Infrastructure Development and Policy Priorities of Freight Transport

PHILIPPINE PORTS

Maria Asuncion Hiyasmin H. Delos Santos
Manager, Port Operations and Services Department
Philippine Ports Authority (PPA)
Philippine Port System

- PPA consists of 25 government baseports and 160 terminals, and 307 private ports (commercial and noncommercial)
- PPA Board of Directors chaired by the DOTr Secretary with members from NEDA, DTI, DPWH, DENR, DOF, MARINA, and PPA
- Separate governing boards or bodies for IPAs, LGUs
Landlord Ports – Concession Agreements for the Development, Management, Operation and Maintenance valid for 25 years (MICT, South Harbor, North Harbor, Batangas Port)

Tool Ports – Cargo Handling Contracts valid for 5 to 10 years, majority have expired and operating on Hold Over Authority prior to bidding (Davao, Iloilo, General Santos)

Service Ports – directly being operated by PPA special take-over units after expiration of service contracts with private operators

Port Terminal Management Regulatory Framework (PTRMRF) Ports – permutation of the above models. As of December 2021, a total of 14 ports were successfully bid out under the PTMRF, namely, Puerto Princesa, Ormoc, Legazpi, Tabaco, Zamboanga, Iligan, Ozamiz, Calapan, Tacloban, Matnog, Nasipit, Pulupandan, Fort San Pedro, and Surigao. Contracts are valid for 10 years
Port Planning and Development

- Yearly proposals from 25 Port Management Offices for approval and budgetary purposes
- 6 Year Medium Term Plan submitted to and approved by the National Economic Development Authority (NEDA)
- Feasibility Studies commissioned by PPA
  - Securing Environmental Compliance Certificate (ECC) which includes provision for pollution abatement technologies and environmental mitigation measures
- Port Master Plan
- Port development commitments in Concession Agreements, Port Terminal Management Contracts
PORT INFRASTRUCTURE AND DEVELOPMENT UPDATES

• PPA completed **240 port projects** from 2016 to 2021, which form part of the 585 port projects completed under the Build-Build-Build program of the current administration.

• PPA and the Department of Transportation (DOTr) are set to inaugurate at least **13 more completed port projects** before June 30, 2022.

• Funded through PPA Corporate Funds
OPERATIONAL PERFORMANCE (CY 2021)

Cargo Throughput: 266.764M MTs, up 9.3%

Container Volume: 7.351M TEUs, up 8.8%

Passenger Traffic: 22.332 Million, down 10.3%

Shipcalls: 372,199, up 15.6%
<table>
<thead>
<tr>
<th>PARTICULARS</th>
<th>TOTAL</th>
<th>MANILA/ LUZON</th>
<th>SOUTHERN LUZON</th>
<th>VISAYAS</th>
<th>NORTHERN MINDANAO</th>
<th>SOUTHERN MINDANAO</th>
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<tbody>
<tr>
<td>1. Shipcalls</td>
<td>372,199</td>
<td>18,110</td>
<td>90,305</td>
<td>156,579</td>
<td>53,184</td>
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<td>Domestic</td>
<td>366,439</td>
<td>12,948</td>
<td>87,914</td>
<td>155,634</td>
<td>51,901</td>
<td>52,042</td>
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<td>Foreign</td>
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<td>5,162</td>
<td>2,391</td>
<td>945</td>
<td>1,283</td>
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<td>2. Cargo Throughput (m.t.)</td>
<td>266,764,337</td>
<td>98,873,170</td>
<td>45,230,200</td>
<td>40,374,540</td>
<td>53,710,475</td>
<td>28,575,952</td>
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<td>Domestic</td>
<td>96,862,890</td>
<td>35,435,996</td>
<td>16,395,460</td>
<td>22,074,327</td>
<td>12,122,303</td>
<td>10,834,712</td>
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<td>Inbound</td>
<td>55,176,030</td>
<td>17,173,893</td>
<td>10,446,620</td>
<td>14,072,382</td>
<td>6,322,054</td>
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<td>Outbound</td>
<td>41,683,860</td>
<td>18,262,104</td>
<td>5,948,840</td>
<td>8,001,935</td>
<td>5,790,739</td>
<td>3,671,151</td>
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<td>Foreign</td>
<td>169,901,447</td>
<td>63,437,172</td>
<td>28,934,739</td>
<td>19,300,212</td>
<td>41,588,083</td>
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<td>Import</td>
<td>99,359,718</td>
<td>50,788,638</td>
<td>23,456,693</td>
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<td>Export</td>
<td>70,541,731</td>
<td>12,648,509</td>
<td>5,378,049</td>
<td>11,158,872</td>
<td>34,945,998</td>
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<td>3. Container Traffic (in TEU)</td>
<td>7,351,110</td>
<td>4,976,014</td>
<td>410,953</td>
<td>486,634</td>
<td>369,109</td>
<td>1,126,401</td>
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<td>Domestic</td>
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<td>1,395,373</td>
<td>151,078</td>
<td>486,634</td>
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<td>Inbound</td>
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<td>77,180</td>
<td>239,373</td>
<td>187,916</td>
<td>259,034</td>
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<td>Outbound</td>
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<td>726,605</td>
<td>73,280</td>
<td>220,261</td>
<td>101,193</td>
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<td>Foreign</td>
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<td>Export</td>
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<td>0</td>
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<td>4. Passenger Traffic</td>
<td>22,331,942</td>
<td>142,224</td>
<td>6,351,621</td>
<td>9,621,084</td>
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<td>Disembarked</td>
<td>11,420,548</td>
<td>61,796</td>
<td>3,161,231</td>
<td>4,950,702</td>
<td>1,658,256</td>
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<td>Embarked</td>
<td>10,911,394</td>
<td>80,428</td>
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<td>4,661,382</td>
<td>1,551,366</td>
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<td>Cruise Ships</td>
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<td>0</td>
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<td>5. RoRo Traffic</td>
<td>6,875,874</td>
<td>22</td>
<td>2,172,241</td>
<td>2,863,855</td>
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<td>Inbound</td>
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<td>103,881</td>
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<td>153,716</td>
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<td>Type 2</td>
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<td>346,884</td>
<td>443,445</td>
<td>244,805</td>
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<td>Type 3</td>
<td>447,008</td>
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<td>79,525</td>
<td>27,443</td>
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<td>Type 4</td>
<td>1,123,081</td>
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<td>437,262</td>
<td>632,109</td>
<td>112,875</td>
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<td>Outbound</td>
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<td>1,115,144</td>
<td>1,412,535</td>
<td>645,818</td>
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<td>732,237</td>
<td>1</td>
<td>102,992</td>
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<td>413,884</td>
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<td>Type 3</td>
<td>324,495</td>
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<td>77,012</td>
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<td>477,895</td>
<td>521,371</td>
<td>111,301</td>
<td>37,591</td>
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</table>

Source: Port Management Office, Monthly Statistical I
Notes:
(1) 2021 Q3 as of December may still change due to it
(2) Values may not add up due to rounding off.
(3) TNCV statistics contain only the Terminal Port use
(4) Transshipment container traffic is included in foreign

Shipcalls
Domestic – 96.8%
Foreign - 3.2%

Cargo Throughput
Domestic – 36.3%
Foreign - 63.7%
(Import – 58.5%)
(Export – 41.5%)

Container Traffic
Domestic – 38.8%
Foreign - 61.2%

Passenger Traffic
Domestic – 100%
Foreign - 0%

RORO Traffic
Inbound – 50.5%
Outbound - 49.5%
CHALLENGES/ PRIORITIES OF PPA PORTS

Digitalization

Development of Modern, Disaster-Resilient and Environmentally-Friendly Port Facilities

Capacity Building

Regulatory Framework
“The Philippine Ports Authority (PPA), as a government agency tasked to administer the ports in the country including the development of the ports to spur regional and national growth, shall adhere to the concept of ensuring that port activities are focused on minimizing the adverse or negative impact to the environment and ensuring that all aspects of port operation and port development are geared towards the protection and preservation of the environment for the maximum utilization of port facilities.

PPA Administrative Order No. 05-2018, Port Environmental Policy
Regulations are contained in Administrative Orders (AO), Memorandum Circulars (MC), Memorandum Orders (MO)

PPA Orange Book: Book II is Environmental Management in Ports (2015)

AO 03-79 on “Environmental Protection Requirements” (1979)

Port Environmental Policy (2018)

Terms of Reference for Bidding of Ports (i.e. provision of OPS)

- Ban on the use of single-use plastics in all its controlled ports nationwide
- Mandatory tree planting
- Transport Accreditation Permit and Pass for Ports System (TAPPS)
- Implementation of Terminal Appointment Booking System (TABS)
- Rethinking Plastic - Ship Waste Management in Philippine ports
**APEC Port Services Network (APSN) - Green Port Award System (GPAS)**

<table>
<thead>
<tr>
<th>Primary Indicator</th>
<th>Secondary Indicator</th>
<th>Reference Standard</th>
</tr>
</thead>
</table>
| Commitment and Willingness (25%) | Green Port Awareness and Willingness (60%) | (1) Green strategy and development plans  
(2) Green support funding  
(3) Green annual reports  
(4) Others |
|                           | Green Port Promotion (40%) | (1) Green training programs  
(2) Green promotion campaigns  
(3) Others |
|                           | Clean Energy (15%) | (1) Using renewable energy sources  
(2) Using of LNG  
(3) Using cold stowing (shore power)  
(4) Others |
|                           | Energy Saving (30%) | (1) Using energy-saving devices & technologies  
(2) Optimizing power supply system  
(3) Others |
|                           | Environmental Protection (40%) | (1) Air pollution prevention  
(2) Noise control  
(3) Waste treatment (liquid and solid)  
(4) Others |
|                           | Green Management (15%) | (1) Green environment management system  
(2) Green performance assessment  
(3) Others |
|                           | Energy Saving (40%) | (1) Energy consumption reduction  
(2) Renewable energy increment  
(3) Others |
|                           | Environmental Protection (60%) | (1) Air quality improvement  
(2) Noise control result  
(3) Liquid & solid pollution control  
(4) Others |

**GPAS Indicator System developed by APSN**

- The *Port of Cagayan de Oro* was awarded with GPAS in 2018 and 2021 while the *Port of Batangas* received the same recognition in 2017.

- This award is a testament to PPA’s commitment on achieving sustainable port operations and maintaining a balance between efficient operating processes and environmental protection.

**Shore-Based Power Supply (SBPS)**

- The use of a SBPS has already been implemented at the Port of Cagayan de Oro.

- One of the widely accepted measures to reduce these negative environmental aspects of ships, is to provide electricity to the vessels from shore-side electricity supply. This provides the opportunity not only to improve air quality, but also to reduce emissions of CO2, one of the main contributors to global warming.

**Establishment of Carbon Sink Areas (Tree Parks) inside PPA Ports**

- The development of more carbon sink areas was not only aimed at maintaining a clean and fresh air in the port by absorbing carbon dioxide in the atmosphere and releasing fresh oxygen, but also to foster cooperation and coordination of the port stakeholders especially the port personnel who were all hands-on in the cultivation, harvesting of crops, and general maintenance of the areas.
Manila International Container Terminal (MICT), International Container Terminal Services, Inc.’s flagship operation at the Port of Manila, recently took delivery of eight new Mitsui hybrid rubber tired gantry (RTG) cranes for its container yard to further improve operational efficiency in light of growing volumes.

The latest acquisition expands MICT’s RTG fleet to **52 units** – 40 of which are hybrids powered by a combination of lithium-ion battery and smaller diesel engine.

In 2021, ATI’s Manila South Harbor operation took delivery of **five (5) state-of-the-art ZPMC rubber-tired gantry (RTG) cranes**, These RTGs are powered by the latest eco-friendly Cummins QX15 engines and Stamford electric generators.

Manila North Harbour Port, Inc. (MNHPI) also invested in innovative equipment and technologies as part of its modernization.

With the additional equipment, North Harbor’s fleet now totals eight quay cranes and 27 RTGs.
Green Initiatives and Projects: Hard Infrastructure

- Adopted the Use of Clean and Renewable Energy inside PPA Ports
- Implemented energy conservation and energy efficiency measures
- Implemented Resource Efficiency and Reusage

1. Installation of Solar powered port lightning
2. Replaced fluorescent lamps with LED lightning
3. Constructed Rainwater Harvesting Facility
Membership and Collaboration Initiatives

Capacity building of PPA technical personnel through a strong and continued partnership with the Permanent International Navigational Congresses (PIANC) which is a world association of waterborne transport infrastructure experts.

Active member of the APEC Ports Services Network (APSN) which implements the Green Port Award System (GPAS). It aims to improve environmental awareness, promote sustainable development, advance green interoperability, and share best practices of ports in the Asia-Pacific Region that are willing to grow as green ports.

Membership and participation in activities of International Association of Ports and Harbors (IAPH) which is a global alliance of ports, representing some 180 ports and some 140 port-related businesses in 90 countries, and aims to be the industry reference for sharing best practices of the most advanced and sophisticated ports. Three pillars of activity are Climate and Energy, Data Collaboration, and Risk and Resilience.

Sisterport Agreements/MOUs that aim to foster collaboration and exchange of best practices (i.e. Port of Osaka, Port of San Francisco, Port of Cork)
PPA’s Green Way Forward

1. To continually participate by sending our candidate ports to the annual **Green Port Award System (GPAS)** of the APEC Port Services Network (APSN).

2. Moving further with the deployment of **port equipment that run on clean energy** such as electric forklifts, shore cranes, etc. and/or LNG-powered shore cranes, rubber-tired gantries.

3. Conduct study on **incentivizing vessels that run on clean fuel** through granting of discounted berthing fees and/or prioritized berthing at PPA ports.

4. Completion and implementation of the Port Environmental Code to prescribe and define the Roadmap towards **GREEN, RESILIENT** and **SMART** Ports.