Sustainable & Resilient Maritime Transport

Withstanding the impact of COVID-19 and Building back better
: Republic of Korea’s perspective

4 March, 2021

Kim Yong Wong

Team Leader
Korea Cooperative Supporting Center for Overseas Port Development
The Korea Ports & Harbours Association
Contents

Ⅰ Impact on Shipping Industry
Ⅱ Impact on Port Industry
Ⅲ Response to COVID-19 in Shipping industry
Ⅳ Response to COVID-19 in Port Development & Operation
According to the recent 15 years’ record, the volume itself has declined for the first time in 2020 since 2009 due to the economic downturn caused by the 2008 U.S. Financial crisis.

In 2021, it is expected that the impact of the base effect from the significant decrease in the previous year will be large. If the impact of COVID-19 continues globally, a significant recovery is expected to be difficult.
Impact on Shipping Industry

Economic Growth Rate (Real GDP Growth)
- Global, Asia-Pacific, Republic of Korea

Maritime Trade Growth (y-o-y)
- Global, Republic of Korea

Sources:
- IMF (https://www.imf.org/external/datamapper/NGDP_RPCH@WEO/WEOWORLD/APQ/KOR)
Impact on Port Industry

- **Reduction of Port Cargo Volume in S.Korea**

  Total national cargo volume (Ex/Import + Coastal) contracted by 8.9% compared to 2019

  - Ex/Import cargo volume decreased by 8.9% while coastal cargo volume increased by 3.7%
  - Ex/Import Volume: 1,497.3MT (’20)
  - Coastal: 222.7MT (’20)

- **Container throughput volume is contracted by 0.5% during compared to 2019**

  - Container throughput increased by 1.2% in the Q1, yet decreased by 4.3% in the Q2
  - During the Q3, the decline was reduced to 1.1%, particularly, after September, showing a recovery trend with an increase demand N.A and SEA
  - Total throughput volume (Q1) 1.2%↑, (Q2) 4.3%↓, (Q3) 1.1%↓, (Q4) 2.4%↑
Response to COVID-19 in Shipping Industry

- Increasing shipping capacity: Build mega ships and expand investment to replace old ships
  > New ships: 16 ships (24,000TEU class) 8 ships (16,000TEU)

- Strengthening cooperation between shipping companies and restructuring routes
  > HMM join THE Alliance (20.4~)
  > Restructuring between shipping companies serving Asian routes

- Develop national strategy for decarbonization shipping (Net-Zero)
  > 2030 Green ship-K strategy (20.12) for sustainable shipping

- Digitalization
  > Built the world's first e-Nav system to prevent marine accidents and quick response
  > By applying advanced information technologies for contactless and seamless smart logistics
  > Strengthening quarantine in the maritime and port sector for Post COVID-19
Response to COVID-19 in Port Development & Operation

- Establish a Sustainable Port Operation System
  - Incentives to re-shoring firms through timely developing hinterlands and supporting tenant corporations
  - Regional Port Authorities have established “Business Continuity Plan” to make major port facilities enable to be operated during COVID-19 crisis

Busan new port hinterland development plan (~2030)
Response to COVID-19 in Port Development & Operation

- Re-planning the National Port infrastructure Development Plan
  - Increasing necessity to adjust the previously predicted cargo volume by reflecting the throughput changes since COVID-19
  - 2020’s container throughput volume is expected to be decreased from the forecasts made at the beginning of 2020.
  - Forecasts for 2030 has been also revised downward (-5.0%).

<table>
<thead>
<tr>
<th>National Container Throughput</th>
<th>Total</th>
<th>Ex/Import</th>
<th>Transitment</th>
<th>Coastal</th>
</tr>
</thead>
<tbody>
<tr>
<td>As Planned before</td>
<td>41,810</td>
<td>24,009</td>
<td>17,512</td>
<td>289</td>
</tr>
<tr>
<td>Reflecting COVID-19 Impact</td>
<td>39,716</td>
<td>22,142</td>
<td>17,300</td>
<td>274</td>
</tr>
<tr>
<td>Difference</td>
<td>-2,094</td>
<td>-1,867</td>
<td>-212</td>
<td>-15</td>
</tr>
</tbody>
</table>

- If significant reduction in cargo volume continues, National Port development plan will be revised accordingly.
  i.e.) adjusting budget plan, Decrease the number of berths, etc.
Response to COVID-19 in Port Development & Operation

- Adoption of 4th industrial revolution technologies
  - Implementation of a **Smart Port** by using AI, IoT, 5G technologies
  - Build **Smart Port test-bed** by 2026 to secure relevant technology application and actual operation experiences
  - After test, actual smart ports will be built in major ports such as Busan
IPDCP, KCSC

**IPDCP, International Port Development Cooperation Program**

: Building cooperative relationships between governments by establishing a port master plan or supporting port development feasibility studies and operating invited training programs.

**KCSC, Korea Cooperative Supporting Center for Overseas Port Development**

: To assist and act for MOF to establish win-win partnership in the field of port development between RO K and partner countries

① Coordinating related parties ② Developing new cooperative port project ③ Managing cooperative projects, ④ Organizing invited Port Expert Seminar
Thank You.
(ywkim@koreaports.or.kr)