

# The comparison studies on the emission trading scheme between China and South Korea

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# China: 12<sup>th</sup> 5 years Plan on GHGs Reductions

- PRC Nation Development and Reform Committee (NDRC)
- Planning started from 2009, 12<sup>th</sup> 5 years Plan.
  - \* (1) establishing the monitoring and investigation on sectorial emission of GHGs,
  - \* (2) the statistic data on GHGs,
  - \* (3) establishing the information sharing platform on climate change,
  - \* (4) Establishing the information service platform,
  - \* (5) developing the task force zones and the demonstration of the task forces.

- \* Framework Act on Low Carbon, Green Growth, 2010
- \* Allocation and Trading of Greenhouse Gas Emissions Allowance Act, 2011
- \* Enforcement Decree of the Act on the Allocation and Trading of Greenhouse Gas Emission Allowances, 2014

## \* South Korea: Emission Trading Scheme

## China

- Cap: reducing 12% CO<sub>2</sub> below 2005 level on 2015 (policy).
- Only CO<sub>2</sub>!
- Starting the ETS task forces from 2015.
- Voluntary, not KP mechanisms.
- Domestic demonstration, Learning by doing!

## S. Korea

- \* Cap: reducing 4% GHGs below 2005 level on 2020.
- \* 6 GHGs on KP.
- \* Starting the ETS from 2015-2020.
- \* Voluntary, based on KP mechanisms
- \* Nation wide implementation.

\* Reduction Targets



## China

- Only emission trading without taxation.
- No investigation measures and methodologies have been announced yet.
- Registration system and rules have not been established yet.

## S. Korea

- Only emission trading without taxation.
- Allowance Act provides methodologies to define national allocation plan.
- MOE manage and operate the Registration system.

\*Registration system

cities	Scope	Accounting unit	Standard	duration
Beijing	Corporates with fixed emission sources.	CO <sub>2</sub>	10,000 tons	2009-2011
Tian-Jing	steels, chemical industry, cements, automobile manufacturing, coal firing powers, dyeing factories, glasses and paper-making, big construction, oil production operation	standard coal	60,000	2010-2011
Shanghai	steels, chemical petroleum, chemical industry, dyeing factories, coal firing powers, building materials, spinning and weaving, paper-making, rubber, synthetic fibers\ aviation, ports, airports, railways, commercial sectors and hotels	CO <sub>2</sub>	20,000/10,000 tons	2010-2011
Chong-Quing	12 sectors, including construction, chemical industry, steels, mining, cement, beer brewing industry, energy, powering, glass, pottery and porcelain industry, automobile manufacturing, biotechnologies, .	tCO <sub>2e</sub>	X	2013
Shen-Zen	Industry of Importance, Construction and Services Sectors	standard coal	200,000/5000	2010-2011
Hu-Bei	Industry of Importance,	standard coal	60,000	2010-2011
Guang-Dong	X	X	X	X

EU ETS Items	EU ETS	S. Korea	China
Cap	Reducing 8% under 1990 level on 2008~2012.	4% under 2005 level by 2020, 2015-2020.	12% CO <sub>2</sub> below 2005 level on 2015.
Allowance delivery	Nation Allocation Plan、 grandfathering、 free allocation、 budgets for new facilities	National Allocation Plan	Grandfathering 2010-2011
Regulated GHGs	first phase : CO2 second phase : CO2 third phase : six GHGs	Six GHGs	CO2, standard coal
Scope	first phase : energy、 steels、 mining、 paper-making second phase : chemical industry、 alumni third phase : aviation 、 large food production (8 sectors)	energy、 steels、 mining、 paper-making、 chemical industry、 alumni	11 sectors (maximum)
Investigation and verification	Third party services	Third Party services	Not announced yet!
Registration & Trading	registrations and EU Log	MOE	Not announced yet!



EU **27** members, 2,200 participants from 8 sectors

total emission amount: **5.18** billion tons, 2009

Units: million tons  
CO<sub>2</sub>e

	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Total trading amounts	<b>321</b>	<b>1,104</b>	<b>2,061</b>	<b>3,093</b>
Reduction rate: trading amount/ total emission amounts	<b>6%</b>	<b>21%</b>	<b>40%</b>	<b>60%</b>

China: unknown participants, but from 11 sectors  
unknown emitted amounts.

No National Emission Reduction Cap.

## China

- \* Only national emission cap, no caps for task forces. No cap but trade in task forces.
- \* Too many selected sectors, or too few!
- \* Various emitted amount standard among task forces.
- \* Unique calculation unit: standard coal and CO<sub>2</sub>?
- \* Diverse duration to calculate grandfathering emission records.

## S. Korea

- \* Cap-and-trade.
- \* Sectors not announced yet.
- \* Based on grandfathering emission records.
- \* Unified calculation unit: tCO<sub>2e</sub>
- \* Unified nationwide methodologies.

\* Findings

- \* Announcement on unified methodologies for 7 task forces is necessary.
- \* Following the 12<sup>th</sup> 5 years plan, focus on establishing the methodologies for monitoring, investigation and monitoring first.
- \* Task forces on investigation methodologies promotion and implementation, not ETS!
- \* Format for reposting and monitoring are also essential!

## \* Conclusions and Suggestions

- \* Awareness of enforcement on law need to be improved.
- \* Implementation obligations under UNFCCC and Kyoto Protocol.
- \* 2015 is too hurry, 2020 might be a reasonable timeframe.

## \* Conclusions & Suggestions

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**Thanks for your Attention!**