

# Comprehensive Plan on Combating Climate Change



Task Force on Climate Change  
Prime Minister's Office  
Republic of Korea



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Climate change is one of the most serious global challenges facing us today. We are living in an age of great transition that requires a fundamental shift—in the way we live our lives and the way we think of our future.

While the rapid growth experience of Korea has served as a useful reference for many developing countries, we recognize the need to move beyond the conventional economic growth approach of Grow Fast, Clean Up Later. What we need now is a “Low Carbon, Green Growth” strategy that takes into account sustainability.

President Lee Myung-bak, in his address to the nation on the occasion of the 60<sup>th</sup> anniversary of the founding of the Republic of Korea, embraced a vision of “Low Carbon, Green Growth” as a new paradigm to lead Korea’s future development for the next 60 years.

This *Comprehensive Plan on Combating Climate Change* sets out plans of action and the policy tools necessary to adequately address this important global and national agenda for the next five years. As set out in the objectives, I sincerely hope that Korea can be an example of turning climate crisis into opportunity by fostering “new engines of growth,” improving quality of life and the environment, and contributing to global efforts to combat climate change.

It is my belief that “Green Growth” would serve as a new model for Korea’s development as well as contribute to enhancing international cooperation in the 21<sup>st</sup> century.

Handwritten signature of Han Seung-soo in white ink.

Han Seung-soo  
Prime Minister

## Effects of Climate Change and International Efforts

04

According to the 4<sup>th</sup> Assessment Report published by the IPCC in 2007, human activities have contributed to global warming. **Increase in human use of fossil fuels** since the Industrial Revolution has raised the concentration of greenhouse gas emissions in the atmosphere, resulting in the **rise of the Earth's average temperature**. As the result, **global average temperature rose by 0.74°C** during the last 100 years (1906-2005), while **global average sea level rose 1.8mm** every year during 1961-1993. Since 1978, arctic glaciers have been shrinking by 2.7% every 10 years. Furthermore, **extreme weather conditions**, such as heat waves, droughts, and floods, have increased.



Climate change has become a **top international agenda** since the United Nations Framework Convention on Climate Change was adopted at the Earth Summit in Rio de Janeiro in 1992. **United Nations Secretary General Ban Ki-Moon** has been pushing climate change as **UN's top priority agenda** since he took office, providing the momentum for the series of UN efforts to address climate change issue. The **UN Security Council** held its first-ever debate on the impacts of climate change in Apr. 2007 and the **UN High-Level Event on Climate Change** took place

in Sep. 2007.

In the global arena, **negotiations for adopting a post-2012 climate change framework** are in a full swing, scheduled for conclusion in the end of 2009, with the adoption of the **Bali Action Plan** in Dec. 2007. **The post-2012 negotiations are led by a UN process**, while the Major Economies Meetings, bringing together the world's major emitters, and other key consultative meetings are also expected to have significant impacts on the negotiations.



▲ Source : United Nations





## Climate Change in Korea and National Response

The effects of climate change are evident in Korea, and being increasingly observed. Average temperature rose by 1.5°C in the last 100 years, while sea level rose 22cm in the last 40 years. Compared to the 1920's, winter in Korea has become shorter by a month, with the summer longer by 20 days. Also witnessed are the increases in occurrence of typhoons (damage cost up 3 folds in last 10 years) and torrential rainfall (2.8 days in a year, 0.8 day increase in last 10 years). Korea also saw 2,127 deaths from heatwaves in the last 10 years and 2,227 malaria patients in 2007 alone.



Against this backdrop, the Lee Myung-bak administration set climate change response as a priority national agenda. President Lee Myung-bak declared his commitment to actively participate in the international action to tackle climate change at the G8 Outreach Summit meeting in Toyako in Jul. 2008. It was followed by the announcement of “**Low-Carbon, Green Growth**” as the nation’s **vision** for the next 60 years, on the occasion of the 63<sup>rd</sup> Anniversary of National Liberation in Aug. 2008.

In line with the presidential commitment, this Comprehensive Plan on Combating Climate Change was crafted by the Prime Minister’s **Task Force on Climate Change**, with extensive efforts to incorporate opinions from across public and private sectors to ensure the input of Koreans were rightly reflected in the Plan. On Sep. 19, 2008, the **Committee on Climate Change Response**, chaired by Prime Minister Han Seung-soo and consisting of officials from relevant ministries and organizations, adopted the drafted plan which sets forth the plans of action aimed at achieving the vision and objectives of Korea’s climate policy for the next five years.





## Vision and Objectives



### Vision

#### – Low Carbon, Green Growth –

“contribute to the global efforts to combat climate change and achieve low-carbon society through green growth”

### Objectives

- Develop climate industry as a new economic driving force
- Improve quality of life and the environment
- Contribute to the global efforts to combat climate change





## Plan of Actions

### DEVELOPING CLIMATE INDUSTRY AS A NEW ECONOMIC DRIVING FORCE

- Promote energy saving and energy efficiency improvement of industry
- More than double R&D investment in climate change
- Develop climate-friendly industries and promote export

### Improving energy efficiency in the industrial sector

**Energy efficiency of industry is to be significantly improved with increase in added-value.** As of 2006, Korea showed a relatively poor energy intensity score compared to a number of developed countries, at 0.23 toe per 1,000 USD (2000\$ PPP). Korea aims to improve this figure to 0.154 by 2020 and 0.123 by 2030. Various measures to improve energy efficiency will be employed such as; obligating large energy-intensive enterprises to receive **energy review**, developing energy service companies and expanding the application of **minimum energy efficiency standards**. Key industries will be encouraged to seek **higher added-value** through energy design innovation and quality management (QA), while **low energy consumption industries** will be newly developed.

To spur greenhouse gas mitigation of industry, voluntary agreements between the government and industry will be strengthened to **negotiated agreements**.

**Various incentives** will be provided, including **financial and taxation support** on investments made in mitigation efforts. Specifically, mitigation activities of companies will be recognized in a way linked to the Korea Certified Emission Reduction (KCER) scheme.







▲ A bird's-eye view of Sihwa-ho Tidal Power Plant

## Expanding R&D investment in green technologies

R&D capabilities will focus on the development of **strategically selected promising technologies** that will lead to higher national competitiveness in the global stage. To this end, efforts will be concentrated in development of **leading innovative future technologies**.

With an aim to support scientific studies on climate change and **develop greenhouse gas mitigation technologies**, government R&D investment will be significantly boosted. About 5 trillion KRW will be injected in a five-year period from 2008 to 2012, **more than doubling the investment size** of 700 billion KRW (as of 2008).

**Convergence “green” technology** will be developed using Korea’s strength in IT, BT and NT. In particular, **basic & source technology development** will be facilitated to achieve breakthroughs in areas including next-generation nuclear plant (NGNP), nuclear fusion, hydrogen fuel cells, non-CO<sub>2</sub> emission treatment and organic solar cells. **IT and green technology will be converged to promote efficiency in buildings and transport sectors**. Examples include energy-saving building construction, electric power transmission/distribution efficiency improvement and “intelligent” transportation system.

Strategic technology acquisition will be promoted alongside efforts to independently develop technologies and **professionals will be nurtured**.



▲ LG Solar Energy Taejeon Photovoltaic Power Plant



▲ Wind Power Generators at Samyang Pasture

## Fostering climate industry

### RENEWABLE ENERGY

#### *Remarkable expansion of renewable energy supply through increased investment*

The proportion of **investment in promising renewable energy such as photovoltaic and wind power** (taking up 1% of total renewable investment in 2007) will be increased. Currently investment is concentrated in waste, at 76% of total renewable energy investment. The **share of renewable energy in total energy portfolio** will also be raised, from 2.24% in 2006 to 4% in 2012 to more than 11% by 2030 and over 20% by 2050. Renewable energy industry is also expected to boost employment. As of the end of 2007, the sector provided **14,000 jobs** and the figure is expected to rise to around **100,000 by 2012** and to around **950,000 by 2030**.

#### *Creation of renewable energy markets and expansion of supply*

One million “**green homes**,” which are eco-friendly, low energy consuming homes dependent on renewable energy, will be created by 2020. Renewable energy sources used here will vary according to house type and regional conditions. “**Solar Town(s)**,” in which electricity generated from solar energy supplies the lighting systems of individual homes and public facilities, will be created.

By 2020, domestically produced **wind power generators of total 2,000 MW** will be supplied. **Localized small-scale** wind power turbines will be linked to the “**one million green homes**” project, while **mid-size** wind power systems (0.75MW) will be utilized in **regional wind energy promotion projects**. To promote export of **large-scale (2MW, 3MW)** wind turbines, onshore and offshore wind farm test-beds will be constructed.

Taking advantage of the sea surrounding **three sides** of the Korean peninsula, **marine energy** such as **tidal power generation** will be developed. Construction of one tidal energy turbine (254MW) is planned in Sihwa-ho Lake by 2012, with three more to come in Garolim Bay, Incheon Bay and Ganghwa Island by 2020, which will together generate a total of 3.024 MW of electricity. The **blend ratio of biodiesel in diesel** will be increased from 0.5% in 2007 to 2.0% in 2010. Furthermore, “**Waste Energy Towns**” will be constructed in four regions nationwide in order to promote **waste-to-energy** from food waste, sewage sludge and livestock waste.





### *Strengthen support systems for promotion of renewable energy*

In 2012, **Renewable Portfolio Standard (RPS)** system will be introduced to lay the foundation for an emerging renewable energy market and overcome the limits of government budgetary support in the long run. The system is expected to create a market worth 50MW each year. The scope of buildings subject to **mandatory renewable energy installation** will be broadened, from the current standard that obligates newly built public buildings of 3,000m<sup>2</sup> or more to **include renovated buildings and school facilities**. In order to promote wind power generation, regulations on the site selection process of onshore and offshore wind farms will be eased.

### *Promote export of solar and wind power industry*

**Export of solar & wind energy industries** will be actively promoted as **new national growth drivers**. Rapid expansion of global renewable markets is expected, with solar power market reaching 140 trillion KRW and wind power 110 trillion KRW in 2012. Thus, by promoting export of such industries, Korea aims to **secure a global market share** of 5% by 2012 which will translate into over 10 trillion KRW per annum. As of the end of 2007, the country exported solar power worth 130 billion KRW and wind energy worth 400 billion KRW. By linking with its world-class IT and shipbuilding technology, the renewable industry of Korea is on track to becoming the nation's key industry.





## ENERGY-EFFICIENCY

### *Advance technological level by expanding R&D investment*

**R&D investment** for developing technologies to improve energy efficiency will be expanded. The specific amount of investment to be made in the five-year period from 2008 to 2012 is 500 billion KRW in electricity IT, 100 billion KRW in LED lighting and 110 billion KRW in energy storage. As of the end of 2007, industry related to energy efficiency improvement provided **15,000 jobs** and is expected to create around **100,000 new jobs by 2012** and around **200,000 by 2030**.

### *Promote programs to foster energy efficiency industry*

The foundation will be laid for the growth of **LED (light emitting diode) industry** by implementing measures such as creation of regional **LED convergence specialized clusters**. Initially, the **demand for LED will be created in the public sector** and gradually, support will be provided to existing lighting businesses (incandescent and fluorescent lamps) to transition to LED.

The production of **hybrid cars and fuel cell cars** will be spurred to place Korea among **the world's top four "green car" manufacturers**. By 2013, energy efficiency of newly manufactured automobiles will be **improved by 30%** compared to existing vehicles. Average fuel efficiency is to be increased from 11.04 km/ℓ in 2007 to 14.35 km/ℓ in 2013.

**Energy efficiency of major energy-intensive industries such as steel and petrochemicals will be improved.** To this end, **innovative process reformation** will be promoted, such as increasing the **recovery rate** of off-gas generated during process and using it for internal plant generation or heating neighboring residential areas.



▲ Hybrid vehicle



▲ CNG bus



▲ Fuel cell vehicle



### *Strengthen support systems for enhancement of energy efficiency*

Growth of **energy service companies** (ESCOs; businesses specialized in investing in energy-saving companies) will be induced. Support for energy audit costs will be increased from 70% in 2007 to 90% in 2009 to **encourage more SMEs to participate in energy audits**. Furthermore, **public organizations will lead the initial efforts** to boost an emerging LED market, with an aim to increase the share of LED from below 1% in 2007 to 30% by 2015. Public buildings will consider using LED lightings prior to other options, while traffic lights and street lamps will be replaced by LED units. LED-use demonstration projects will be carried out on large post offices. Meanwhile, to drive low efficiency lighting systems out of the market, **minimum energy performance (efficiency) standard** will be strengthened.



▲ COEX Piano Fountain Square using 15,000 **LED** lights (Seoul)



## NUCLEAR POWER INDUSTRY

Korea is operating **20 nuclear reactors** in four areas, namely Gori, Younggwang, Uljin and Wolsung, making it the sixth largest nuclear power producer in the world. Korean nuclear power plants boast **top level safety and operational efficiency** globally. Capitalizing on the accumulated **nuclear plant construction and operation expertise, export of nuclear facilities, technologies and manpower** will be promoted. Nuclear export will be increased from **580 billion KRW in 2007** to **1,170 billion KRW in 2012**. Also promoted will be the export of **Korean-type nuclear reactors** developed by securing core technologies early. Exporting two reactors is expected to generate 50,000 new jobs and approximately 5 trillion KRW. According to an IAEA forecast, some **309 new nuclear reactors are likely to be built by 2030 globally**. The development of core technology is scheduled to be completed by 2012.





## OTHER GREEN INDUSTRIES : WATER, METEOROLOGY, WASTE & CDM

### *Global water company*

**Global water market** is growing at an average rate of 5.5% annually, with a projected **market size expansion** to 1,600 trillion KRW in 2015 (from 830 trillion KRW in 2003). Hence a potential lies in developing it as an export industry. Accordingly, **globally competitive companies specializing in water management** will be nurtured to promote **overseas market access** in fields such as **wastewater reuse** and **sea water desalination**. As such, to **facilitate entry into global markets by local water companies**, the scale of water-related ODA (60 billion KRW as of 2007) will be steadily increased. Active participation in the **World Water Forum** will contribute to acquisition of up-to-date information and building human network in the field. By hosting the International Water Association's 2012 World Water Congress in Busan and **bidding to host the 2015 World Water Forum**, Korea will strive to achieve globalization of its water industry.



▲ Seonam Water Reclaimed Center (Seoul)



### *Private meteorology industry*

The domestic **meteorological industry is forecast to expand** from 29 billion KRW in 2007 to over 100 billion KRW in 2012. Establishment of a **meteorology industry promotion act** will be pushed to lay the **legal framework** for developing the industry. Private **meteorology services market will be boosted** while promotional campaigns will be launched on weather management. In order to create demand for such services, public awareness on **utilization of meteorological/weather information** will be raised, assisted by means such as the Korea Meteorology Data Award and policy forums. Investment will be increased for development of **convergence technology, incorporating IT into meteorology technologies** to bring high added-value into the industry.





### *Solid waste*

As of 2006, the share of waste energy amounted to 76% of total renewable energy supply (4 Mtoe out of 5.23 Mtoe). The “**waste-to-resource**” ratio will be increased from 1.7% at present to **31% by 2012**. To this end, the number of **waste-to-energy facilities** will expand from three to 57, which translates into 14,160 tonnes per day, during the period. Landfill-gas recovery and heat recovery systems will be reinforced. Turning 31% of usable waste into energy sources by 2012 is expected to lead to creation of **17,000 new jobs and 1.3 trillion KRW in economic profit**.

### *Clean Development Mechanism (CDM)*

A **CDM project support organization** will be operated to provide export-oriented services such as consulting on overseas market access strategies and assistance for negotiation and contract processes. As of August 2008, there are 19 Korean CDM projects registered in the UN, equivalent to 14.6 MtCo<sub>2</sub>eq/year. The figure accounts for 6.6% of global CDM projects and places Korea at 4<sup>th</sup> in ranking after China, India and Brazil.



## IMPROVING QUALITY OF LIFE AND THE ENVIRONMENT

### Enhancing quality of life [transportation]

*Transport sector takes up 16.8% of Korea's total greenhouse gas emission and has increased by 12.8% annually during 2000-2005, leading the increase in total GHG emissions.*

**Costs incurred due to traffic congestion will be substantially cut** to contribute to emission mitigation efforts while upgrading the quality of life. Measures to **cut passenger car use and promote public transit** will be implemented such as imposing a greater **traffic congestion tax** and improving parking conditions. An environment favorable to **non-motor, green vehicle** users, such as bicycle riders, will be created. More investment will be made to expand **public transportation networks between cities in the metropolitan area** and **promote use of public transit** such as LRT and subways. In designing newly developed towns, systematic **public transport infrastructure** will be made a priority in the **urban planning** process. Railways will be made a priority in transportation policy-making processes. The **share of railway systems in total transport** will be doubled by 2019 and overall **competitiveness of railway systems** will be enhanced by introducing more multiple-lane, **electric and high-speed trains**.



▲ KTX



▶ Traffic Congestion Charges at Namsan Tunnel (downtown Seoul)

## Green life-style change

*There is a need to promote “low-carbon, green” life style to improve energy consumption per capita.*

Quality of the environment will be improved through efforts to promote the use of **light vehicles** and **high-efficiency green cars**. Also, construction of **green homes & green buildings** will be expanded. A wide range of measures are to be implemented to **reduce energy consumption and resources use**. These include; selection of eco-friendly location of buildings, strengthened standard for energy design, introduction of energy efficiency ratings system, promotion of resource-saving and recycling. As an effort to reduce greenhouse gas emissions, Smart electricity measurement systems will be installed at households and the **supply of “integrated energy”** will be expanded to cover 78 complexes in 2012, from 47 in 2007. **Eco-friendly agricultural production bases** will be increased and **sea forests** will be created in coastal areas. Furthermore, to **reduce the generation of solid waste**, various measures including lighter packaging and waste wood recycling will be promoted. **Carbon sinks of forests** will be expanded and the **carbon cycle** will be facilitated. Efforts will be made to boost the carbon absorbing capacity of forests by implementing **optimal forest management** while minimizing carbon emissions through environmentally-friendly **mountainous land use and restoration** efforts.



▲ Green Building-  
Seoul Central Post Office





## Enhancing adaptation

*Comprehensive and well-organized response measures and adaptation plans are required in Korea, as the impacts of climate change are being felt faster than the global average.*

The estimated costs of damage due to **typhoons and torrential rains** have increased 3.2 times in ten years while the number of deaths caused by severe **heat waves** reached 2,127 in a decade (1994-2005). Malaria incidents recorded 2,227 in 2007. Not only human, but the ecosystems are affected as well, as seen in the shifting of crop-land and vegetation zones, increased production of tropical crops, and changes in fish species. Accordingly, national **risk management capabilities** must be enhanced.

**Comprehensive and sectoral climate impact assessments and adaptation measures** at the national level will be established. **Mid-and long-term adaptation plans** will be devised building on the findings of effect assessment and vulnerability analysis. Key adaptation areas include the ecosystem, public health and urban areas.

### Selected examples of planned adaptation by sector

#### Ecosystem

adaptation to effects on biodiversity and shifts in vegetation zones

#### Human health

improved climate-sensitive disease surveillance and control, health warning system

#### Agriculture/ fishery

breeding new crop, developing new varieties, coping with changed fisheries resources

#### Forestry

adaptation to forest disasters including fire and pest

#### Marine environment

coastal disaster management in response to sea level rise

#### Urban area

prevention of urban stream erosion, strengthened safety standard for buildings

#### Finance

climate-related derivatives market development, natural disaster-related insurance scheme promotion



A “**vulnerability map**” will be drafted to perform climate change effects assessment and vulnerability analysis. A risk map will include data on landslide, storm, flood and abnormal weather conditions. Also, **risk management systems** will be significantly improved. These include disaster prediction and health measures for the most vulnerable. Eco-friendly **water recycle systems** will be restored and **water facilities** will be newly constructed or expanded. Emergency relief and rescue plans will be strengthened and safety awareness will be raised. **Adaptation guidelines for local governments** will be provided while nationwide infrastructure to implement effective adaptation measures will be laid.





## Enhancing awareness and changing patterns

*There is an urgent need to raise public awareness on climate change response, as more than half (56.8%) of respondents to a survey conducted by the Ministry of Environment in Jun. 2008 said the government was solely responsible for climate change response. Capabilities to respond to the effects of climate change must be enhanced at all sectors.*

Under the campaign slogan of “**Low-carbon, Green Korea,**” **active participation of the public** in climate action is required. To this end, “**green culture**” and “**less carbon**” **life style** will be widely promoted. **Consumer responsibility and commitment to act** will be enhanced through campaigns launched on various media channels, including television and the Internet. Green consumption will be promoted by increasing the supply of green products and applying a **carbon labeling** system that indicates achieved emission reduction of a product. On top of this, a nationwide movement toward a low-carbon society will be pursued, using **private-public networks** such as the **Korean Council for Local Agenda 21**. **Action plans tailored to target groups** will be provided to engage the public. Also, all events held by government organizations will be “**carbon-neutral,**” while at the same time, encouraging the private sector to also organize “**zero-carbon**” events. **Cooperation between the central and local governments will be strengthened** to effectively tackle climate change. Local governments will be encouraged to set voluntary mitigation targets that are **tailored to the needs of local environment**. Furthermore, climate change will be more effectively integrated in the **primary and secondary school curriculum**.





## Scientific monitoring and prediction

*Climate monitoring and prediction capabilities will be advanced to support climate adaptation measures and risk management.*

Systems to **monitor the ongoing changes in the climate and Earth environment** will be established. **Climate change monitoring networks** will be reinforced and high-level atmospheric monitoring will be strengthened. **National standard climate change scenario** will also be developed to guide designing adaptation measures. The **production of climate change prediction data** will be boosted and a **system to utilize such data** will also be created. Web-based climate scenario services will be provided.



## CONTRIBUTING TO GLOBAL EFFORTS TO COMBAT CLIMATE CHANGE

- Set mid-term goal in 2009, become an “early mover” toward low-carbon society
- Propose Market-based climate regime and assume bridging role
- Advance to global climate industry and launch East-Asia Climate Partnership

### Setting a mid-term mitigation goal

At the G8 Outreach Summit held in Toyako in July 2008, president Lee Myung-Bak declared his support for the global long-term mitigation goal of 50% by 2050 and his plan to announce a national mid-term goal. **A national mid-term greenhouse gas goal will be set and announced in 2009.** Domestically, the mid-term goal will send a clear **signal** toward moving into a low-carbon society. Internationally, it will demonstrate Korea's commitment to contribute to global efforts to fight climate change that is commensurate with its national capacity. The mitigation target will be set using systematic **analysis of Korea's mitigation potential** and based on a **national consensus**, taking into account its global status and economic conditions. **Sectoral mitigation targets** and cost-effective mitigation strategies will also be established by 2009.



## Contributing to Post-2012 negotiations

Korea will assume a **bridging role** between developed and developing countries to encourage active participation of both parties. To **take a leadership role** in the global negotiations and contribute to reaching a **post-2012 climate agreement** that will **benefit both developed and developing countries**, a **market-based approach** will be proposed by Korea for developing a new global climate framework. Market-based climate regime will recognize voluntary nationally appropriate mitigation activities of developing countries with carbon credits to engage more developing countries to participate in mitigation while inducing more investment and financial flows from developed countries.





## Active developing country assistance and international cooperation

Through **launching of the “East-Asia Climate Partnership,”** Korea will show a stronger leadership in the global arena. The **200 billion KRW** of new resources will support developing countries’ climate action for **5 years**. It consists of policy exchange (East-Asia High Level Forum), technology exchange (Climate Technology Fair), investment promotion (Carbon Finance Fair) and technological support (Renewable energy and adaptation technology support for developing countries, LDCs and SIDs). Cooperation with international bodies and developed countries will be sought. Meanwhile, international support programs will be diversified, such as **afforestation projects in developing countries** to prevent desertification, **capacity building of developing countries**, and domestically, **promotion of the Yeosu Project**. Last but not least, Korea will be involved in **global partnerships for joint development of cutting-edge technologies** with large greenhouse gas mitigation potential, such as **carbon capture and storage (CCS)**.



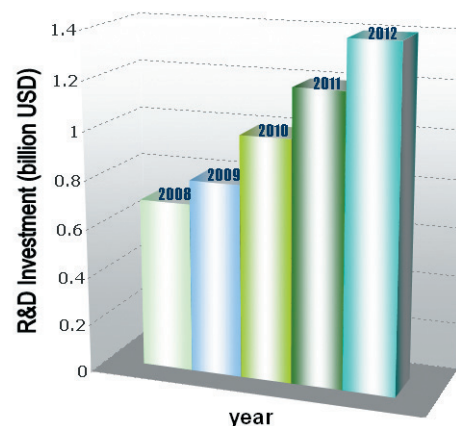
## Key Policy Tools

### FINANCIAL AND BUDGETARY SUPPORT

#### Public Sector

In order to secure necessary financial resources to effectively address climate change, support from government budget will be increased, by means such as **creation of a climate change fund**. It is estimated that about 31 trillion KRW is required for the next five years' public and private investments to address the effects of climate change in Korea. Investment in **R&D projects to develop "green technology" will be significantly expanded**. As of 2008, climate change-related R&D investment accounted for 6.4% of total government R&D investment. The share is to be increased to about **8.5% by 2012**.

Government R&D investments in climate change response  
(1USD = 1,000KRW)



#### Private Sector

A wide array of **financial and taxation incentives** will be introduced to encourage private investment in low-carbon, **"green management" and technology development**. Financial institutions will be induced to provide **preferential financial schemes** to enterprises committed to corporate social responsibility (CSR) and carbon disclosure program (CDP). **Tax credits will be expanded** for investments made in greenhouse gas mitigation facilities.



## PRICING STRUCTURE REFORM

### Low-carbon tax scheme

A “climate-friendly” aspect will be incorporated into the existing tax scheme while the **adoption of a carbon tax** will be considered. In such case, the carbon tax will be imposed in a “**revenue-neutral**” manner in order to prevent an increase in the taxpayers’ burden. Tax benefits for **investments in emission mitigation facilities** will also be enhanced.

### Life style change

The “**polluter-pay-principle**” will be promoted to encourage consumers to adopt “**green consumption**” patterns, opting for **eco-friendly products**. Overall, low-carbon-oriented **life styles** will be promoted by managing the energy demand side, such as imposing **regulations on CO2 emissions of vehicles** or levying **traffic congestion charges**.



◀ Eco Label





## IMPROVE CARBON INTENSITY & ECO-EFFICIENCY OF MAJOR SOCs

### Transport sector : Reduced traffic congestion cost, increased sustainability

**Costs incurred due to traffic congestion nationwide will be substantially reduced.** To this end, **railways** will be significantly expanded and investments will be made to expand public transportation, especially focusing on **subways and light rail transit (LRT)**. At the same time, environment favorable for bicycle riders will be created to promote **bicycle use**.

To encourage the **use of public transit** instead of passenger vehicles, the **accessibility of public transportation** to multi-purpose, crowded facilities such as large-scale shopping malls/department stores, theme parks and airports will be enhanced.



### Buildings sector : Energy-saving, sustainable construction

Building energy design standards will be strengthened while energy-saving buildings will be developed and widely used. Eco-friendly features of buildings include enhanced thermal insulation capacity, installation of high-efficiency equipment and achieving a “carbon-neutral” status.

### Resources-recycling infrastructure

**Social overhead capital** facilities designed to **reduce waste** and/or **promote recycling of resources** will be expanded while relevant **legal and institutional framework will be introduced**. Also pursued by the government will be construction projects of resources-recycling complexes by region, expansion of infrastructure at local government level and promotion of “green consumption” of recycled products.



## LEGISLATIVE & INSTITUTIONAL FOUNDATION

### Building the foundation for climate change response

**Legal framework for “low-carbon, green growth”** will be prepared to promote efficient and systematic response to the issue of climate change. The public sector will be subject to systematic **review and evaluation of climate change actions** carried out. For the private sector, incorporating the concepts of carbon intensity and eco-efficiency into **environmental impact assessments** will be considered, making it clear that such tools are proposed not as another set of regulations but as a means to achieve low-carbon, green growth.

### Setting up national inventory system

A system to manage **national greenhouse gas inventory** will be introduced. To this end, Korea’s own greenhouse gas **emission and removal coefficients** will be developed. Support will be provided for the establishment of greenhouse gas inventories of **local governments and private enterprises**.

### Rationalizing renewable energy regulations

Considering the fact that the nation’s renewable energy share is one of the lowest among OECD member countries (as of the end of 2007), **regulations on renewable energy sites** and other relevant areas will be **significantly revised** to foster renewable energy development.

### Considering introduction of emissions trading scheme

For **efficient greenhouse gas mitigation**, the possibility of establishing an emission trading system will be examined. The time of a possible introduction will be decided taking into account the outcomes of international negotiations and pilot operation of such a scheme. A **basic plan for emission trading system** will be drafted by 2009. Trading and cooperation with global carbon markets will be considered.





▲ “Green Ark” installation using recycled waste

## PUBLIC AWARENESS AND PARTICIPATION

### Public awareness

It is critical for the government to **enhance public awareness and encourage positive reception and active participation** on the new national development paradigm of “low-carbon, green growth.” To this end, active awareness campaign will be launched using various means including **mass media, television and the Internet**. Other promotional campaigns will be organized to raise awareness on **consumer responsibility towards the environment**.

### Education

The concept of “low-carbon, green growth” will be reflected in the **primary and secondary school curriculum** to help future generations **understand and act** upon the new paradigm.



Green Ark on display at GreenStart Campaign ▶





*If you have any further questions or comments contact:*

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