1. Overview

1. Background

A. Concept of Green City
   - Reorganizing the infrastructure and life style for low carbon
   - Minimizing the environmental pollution, Creating a new job and leading green growth
   - Giving priority to environmental factors what reducing the greenhouse gas

B. Background & objective
   - Now is the critical juncture for Urban policy to counter the climate change
   - For adopting and expanding a green growth to all over the country and the world, developing model of green-city are urgent
   - So suggest the urban planning model based on Eco-Cycle and the action plan
   - Realize the low-carbon society by promoting the eco-friendly city

2. Progress report

Feb. 2009, The President suggest the trial green city in Kangwon regional development conference
Jul. 2009, Designate the Kyong-po area for demonstration project for green-city
Jan. 2010, An announcement of ascertain the developing model and fundamental conception
Dec. 2010, Finish of master planning project for green-city

- Area : 18.326㎢ / Target population : 24,600

II. Pilot Model Development

1. Vision & Strategy

The global prestige city
Leading the way in low-carbon green growth

Vision

Natural eco City
- Preservation and restoration of the natural environment

Culture & tourism
- Promotion of traditions and culture and the needs of villagers
- Public participation & Promotion of green-life

Zero-carbon City
- Demonstration for domestic technology and a test-bed for green high-technology
- Manufacturing land use, energy transportation to low carbon type
- Constructing infrastructure of water&resource cycling system and others

Objective

Strategy

- Expansion of the green area in life
- Preserving the environment and natural environment
- Promotion of traditions and culture and the needs of villagers
- Public participation & Promotion of green-life
- Demonstration for domestic technology and a test-bed for green high-technology
- Manufacturing land use, energy transportation to low carbon type
- Constructing infrastructure of water&resource cycling system and others

- Area : 18.326㎢ / Target population : 24,600

III. Management policies for Green House Gas

IV. Project plan by subject

V. Expanding plan
3. Planning objective

Objective of mitigating GHG

- Green transportation
- Energy efficiency
- Natural ecology
- Water & resource cycle
- Green tourism & living

<table>
<thead>
<tr>
<th>Mitigating GHG quantity (ton CO2eq)</th>
<th>58,550</th>
<th>7,472</th>
<th>45,096</th>
<th>69</th>
<th>99</th>
<th>5,825</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Total</td>
<td>100%</td>
<td>12.8%</td>
<td>77.0%</td>
<td>0.1%</td>
<td>0.2%</td>
<td>9.9%</td>
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</tbody>
</table>

B. Priority policy objective

1. Reduction of energy use
2. Green transportation
3. Natural ecology
4. Energy efficiency
5. Water & resource cycle
6. Green tourism & living

4. Master plan

III. Management policies for Greenhouse gas

1. Plans to reduce

- Eco-friendly land usage
- Transit-Oriented Development
- Multidirectional land usage
- Green transportation
- Popularize the bicycle and public transportation
- Convert road traffic into rail-load traffic
- Natural ecology
- Minimize the forest clearing
- Encourage the planting and increasing ecological area
- Increase the forest and inland

2. Plans to adapt

- Eco-friendly land usage
- Architectural planning and design considering wind ways
- Making a inhabitation through restoring the Kyong-po wetland
- Preserve a bufferzone through pest control system
- Natural ecology
- Increase the biomass in forest through the forestation
- Cultivating a climatically adapted farm products through developing a new varieties of plants
- Build an early warning system for farm animals
- Energy Efficiency
- Improve efficiency in building through the green curtains
- Buildings of the water management policies through reusing the rain water in building
- Water & resource cycle
- Prevent flood damage by replacing a sewer pipe
- Prevent longshore erosion with prevention facilities
- Green tourism and living
- Building the Infrastructure for weak and the vulnerable

2. Research a CDM

- Create an Green-technology complex (general CDM)
- Introduce a Supply business for Renewable energy (program CDM)

3. Research a CDM

- Green-technology complex
- Supply business for Renewable energy

- Green-technology complex
- Supply business for Renewable energy
II. Project plan by subject

1. Eco-friendly land use
- Conservation of restoration/preservation area as an ecological hinterland
- Construction of a high-efficiency structure through the Multidirectional intensive land usage
- Relieve the Effect on Heat Island by constructing wind ways and minimizing a change of geographical features
- Deconcentrated centralization structure
- Eco-friendly arrangement and multidirectional land usage

2. Green transportation
- Urban traffic network to improve the utilization rate of public transportation
- Reducing CO2 by installing a park-and-ride lot
- Introduction of U-bike with IT, and Construction of cycle path linked public transportation
- Improvement of streetscape, and reducing a pedestrian space by raising lanes and setting up auto-restricted zone

3. Natural ecology
- Construction of Green network and Green field focused on green
- Provide rain and natural park linked local resource
- For preventing costal erosion, apply technology and keep the distance between coast and buildings

4. Energy efficiency
- Double checking to adoption of renewable energy system and improvement of architectural construction considering building age
- Reduce CO2 using renewable energy, Not use fossil fuels
- Prevent a unnecessary power supply and demand by supplying Real-time Information Sharing System
- Energy efficiency of building
- The green technology complex
- Passive House
- High Insulation, High Airtight , Renewable energy
- Power supply using High efficiency Glazed Window, Natural Lighting system, Heat Recovery System
- Power supply using photovoltaics and solar thermal heating
- Artificial Greenery
- Roof planting, Wall planting, Container planting
- Zero Energy
- ZERO electrical bills, ZERO fossil fuel

5. Water&resource cycle
- Construction of water cycle system through the installation of rainwater Utilization and Permeable Block
- Reduce water utilization rate and increase capacity of water intake in STP by constructing separate sewer system
- Construction of recycling system to reuse the waste resource easily
- Minimize the COD by removing fruit waste and the other organic waste

6. Green tourism&living
- Construction of Green touring network and Green IT
- Run a program after accessing the customers' demands, and Establish a network with local resource, historic cultural environment and green technology
- Designated transportation, environmentally friendly, disaster and energy management to main factor of U-City, and contain GIS information sharing and management system

- Construction of Green touring network and Green IT
- Rainwater utilization before
- Rainwater utilization after
Practices for Green living

- Participate in the Green living practices for maintaining Green city and provide base in local area for construction of green city.
- A consultative organization for green model city consisted of local government, the government authorities supporters, and private supporters.
- Private supporters includes expert with residents committee that consist of residents and NGOs.

Strategy

<table>
<thead>
<tr>
<th>Detailed plans</th>
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<tbody>
<tr>
<td>To encourage carbon point system</td>
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<tr>
<td>To promote green consumption campaigns</td>
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<tr>
<td>To create guidelines for green education and training</td>
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Construction of sustainable environment

- Reduction of greenhouse gas emissions
- Green waste campaigns
- Form a green recycling system
- Afforestation, Wall planting, Flowerbeds planting etc.
- Improvement of street environment
- Establish the green transportation system

Construction of non-alcoholic environment

- Developing a Program of urban agriculture
- School meals using organic products
- Popularizing eco-village planting etc.
- Improvement of street environment
- Establish the green transportation system

V. Expanding plan

- No legislation, budgetary deficit applied for establishing the green model city
- Organizing a governmental commission on the green model city
- Developing a consultative organization for the green model city

- Expanding plan: up to 16 cities by 2013
  - 2010: drawing up guideline
  - 2011: drawing up guideline
  - 2012: Establishment of evaluation toolkit for self-assessment by local governments
  - 2013: Running the green city website for information services
  - Improving the law

Thank you!

Jung Yeon
E-mail: jkte@keco.or.kr