THE DEVELOPMENTAL DIRECTION OF PORT CITY OF KOREA

2012. 9
A residential area has both port and city function

- Port: commercial logistics activity and distribution of goods occurs
- Concentration of population and capital
- Commercial Function + Logistics Function => Port City

- Port was developed based on city and people in Europe and U.S.
- Port and city functions were combined and modernized based of private capital (PFI)
Port City Attribute

✓ Port City, along the shoreline, depends on port function, exchange and trade, openness (Slack & Wang, 2002)

✓ Interaction between port and road network, port and hinterland, port and city
  => Port City Development (Hoyle, Bird, Rimmer)

Old Port City => Commercial and Industrial Port
  => Container Port => Development of Port and City
  (Boston, San Francisco, Barcelona, London, New York, Rotterdam, etc.)
2. Problems of Port City

Problems of Port City

- Early stage of port city: city employment and income increases
  - Attract of direct investment of enterprises => city development
- Disaccord between port and city development plans => social problems
  - Air and water pollution, traffic jam, and several environmental problems
3. Port and Economic Growth of City

- Physical and operational factors
  - Physical factors: port facility, port worker, etc.
  - Operational factors: vessel arrival and departure, port throughput, port operation cost, etc.

Port Facility

- Bigger port facility => bigger effects on city economic growth (Park, 2001)
- Load/unload, storage function + city and national supply base

Port throughput

- Major economic index of port operation
- 99.7% of Import/export throughput of Korea using ports
- Added value of container 1TEU is larger than a car (Park, 2001)
Port and Economic Growth of City

Port Economic Contribution

National Port Policy

Double added value of ports until 2020

※ Logistics, production, commercial, waterfront, prevention of disaster, etc. => Diversify port functions

• Total Port Throughput: 1.21 billion ton('10) ⇒ 1.81 billion ton('20)
• Port added value: $20 billion('10) ⇒ $40 billion('20)
• Port industry employee: 480,000 persons('09) ⇒ 1,000,000 persons('20)
Port and Economic Growth of City

### Port Economic Contribution

- **Port City per capita income**: Busan 13,600 USD, Incheon 16,800 USD, Ulsan 42,900 USD

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*(unit : 1,000 USD)*
Port and City, Joint Growth

- Port function diversification and physical expansion => supporting city function
  - Hong Kong, Singapore: ports located in near city area
- Distripark/Logistics park, and Logistics center => intensifying city function of port even after separation of port from city
  - Rotterdam has enough space => Logistics park
  - The lack of space in Singapore => high-rise logistics center
4. Port City Development Cases

Port and City, Joint Growth

1. New Port Development Considering City Function
   - Busan New Port, Gwangyang Port, Saemangeum New Port

2. Port Redevelopment
   - Busan North Port Redevelopment

3. National Industrial Port Development
   - Ulsan Port (Liquid cargo), Pohang Port (steel), Daesan Port (Liquid cargo)

4. Decrepit Port Facility Refurbishing
   - Mokpo Inner Port, Busan South Port
## Port Redevelopment Case

### Busan North Port Redevelopment Project

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<th>Details</th>
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<tbody>
<tr>
<td><strong>Background</strong></td>
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<td>- Busan New Port open =&gt; Need to redefine Busan north port function</td>
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<td>- Demand for waterfront increases</td>
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<td><strong>Purpose</strong></td>
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<td>- Build international marine tourism base</td>
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<td>- Develop waterfront for leisure space of Busan citizen</td>
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<td>- Recreate Busan city by joint development of port and city</td>
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<tr>
<td><strong>Scope</strong></td>
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<td>- Busan North Port 1-4 pier, coastal port, International passenger port, central port, reclamation area (1.5 million m²)</td>
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<td>- Port, commercial area, office area, IT, exhibition, marine culture, complex downtown area</td>
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### Relationship Between Port and City

- Port, a driving force of city growth

#### Port Business
- shipping, port operation, land transportation, governmental office, etc.

#### Port related business
- trade, finance/insurance, disbursement, coastal shipping, etc.

#### Civil life and port
- daily life and port (consume, import/export activity)
- Understanding port

#### Job opportunity
- Increase income
- Create added value

#### Civil friendly port development
- Marina, cruise terminal, waterfront, etc.
- Understanding port
- Intensify the relationship between port and city

⇒ New Market developing
5. Developmental Direction of Port City

City Problem and Port

- Residual and plant area are mixed in crowded city
- Noise, vibration, bad smell
- Difficult to find relocation site

- The housing problem in big cities
- Difficult to find landfill site
- Difficult to secure city redevelopment site

- As a part of port plan, prepare industrial district for plant relocation
- Increase connectivity between port and plants
- Relieve environment problem of city

- Secure housing site in city by relocation of plant to port area ⇒ Solve several city problems

- Build recycling port system
- Symbiotic relationship between port and city: harmonize port plan and city plan
Developmental Direction of Port City

- Environmental conservation and marine activity
- Increase the importance of Urban landscape
- Coastal accessibility
- Minimize environmental pollution caused by port
- Difficult of Port expansion

- Port throughput increase
- Knowledge base service
- Decrease port labor
- Restructuring of port related industry in hinterland
- FTA

- Containerization
- Supply chain system
- IT Service
- Bigger vessel
- Inter-port competition, intra-port competition

Intensify local economy of port
- High added value logistics hub
- Regional base port development
- Port cluster

Development to improve the quality of civil life
- Low-carbon green port development
- Anti-disaster port operation system
- Marine tourism base
- Relocation of port out of town
Thank You