Green Logistics, Vision and Action plan in Korea

2013. 9.
Bangkok
1. Background

What is Green Growth?
What do we mean by Green Growth

"as we go green – we get money and jobs"

Elements of Green Growth

- Green Technology as a new growth engine
- Green energy paradigm
- Improvement in quality of life
- Construction to the global community
1. Background

Why do we need green growth?
※ Simultaneous threat against the global environment and resources

- Treat against the existence of human race due to weather disasters and ecological destruction
- Economic loss predicated if energy mass consumption system continues: 5-20% of annual world GDP
- Shortage of energy resources and increase in price
- Caused by economic development of new developing countries and continuous growth in world population
- Enforce international regulation & cooperation for GHG emission
1. Background

Why is Korea striving for Green Growth?

- **Climate Impact**
  - Average temperature rise 1.7°C (2 times more than world average)

- **Energy security vulnerability**
  - 130 billion USD energy bill
  - Import 97% of Energy consumption

- **Economic slow-down**
  - Growth rate declining since the Asian economic crisis in the late 1990s
  - Growth without rise in employment

New path is needed
2. National vision for green growth

Korea aims at reducing 30% compared with BAU in 2020.

BAU (Business As Usual) : It means change ratio of emissions of greenhouse gas, when existing reduction policies are maintained.

These amount is to decrease 4% compared with emissions of greenhouse gas in 2005.

- FRAMEWORK ACT ON LOW CARBON, GREEN GROWTH(’09)
  - National strategies, policies, basic plan, sustainable development

- ACT ON GHG EMISSION TRADING AND Allowance(’13)
  - National plan, Allowance & Emission trading, Report, Verification, Certification

- Rational set of governance system

- Secure for whole security of energy

- Commercialization of low carbon and green energy technologies and development of related technologies

- Strengthen International Cooperation
  - Green Climate Fund(GCF)
  - Global Green Growth Institute(GGGI)
  - Green Technology Center(GTC)
2. National vision for green growth

Ten Policy Directions to achieve Three objectives

<table>
<thead>
<tr>
<th>Mitigation of climate change &amp; energy independence</th>
<th>Creating new engines for economic growth</th>
<th>Improvement in quality of life and enhanced international standing</th>
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</thead>
<tbody>
<tr>
<td>1. Effective mitigation of greenhouse gas emissions</td>
<td>4. Development of green technologies</td>
<td>8. Greening the land, water and building the green transportation infrastructure</td>
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<tr>
<td>2. Reduction of the use of fossil fuels and the enhancement of energy independence</td>
<td>5. The “greening” of existing industries and promotion of green industries</td>
<td>9. Bringing green revolution into our daily lives</td>
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<td>3. Strengthening the capacity to adapt to climate change</td>
<td>6. Advancement of industrial structure</td>
<td>10. Becoming a role-model for the international community as a green growth leader</td>
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<td>7. Engineering a structural basis for the green economy</td>
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3. Action plan for green logistics

**GHG emission related data**

**GHG inventory mechanism**
- GIR Provide Guideline for Measurement, Reporting and Verification, MRV)
- Responsible Ministry report to GIR(Greenhouse Gas Inventory and Research Center)
  *Each Ministry designate measurement organization
- Ministry report result of measurement to GIR(by June)
- GIR verify measurement and report to National committee
- National committee and GIR confirm the result and distribute to public(by December)

**GHG Emission**
- 668Mton CO$_{2eq}$ (2010)
- Transportation: 98.8M (14.8%)
- Logistics: 35M (35.4%)

**Share of transport mode (focus on logistics)**
- Road: 32M (91.4%)
- Sea: 1.8M (8%)
- Rail: 2.1M (0.6%)
  * 2010(Estimated)
# 3. Action plan for green logistics

**Objective:** GHG emission reduction 30% (by 2020)

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<tr>
<th>Strategies</th>
<th>Present</th>
<th>Future</th>
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<tr>
<td>Target</td>
<td>Logistics enterprise</td>
<td>Owner and shipper</td>
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<tr>
<td>Scope</td>
<td>Pilot project</td>
<td>All logistics Industry</td>
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<td>Principal agent</td>
<td>Government</td>
<td>Public &amp; Private</td>
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**Major Task**

- Restructuring logistics industry based on low carbon
- Voluntary strength GHG monitoring and control by companies
- Support GHG reduction program
- Provide legal and institutional framework
3. Action plan for green logistics

1. Restructuring logistics industry based on low carbon

- **Activate 3rd Party logistics**
  - Activate 3rd party logistics business (from 35.6%('05) to 56.0%('11)

- **Activate common logistics**
  - Construct common distribution and logistics center

- **Modal shift**
  - Subsidy Modal shift (from road to coastal shipping and rail)
  - Increasing railway capacity
  - Activate coastal shipping

- **Green Port**
  - AMP(Alternative maritime Power), LED lighting, Recycling Energy Hub

- **Strength ITS**
  - Expansion ITS and convergence between transport modes

- **Eco-driving**
  - Expansion Eco-driving culture
2. Voluntary strength GHG monitoring and control by companies

- **Expand combined terminal and management system**
  - Attached device to monitor energy consumption for cargo vehicle
  - Logistics energy management system (by Co. operate more than 100 trucks)

- **Develop and disseminate Guideline for GHG measurement by enterprise base**
  - Develop guideline (‘13)
  - Convert cargo truck to use LNG & CNG

- **Support to set up Green growth strategy**
  - Provide consulting service to secure sustainable development

- **Increase GHG management capacity**
  - Training Green logistics consultant (1,000) by ’20
  - Educate GHG experts
3. Action plan for green logistics

3. Support GHG reduction program

- **Subsidy private proposed project for green logistics**
  - Eco-friendly facility and device

- **Converting truck**
  - Diesel truck to convert CHG engine

- **Replace superannuated car**
  - Secure to subsidy replace superannuated car
  * Over 10years and 10Ton
3. Action plan for green logistics

4. Provide legal and institutional framework

**Expand logistics energy targeting system**
- Set up GHG reduction target by MOU between Government and enterprise (step by step)
  * Medium and large logistics company and shipper will join till 2020

**Introduce “Green logistics certification”**
- Certificate best logistics company and shipper

**Encourage participation from private sector**
- Assign legal status Green logistics committee (Join private experts)

**Prepare and arrange legal and institutional system**
- Make green growth(sustainable development) Act : 2 main acts & 4 related acts
- Designate responsible agents by sector
- Arrange and co-work : GCF, GGGI, GTC and etc
3. Action plan for green logistics

### Challenges Ahead

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<th>Continued Support form the public</th>
<th>Support Form Business community</th>
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<td>➢ the key to success of Green Growth</td>
<td>➢ meeting its needs to adapt &amp; change</td>
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<td>➢ setting a price on target</td>
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<td>➢ emission trading &amp; carbon tax</td>
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### Green Growth is not an option but, the only option

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<tr>
<th>Green Growth in not plan B, it's the Plan A</th>
<th>It is the strategy of change that jumps over the chasm and it is a concept of creativity that opens all possibilities</th>
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The future is not to be given, but to be created.

Thank you!