

Mitigation Policy Map and Interaction Issues in Korea



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1-1. Low-Carbon Green Growth

□ Low-Carbon Green Growth Paradigm

- Adopted as a Low Emission Development Strategy for Korea
- Achieving sustainable growth while reducing GHG emission and other environmental pollution at the same time
- Also contributing to global efforts to mitigate, and adapt to, climate change

□ Institutional arrangements for LCGG

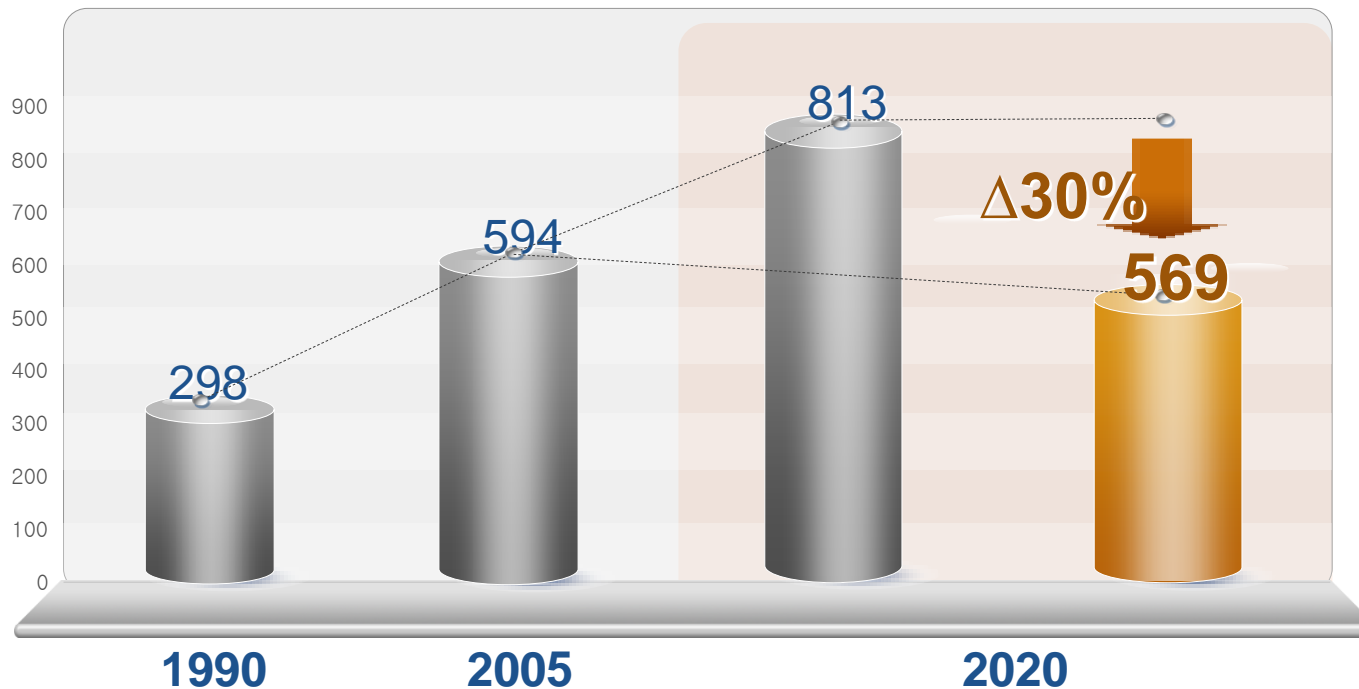
- Presidential Committee on Green Growth launched in Feb 2009
- National Green Growth Strategy and 5-year Plan prepared
- National mid-term GHG reduction target declared
- Framework Act on LCGG went into effect in 2010
- Global Green Growth Institute established
- Emission Trading Law passed National Assembly in May 2012



1-2 National Mid-Term Reduction Target

□ Unconditional, Voluntary target of 30% reduction from BAU

- Sectoral, year-by-year GHG emission reduction targets are defined
- Operationalization of BAU and MRV procedure are being designed





2. Mitigation Policy Map

	ETS	Other Mitigation Policy	Other related Policy
Power	O	TMS (Target Management Scheme)	RPS, Smart Grid, Price regulation
Industry	O	TMS	
Transportation	O	TMS	CAFE, RFS, Subsidy for LEV and Public transport
Commercial	O	TMS	
Public sector		TMS	
Household		Carbon Footprint, Eco-Labeling, Green Card	
Cross-sectoral		R&D support Carbon Tax	



3. Emission Trading Scheme – Development

❑ **Oct 2010**

- Draft Law proposed by PCGG

❑ **Nov 2010 ~ Feb 2011**

- Public hearings and meetings with Industrial Groups & NGOs

❑ **Apr 2011**

- Submitted to National Assembly

❑ **Feb 2012**

- Approved by Special Committee on Climate

❑ **May 2012**

- Approved by Legislation & Judiciary Committee of National Assembly
- Passed with Bipartisan Support in the Plenary Session of National Assembly

❑ **Nov 2012**

- Entry into force with promulgation of Presidential Decree



3. Emission Trading Scheme – Core Elements

❑ **Start date & Duration of phases**

- 1st Phase starting on Jan 1st 2015
- Each Phase lasting for 5 yrs, except 1st & 2nd phases with 3 yrs

❑ **Procedure**

- Basic Planning → Allocation Plan → Designation of Entities
→ Allocation of Permits → MRV → Submission of Permits

❑ **Allocation of Emission Permits**

- Free allowance: 100% (1st period), 97% (2nd period) and less-than 90% thereafter
- Allocation criteria: National and sectoral targets, historical emissions and technology, growth expectations
- 100% free allocation to trade-exposed carbon-intensive sectors to be identified through the same criteria as EU ETS (based on cost burden and trade dependency ratio)



3. Emission Trading Scheme – Core Elements

❑ Participants of ETS

- Installations emitting over 25,000 tCO₂-eq /year or Entities emitting over 125,000 tCO₂-eq/year
- Voluntary participants via opt-in procedure

❑ Measures for Market Stability and Dynamic Efficiency

- Stability measures (Sudden rise or fall of prices or trades): Allocation of Government reserves; temporary price cap/floor; regulation on holdings, banking, borrowing and offsets
- Banking within and between commitment periods
- Borrowing within commitment periods up to 10%
- Early action credits up to 3%

❑ Penalty

- Up to 3 times average market price in the previous year
- No more than KRW 100 thousand(U\$113)/tCO₂-eq



3. Emission Trading Scheme – Core Elements

❑ **Offset (Domestic/International)**

- Limited (<10%) use of offset credits meeting international standards
 - Foreign offsets less than 50% of total offset limits (to be determined by Committee) and not allowed in 1st and 2nd periods.
- Linking with international carbon market via international agreements

❑ **Transaction Infrastructure**

- Designate or establish Trading platform
- Registry for unit accounting, trading and emission inventory
- Strict MRV system, with 3rd party verification, adapted from TMS infrastructure

❑ **Financial Support & Tax Credits**

- Support for businesses vulnerable to competitive disadvantage
- Financial incentives and tax credits for green technologies



4. Policy Interaction Issues

□ Regulation of Electricity sector

- Both Direct and Indirect regulation for emissions from power sector under TMS;
Strong government regulation on electricity prices
 - ✓ Intensity target applied for power sector under TMS
- Direct and/or Indirect regulation?
 - ✓ Threshold criteria for participants considers both dir and indir GHG
 - ✓ Double regulation for both Dir and Indir GHG OR one of the two?
- Disparity between embedded carbon price in (inflexible) electricity prices and (volatile) carbon prices
- Possibility of market distortion in energy for household consumption
 - ✓ ETS Carbon price reflected in household electricity price but not in other energies for household
 - ✓ How to transfer ETS carbon price into block-tariff structure



4. Policy Interaction Issues

Options for regulation of electricity sector GHG emissions under ETS

Direct emission	Indirect emission	Practice	Pros	Cons
O (total)	X	EU, Australia, New Zealand..	Cost-effectiveness via single carbon price	Inefficiency under strict electricity price regulation; (Potential) Carbon price distortion in non-ETS sector
X	O (total)	Tokyo	Incentive for reducing electricity consumption	(Potential) No incentive for emission reduction in power production
O (total)	O (total)	?	(Too?) Strong incentive for emission reduction	Double carbon price on Power sector emissions; Duplication of allowance for electricity emission; Uncertain total emissions
O (intensity)	O (total)	Korean Target Management Scheme	Cost-effectiveness via single carbon price	Complexity; (Potential) Less incentive for emission reduction in power production



4. Policy Interaction Issues

❑ **RPS, CAFE, Carbon tax covers ETS-regulated sources**

- Does ETS design need to take RPS and/or CAFE into consideration?
 - ✓ ETS authority may reduce emission caps for power and transportation sector by the amount of GHG reductions accruing from RPS and CAFE
 - ✓ Division of labor between Ministry of Environment and other ministries
- Does Carbon tax need to be applied to non-ETS sector only or ETS sector too?

❑ **Target Management Scheme as a Stepping stone towards ETS**

- TMS could be a compromise between industry and environment
- Quantity control of bus and rail industry may harm public transportation promotion and intensity based allocation is being considered

❑ **Potential of public organizations as participants in ETS**

- Most of public organizations, such as local government buildings, are regulated under TMS and linking with ETS market is being discussed