
Korea's NDC and the Latest Developments in KETS

16th IEA-IETA-EPRI Annual Workshop on Greenhouse Gas
Emission Trading (Session 2)

2016.10.18

Hyungna Oh (Kyung Hee University, h.oh@khu.ac.kr)

Today's Talk Plan

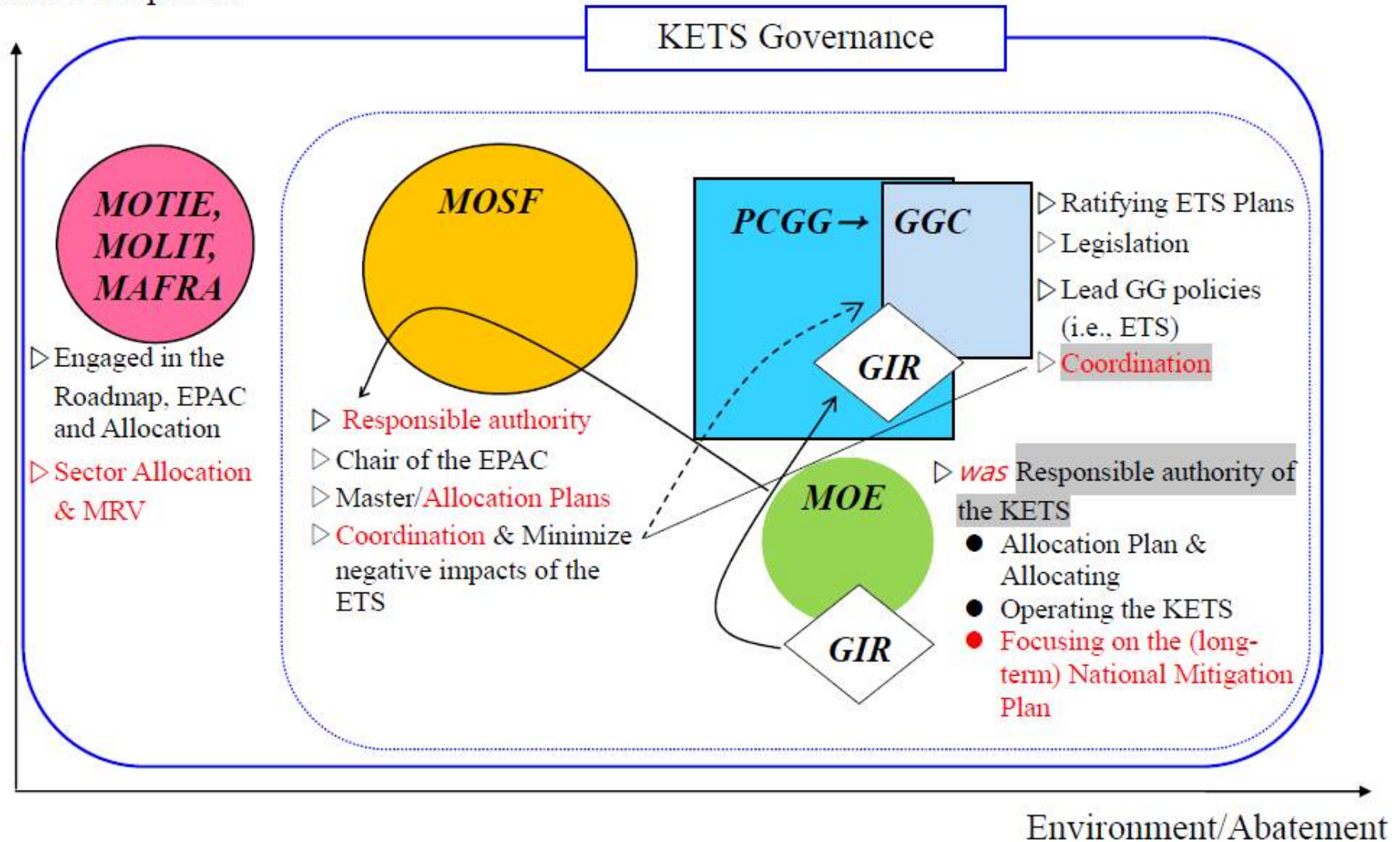
I .Summary of the 1st year KETS

II. Korea's NDC and its Implication to KETS

I. Summary of the 1st year KETS

1st year KETS: Governance

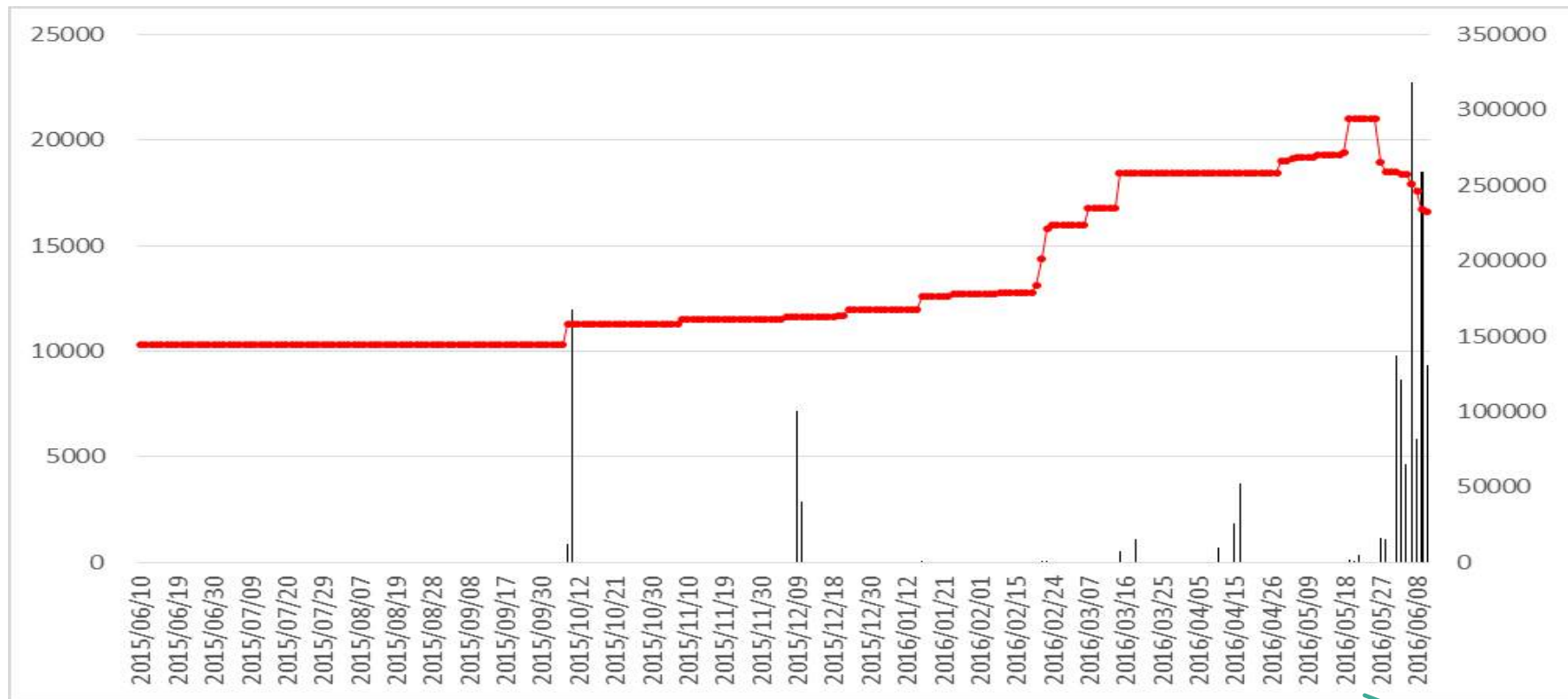
Growth/Development



1st year KETS: Market ①

KAU price (Won/KAU)

Trading volume



Governance change
Market stabilization measures
(Increase in Borrowing limit &
Sales of reserves)

Source: Korea Exchange

1st year KETS: Market ②

- ▶ **Cap: Neither over-allocation nor under-allocation**
 - Cap \doteq Actual emissions (0.540 BTones vs 0.543 BTones)
- ▶ **Trade: Extremely thin**
 - 45% of covered entities experienced shortage \rightarrow D
 - Others \rightarrow S (but most surplus KAUs were banked)
 - Lack of liquidity (thin market)
 - * Lack of trading in an exchange market
 - * Relatively active OTC trading (items: Offset credits)
- ▶ **Price**
 - Approximately \$9-\$25
 - Lower than the level to make firms invest on low carbon projects immediately

Evaluation & Directions ①

- ▶ In the process of establishment
 - Better than expected
 - Impacts on GHG and economic growth (ignorable)
- ▶ Impacts of Governance changes
 - Concerns exist
 - But, it is also expected to implement (so-called) comprehensive horizontal (environment-friendly) industrial policies and to achieve Korea's NDC
- ▶ Problems: Illiquidity
 - Low transaction volume → price volatility
 - Price exploring function may not work

Evaluation & Directions ②

► Sources of Illiquidity

○ Firms

- Do not consider the KETS as a business opportunity
- Concerns on the following: i) possible shortage in 2016 and 2017, ii) negative impacts on free allocation in phase 2, and iii) all other sources of uncertainty
- Lack of hedging methods including derivatives
- Lack of trading experiences

○ KETS (Phase 1)

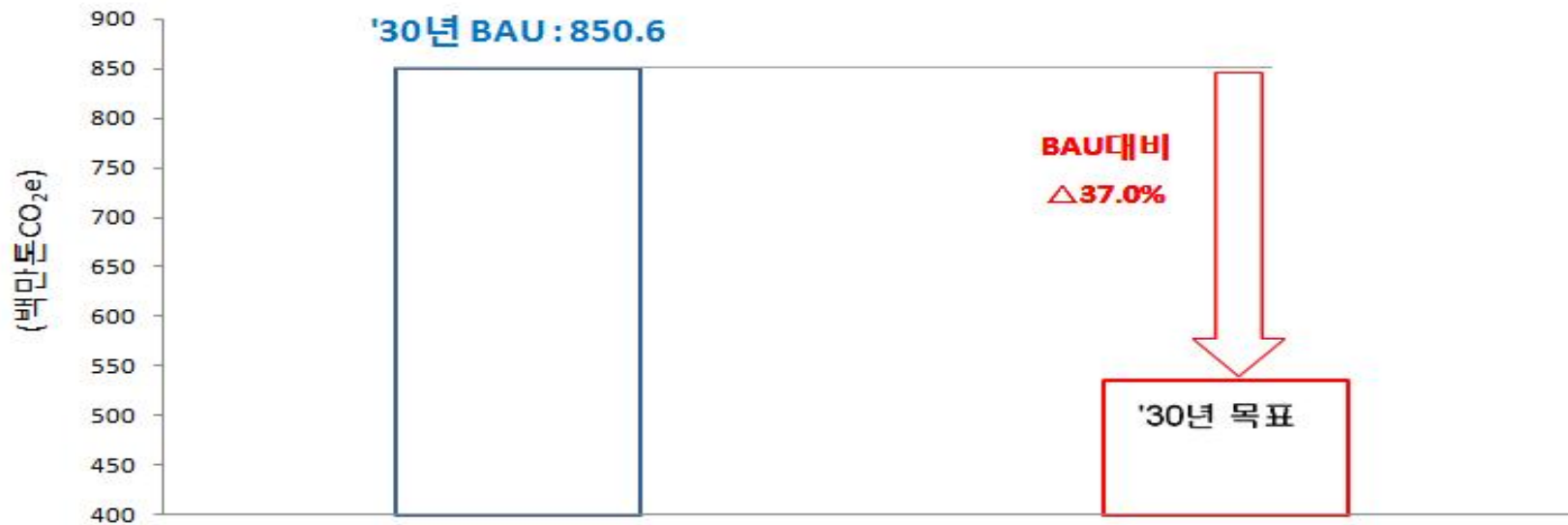
- i) Absence of the 3rd party participation and hedging methods, ii) limited opp. for offsetting, iii) banking and borrowing rule

Evaluation & Directions ③

- ▶ **Emphasis: "Activating the Market"**
 - : Activating the market → Stabilizing the market
 - Reducing policy uncertainties
 - Increasing transparency of the market (information)
 - Considering introduction of derivative markets
 - Reducing barriers wrt non-OTC trading (KRX)
 - Additional function of the 3 public financial institutes , as Market makers
- ▶ **Allocation method: Applying BM more than before**

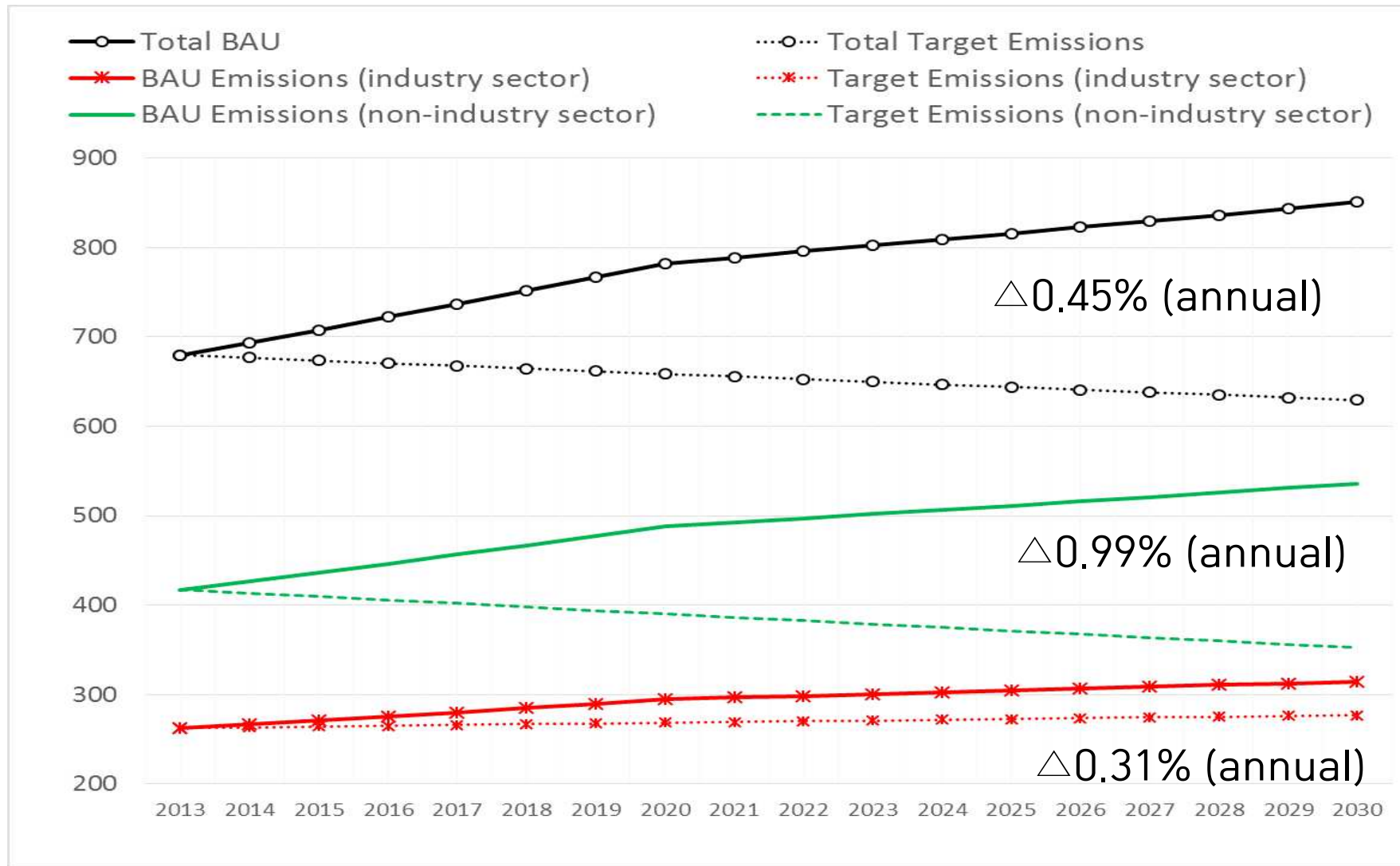
II. Korea's NDC

Korea's NDC



- 37% by 2030 under the BAU Scenario.
 - 25.7% (Domestic) + 11.3% (International)

GHG Reduction Targets (estimated)



Implications to KETS ①

- ▶ **Cap(s) of Phase 2 and after**
 - will reflect new targets (industry and non-industry)
- ▶ **Offset coverage**
 - will grow
 - International offset actions done by domestic actors will be taken into consideration (-11.3% internationally)
 - Domestic offset actions in non-ETS sectors will be encouraged
- ▶ **Linkage**
 - G becomes interested in market linkage

Implications to KETS ②

► Role of KETS

- was the most important mitigation instrument
- still important but more emphasis is given to energy sector low-carbonization (nuclear, renewable, efficiency) → The role of MOTIE becomes important in the CC policy domain.

Thank you for hearing :)