOSE/ABRA DE ILOG</b>			
1 OTP ABRA DE ILOG	✓	✓	
2 OTP SAN JOSE	✓	✓	
3 OTP SAN JOSE (Anchorage)		✓	
<b>OTHER GOVERNMENT PORTS</b>			
1 BANSUD		✓	
2 BULALACAO	✓	✓	
3 MANSALAY		✓	
4 MAMBURAO		✓	
5 PINAMALAYAN		✓	
6 SABLAYAN	✓		
<b>PRIVATE PORTS</b>			

**E PORT MANAGEMENT OFFICE OF MARINDUQUE/QUEZON (PMO MRQ)**

NAME	RORO	NON-RORO	REMARKS
<b>BASEPORT</b>			
1 LUCENA	✓	✓	
<b>TMO - BALANACAN</b>			
1 OTP BALANACAN	✓	✓	
<b>TMO - STA CRUZ (Buyabod)</b>			
1 OTP STA CRUZ	✓	✓	
<b>OTHER GOVERNMENT PORT</b>			
1 CAWIT	✓	✓	
<b>PRIVATE PORTS</b>			

**F PORT MANAGEMENT OFFICE OF MASBATE (PMO MSB)**

	NAME	RORO	NON-RORO	REMARKS
<b>BASEPORT</b>				
1	MASBATE	✓	✓	
<b>TMO - TICAQ</b>				
1	OTP SAN JACINTO		✓	
<b>TMO - BURIAS</b>				
1	OTP CLAVERIA		✓	
<b>OTHER GOVERNMENT PORTS</b>				
1	AROROY		✓	
2	BATUAN		✓	
3	CATAINGAN		✓	
4	CAWAYAN		✓	
5	CALASUCHE (Milagros)		✓	
6	CALUMPANG		✓	
7	DIMASALANG		✓	
8	ESPERANZA		✓	
9	LAGUNDI OR BURGOS PORT		✓	
10	MANDAON		✓	
11	MONREAL		✓	
12	SAN FERNANDO		✓	
13	SAN PASCUAL		✓	
<b>PRIVATE PORTS</b>				



**A PORT MANAGEMENT OFFICE OF NEGROS ORIENTAL/SIQUIJOR (PMO NOS)**

NAME	RORO	NON-RORO	REMARKS
<b>BASEPORT</b>			
1 DUMAGUETE	✓	✓	
<b>NAME</b>			
<b>TMO - LARENA</b>			
1 OTP LARENA	✓	✓	
<b>TMO - TANDAYAG</b>			
1 OTP TANDAYAG		✓	
<b>TMO - GUIHULNGAN</b>			
1 OTP Guihulngan			
<b>OTHER GOVERNMENT PORTS</b>			
1 BULADO	✓	✓	
2 LAZI		✓	
3 SIBULAN		✓	
4 SIKUIJOR	✓	✓	
5 TAMBISAN		✓	
<b>PRIVATE PORTS</b>			

**B PORT MANAGEMENT OFFICE OF PANAY GUIMARAS (PMO PNG)**

NAME	RORO	NON-RORO	REMARKS
<b>BASEPORT</b>			
1 FORT SAN PEDRO		✓	
2 ILOILO RIVER WHARF		✓	
3 ICPC, LOBOC		✓	
<b>TMO - CAPIZ</b>			
1 OTP CULASI	✓	✓	
<b>TMO - AKLAN</b>			
1 OTP DUMAGUIT		✓	
<b>TMO - ILOILO</b>			
1 OTP ESTANCIA	✓	✓	
2 OTP DUMANGAS	✓	✓	
<b>TMO - GUIMARAS</b>			
1 OTP JORDAN	✓	✓	
<b>TMO - ANTIQUE</b>			
1 OTP SAN JOSE ANTIQUE		✓	
<b>OTHER GOVERNMENT PORTS</b>			
1 BASIAO, IVISAN		✓	
2 BORACAY		✓	
3 BURUANGA		✓	
4 CATICLAN (Anchorage)		✓	
5 CONCEPCION		✓	
6 LIPATA		✓	
7 NABAS		✓	
8 NEW WASHINGTON		✓	
9 NPC POWER BARGE BO		✓	
10 SAMBIRAY		✓	
11 SIBUNAG		✓	
<b>PRIVATE PORTS</b>			

**C PORT MANAGEMENT OFFICE OF EASTERN LEYTE/SAMAR (PMO ELS)**

NAME	RORO	NON-RORO	REMARKS
<b>BASEPORT</b>			
1 TACLOBAN		✓	
<b>NAME</b>	<b>RORO</b>	<b>NON-RORO</b>	<b>REMARK</b>
<b>TMO - BORONGAN</b>			
1 OTP BORONGAN		✓	
<b>TMO - CALBAYOG</b>			
1 OTP CALBAYOG		✓	
<b>TMO - GUIUAN</b>			
1 OTP GUIUAN		✓	
<b>TMO - LILOAN</b>			
1 OTP LILOAN		✓	
<b>TMO - SAN ISIDRO</b>			
1 OTP SAN ISIDRO		✓	
<b>OTHER GOVERNMENT PORTS</b>			
1 ARTECHE, EASTERN SAMAR		✓	
2 BABATNGON		✓	
3 BASEY		✓	
4 CAPUL ISLAND		✓	
5 CARIGARA		✓	
6 HOMONHON		✓	
7 LAOANG		✓	
8 LAPINIG		✓	
9 LAS NAVAS		✓	
10 LILOAN		✓	
11 LLORENTE		✓	
12 MANICANI		✓	
13 MANGUINO-O		✓	
14 QUINAPUNDAN		✓	
15 SAN ANTONIO		✓	
16 SAN JOSE		✓	
17 SAN JUAN (Cabalian)		✓	
18 SOGOD		✓	
19 SAN RICARDO		✓	
20 TOLOSA		✓	
21 VICTORIA		✓	
<b>PRIVATE PORTS</b>			

**D PORT MANAGEMENT OFFICE OF NEGROS  
OCCIDENTAL/BACOLOD/BANAGO/BREDCO (PMO NBB)**

NAME	RORO	NON-RORO	REMARKS
<b>BASEPORT</b>			
1 BANAGO	✓	✓	
<b>TMO - PULUPANDAN</b>			
1 OTP PULUPANDAN	✓	✓	
<b>TMO - SAN CARLOS</b>			
1 OTP SAN CARLOS	✓	✓	
2 OTP SAN CARLOS LAYUP GOV'T		✓	
3 OTP SAN CARLOS (Anchorage)		✓	
<b>TMO - DANA O</b>			
1 OTP DANA O	✓	✓	
<b>OTHER GOVERNMENT PORTS</b>			
1 DAANBANWA		✓	
2 LGU PORT - CADIZ		✓	
3 LGU PORT - SAGAY		✓	
4 PACO BEACH - BEACHING		✓	
5 SALVACION		✓	
<b>PRIVATE PORTS</b>			

**E PORT MANAGEMENT OFFICE OF WESTERN LEYTE/BILIRAN (PMO WLB)**

NAME	RORO	NON-RORO	REMARKS
<b>BASEPORT</b>			
1 ORMOC	✓	✓	
<b>TMO - BAYBAY</b>			
1 OTP BAYBAY	✓	✓	
<b>TMO - HILONGOS</b>			
1 OTP HILONGOS	✓	✓	
<b>TMO - MAASIN/GUADALUPE/LIMASAWA</b>			
1 OTP MAASIN	✓		
2 OTP MAASIN (Tramping)		✓	
<b>TMO - PALOMPON/SAN ISIDRO</b>			
1 OTP PALOMPON	✓	✓	
<b>TMO - ISABEL</b>			
1 OTP ISABEL	✓		
<b>TMO - NAVAL/MARIPIPI</b>			
1 OTP NAVAL	✓	✓	
2 OTP MARIPIPI		✓	
<b>OTHER GOVERNMENT PORTS</b>			
1 BATO	✓	✓	
2 BONTOC		✓	
3 CAIBIRAN (Tramping)		✓	
4 GUADALUPE		✓	
5 ISABEL		✓	
6 LIMASAWA		✓	
7 LIMASAWA (Anchorage)		✓	
<b>PRIVATE PORTS</b>			

**F PORT MANAGEMENT OFFICE OF BOHOL (PMO BHL)**

NAME	RORO	NON-RORO	REMARKS
<b>BASEPORT</b>			
1 OTAGBILARAN	✓	✓	
2 OTAGBILARAN (Anchorage)		✓	
<b>TMO - JAGNA</b>			
1 OTP JAGNA	✓	✓	
<b>TMO - TALIBON</b>			
1 OTP TALIBON	✓	✓	
<b>TMO - TUBIGON</b>			
1 OTP TUBIGON	✓	✓	
<b>TMO - UBAY</b>			
1 OTP UBAY	✓	✓	
<b>TMO - GETAFE</b>			
1 OTP GETAFE	✓	✓	
<b>TMO - LOON</b>			
1 OTP LOON (Catagbacan)		✓	
<b>OTHER GOVERNMENT PORTS</b>			
1 BIEN-UNIDO		✓	
2 CLARIN		✓	
3 TAPAL		✓	
<b>PRIVATE PORTS</b>			

**2.4 NORTHERN MINDANAO**

**A. PORT MANAGEMENT OFFICE OF MISAMIS ORIENTAL/CAGAYAN DE ORO (PMO MOC)**

NAME	RORO	NON-RORO	REMARKS
<b>BASEPORT</b>			
1 CAGAYAN DE ORO	✓	✓	
2 CAGAYAN DE ORO (Anchorage)		✓	
<b>TMO - BALINGOAN</b>			
1 OTP BALINGOAN	✓	✓	
<b>TMO - CAMIGUIN</b>			
1 OTP BENONI	✓	✓	
<b>TMO - OPOL</b>			
1 OTP Opol			
<b>OTHER GOVERNMENT PORTS</b>			
1 BALBAGON	✓	✓	
2 GUINSILIBAN	✓	✓	
3 MEDINA		✓	
4 MOLUGAN		✓	
5 CUGMAN		✓	
6 KIMAYA		✓	
<b>PRIVATE PORTS</b>			

**B PORT MANAGEMENT OFFICE OF LANA O DEL NORTE/ILIGAN (PMO LNI)**

NAME	RORO	NON-RORO	REMARK
<b>BASEPORT</b>			
1 ILIGAN	✓	✓	
<b>TMO - TUBOD</b>			
1 OTP Tubod			
<b>PRIVATE PORTS</b>			

**C PORT MANAGEMENT OFFICE OF MISAMIS OCCIDENTAL/OZAMIS (PMO MOZ)**

NAME	RORO	NON-RORO	REMARKS
<b>BASEPORT</b>			
1 DAIMA	✓		
2 OZAMIZ	✓	✓	
3 OZAMIZ (Anchorage)		✓	
<b>TMO - JIMENEZ</b>			
1 OTP JIMENEZ		✓	
<b>TMO - PLARIDEL</b>			
1 OTP PLARIDEL	✓		
<b>OTHER GOVERNMENT PORT</b>			
1 SAN VICENTE BAJO		✓	
<b>PRIVATE PORTS</b>			

**D PORT MANAGEMENT OFFICE OF SURIGAO (PMO SUG)**

NAME	RORO	NON-RORO	REMARKS
<b>BASEPORT</b>			
1 SURIGAO	✓	✓	
<b>TMO - SIARGAO</b>			
1 OTP DAPA	✓	✓	
2 OTP DAPA MUNICIPAL WHARF		✓	
<b>TMO - DINAGAT</b>			
1 OTP SAN JOSE	✓	✓	
<b>TMO - TANDAG</b>			
1 OTP TANDAG		✓	
<b>TMO - LIPATA</b>			
1 OTP LIPATA		✓	
<b>OTHER GOVERNMENT PORTS</b>			
1 ALBOR		✓	
2 ARAS-ASAN		✓	
3 CANTILAN		✓	
4 DEL CARMEN		✓	
5 DINAGAT		✓	
6 HAYANGABON		✓	
7 LORETO		✓	
8 MALIMONO		✓	
9 STA MONICA		✓	
10 NONOC		✓	
11 PLACER		✓	
12 SOCCORO		✓	
<b>PRIVATE PORTS</b>			

**E PORT MANAGEMENT OFFICE OF AGUSAN (PMO AGS)**

NAME	RORO	NON-RORO	REMARKS
<b>BASEPORT</b>			
1 NASIPIT	✓	✓	
2 NASIPIT (Anchorage)		✓	
<b>TMO - BUTUAN</b>			
1 OTP BUTUAN		✓	
<b>TMO - MASAO</b>			
1 OTP MASAO		✓	
<b>OTHER GOVERNMENT PORTS</b>			
1 BUTUAN		✓	
2 MASAO		✓	
<b>PRIVATE PORTS</b>			

**2.5 SOUTHERN MINDANAO**

**A. PORT MANAGEMENT OFFICE OF SOCSARGEN (PMO SSG)**

NAME	RORO	NON-RORO	REMARKS
<b>BASEPORT</b>			
1 MAKAR WHARF	✓	✓	
<b>TMO - SARANGANI</b>			
1 OTP Sarangani			
<b>PRIVATE PORTS</b>			

**B PORT MANAGEMENT OFFICE OF DAVAO (PMO DVO)**

NAME	RORO	NON-RORO	REMARKS
<b>BASEPORT</b>			
1 SASA WHARF		✓	
2 DALIAO (Anchorage)		✓	
3 LANA O (Anchorage)		✓	
4 MACO (Anchorage)		✓	
5 PANABO (Anchorage)		✓	
6 STA ANA (Anchorage)		✓	
7 TIBUNGCO (Anchorage)		✓	
<b>TMO - MATI</b>			
1 OTP MATI WHARF		✓	
<b>TMO - BABAK/SAMAL</b>			
1 OTP BABAK		✓	
2 OTP MAE WESS		✓	
<b>OTHER GOVERNMENT PORTS</b>			
1 BANAY-BANAY		✓	
2 DAVAO FISHPORT		✓	
3 PUNTA LINA O		✓	
4 SAN ISIDRO		✓	
<b>PRIVATE PORTS</b>			

**C PORT MANAGEMENT OFFICE OF ZAMBOANGA (PMO ZBA)**

NAME	RORO	NON-RORO	REMARKS
<b>BASEPORT</b>			
1 ZAMBOANGA	✓	✓	
<b>TMO - ISABELA</b>			
1 OTP BASILAN	✓	✓	
<b>TMO - ZAMBOANGA DEL SUR</b>			
1 OTP PAGADIAN		✓	
2 OTP MARGOSATUBIG		✓	
<b>TMO - ZAMBOANGA SIBUGAY</b>			
1 OTP IPIL		✓	
2 OTP MALANGAS		✓	
<b>OTHER GOVERNMENT PORTS</b>			
1 CAWIT (Anchorage)		✓	
2 MASINLOC (Anchorage)		✓	
3 RECODO (Anchorage)		✓	
4 SANGALI (Anchorage)		✓	
5 TALISAYAN (Anchorage)		✓	
<b>PRIVATE PORTS</b>			

**D PORT MANAGEMENT OF ZAMBOANGA DEL NORTE (PMO ZDN)**

NAME	RORO	NON-RORO	REMARKS
<b>BASEPORT</b>			
1 DAPITAN	✓	✓	
<b>TMO - LILOY</b>			
1 OTP LILOY		✓	
<b>TMO - SINDANGAN</b>			
1 OTP SINDANGAN		✓	
<b>OTHER GOVERNMENT PORTS</b>			
1 GALAS	✓		
2 NABILID		✓	
<b>PRIVATE PORTS</b>			

**E PORT MANAGEMENT OFFICE OF COTABATO (PMO CBO)**

NAME	RORO	NON-RORO	REMARKS
<b>BASEPORT</b>			
1 COTABATO		✓	
<b>TMO - SULTAN KUDARAT</b>			
1 OTP KALAMANSIG		✓	

## Chapter 2

### **Definition of Terms**



## Definition of Terms

**Anchorage** – A place with sufficient depth of water where vessels anchor within the harbour (QMS 2016)

**Arrastre** - A person/entity who/which performs portside cargo handling operations, e.g. receiving, handling, custody, security and delivery of cargo passing over piers, quays or wharves, transit sheds/warehouses and open storages within the jurisdictional area of responsibility of the authorized contractor/operator

**Average Draft of Vessel** - Derived by adding the drafts upon arrival and upon departure of all vessels and dividing them by 2

**Beam of Vessel** - The width of a vessel at the widest point or a point alongside the ship at the midpoint of its length

**Berth** – A specified length of quay wall where a vessel can tie up (UNCTAD PMS Vol 4)

**Berthing/Docking** - Manoeuvring of a vessel from anchorage position or from a pilot station to a berth, including the process of stationing the vessel alongside the pier quay or wharf

**Breakwaters** - Physical structure that protects port infrastructure from the sea (UNCTAD PMS Vol 4)

**Bulk Cargo** - Cargo that is unpacked or undivided into parts and handled in mass. It may come in any of the following forms: solid, pulverized, liquid, semi-liquid or gas

**Cargo Throughput** - Total volume of cargo discharged and loaded at the port. It includes breakbulk, liquid bulk, dry bulk, containerized cargo, transit cargo, and transshipment

**Coastwise/Domestic Trade** - A term applied in a general sense to the trade carried on between ports of the same country

**Container** - A large metal box in which goods are stuffed and handled as one unit. The standard sizes are 20 ft x 8 ft, 40 ft x 8 ft, 45 ft x 8 ft

**Container Freight Station** - A warehouse or transit shed adjacent to the container yard used for stuffing and stripping of container cargo

**Container Terminal** - A port facility designed to provide an integrated use of berthing facilities for containership and harbour transport system for containers and their contents

**Container Yard (CY)** - A designated area in a container terminal usually adjacent to the marshalling yard where containers and chassis are received, stacked and dispatched

**Containerized Cargo** - Cargo packed in vans or containers for easy handling and transporting of the same as a unit

**Controlling Depth** - The least depth of water in the navigable parts of the waterway, which limits the allowable draft of vessels

**Breakbulk**- Cargo that is handled in units, packages, crates, bags and the like

**Deadweight Tonnage (DWT)** - The total carrying capacity of a ship expressed in long tons (2 240 lbs) on a specified draft. The deadweight tonnage includes the total weight of cargoes, fuel, water in tanks, stores, baggage, passengers, crew, and their effects but exclude the water in the boilers

**Depth** - The vertical distance measured at the middle of the vessel's length from top of keel or top of ceiling to top of upper deck at sides or amidships

**Disembarkation** - The act of landing or going ashore from a ship

**Dockage Report** – A form used by computerized and non-computerized port which specifies the name of vessel voyage number flag registry, ship operator/owner, vessel particulars (GRT LOA) port calls (last/next) and vessel movement from anchorage up to departure from berth (QMS 2016)

**Down/Idle Time** –The total time work on the vessel actually comes to a stop

**Draft Maximum** - The deepest draft of a vessel measured upon arrival and upon departure

**Draft of Vessel** - The depth of the ship measured vertically from the waterline to the lowest part of the vessel's hull, propellers or other reference point

**Dues** - Include harbour fees, tonnage and wharfage dues and other dues or fees imposed by virtue of the existing laws as P D 857

**Dwell Time** –The number of hours spent by a vessel from waiting time to berth until the time of completion of the un-berthing process on final departure

**Dry Bulk**–This pertains to unpacked solid goods

**Embarkation** - The act of boarding a vessel or ship

**Foreign Trade** - A term applied to the trade carried on between a Philippine port and a foreign port

**Freight** - The price paid to a ship owner for the transport of goods or merchandise by sea from one specific port to another The word freight is also used to denote goods which are in the process of being transported from one place to another

**Full Container Load (FCL)** - A container loaded with cargoes belonging to one consignee covered by one bill of lading and meant for door-to-door delivery

**Gang** - A group of cargo workers employed to work in a hatch

**Gross gang-hours** - The total number of hours rendered by gangs in discharging and loading cargo, including the gangs idle time This is computed by obtaining the difference between the time the gang started and the time they finished work

- **Net gang-hours** - The total number of hours actually spent by gangs in discharging and loading cargo excluding the gangs idle time This is computed by obtaining the difference between gross gang hours and idle gang hours
- **Idle gang-hours** - The difference between the gross-gang hours and net gang-hours

**Gross Registered Tonnage or Gross Tonnage**- This is the volume of all enclosed spaces of a ship The measure of the internal volume of space within a vessel expressed in terms of 100 cubic feet a ton, except for the following spaces shelter deck spaces with permanent middle line openings at least four feet long lavatories for officers and crew, shelters for deck passengers on short voyages, condensed space close-in spaces solely for machinery, cookhouse and bakeries, wheelhouse Since 1994 when the results of the 1969 international Tonnage Measurement Convention came into force, Gross Registered Tonnage (GRT) has been referred to as Gross Tonnage (GT)

**Infrastructure** - The fixed and immoveable parts of a harbour such as land, roads quay walls and breakwaters (UNCTAD PMS Vol 4)

**Harbour** - A protected part of the sea, lake or other body of water used by vessels as a place of safety (QMS 2016)

**Hatch** - An opening in a vessel's deck through which cargo can be lowered

**Length Overall (LOA)** - The total length from the foremost to the aftermost points of a vessel's hull

**Less Container Load (LCL)** - A container loaded with cargoes belonging to two or more consignees

**Liquid Bulk** - It refers to unpacked liquid goods that can be handled through a pipeline, is stored and transported on the vessel or vehicle in tanks

**Loading** - The operation of transferring cargo from the quay or barge into the hold or on to the deck of a ship. It is not complete until the cargo has been removed from the slings and placed in the hold or on the deck of a vessel

**Lo-lo (lift-on lift-off)** - Cargo handling method by which vessels are loaded or unloaded by either ship or shore cranes (Port Reform Toolkit World Bank Group)

**Manifest (Clearance or Entrance for Cargo and Passenger)** - A document containing a listing of a commodity items/passengers carried by a vessel. The manifest is one of the requirements for clearance/entrance of vessel

**Marshalling Yard** - A place where containers are stacked and arranged according to the sequence or withdrawal to consignee or transferred to CY-CFS or CY inside Port/Customs Zone. It is also where the containers are arranged prior to loading to a carrying vessel in accordance with the sequence of loading in the storage plan

**Metric Ton** - The weight measurement equivalent to 2,204.6 lbs or 1,000 kilograms

**Mooring** - Securing to a dock or to a buoy or anchoring with two anchors

**Net Registered Tonnage (NRT)** - This is derived from gross tonnage by the deduction of space allowed for navigation machinery, and crew accommodation. The total enclosed space of a vessel expressed in 100 cubic feet to a ton, excluding the following spaces

- Propelling space which includes machinery and boiler spaces, and shaft trunks in crew ships excluding store rooms and cabin,
- Master and crew spaces
- Spaces for helm capstan, anchor gears and spaces used for the navigation of the ship, such as chart room, signals and boatswain stores,
- Donkey boiler and engine if connected to main pumps,
- Water ballast spaces other than the double bottoms,
- Sail room which is limited to 2.5% of the gross tonnage of ships wholly propelled by sails

Since 1994 when the results of the 1969 International Tonnage Measurement Convention came into force, Net Registered Tonnage (NRT) has been referred to as Net Tonnage (NT)

**Net Service Time** - This refers to the vessel working time

**Packaging** - Form of shipping cargoes either as breakbulk or conventional bulk or containerized

**Packing or Stuffing** - Loading of cargoes inside a container

**Pallet** - A portable platform or deck, generally about 6 ft x 4 ft on which goods can be attached to form a unit load which can be transported usually by a mechanical appliance such as forklift trucks. Pallet usually stands on bearers with a clearance of several inches leaving a space into which forklift can penetrate for lifting purposes

**Pier** – Any structure built into the sea but not parallel to the coastline and includes any stage, stair, loading place, landing stage, jetty, floating barge on pontoon and any bridge or other works connected therewith (QMS 2016)

**Port** – A place where ships may anchor or tie up for the purpose of shelter, repair, loading or discharge of cargo or for other such activities connected with water borne-commerce, and including all the land and water areas and the structures, equipment and facilities related to the functions (QMS 2016)

- **Terminal Port** – For purposes of this Manual, a terminal is defined as a generic term for a front line unit consisting of a port facility or a number of port facilities, government or private. There are different kinds of terminal such as those engaged in multi-purpose operations as opposed to specialized or dedicated to a single type of operation e.g. bulk terminal
- **Base Port (BP)**- A center or hub of operations and is, in most cases, the busiest terminal in a PMO
- **Other Terminal Port (OTP)** – For this Manual Other Terminal Port shall refer to a port under the umbrella of PPA with lesser activities compared to a baseport. This operational definition should not be confused with the same term referred to by other agencies
- **Other Government Port (OGP)** - A public port owned and maintained by other government entities, e.g. LGU. These ports have, generally, smaller scale of operations compared to what is referred to in this Manual as Other Terminal Port. There are ports under the LGU but are included in the statistical reporting system of PPA. These ports are grouped under Other Government Ports
- **Private Port** - A port owned and maintained by a private entity. It may be commercial or non-commercial as may be allowed by PPA

**Port Dues** – Charge against vessel engaged in foreign trade, including those engaged in barter trade that enter any port whether private or government on each basis in gross registered tonnage (GRT) of the vessel (QMS 2016)

**Port Management Office (PMO)** - The PPA's administrative and operational arm. There are twenty-six (26) PMOs which oversees the Base ports and Terminal Management Offices (TMOs)

**Port of Origin** – Defined as the last port of call (QMS 2016)

**Quay walls** - The basic physical infrastructure provided to berth ship (UNCTAD PMS Vol 4)

**Roll On/Roll Off (Ro-Ro) Vessels** - Specially designed vessels for carrying trailers, cars and other rolling equipment which is discharged through the bow or stern ramps or both

**Shipcalls** - The number of vessels which call or arrive at a particular port at any given time

**Spacing Factor** - is an arbitrary rate (expressed in percent) which is being used to indicate the spacing between vessels when at berth. The normal factor is ten percent (10%) of LOA (PPA MANUAL ON THE REVISED SYSTEM ON PORT STATISTICS)

**Stevedore** – Person who provides cargo handling service in the Philippines. The term refers to a person of company engaged in cargo handling on-board a vessel as opposed to arrastre

**Stevedoring Services** - All works performed on board vessel i.e., the process or act of loading and unloading cargo, stowing inside hatches compartments and on deck or open spaces on board vessel

**Stripping** - Unloading goods from a container

**Terminal Management Office (TMO)** – Refers to an administrative unit overseeing the operation of a terminal in delivering frontline services

**Time on Berth** – This is also described as the Service Time. It is the number of hours a vessel spent from the time of completing the berthing process to the time of completion of the un-berthing process on final departure. It may include the downtime/idle time of the vessel while on berth

**Transshipment** – The shipment of goods or containers to an intermediate country of destination then to yet another country of final destination. The port intermediate country is referred to as transshipment port

**Transit Cargo** - Cargo discharged and loaded from a port of origin to a port of destination through another port

**Transit Shed** - A covered building on the pier or wharf used for storage of cargo in transit, that is cargo recently unloaded from or soon to be loaded to a ship

**Twenty-Foot-Equivalent Unit (TEU)** - The unit of measurement equivalent to a container's length of 20 feet. It is often used to express the capacity of container ships or container terminals (Wikipedia)

**Vessel** – includes any ship or boat or any description of a vessel or boat, or any artificial contrivance used or capable of being used as a means of transportation on water (QMS 2016)

**Waiting Time** – The number of hours spent by a vessel from the time of first reporting at the port to the time of completion of the berthing process before working

**Wharf** - A continuous structure built parallel to the margin of the sea or alongside riverbanks, canals, or waterways where vessels may lie alongside to receive or discharge cargo, embark or disembark passengers, or lie at rest (QMS 2016)

Chapter 3

**Description of Reports**

Annual Projection Report

Monthly Statistical Report

Quarterly Statistical Report

Annual Statistical Report

## **Description of Reports**

Consolidation of data from Port Management Offices (PMOs) is done by the Head Office Statisticians monthly, quarterly, and annually. The reports contain information on number of vessels, cargo throughput, container traffic (TEUs), passenger traffic, and number of vehicles carried by Ro-Ro vessels. These are published in the PPA website except for Annual Projection Report (APR) and Monthly Statistical Report (MSR) which are available upon request.

### **3.1 Annual Projection Report (APR)**

It contains annual projection by PMO per port which can be pro-rated on a monthly basis with corresponding economic reasons as a basis for forecasting. This is accomplished annually and shall be made available by the end of January.

### **3.2 Monthly Statistical Report (MSR)**

It is an internal report which contains the comprehensive details on ship particulars, cargoes, passengers, containers (TEUs), and Ro-Ro traffic which are reported by PMO per port for each month of the year. MSR is submitted by the PMO on or before the 15<sup>th</sup> day of the following month. Consolidation of MSR by Head Office Statistician is completed after ten (10) working days upon receipt of data. MSR consists of the following:

1. Port Traffic Summary (PTS) – This report is intended to record the performance of vessels which have entered and cleared the port during the reporting period. All parts shall be accomplished for each type of operation, that is, domestic and foreign, and whether the vessels are at berth or anchorage. This consists of five (5) parts, namely:
  1. PTS 1 – Shipping Statistics
  2. PTS 2 – Passenger Traffic
  3. PTS 3 – Cargo Statistics by Commodity Classification
  4. PTS 4 – Number of Containers (Boxes) Handled by Size
  5. PTS 5 – Number of Vehicles Carried by Ro-Ro Vessels
  6. PTS 6 – Port Labor

Data source of PTS 1 are the Daily Shipping Record Book, Vessel Information Sheet, or any other equivalent forms/reports. PTS 2 data are from Passenger Manifests. Cargo Manifest is the source of data for PTS 3, 4 and 5. PTS 6 is based on reports coming from the cargo handling operators, such as the Daily Discharging/Loading Report.

For PTS 5, care must be taken in classifying Ro-Ro vehicles to ensure that they satisfy the requisites to merit the reduced Ro-Ro terminal fees (RRTF). These requirements are that the cargo should be self-propelled and it should be self-driven by the owner or driver of

owner there should be no turn-over of responsibility over the cargo to another party. Rolling cargo that is driven by cargo handling operator is not entitled to the RRTF and, therefore should not be classified as Ro-Ro cargo. Transport equipment that is self-driven and rolls-on/off qualifies as a Ro-Ro cargo. However, when the transport equipment is loaded to another vehicle like a trailer, the carrying vehicle should meet the requirements to qualify as Ro-Ro cargo, otherwise the transport equipment becomes a type of non-Ro-Ro cargo.

PTS 6 should be prepared by type of cargo, i.e. separate PTS each for breakbulk, liquid bulk, dry bulk and containerized. This will enable operational and development planners to realistically establish the productivity and efficiency of cargo handling operations since different types of cargo packaging requires different forms of handling and will result in different productivity levels.

“Total, Average and Maximum” values should be determined for GRT, NRT, DWT, Beam, LOA and, Draft. For the rest of data items, i.e., Waiting Time, Service Time, Total Number of Men Working, Number of gangs, Gross/Net Idle Gang Hours and Cargoes by Commodity Classification, only the total or sum value is required.

- ii Summary Statistical Report (SSR) - This is intended to provide an overview of the performance of each port by presenting the totality of the volume of operations in terms of shipcalls, cargoes, passengers, container units, service time of vessels, gang hours and other related data items. The SSR should cover all vessels included in the PTS which were serviced at berth and/or at anchorage. A separate SSR should be prepared for operations at berth or anchorage. For the information to be meaningful, it is important that a brief explanation on the reasons for increases/decreases in traffic shall be reflected in the SSR since it will be used as reference in explaining deviation in reports to Top Management and oversight agencies as well as basis for forecasting traffic per port.

Performance indicators such as Berth Occupancy Rate (BOR), number of tugs used, average number of cranes/vessel, average cargo movement per hour, average yard dwell time per box, yard utilization, tons per berth meter, and tons per hectare are also included in the SSR and have to be supplied by the PMO, where applicable. Some of the indicators may be derived from the other given data but there are those which will have to be sourced from the PMO database like port area, berth length, no. of cranes (shore), others.

- iii Port Management Office Summary Statistical Report (PMOSSR) – It reflects the total volume of shipcalls, cargoes, passengers, containers, and vehicles carried by Ro-Ro vessels. This is the consolidated SSRs of ports per PMO.



### 3.3 Quarterly Statistical Report (QSR)

It is a quarterly summary of statistics for each PMO. This shows detailed report on the base ports and terminal ports and totals for the other types of ports (Other Government Port and Private Ports). QSR is prepared and published in the website after twenty (20) working days from receipt of MSRs covered in the review period.

### 3.4 Annual Statistical Report (ASR)

This report includes the year-end totals of traffic by PMO per port. It is comprised of Annual Statistical Report Volume 1 (Port Traffic Summary) and Annual Statistical Report Volume 2 (Summary of Cargo Statistics by Commodity Classification). ASR (volumes 1 and 2) is accomplished and posted on the website on or before July 31 of the following year.

1. Annual Statistical Report (ASR) Volume 1 – This summarizes the annual data per port of ship particulars, cargo throughput, passengers, container traffic, and Ro-Ro traffic. It is comprised of the following:
  - a) Nationwide Shipping Summary by PMO/Port
  - b) Nationwide Cargo & Passenger Summary by PMO/Port
  - c) Nationwide Container Traffic (in TEUs and in Boxes) Summary by PMO/Port
  - d) Nationwide Ro-Ro Traffic Summary by PMO/Port
  - e) Comparative Statistics (prior year versus current year)
  - f) Annual Statistics by PMO/Port
2. Annual Statistical Report (ASR) Volume 2 – It consists of the following:
  - a) Nationwide Commodity Classification per packaging type Summary by PMO/Port
  - b) Annual Commodity Classification by PMO/Port

### 3.5 Special Reports

CPD and the PMOs may be requested, from time to time, to prepare special statistical reports for submission to local (e.g. PSA, DOTr, private entities requesting for data, etc.) and international organizations (e.g. UNCTAD, APA, etc.) or for internal consumption by PPA in relation to special studies or policies being formulated/reviewed.

Chapter 4

**Data Collection**

## Data Collection

### 4.1 Sources of Data

The following documents are relevant to the port statistics system

- 1 Manifest – The document containing a listing of commodity items and/or passengers carried by a vessel. It is one of the requirements for entrance/clearance of vessel. Cargo and Passenger Manifests and other documents required upon entrance/clearance are as follows
  - A Application for Berth and Anchorage (ABA)
  - B Dockage report
  - C Cargo/Coasting/Ro-Ro Manifest
  - D Oath of Master Covering list of officers on Coastwise Vessels
  - E Passenger Manifest
  - F Wharfage Clearance Certificate
  
- 2 Cargo Handling Operators' (CHO) Report - This is accomplished upon completion of cargo handling operations
  - A Daily Discharging and Loading Report
  - B Hatch Report
  - C Statement of Facts
  
- 3 Operations Report - Any supplemental report required by PPA from users. It is prepared upon completion of specific type of operation required
  - A Vessel Information Sheet (VIS) – This contains vessel particulars specifically name of vessel, LOA, GRT, NRT, DWT, date and time of arrival/departure from berth/anchorage, draft markings, last and next ports of call, and shipping company, which are used as a basis for the determination of port charges and updating of vessel database
  - B Report on Container Operations (RCO) – It refers to any source document which captures information regarding container traffic such as name of carrying vessel, number of units, size of containers, cargo tonnage in metric tons, and port of origin/destination
  - C Daily Shipping Record Book (DSRB) - Report accomplished by PPA in collaboration with the users
  - D Post Vessel Operations and Evaluation Report (PVOER)
  - E Worksheet of Transit Cargo (WTC) – It is a summary sheet of transit cargo
  - F Docking and undocking Report

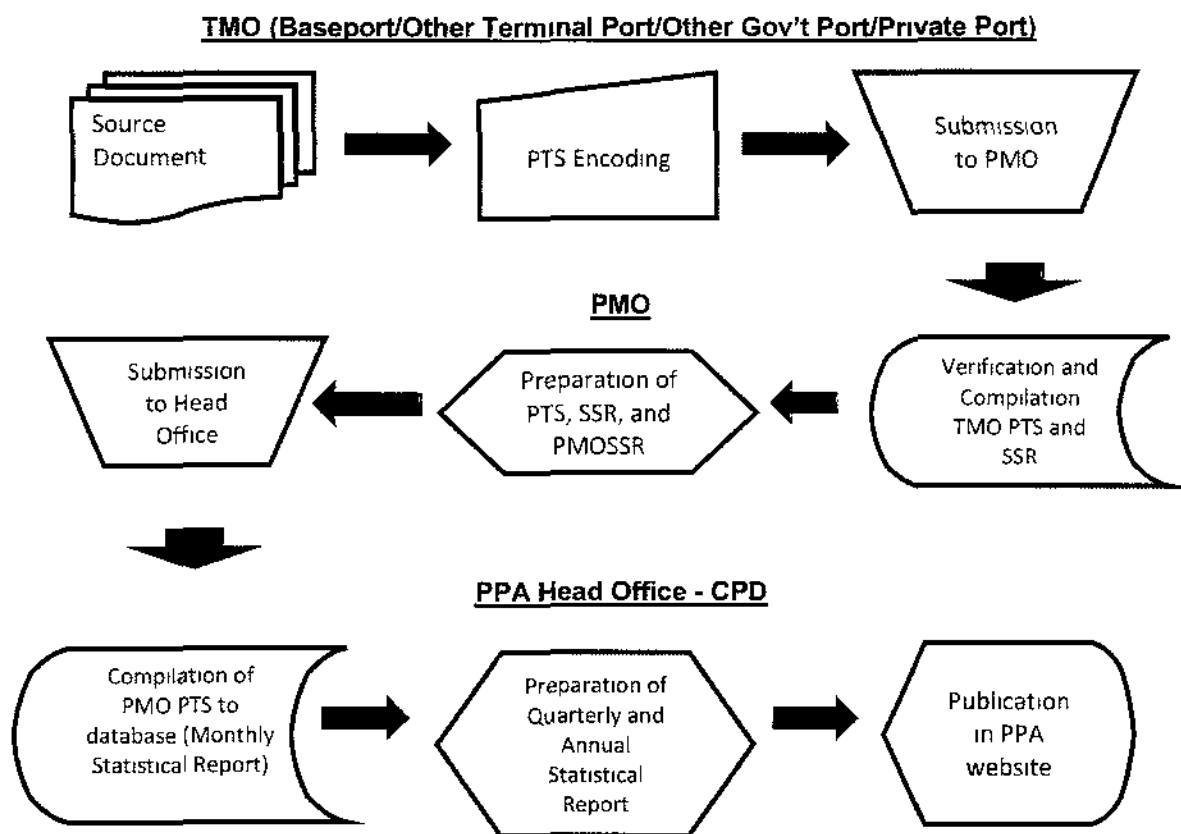


Diagram 1 PPA Data Collection

**TERMINAL MANAGEMENT OFFICE**

- Upon arrival of each vessel, the vessel's representative has to secure a dockage report, manifest, and other reports required by the PMO which contain information on vessel's name, time of arrival and departure, service and waiting time, commodities carried, number of passengers, and etc.
- The Statistical Assistant or any personnel assigned with this role compiles the Dockage Report and Manifest of all vessels that entered the port during the reporting period.
- Preparation of Port Traffic Statistics (PTS) and Summary Statistical Report (SSR) is also done by the Statistical Assistant or any equivalent personnel.
- The PTS and SSR are sent through electronic mail or other forms of transmitting documents to the Port Management Office-Port Service Division (PMO-PSD) together with the Manifest, Cargo Handling Report and other Operations report.

## **PORT MANAGEMENT OFFICE – PORT SERVICE DIVISION**

Based on the reports and documents received from Terminal Management Offices (TMOs), the PMO Statistician is responsible mainly for the accomplishment of the Monthly Statistical Report (MSR). The steps involved in the processing of documents are as follows:

- 1 Further verification of the completeness of documents and reports as well as PTS and SSR submitted by the Terminal Operations Offices (TMOs) or other units
- 2 Preparation and consolidation of Monthly Statistical Report (MSR) which include Port Traffic Statistics (PTS), Summary Statistical Report (SSR), and Port Management Office Summary Statistical Report (PMOSSR). The preparation entails manual processes which involve the encoding of data on individual vessels in the prescribed excel template for the PTS and manual lifting of the column totals from the PTS and posting of the same in the corresponding data items in the SSR. Macro commands which will automate a series of tasks such as generation of running totals, copying of totals to another worksheet and generating summaries by type of port have been prepared and are incorporated in the template. The same macro-commands automatically populate data in the PMOSSR (row total for data pertaining to baseport, subports, other government ports and private ports)
- 3 Affixing signatures of the personnel involved in the preparation of report and of the approving officer
- 4 Preparation of the transmittal letter and affixing the signature of the Port Manager
- 5 Updating and managing the database and files on PMO statistics
- 6 MSR (PTS - 1,2,3 4,5, 6, SSR and PMOSSR) shall be submitted to PPA Head Office – Corporate Planning Department on or before the 15<sup>th</sup> day of the following month thru
  - a MSR softcopy is sent by electronic mail address to the assigned statistician
  - b A copy of the MSR is also required to be sent to One Drive identified as [corpplan@ppa.com.ph](mailto:corpplan@ppa.com.ph) in respective folders of each PMO under Port Statistics
- 7 Standard file naming will be observed for the PTSs, SSRs, and PMOSSRs. File naming should be done with this format: **month-year-port type-name of port-area of operation-type of traffic-file** (e.g. 04-2016-BP-Sasa-Dom-Berth-PTS)

## **PPA HEAD OFFICE – CORPORATE PLANNING DEPARTMENT**

- Upon receipt of MSRs from twenty six (26) PMOs, consolidation and updating of the CPD monthly statistics database are prepared by the assigned Statistician. Validation of data consistency is based on SSR and PMOSSR; however, if the data reflected in SSR and/or PMOSSR do not match with the PTS, the values shown in the latter (PTS) shall be considered to be correct and the PMOSSR shall be correspondingly adjusted. If there are revisions, the corrected PTS, SSR, and PMOSSR shall be submitted to the CPD immediately to maintain the accuracy of the monthly statistics. CPD will send back to the PMO Statistician the consolidated MSR which has discrepancies by each port under the PMO for revision and/or confirmation. The PMO is given one (1) week to confirm or update the PTS and/or SSR based on the discrepancies sent by the CPD personnel. Upon receipt of the PMO confirmation, the corrected PTS serves as basis for the consolidation.

- At the end of every quarter, QSR is prepared by the assigned personnel of CPD and it is published in the PPA website after twenty (20) working days upon receipt of MSRs covered in the review period
- Year-end validation of consolidated MSR is done every 2<sup>nd</sup> month of the following year. After checking the data, ASR is accomplished by the assigned personnel of CPD and ASR volume 1 (Port Traffic Statistics) and volume 2 (Summary of Cargo Statistics by Commodity Classification) is published in the PPA website at the end of July of the following year

Chapter 5

**Statistical Data**

## Statistical Data

### 5.1 Vessels (Ship calls)

The concept of a vessel includes any ship or boat or any description of a vessel or boat, or any artificial contrivance used or capable of being used as a means of transportation on water (PPA QMS Manual, 2016). Data on vessels plays a vital role in evaluating port facilities (Port Statistics – UNCTAD, 1971).

Vessels with foreign flag registry and are issued temporary permit by MARINA such as those covered by PPA MC 03-2009 shall be considered foreign vessels including the cargoes that they carry and, therefore, charged the rates corresponding to foreign vessels and/or foreign cargo, as the case may be.

Very small vessels, e.g. vessels with equal to or less than 6 GRT such as motorized bancas and fishing boats which do not utilize berth and merely do beaching up or use stair-landing facility, may be reported separately in the PTS (1-6). Including them in the number of regular shipcalls will affect the profile of vessels that call at the port or the productivity indicators of the port in terms of, for example, tonnage/ship or service time per vessel, berth occupancy rate, etc. Tug boats are not also to be counted as part of shipcalls.

In the PPA monthly statistical reports, shipcalls shall include only vessels that arrived and departed within the month.

#### 5.1a Classification of Ships by Types (Reference Manual on Maritime Transport Statistics – Eurostat, 2016)

##### i General Cargo Ships (Breakbulk Vessel)

This refers to ships designed to carry different types of goods. It includes reefer, palletized cargo ship, general cargo ship, conventional cargo vessel, combination carrier general cargo/passenger and combination carrier general cargo/container.

##### ii Specialized Cargo Ships (Specialized Carrier)

This pertains to ships designed for the carriage of specific goods. It includes livestock carrier, barge carrier, irradiated fuel carrier, and chemical carrier.

##### iii Container Ships

This includes ships with fixed or portable cell guides which allow the containers to slot into place.



- iv Ro-Ro Cargo Ships  
This refers to vessels that are designed to carry self-powered or self-propelled vehicles that roll on and roll off the vessel to and from the dock via a ramp. Ro-Ro cargo must be ***self-propelled*** and ***self-driven by its owner or driver without the control over the Ro-Ro vehicle being surrendered to any other party***
- v Bulk Carriers  
This refers to dry bulk carriers such as bulk/oil carriers
- vi Liquid Bulk Carrier (Tankers)  
This pertains to oil and chemical tankers, gas tankers, and other tankers
- vii Passenger Ships  
This includes ferry boat and fast craft. Ferry refers to a ship designed with one or more decks for the carriage of passengers, and where there is either no cabin accommodation for passengers or not all of the passengers are accommodated in cabins where cabins are provided
- viii Cruise Ships  
It is a type of passenger ship with a purpose of providing full tourist experience to the passengers. All of the passengers have cabins and entertainment facilities aboard are provided
- ix Offshore Vessels  
These are ships that specifically serve operational purposes at the high seas. They also provide for the transiting and relieving of crewing personnel to and from the high seas' operational areas, as and when necessitated
- x Service Ships  
This is also referred to as Miscellaneous
- xi Tugs  
Such vessels are intended to assist in the berthing, unberthing and movement of large or less maneuverable vessels
- xii Dry Cargo Barge  
This includes all types of barge
- xiii Fishing Vessels
- xiv Batel

## 5 1b Ship Particulars

Information on ship particulars is obtained from Dockage Report. Gross Registered Tonnage (GRT)/Gross Tonnage (GT), Deadweight Tonnage (DWT), and Net Registered Tonnage (NRT)/Net Tonnage (NT) are important measures in the projection of shipcalls. Length and draft of ships play an essential role in evaluating port facilities. Beam of ships is significant with respect to determination of the reach of shore cranes or bulk handling equipment (Port Statistics – UNCTAD, 1971). Beam is also important in determining the Berth Occupancy Rate of vessels that adopt Mediterranean style of berthing/mooring.

Domestic and Foreign Traffic will be distinguished. **Total, Average, and Maximum** of each vessel particular should be duly noted and identified.

- I Number of Vessels (Number of arrivals for the period) - The total vessel arrivals. To facilitate report preparation, only vessels that arrived and departed during the reporting period should be included.
- II Gross Registered Tonnage (GRT)/Gross Tonnage (GT)
- III Net Registered Tonnage (NRT)/Net Tonnage (NT)
- IV Deadweight Tonnage (DWT)
- V Length of Vessels
- VI Beam of Vessels
- VII Draft of Vessels

The figure below shows elements that constitute dwell time in port. One should refer to this diagram in computing the following particulars such as down/idle time, waiting time, time on berth, total dwell time in port, and net service time.

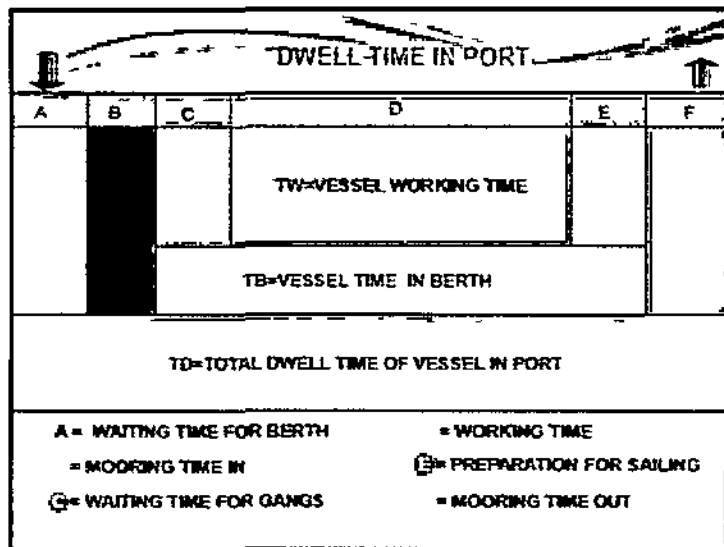


Figure 1 (UNCTAD 2012, *Assessing Port Performance – Dwell Time*)

- viii Down/Idle Time - This includes the waiting time for gangs (C) and other work stoppages attributed to labor or vessel that consequently affect vessel working time. Examples of this are waiting for gangs, breakdown of equipment, meal break, mechanical problems of the vessel, "sleeping vessel" (vessel literally sleeps at berth doing nothing and continues cargo operation the following day), others.
- ix Waiting Time (Average waiting time for berth) – This pertains to the difference of time spent by a vessel at anchorage and at berth. It comprises of waiting time for berth and mooring time in (A + B).
- x Time on Berth (Service Time) – This comprised of time for arrival and departure of vessel at berth. It is derived by summing up the waiting time for gangs, vessel working time, preparation for sailing, and mooring time out (C + D + E + F). Average Time on Berth is derived by dividing the Total Vessel Time on Berth by the number of vessels.
- xi Net Service Time – It is derived by subtracting the idle/down time from the time on berth. It is also referred to as Vessel Working Time (D).
- xii Total Dwell Time in Port – It is the summation of all elements in dwell time (A + B + C + D + E + F).

## 5.2 Cargo Throughput

Data on cargo give indication on port activity thru movements of goods. Those data are essential for cargo forecasts and identification of additional facilities needed (Port Statistics – UNCTAD, 1971). Domestic, foreign, inbound, and outbound traffic are recorded to assess the balance of cargo movement in a port which affects shipcalls. Cargo throughput is the total value of breakbulk, liquid bulk, dry bulk, containerized cargo, transit cargo, and transshipment. In the PPA SSR, cargo throughput does not include the tonnage of Ro-Ro cargoes since these are charged per vehicle type and most ports are no longer capable of determining and measuring the contents of each vehicle type. In PPA ports, the productivity of Ro-Ro operations is measured in terms of Number of Ro-Ro Vehicles per Net Ship-Hour.

It is equally important to note that based on existing regulations of PPA, particularly PPA MC 03-2009, cargoes carried by foreign registry vessels which are issued temporary permit by MARINA are classified as foreign and are imposed port charges corresponding to foreign cargo. In similar manner, the vessels are also imposed rates corresponding to foreign vessels.

For cargoes that are handled shipside, e.g. discharged directly onto barges which deliver them to the hinterlands of the port within the administrative jurisdiction of the port, their cargo tonnage should only be counted once. This should be differentiated from cargoes which are discharged at the port and loaded to another vessel at the same port for onward carriage to another port which could be the final destination of cargo. This type of transaction clearly justifies the recording of the cargo as inbound when it arrived (from another port) and as outbound when it is transported to another port, as in the case of transit cargo.

Cargo Throughput, however, needs to be further broken down according to the following classifications:

- A Breakbulk – Cargo that is handled in units, packages, crates, bags and the like
- B Liquid Bulk – It refers to unpackaged liquid goods that can be handled through a pipeline, is stored and transported on the vessel or vehicle in tanks
- C Dry Bulk – This pertains to unpackaged solid goods that can be handled
- D Containerized Cargo/Lift-on and Lift-off (Lo-Lo) – Cargo packed in vans or containers for easy handling and transporting of the same as a unit

- E Transit Cargo – Cargo discharged and loaded from a port of origin to a port of destination through another port. This classification of cargo applies to domestic trade only.
- F Trans-shipment – The removal of goods from one vessel to another for onward carriage from the port of discharge to the port of destination. This classification applies to foreign trade involving at least 3 ports from 3 different countries.

### **5.3 Passenger Traffic**

Domestic and foreign traffic is differentiated to determine the bulk of people availing of sea transport and evaluate the level of local tourism activity. Ideally, passenger data should be categorized between male and female as well as identify physically challenged passengers. There are limitations, however, on the sources of data. Hence, only broad classification is presently feasible to be done. Under domestic/foreign classification, passengers should further be classified as follows:

- A Disembarked – refers to the total number of incoming passengers
- B Embarked – refers to the total number of departing passengers
- C Cruise passengers – refers to the total number of cruise ship passengers

### **5.4 Container Throughput (LoLo)**

Domestic, foreign, inbound, and outbound traffic are detailed to determine container movement in a port which can be used as basis for forecasting and assessing the occurrence of congestions. Transit Cargo and Trans-shipment, if any, should be separately classified:

- A Total Container (in TEUs)
  - i Empty Container
  - ii Full Container Load (FCL) – A container loaded with cargoes belonging to one consignee covered by one bill of lading and meant for door-to-door delivery
  - iii Less Container Load (LCL) – A container loaded with cargoes belonging to two or more consignees
- B Total Number of Boxes (All Sizes)
  - i 10 Footer
  - ii 20 Footer
  - iii 40 Footer
  - iv 45 Footer

## 5 5 RoRo Traffic

Total Number of RoRo Vehicles (All Types)

Vehicles carried by Ro-Ro vessels can be classified as

- i Type 1 - Motorcycle, Tricycle & Scooter
- ii Type 2 - Car, Minivan, SUV, AUV, Owner jeep, PUJ (up to 16 pax)
- iii Type 3 - Light Delivery Van Pick-up Truck, PUJ (more than 16 pax)
- iv Type 4 - Stake Truck, Heavy Delivery Truck, Passenger/Tourist Bus, Prime Mover/Tractor Head (with or without Trailer/Chasis)

## 5 6 Labor Statistics

PPA needs to monitor the productivity of labor to determine whether commitments in the contract by cargo handling operators are being met. This is an essential component and yardstick of port productivity. While there are other operations types that have cargo handling application, only the aspects involving cargo loading and discharging are covered by the labor-related data to be captured and summarized in the PTS form (PTS 6)

### A Non-Containerized Cargo/Containerized Cargo

There are common data items on Port Labor for non-containerized and containerized including Ro-Ro cargo operation. These items of data are indicated below and should be filled-up where applicable. In the case of container handling operation, productivity of labor is presently measured in terms of boxes per hour, TEUs per hour or crane moves per hour. For Ro-Ro operation, on the other hand, an additional measure of productivity is expressed in vehicles per net ship hour.

PPA is presently re-engineering its policies and changes may soon be introduced in the delivery of terminal management and services which may lead to changes in the data to be collected and processed on labor and other productivity measures. Hence, this Manual will be updated whenever new policies are put in place.

- i Total Number of men - refers to the total number of casual and permanent employees employed in operation during the period reported on and should be consistent with the summation of the Total number of Men Working on all vessels in the PTS

- ii Number of Gangs - refers to the total number of groups of workers during the period reported on and is determined by summing up the number of gangs in the PTS
- iii Average number of men per gang - is determined by dividing the Number of Men by the Total Number of Gangs
- iv Total cargo tonnage handled by gang – it is the summation of cargo handled by the gang
- v Total containers handled – it is the summation of the number of container units in boxes handled comprising of various sizes
- vi Gang Hours
  - a) Gross - is the summation of gross gang hours of all vessels in the PTS
  - b) Net - is the summation of net gang hours worked of all vessels in the PTS
  - c) Idle - is the summation of idle gang hours per vessel or all for all vessels in the PTS
- vii Average Tonnage /Gross /Net Gang Hour - is determined by dividing the cargo throughput (total cargo tonnage) by the Gross/Net Gang Hours worked
- viii Average Tonnage/ Gross/ Net Man Hour - is determined by dividing the Average Tonnage per Gross/ Net Gang Hour by the Average Number of Men
- ix Boxes or TEUs per Hour (for both self-sustaining vessels and shore crane operation)
- x Crane Moves per Hour

Chapter 6

**Port Performance Indicators**



## Port Performance Indicators

**Port Performance Indicator (PPI)** gives an overview of port operations which is used for management review of efficiency and effectiveness of ports. This serves as basis for port congestion surcharges, port development, port tariff considerations and investment decisions (Port Performance Indicators, UNCTAD). Port Performance Indicators are tools for evaluation of future capacity requirements and for monitoring development, improvement, and efficiency of port services. According to Edwards and Thomas (2005), performance indicators are pieces of information that are employed for measuring and assessing performance. The operational performance of a port is generally measured in terms of turn-around time of vessels and rate of movements of cargo.

For PPA, PPIs can be automatically generated monthly, together with the other reports, if the data that are used as basis for determining them are available. It may be of high interest to both the PMO and Head Office to know and understand what the PPIs indicate so that necessary interventions may be introduced timely. These PPIs can be and will be used in comparing port performances over time.

### 6.1 Related to Vessels Operations

#### 6.1a Berth Occupancy Rate (BOR) – Berth length

This indicates the level of berth utilization which is defined as the rate of time the berth is occupied by a vessel to the total time available for the reporting period. Higher BOR is a sign of congestion which leads to decline in port services rendered while low BOR signifies underutilization of resources (Port Performance Indicators: A case of Dar es Salaam port, UNCTAD).

NUMBER OF BERTH	BERTH OCCUPANCY RATE
1	45
2	50
3	55
4	60
5	62.5
6	65
7	67
8	69
9	70

Table 1 UNCTAD BOP reference

In the computation of BOR, vessels which are “beaching-up” and others which do not utilize berth should not be included. Berthing method should also be considered in computing BOR. For Mediterranean berthing, beam can be used as a variable instead of LOA, and number of berths is used instead of effective berth length while for alongside berthing, the formula below shall be used

Berth Occupancy Rate (BOR)	=	$\left( \frac{\text{Net Service Time}}{\text{Shipcalls}} \right) \times \frac{\text{Length Overall (LOA)}}{\text{Effective Berth Length} \times \text{Number of Days} \times 24 \text{ hours}}$	$\times \left( 1 + \left( \frac{1}{100} \right) \right)$
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Equation 1 Berth Occupancy Rate (BOR)

**6 1b Number of pilots used (in/out = 2)**

It refers to the number of vessel operations that requires and uses a pilot. An arrival, a shift if necessary, and a departure are separate operations. In PPA, pilotage is compulsory in all ports.

**6 1c Number of tugs used per vessel (in + out)**

It refers to the number of tugs used in and out during vessel operations which will serve as one of the standardized measure for comparison. Presently tug assistance is not compulsory.

**6 1d Average Waiting Time (in Hours)**

It is reckoned from the time of first reporting and/or arrival at anchorage, to the time of completion of the berthing process. Average waiting time is derived by dividing total waiting time by the total number of vessels.

**6 1e Average LOA/Draft/GT per vessel**

- a Average Length of Vessel (LOA) – This is calculated by dividing the total length of vessel (LOA) by the total number of vessels.
- b Average Vessel Draft (loaded) – The value that records the vessel draft when at its largest (loaded) should ideally be recorded. In the existing system, the arrival and departure draft are both being recorded. Based on the recorded data, the Total Draft, Average Draft and Maximum Draft shall be identified in the PTS.
- c Average Gross Tonnage (GT) - This is derived by dividing the total gross tonnage (GT) by the total number of vessels.

## 6.2 Related to Cargo Operations

Performance indicators related to cargo operations should have separate measures according to packaging type of packaging of commodities (i.e. breakbulk, dry bulk, liquid bulk, and containerized cargoes)

### 6.2a Tonnage per ship

This gives an idea of the total productivity of a port in cargo handling. A reduced value for the index will indicate low efficiency due to imposition of longer times on ships (Privatization and Regulation of Transport Infrastructure, World Bank Institute)

$$\text{Tonnage per ship} = \frac{\text{Total Tonnage handled for all ships}}{\text{Total number of vessels}}$$

Equation 2 Tonnage per ship

### 6.2b Average number of cranes per vessel on quay

This is a simple measure based on the number of working cranes allocated to a vessel loading or unloading (UNCTAD Port Management Series Volume 4)

$$\text{Average number of cranes per vessel on quay} = \frac{\text{Total number of cranes per vessel on quay}}{\text{Total number of vessels}}$$

Equation 3 Average number of cranes per vessel on quay

### 6.2c Average movement per hour (Gross Productivity)

This refers to average movement per hour on and off the vessel

#### i Average tons per net ship-hour (Productivity)

$$\text{Average tons per net ship-hour} = \frac{\text{Breakbulk volume (in m t)}}{\text{Net Service Time (in Hours)}}$$

Equation 4 Average tons per net ship-hour

#### ii Average boxes per net ship-hour (Productivity)

$$\text{Average boxes per net ship-hour} = \frac{\text{Number of boxes}}{\text{Net Service Time (in Hours)}}$$

Equation 5 Average boxes per net ship hour

#### iii Average RoRo units per net ship-hour (Productivity)

$$\text{Average Ro-Ro units per net ship-hour} = \frac{\text{Number of Ro-Ro vehicles}}{\text{Net Service Time (in Hours)}}$$

Equation 6 Average Ro-Ro units per net ship-hour

#### 6 2d Tons per working hour

Tons per working hour	=	$\frac{\text{Dry bulk volume (in m t)}}{\text{Net Service Time (in Hours)}}$
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Equation 7 Tons per working hour (dry bulk)

Tons per working hour	=	$\frac{\text{Liquid bulk volume (in m t)}}{\text{Net Service Time (in Hours)}}$
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Equation 8 Tons per working hour (liquid bulk)

#### 6 2e Tons per berth meter

Tons per berth meter	=	$\frac{\text{Total cargo throughput (in m t)}}{\text{Total Berth Length (m)}}$
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Equation 8 Tons per berth meter

#### 6 2f Tons per hectare

Tons per hectare	=	$\frac{\text{Total cargo throughput (in m t)}}{\text{Total area (in sq m)}}$
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Equation 9 Tons per hectare

There are metrics that are related to containerized cargo operations which are essential in determining the efficiency of container movement in the port

#### 6 2g Average yard dwell time per box

The measure simply calculates the average time a container remains in the yard in the port (UNCTAD Port Management Series Volume 4) The shorter the stay time of boxes, the higher the potential of utilization of yards (Merckx, 2005)

Average yard dwell time per box	=	$\frac{\text{Actual number of Container} \times \text{Number of stay time (in days)}}{\text{Total Capacity}}$
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Equation 10 Average yard dwell time per box.

#### 6 2h Yard Utilization

It is the ratio of number of storage slots (number of containers on hand) to the number of available slots (terminal capacity) Greater than sixty five (65) percent yard utilization indicates congestion (Port Performance Indicators A case of Dar es Salaam port, UNCTAD)

Yard Utilization	=	$100 \times \frac{\text{Actual Storage slots occupied}}{\text{Total Capacity of Container Yard}}$
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Equation 11 Yard utilization

### 6.2i Daily Truck Movement/Gate Moves

This refers to the Total number of trucks that entered and left the port gates derived by getting the daily average movement in a month (Reference ICTSI and ATI reports on MICT and SH operation)

$$\text{Daily Truck Movement} = \frac{\text{No Total Ins + Total Outs}}{\text{No of Days (30)}}$$

Equation 13 Daily Truck Movement

### 6.2j Crane Moves per Hour

This refers to the productivity of each crane and different methods of calculation are being employed by ports depending on which method works best

$$\text{Crane Moves per Hour} = \frac{\text{No of containers moved (in boxes)}}{\text{No of crane working hours (in hour)}}$$

Equation 14 Crane Moves per Hour

Chapter 7

**Additional Data for the Port Performance Scorecard  
(PPS) of UNCTAD**