National Logistics Plan in Korea

2011. 5. 17

Sangbeom SEO

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Background

**History**

- **1999.4 ~ 2000.4**  
  1\(^{st}\) related research (funded by MOCT processed by KOTI)

- **2000.1.28**  
  related law ("Goods Distribution Promotion Act") had been established by the national assembly

- **2000.7 ~ 2000.11**  
  derived 1\(^{st}\) Draft by MOCT and communicated with some related ministries

- **2000.12.20~27**  
  reviewed in the Committee of Logistics Policy

- **2001.1**  
  officially issued by the minister of MOCT

- **2005.3 ~ 2005.12**  
  2\(^{nd}\) related research for correcting the National Logistics Masterplan(2001-2020) (funded by MOCT processed by KOTI)

- **2006.1 ~ 2006.7**  
  communicated with other ministries and reviewed in the Committee of Logistics Policy

- **2006.8**  
  1\(^{st}\) updated Master plan(2006-2020) officially issued by the minister of MOCT

- **2008.9**  
  The related law had been changed into "Basic Logistics Policy Act" and planning period is changed to 10 years

- **2009.8 ~ 2010.10**  
  3\(^{rd}\) related research for re-planning the National Logistics Masterplan(2011-2020) (funded by MLTM processed by KOTI)

- **2011.4**  
  1\(^{st}\) 10 years Logistics Master plan was officially issued by the minister of MLTM after some communicating with the other ministries and reviewing by the Committee of Logistics Policy during 4 or 5 months
Contents of the Related Law

- Previously related law ("Goods Distribution Promotion Act" 2000~)

- Planning period: 20 years (re-planned by every 20 year)

- Contents
  - Changes and prospects of national logistics environment
  - Demand forecasting of logistics facilities
  - Developing objectives and action plans for upgrading national logistics systems
  - Clustering plans of logistics facilities
  - Developing composition and maintenance plan of freight stations
  - Developing standardization plan in logistics industry
  - Developing and promoting the Information Communication Network for logistics activities
  - Supporting and Incubating the logistics industry
  - Framing the other logistics-related systems and institutions

- Execution procedures
  - 5 years mid-term plan must be established by every 5 year
  - and 1 year short-term action plan must be established executed and measured by every year
Contents of the Related Law

Currently related law ("Basic Logistics Policy Act" 2008~)

- **Planning period**: 10 years (re-planned by every 5 years)

- **Contents**
  - Identifying changes and prospects of national and global logistics environment
  - Objectives, strategies, and Action plans for upgrading national logistics systems
  - Developing the logistics policies for activating various logistics functions and integrating and controlling of various logistics policies by transportation modes
  - Decision making for supply allocation and investment of logistics infra and facilities
  - Constructing efficient logistics systems through standardization, Collaboration and information-based infrastructure
  - Developing national competitive powers of logistics industry and companies
  - Developing human resources and technologies for logistics industry
  - Activating and supporting global logistics industries and companies
  - Framing the other logistics-related systems and institutions

- **Execution procedures**
  - 5 years mid-term plan is not needed any more
  - and 1 year short-term action plan must be established, executed, and measured by every year
Background

- Relationship with the regional logistics plan

National Logistics Master Plan (2011-2020)

- Metropolitan Logistics Master Plan (2011-2020)
  - Ulsan
  - Busan
  - Daegu
  - Daejeon
  - Kwangju
  - Incheon
  - Seoul

- Provincial Logistics Master Plan (2020)
  - Gyeongbuk
  - Gangwon
  - Jeju
  - Jeonbuk
  - Jeonnam
  - Gyeongnam
  - Gyeonggi
Overall Process

Overall Planning Cycle

1. Initiation
2. Research project
3. Open Hearings
4. Coordination with other parties
5. 1st Draft
6. Government Committee Reviews
7. 2nd Draft
8. Final Draft
9. Finalized Logistics Plan
10. 1 cycle: 5 years
11. Official Issue by MLTM
12. 2 weeks
13. Operations
14. 5 years
15. Initiation for re-planning
16. 1.5 years
Research Project Foundation

Project Team

- **Logistics Industry**
  - Part leader + 2 researchers
  - MLTM Govn’t Officer
  - 3 logistics specialists

- **Sustainability**
  - Part leader + 2 researchers
  - MLTM Govn’t Officer
  - 3 logistics specialists

- **Networking**
  - Part leader + 2 researchers
  - MLTM Govn’t Officer
  - 3 logistics specialists

- **Technology**
  - Part leader + 2 researchers
  - MLTM Govn’t Officer
  - 3 logistics specialists

- **Globalization**
  - Part leader + 2 researchers
  - MLTM Govn’t Officer
  - 3 logistics specialists

**Steering Committee (MLTM + KOTI)**

- Logistics related associations
- Shippers & logistics companies
- Other ministries
- Academy
- Related research institutes

- Part leader + 2 researchers
- MLTM Govn’t Officer
- 3 logistics specialists
Research Project Foundation

Procedures of research project

1. Basic analysis of current logistics plan and some related master plans

2. Analyzing current status and obstacles of executing logistics plan

3. Identifying environmental changes in national economy & logistics industry

4. SWOT Analysis of national logistics systems

5. Setting visions and objectives for national logistics

6. Developing strategies main tasks and action plan

7. Setting the performance measures

8. Finalizing the national logistics master plan
Step 1: Basic analysis of current logistics plan and some related laws and master plans

- Comprehensive National Territorial Plan
- National Transportation Networking Plan
- National Strategy for Green Growth
- Plan of upgrading Service Industry
- Master Plan for Aviation Policy
- Master Plan for Marine Policy
- Port Development Master Plan
- Airport Development Master Plan
- Comprehensive Plan of Logistics Facility Development
- National Railway Network Master Plan

Kitchen Sink!

Directions

- Action Items

- Framework Act on Low Carbon Green Growth
- Sustainable Transportation and Logistics Development Act

- National Logistics Master Plan
- Current Master Plan
- 2nd Mid-term Plan
- Regional Logistics Master Plan
- Current Master Plans of 7 Metropolitan areas
Step 1: Basic analysis of current logistics plan and some related laws and master plans

Full Set of Actions

Mapping action items with logistics related master plans

References (related master plans)
## Step 2: Analyzing current status and obstacles of executing logistics plan

### Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Current states or issues</th>
<th>Causes</th>
<th>Solutions</th>
<th>Part</th>
</tr>
</thead>
</table>
| 산업구조 | • 불류산업에 대한 법적 구분이 모호함(제 계적이지 못함)  
  • 화물운송업, 물류시설운영업, 물류서비스  
    업 등으로 구분되어 있으나, 대여업,  
    3자물류 등 복합적 영역을 포괄하고 있지 않음  
  • 영역에 대한 법적근거 부족으로 정부  
    지원이 어려움  
  • 대기업/중소기업 등의 구분을 제조업  
    기준을 적용함으로, 규모가 매우 영세한  
    물류기업의 실태를 탐방한 중소기  
    업 지원책 마련하기 어려움 | • 매우 다양하고 복잡한 물류산업의 특징  
  • 대기업으로 비중이 높음  
  • 법률이 미흡한 경우, 시장구조  
    가 불확실해 물류기업의 성장의 저해  
    요소로 작용할 수 있는  
  • 서비스의 다양성의 측면에서는 업태를  
    구분할 필요성 없음 | • 물류산업 특성을 반영한 체계적인 법적  
    구분 마련  
  • 물류산업 구분  
  • 중소기업/대기업 정의  
  • 대기업을 제도권으로 포함, 역차별 방  
    지  
  • 물류산업 지원을 위한 법적근거 마련 필  
    요, 물류정책기본법 변경  
  • 물류정책기본법/물류산업법/물류시설법  
    등으로 구분  
  • 업태구분 시, (현재 규제안의 취사수락).  
    영업의 규제를 목적으로 추진되어야 함  
  • 대기업: 가격규제  
  • 중소기업: 화물배달, 물류시스템화  
    증증발. 모든 분야의 서비스 수행가능 |  |
| 협소한 물류시장 규모 및 영세한 물류기업 | • 법적 근거 부족으로 정부 지원이 어려움  
  • 기업의 경쟁력 부족, 중합서비스 제공  
    어려움 |  |
| • 불법 다단계 거래구조  
  • 육성운송업의 경우, 생계비 이하의 운  
    업으로 영세성 더욱 심화, 수급구조 불  
    안정, 억울한 고용여건으로 파업발생 | • 불법물류서비스 경쟁력이 낮고, 화주간의 인  
    식도가 낮아 자가물류 중심(2자물류)  
  • 법적규제가 확보되는 기업의 경우, 자  
    가구분화(양방향) 비해 자가물  
    키플이 유리하다고 판단 |  |
| • 다단계 거래구조  
  • 거래의 투명성 확보 필요, 거래형  
    률이 확보되지 않은 상황에서의 규  
    제전환으로 인해 시장혼란이 가속화됨 | • 물류전문기업의 역량강화(경쟁력 강화)  
  • 3자물류 활용 성공사례 발굴, 강력하고  
    적극적인 홍보(3자물류컨설팅 확대)  
  • 기자물류 발달을 3차물류기업으로 유  
    도 정책적 지원  
  • 화주의 다양한 요구 사항에 대응할 수  
    있도록 서비스 개발 등의 3자  
    물류기업의 역량향상 (지원) 필요  
  • 개별업체간 조합화/대형화 지원 |  |
Step 3: Identifying environmental changes in national economy & logistics industry

- Identifying new issues confronting with logistics industry
- Finding the changes of macro economic conditions
- Prospecting the changes of logistics industry and domestic and foreign industries
- Logistics demand forecasts considering economic conditions

<table>
<thead>
<tr>
<th>Categories</th>
<th>Road</th>
<th>Rail</th>
<th>Sea</th>
<th>Air</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ton-km(mil)</td>
<td>%</td>
<td>Ton-km(mil)</td>
<td>%</td>
<td>Ton-km(mil)</td>
</tr>
<tr>
<td>2011</td>
<td>114,458</td>
<td>74.3</td>
<td>11,391</td>
<td>7.4</td>
<td>27,998</td>
</tr>
<tr>
<td>2012</td>
<td>116,864</td>
<td>74.6</td>
<td>11,693</td>
<td>7.5</td>
<td>27,998</td>
</tr>
<tr>
<td>2016</td>
<td>126,486</td>
<td>75.5</td>
<td>12,903</td>
<td>7.7</td>
<td>27,998</td>
</tr>
<tr>
<td>2020</td>
<td>137,054</td>
<td>76.3</td>
<td>14,305</td>
<td>8.0</td>
<td>27,998</td>
</tr>
<tr>
<td>2021</td>
<td>139,696</td>
<td>76.5</td>
<td>14,656</td>
<td>8</td>
<td>27,998</td>
</tr>
</tbody>
</table>

<Freight Volume>
**Step 3:** Identifying environmental changes in national economy & logistics industry

- Prospecting the changes of logistics environment related to domestic and foreign industries

### Social structure

- Decreasing population
- Toward Aging society
- Urbanization
- Global relationship
- Network Society

### Economic trends

- Globalization/integration
- Increasing global trade
- Raising New economy
- Technology based competition
- Increasing raw material cost

### Technologies

- Innovatively productive tech.
- Expanding digital tech. Fusion technology within industries networking technology and personalizing technology

### Logistics industry

### New issues

- Environmental problems
- Energy and resource problem
- Social safety and security problem
- Corporate Social Responsibility
## Research Project Foundation

### Step 4: SWOT Analysis of national logistics systems

- Analyzing main characteristics of the logistics-advanced countries and economic competitors in north-east Asia such as Japan Taiwan and China

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Construction of global logistics system</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Expanding main airport and sea port and developing into global logistics center</td>
</tr>
<tr>
<td></td>
<td>- Strengthen global logistics network connectivity</td>
</tr>
<tr>
<td></td>
<td>- Expanding H/W logistics infra.</td>
</tr>
<tr>
<td></td>
<td>- Developing public logistics facilities</td>
</tr>
<tr>
<td></td>
<td>- Improving regional logistics function</td>
</tr>
<tr>
<td></td>
<td>- Activating large scale transportation mode</td>
</tr>
<tr>
<td></td>
<td>- Advancing logistics facility and equipment</td>
</tr>
<tr>
<td></td>
<td>- Expanding Green logistics infra</td>
</tr>
<tr>
<td></td>
<td>- Strengthen S/W based logistics system</td>
</tr>
<tr>
<td></td>
<td>- Activating Information &amp; network based national logistics system</td>
</tr>
<tr>
<td></td>
<td>- Expanding logistics standards</td>
</tr>
<tr>
<td></td>
<td>- Developing and expanding the advanced technology in logistics</td>
</tr>
<tr>
<td></td>
<td>- Upbringing logistics specialists</td>
</tr>
<tr>
<td></td>
<td>- Transforming into high value-added industry</td>
</tr>
<tr>
<td></td>
<td>- Upbringing 3PL</td>
</tr>
<tr>
<td></td>
<td>- Activating transparency of logistics industry</td>
</tr>
<tr>
<td></td>
<td>- Internationalization in logistics company</td>
</tr>
<tr>
<td></td>
<td>- Developing comprehensive framework of logistics policy</td>
</tr>
<tr>
<td></td>
<td>- Strengthen control and management of logistics policy</td>
</tr>
<tr>
<td></td>
<td>- Preparing statistics for logistics industry</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Construction of logistics systems supporting global supply chain</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Improving Asian-wide logistics environment</td>
</tr>
<tr>
<td>- Constructing an efficient and Seamless logistics network</td>
</tr>
<tr>
<td>- Improving customs clearance system</td>
</tr>
<tr>
<td>- Coordinating logistics security and efficiency</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Realizing low-carbon logistics system</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Devising comprehensive counter-plan for each transport mode</td>
</tr>
<tr>
<td>- Improving city logistics efficiency</td>
</tr>
<tr>
<td>- Developing eco-friendly logistics technologies</td>
</tr>
<tr>
<td>- Constructing the low-carbon society in logistics</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Realizing safe and reliable society in logistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Making a Safety Plan in logistics</td>
</tr>
<tr>
<td>- Prevention Plan of disasters</td>
</tr>
<tr>
<td>- Composing fair business environment in logistics industry</td>
</tr>
<tr>
<td>- Upbringing Human resource and preparing work conditions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Making-up industrial environment in logistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Expanding logistics market and demand</td>
</tr>
<tr>
<td>- Strengthen logistics infra</td>
</tr>
<tr>
<td>- Specialization in logistics service</td>
</tr>
<tr>
<td>- Upbringing human resource</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Modernizing logistics industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Developing and utilizing logistics technologies</td>
</tr>
<tr>
<td>- Constructing logistics standard system</td>
</tr>
<tr>
<td>- Upgrading information based logistics system</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ensuring reliable logistics systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Upgrading logistics related law and institutions</td>
</tr>
<tr>
<td>- Renovating management systems in logistics</td>
</tr>
<tr>
<td>- Strengthen logistics related associations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Making-up feasible and efficient transport and logistics system and process</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Systemization and standardization in transportation management</td>
</tr>
<tr>
<td>- Improving transportation facilities</td>
</tr>
<tr>
<td>- Developing national airports and ports</td>
</tr>
<tr>
<td>- Transforming into rail and in-land waterway logistics systems</td>
</tr>
<tr>
<td>- Optimizing transport routes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activating eco-friendly logistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Optimizing logistics process considering environment</td>
</tr>
<tr>
<td>- Strengthen environmental and safety criteria</td>
</tr>
<tr>
<td>- Introducing eco-friendly and anti-noise technologies</td>
</tr>
<tr>
<td>- Executing new system for traffic control</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Upbringing human resource and upgrading working conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Upgrading educational courses for logistics industry</td>
</tr>
<tr>
<td>- Strengthen traffic inspection in road transportation</td>
</tr>
<tr>
<td>- Updating working conditions in logistics industry</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Making into a logistics hub</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Expanding private-public network in logistics</td>
</tr>
<tr>
<td>- Strengthen marketing activity</td>
</tr>
<tr>
<td>- Ensuring safety and security in transportation and logistics</td>
</tr>
</tbody>
</table>
Step 4: SWOT Analysis of national logistics systems

- Identify the comparative strength and weakness opportunities and threats for national logistics system

**Strengths (S)**
- Upgrading geographical merit as a hub of North-East Asia
- World-leading sea and air infrastructure
- Strong competency of Manufacturing industry
- World best ICT infra and technology
- Govn’t strong willingness for developing logistics industry
- Govn’t intention for promoting green logistics

**Weaknesses (W)**
- Political risk through dividing country
- Not connected to continent by land
- In-house and SME based logistics industry
- Over-competitive logistics market: domestic focused industry
- Lack of connectivity within logistics facilities
- Lack of political coordination within logistics related ministries
- Weak credit for government policy
- Lack of human resource in logistics
- Lack of identification of social responsibility

**Opportunities (O)**
- Company’s efforts and govn’t political support for globalization
- Expanding global sourcing and selling
- More Diplomatic activity for acquiring natural resources and ODA activities
- Enhancing importance of logistics industry
- Upgrading company’s views for information, standardization and collaboration and Govn’t supports
- New opportunities through opening arctic route

**Threats (T)**
- More competitions in North East Asia
- Enhancing Chinese competition power in logistics
- Global Economic uncertainty is increasing in terms of oil price, currency exchange rate and so on
- Domestic manufacturing company globalization is reducing logistics volumes
- More North East Asian market penetration of global logistics providers
Step 5: Setting vision and objectives for national logistics
Step 5: Setting vision and objectives for national logistics

21 century’s Global Logistics Power
leading Green Growth

Logistics Hub leading North East Asian Economy
* Improving cost competency of domestic industry by 3.6%p

Logistics Industrialization
creating a Global Value-added
* Revenue rank of logistics industry reaches to the 5th rank

Logistics-Advanced Country leading Low Carbon Green Growth
* CO2 emission in logistics division reduces 16.7% of BAU standard
Step 6: Developing strategies main tasks and action plan
Step 6: Developing strategies main tasks and action plan

- following 3 directions must be considered for developing strategies and action items
**Main Contents of logistics master plan**

**Setting performance metrics to objectives**
- One more objective is added to the previous version and a vision of master plan is also slightly changed with consideration of new objective

### Vision
- **21 century’s Global Logistics Power leading Green Growth**
- Logistics Hub leading North East Asian Economy
- Logistics Industrialization creating a Global Value-added
- Logistics-Advanced Country leading Low Carbon Green Growth

### Objectives
- Creating National Wealth by Logistics Industry
- Ensuring Long-term Growth Power
- Improving national logistics efficiency

### Strategies
- Preparing network and business capability for globalization
- Constructing self-generating infra and core competency of domestic logistics industry
- Ensuring sustainability in logistics industry
- Connecting and balancing domestic logistics network
- Preparing soft-infrastructure to provide a high-qualified logistics service
## Step 7: Setting the performance measures

<table>
<thead>
<tr>
<th>Objectives and strategies</th>
<th>metric</th>
<th>2008</th>
<th>2010</th>
<th>2015</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Improving national logistics efficiency</td>
<td>Logistics cost/Total Revenue</td>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Connecting and balancing domestic logistics network</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1.1 Expanding &amp; rearranging Infra</td>
<td>Process ratio of developing public logistics facility</td>
<td>%</td>
<td>0</td>
<td>8.9</td>
<td>100.0</td>
</tr>
<tr>
<td>1.1.2 Connecting Logistics Network</td>
<td>Railway Usage in Port and Industrial District</td>
<td>%</td>
<td>1.3</td>
<td>-</td>
<td>6.0</td>
</tr>
<tr>
<td>1.2 Preparing soft-infrastructure to provide a high-qualified logistics service</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.2.1 Enhancing Logistics service quality</td>
<td>Logistics Performance Index</td>
<td>pt</td>
<td>3.64</td>
<td>3.89</td>
<td>3.97</td>
</tr>
<tr>
<td>1.2.2 Enhancing Standardization</td>
<td>Usage of standard paller</td>
<td>%</td>
<td>37</td>
<td>42.0</td>
<td>50.0</td>
</tr>
<tr>
<td>1.2.3 Enhancing Consolidation</td>
<td>Empty Ratio of freight trucks</td>
<td>%</td>
<td>31.3</td>
<td>30.0</td>
<td>26.0</td>
</tr>
<tr>
<td>1.2.4 Upbringing human resource</td>
<td>Logistics specialist/total employee( in Logistics Company)</td>
<td>%</td>
<td>11.5</td>
<td>13.0</td>
<td>16.0</td>
</tr>
<tr>
<td>2 Ensuring Long-term Growth Power</td>
<td>Reducing rate of CO2 in logistics department</td>
<td>%</td>
<td>0</td>
<td>0</td>
<td>3.4</td>
</tr>
<tr>
<td>2.1 Ensuring sustainability in logistics industry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1.1 Expanding large scale mode</td>
<td>Usage of LargeScale Transportation Mode</td>
<td>%</td>
<td>26.9</td>
<td>30.0</td>
<td>36.0</td>
</tr>
<tr>
<td>2.1.2 Activating use for-business truck</td>
<td>Usage of truck for business</td>
<td>%</td>
<td>36.2</td>
<td></td>
<td>45.0</td>
</tr>
<tr>
<td>2.2 Creating employment</td>
<td>Employment of logistics industry/National Employment</td>
<td>%</td>
<td>3.4</td>
<td>3.4</td>
<td>3.6</td>
</tr>
<tr>
<td>3 Creating National Wealth by Logistics Industry</td>
<td>Total Rev. of logistics industry/National Total Rev.</td>
<td>%</td>
<td>3.65</td>
<td>3.8</td>
<td>4.3</td>
</tr>
<tr>
<td>3.1 Preparing network and business capability for globalization</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1.1 Expanding global sales</td>
<td>International Rev./Total Rev.</td>
<td>%</td>
<td>15.5</td>
<td>20</td>
<td>28</td>
</tr>
<tr>
<td>3.1.2 Constructing global network</td>
<td># of International logistics facility or site</td>
<td>site</td>
<td>4.8</td>
<td>5.0</td>
<td>7.0</td>
</tr>
<tr>
<td>3.1.3 Upbringing global service provider</td>
<td># of Third Party Logistics Provider(Rev &gt; $3bil.)</td>
<td>ea</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>3.2 Constructing self-generating infra and core competency of domestic logistics industry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.2.1 Expanding logistics market size</td>
<td>Usage of 3PL</td>
<td>%</td>
<td>48.2</td>
<td>52.0</td>
<td>60.0</td>
</tr>
<tr>
<td>3.2.2 Enhancing profitability</td>
<td>Operating Income Ratio of Logistics</td>
<td>%</td>
<td>&lt;3.0</td>
<td>3.5</td>
<td>5.0</td>
</tr>
<tr>
<td>3.2.3 Enhancing SME’s competency</td>
<td>Average Rev. of Logistics Company</td>
<td>$</td>
<td>1000</td>
<td>410</td>
<td>450</td>
</tr>
</tbody>
</table>
Step 8: Finalizing the national logistics master plan

Coordination

Ministry of Knowledge Economy
Ministry of Foreign Affair and Trade
Ministry for Food Agriculture Forest and Fisheries
Ministry of Employment and Labor
Ministry of Strategy and Finance
Ministry of Environment
Thank You!
Appendix

Evaluation of the Previous Master Plan

**Vision**

2020 Global Leading Country in Logistics
- Constructing Logistics-hub for co-prospering with North-east Asian Country
- Developing Logistics Industry for creating Global Value-Added
- Realizing the logistics advanced country to lead a knowledge based economy

**Objectives**

Creating National Wealth Through Logistics

**Strategies**

- Improving global logistics system
- Activating Domestic logistics Industry
- Constructing and re-arranging H/W logistics Infra
- Improving S/I/W based logistics system
- Establishing a base of national logistics system
Appendix

Current States and Obstacles

H/W infra

- Public logistics facilities such as IFT and logistics center are continuously expanded
- Hub & spoke function of national logistics network is not activated and each facilities are not connected
- Because of overinvestment the coverage of International transportation facilities is duplicated with each other
- As domestic logistics facilities and industrial districts and International transportation facilities is not connected National logistics cost for import and export is increasing
- Road-oriented transportation system is continuously expanding to above 70%
- Confrontation of Environmental issues is not sufficient
Appendix

Current States and Obstacles

- S/W infra
  - During recent 10 years most public IT projects in logistics division didn’t make a good performance
  - Some action items such as establishing the National Plan for logistics standardization public R&D for developing logistics standard technologies certification of standard logistics facility and instrument are continuously performed for constructing efficient logistics process
  - In terms of information and standardization however domestic logistics process is still behind international logistics such as customs freight forwarding marine and air transportation
  - For cultivating logistics specialists and creating employment in logistics industry graduate school of logistics is opened by government fund and certification program for logistics specialist is improved into new program.
  - But supply of logistics workforce is not sufficient in terms of logistics specialists and field operators
Appendix

Current States and Obstacles

- Domestics logistics industry
  - 3PL promoting programs such as Certification program for integrated logistics company Tax Incentives for activating logistics outsourcing supporting consulting programs for logistics outsourcing is continuously processed
  - But logistics market system is seriously corrupted with transport unions’ strikes and bad management of SMEs
  - Domestics and functional service focused industry is more expanding
  - The level of internationalization comprehensiveness economy of scale in logistics industry is not sufficiently matured
  - Lack of policies supporting for SMEs in logistics industry
Appendix

Current States and Obstacles

- Domestics logistics industry (example)
  - Korean Logistics industry is focused on function based logistics service but global logistics company is not focused on comprehensive logistics service

Korean Logistics Firms

- Mostly transport-oriented services
- Leading logistics companies service for few related shippers
  - Samsung Electronics Logitech
  - Glovis (Hyundai/Kia Motors)

Global Logistics Firms

- Logistics services for whole SCM (transport warehousing & stock mgmt assembly & processing export & import etc.)
- Services for various industries and regions
  - DHL Logistics DB Schenker and C.H. Robinson etc.

Function focused industry

- Truck transport
- Marine transport
- Terminal op.
- Stevedoring
- Freight Fwd
- Marine Brokerage
- Air transport
- Wholesale Logistics
- Warehousing
- Packaging
- Int'l Freight Fwd
- Customs Clearance

Types of Logistics function

- Transport/Delivery
- Warehousing/inv. Mgmt
- Stevedoring
- Packaging
- Brokerage
- Customs Clearance
- Assembly etc.
Appendix

Current States and Obstacles

- Global logistics network
  - Korean government is continuously expanding global logistics infra such as Incheon international airport and its hinterland Busan New Port and other specialized international ports
  - Facility supply is sufficient but some facilities is not activated currently. In example Gwangyang Port and Chungju/Muan Airport is not sufficiently activated as we anticipate
  - Another problem is that most int’l logistics facilities is operating as export/import gateways
  - That is they partially failed to attract global logistics company or manufacturing company
  - So increasing rate and value-added of freight processed in Busan Port Incheon Airport and their hinterlands is decreased
  - Bad relationship with North Korea caused to delaying construction of continent-connected logistics network
  - As Korean logistics companies often failed in global business Global network is not efficient for global shippers and not valuable for logistics companies
Appendix

Current States and Obstacles

- Establishing a base of national logistics system
  - Deriving systems of National logistics policy is partially provided. In example establishment of Basic Logistics Policy Act foundation of the national committee of logistics policy and ministry consolidation is processed during 4 years
  - Through making a supporting group for activating logistics globalization regional committees of logistics policy and regional logistics master plan Private-Public relationship in logistics is getting concrete
  - Through logistics status survey statistical bases for logistics policy is partially set
  - As developing the national information depository was delayed credibility of logistics policy is decreased
  - But some important national logistics projects are delayed because of a different view within logistics related ministries
Appendix

Identifying environmental changes in logistics industry

- Finding new issues in logistics industry

<table>
<thead>
<tr>
<th>New Issues</th>
<th>Low Carbon Green Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Raising Flexibility of National Economy Structures (ex. Service Industry)</td>
</tr>
<tr>
<td></td>
<td>Coping with Global Economic Crisis</td>
</tr>
<tr>
<td></td>
<td>Coping with the Changes of Global Logistics Environment (Security global M&amp;A and so on)</td>
</tr>
</tbody>
</table>

- Finding the changes of macro economic conditions

- oil price will go up to above $120 at 2020
- currency exchange rate is down to 900 won/$
### Identifying environmental changes in logistics industry

- **Prospecting the changes of logistics environment related to domestic and foreign industries**

#### Social structure
- Decreasing population
- Toward Aging society
- Urbanization
- Global relationship
- Network Society

#### Economic trends
- Globalization/integration
- Increasing global trade
- Raising New economy
- Technology based competition
- Increasing raw material cost

#### Technologies
- Innovatively productive tech.
- Expanding digital tech. Fusion technology within industries networking technology and personalizing technology

#### Logistics industry

#### New issues
- Environmental problems
- Energy and resource problem
- Social safety and security problem
- Corporate Social Responsibility
## Appendix

### Identifying environmental changes in logistics industry

- Logistics demand forecasts considering economic conditions and prospects
  - KTDB* estimated that Total transportation amount will be 154 bil. ton-km at 2011 and up to 179.6 bil. ton-km at 2020
  - Road will be covered 76.3%, rail 8.0%, sea 15.6%, air 0.12% of total volume at 2020
  - But MLTM have set an unreachable goal and that is much higher than the estimates of KTDB
  
* KTDB is a official transport information database funded by Korean government and created and operated by KOTI

<table>
<thead>
<tr>
<th>Categories</th>
<th>Road (Ton-km(mil))</th>
<th>Rail (Ton-km(mil))</th>
<th>Sea (Ton-km(mil))</th>
<th>Air (Ton-km(mil))</th>
<th>Total (Ton-km(mil))</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>2011</td>
<td>114,458</td>
<td>11,391</td>
<td>27,998</td>
<td>157</td>
<td>154,005</td>
</tr>
<tr>
<td></td>
<td>74.3</td>
<td>7.4</td>
<td>18.3</td>
<td>0.10</td>
<td>100</td>
</tr>
<tr>
<td>2012</td>
<td>116,864</td>
<td>11,693</td>
<td>27,998</td>
<td>163.2</td>
<td>156,719</td>
</tr>
<tr>
<td></td>
<td>74.6</td>
<td>7.5</td>
<td>17.9</td>
<td>0.10</td>
<td>100</td>
</tr>
<tr>
<td>2016</td>
<td>126,486</td>
<td>12,903</td>
<td>27,998</td>
<td>188</td>
<td>167,575</td>
</tr>
<tr>
<td></td>
<td>75.5</td>
<td>7.7</td>
<td>16.7</td>
<td>0.11</td>
<td>100</td>
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<tr>
<td>2020</td>
<td>137,054</td>
<td>14,305</td>
<td>27,998</td>
<td>219</td>
<td>179,577</td>
</tr>
<tr>
<td></td>
<td>76.3</td>
<td>8.0</td>
<td>15.6</td>
<td>0.12</td>
<td>100</td>
</tr>
<tr>
<td>2021</td>
<td>139,696</td>
<td>14,656</td>
<td>27,998</td>
<td>227</td>
<td>182,577</td>
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<td></td>
<td>76.5</td>
<td>8</td>
<td>15.3</td>
<td>0.12</td>
<td>100</td>
</tr>
</tbody>
</table>
Appendix

Current States and Obstacles

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  - Deriving systems of National logistics policy is partially provided. In example establishment of Basic Logistics Policy Act foundation of the national committee of logistics policy and ministry consolidation is processed during 4 years
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  - Through logistics status survey statistical bases for logistics policy is partially set
  - As developing the national information depository was delayed credibility of logistics policy is decreased
  - But some important national logistics projects are delayed because of a different view within logistics related ministries
## SWOT Analysis of national logistics systems

### Analyzing other countries’ cases

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Previous Master Plan in Korea</th>
<th>Japan</th>
<th>China</th>
<th>Germany</th>
</tr>
</thead>
<tbody>
<tr>
<td>. Constructing global logistics system</td>
<td>. Realizing efficient logistics systems supporting global supply chain</td>
<td>. Making-up industrial environment in logistics</td>
<td>. Making-up feasible and efficient transport and logistics system and process</td>
<td></td>
</tr>
<tr>
<td>-. Expanding main airport and sea port and developing into global logistics center</td>
<td>-. Improving Asian-wide logistics environment</td>
<td>-. Expanding logistics market and demand</td>
<td>-. Systemization and standardization in transportation management</td>
<td></td>
</tr>
<tr>
<td>-. Strengthen global logistics network connectivity</td>
<td>-. Constructing an efficient and Seamless logistics network</td>
<td>-. Strengthen logistics infra</td>
<td>-. Improving transportation facilities</td>
<td></td>
</tr>
<tr>
<td>-. Expanding H/W logistics infra.</td>
<td>-. Improving customs clearance system</td>
<td>-. Specialization in logistics service</td>
<td>-. Developing national airports and ports</td>
<td></td>
</tr>
<tr>
<td>-. Developing public logistics facilities</td>
<td>-. Coordinating logistics security and efficiency</td>
<td>-. Upbringing human resource</td>
<td>-. Transforming into rail and in-land waterway logistics systems</td>
<td></td>
</tr>
<tr>
<td>-. Improving regional logistics function</td>
<td>. Modernizing logistics industry</td>
<td>. Modernizing logistics industry</td>
<td>-. Optimizing transport routes</td>
<td></td>
</tr>
<tr>
<td>-. Activating large scale transportation mode</td>
<td>-. Developing and utilizing logistics technologies</td>
<td>-. Activating eco-friendly logistics</td>
<td>-. Optimizing logistics process considering environment</td>
<td></td>
</tr>
<tr>
<td>-. Advancing logistics facility and equipment</td>
<td>-. Constructing logistics standard system</td>
<td>-. Strengthening environmental and safety criteria</td>
<td>-. Strengthening environmental and safety criteria</td>
<td></td>
</tr>
<tr>
<td>-. Expanding Green logistics infra</td>
<td>-. Upgrading information based logistics system</td>
<td>-. Introducing eco-friendly and anti-noise technologies</td>
<td>-. Introducing eco-friendly and anti-noise technologies</td>
<td></td>
</tr>
<tr>
<td>. Strengthen S/W based logistics system</td>
<td>-. Ensuring reliable logistics systems</td>
<td>-. Executing new system for traffic control</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix

**SWOT Analysis of national logistics systems**
- identify strengths, weakness, opportunities and threats of our logistics system relative to other countries’ status

- **Strengths (S)**
  - Upgrading geographical merit as a hub of North-East Asia
  - World-leading sea and air infrastructure
  - Strong competency of Manufacturing industry
  - World best ICT infra and technology
  - Govn’t strong willingness for developing logistics industry
  - Govn’t intention for promoting green logistics

- **Weaknesses (W)**
  - Political risk through dividing country
  - Not connected to continent by land
  - In-house and SME based logistics industry
  - Over-competitive logistics market: domestic focused industry
  - Lack of connectivity within logistics facilities
  - Lack of political coordination within logistics related ministries
  - Weak credit for government policy
  - Lack of human resource in logistics
  - Lack of identification of social responsibility

- **Opportunities (O)**
  - Company’s efforts and govn’t political support for globalization
  - Expanding global sourcing and selling
  - More Diplomatic activity for acquiring natural resources and ODA activities
  - Enhancing importance of logistics industry
  - Upgrading company’s views for information, standardization and collaboration and Govn’t supports
  - New opportunities through opening arctic route

- **Threats (T)**
  - More competitions in North East Asia
  - Enhancing Chinese competition power in logistics
  - Global Economic uncertainty is increasing in terms of oil price, currency exchange rate and so on
  - Domestic manufacturing company globalization is reducing logistics volumes
  - More North East Asian market penetration of global logistics providers
Appendix

Setting performance metrics to objectives

- Our vision internally included in 3 sub-vissions and each sub-vision is assigned to each goal for performance measurement
- These metrics is the main goal of this master plan

21 century’s Global Logistics Power leading Green Growth

Logistics Hub leading North East Asian Economy

* Improving cost competency of domestic industry by 3.6%p

Logistics Industrialization creating a Global Value-added

* Revenue rank of logistics industry reaches to the 5th rank

Logistics-Advanced Country leading Low Carbon Green Growth

* CO2 emission in logistics division reduces 16.7% of BAU standard
### Setting performance metrics to objectives

- One more objective is added to the previous version and a vision of master plan is also slightly changed with consideration of new objective

<table>
<thead>
<tr>
<th>Region</th>
<th>Position</th>
<th>Size (thou. m²)</th>
<th>Investment (bil. Won)</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Seoul Metropolitan Area</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>5030</td>
<td>2705.3</td>
<td></td>
</tr>
<tr>
<td>Gunpo I</td>
<td>Gunpo/Euwa ng</td>
<td>1130</td>
<td>278.8</td>
<td>'92-'98</td>
</tr>
<tr>
<td>Gunpo II</td>
<td>Gunpo</td>
<td>350</td>
<td>447.8</td>
<td>'03-'12</td>
</tr>
<tr>
<td>North</td>
<td>Paju</td>
<td>390</td>
<td>246.9</td>
<td>'07-'13</td>
</tr>
<tr>
<td>South</td>
<td>Pyungtaek</td>
<td>420</td>
<td>410.7</td>
<td>'09-'14</td>
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<tr>
<td>Dongnam Area</td>
<td>Yangsan</td>
<td>1290</td>
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<td>'92-'10</td>
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<td>Honam Area</td>
<td>Jangsung</td>
<td>520</td>
<td>332.3</td>
<td>'98-'10</td>
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<tr>
<td>Choongchung Area</td>
<td>Chungwon</td>
<td>480</td>
<td>202.8</td>
<td>'03-'10</td>
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<tr>
<td>Daegyung</td>
<td>Chilgok</td>
<td>450</td>
<td>246.8</td>
<td>'04-'10</td>
</tr>
</tbody>
</table>
Appendix

**Main approaches for H/W**
- Upgrading policy coordination mechanism for constructing an optimistic logistics network
- Enhancing city logistics competency for constructing efficient regional logistics
- Facility based logistics network plan changes to focus on connection with facility and transportation mode
- Preparing the strategic approached for activating modal shift using railways
- Developing physical and institutional tools for activating short sea shipping
- Continuously developing additional port infra and improving current-operating infra

**Main approaches for S/W**
- Organization for processing and designing logistics policy have to be regularly operated
- Must be periodically surveyed and managed information depository for logistics statistics and database
- Constructing and improving the information infra for enhancing the national logistics visibility
- Making better welfare and working condition in logistics industry for ensuring static and outstanding logistics human resource
- Constructing human resource management system with consideration of customer’s needs
- Consolidation of logistics standard policy
- Preparing the total plan and supporting tools of logistics collaboration
Appendix

Main approaches for sustainability
- Preparing a preceding and consolidated plan confronting new issues such as green and security
- Constructing a regular control system for ensuring justice and fairness, and eliminating illegality in business relationship without blocking market function
- Improving institutions and infrastructures for enhancing social stabilization and safety
- Constructing sustainable growth power for confronting with the change of future society, such as aging, automation, and so on

Main approaches for globalization
- Developing various globalization strategies considering unique characteristic of each logistics industry, and continuously creating relationship with the related industries as finance
- Preparing a comprehensive approaches confronting with various environmental changes in global logistics, such as regional economy unification by FTA, opening arctic route
- Strengthen value-added business infrastructure of our international gateways(such as Busan Port, Incheon Airport and so on) and continuously expanding the related transport networks
- Logistics companies specialized in international transport separate improving strategy with 3PL

Main approaches for domestic industry improvement
- Through increasing market stability, upbringing competing power against global logistics service providers
- Inducing autonomous market restructuring
- Expanding market size for pursuing economy of scale
- Improving abilities to re-invest through high value-add and profitability