



LUNDS UNIVERSITET

The Same Policy, Similar Procedure but Different Consequence

Analyzing Policy-Shaping Processes of Greenhouse Gas Emissions
Trading Scheme in the EU and Korea

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Master Thesis
International Master's Programme in Environmental
Studies and Sustainability Science (LUMES)

16 May 2011

Abstract

Korea is trying to introduce emissions trading scheme, and it uses the EU ETS both as an information-providing practice and as one crucial rationale for introducing the scheme into Korea. However, the policy-shaping process of the EU attracts little attention from experts and officials in Korea compared with their interests in detailed design elements of the scheme, and the purpose of the paper is to fill the gap.

Korean government has just finalized its proposal on emissions trading but the controversy over the proposal is getting worse, and this situation in Korea is different from the relatively high consensus-level among distinct stakeholder groups in the EU when the European Commission announced its ETS proposal in 2001. The paper identifies the reasons behind the different level of consensus over the same policy measure by making a structured comparison between the EU's and Korea's stakeholder participation process.

It is apparent from the above comparison that Korean government cannot but to have considerable difficulty in building consensus on emissions trading due to their inadequate stakeholder participation practices, which could be characterized by two words: late and short. I go one step further to identify structural and institutional reasons behind some inefficient and irrational elements in the policy-shaping process in Korea including stakeholder consultation process. In the end, I make recommendations to Korean government based on the analysis.

Key words: emissions trading scheme (ETS), policy-shaping process, consensus building, bureaucratic competition, Korea, the European Union

Words: 14,873

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Acknowledgement

I could not have finished my work without you:

- My insightful supervisor, Johannes Stripple
- Dear LUMES teachers and LUCSUS staffs
- My lovely and brilliant classmates, big hugs!
- My friends in Korea waiting for me with white and green bottles
- Hey colleagues, I'll join you.
- Strong Swedish coffee, I'm addicted
- Hmm, Yosemite.
- My family in Korea, thank you always!
- Korea, thank you for supporting me!
- Oh, my wife and son, I love you!!

Abbreviations

BSA: Burden -Sharing Agreement

CCAP: Center for Clean Air Policy

DG ENV: Directorate-General for the Environment (of the European Commission)

ECCP: European Climate Change Programme

ETS: Emissions trading scheme

EU ETS: European Union Emissions Trading Scheme

FIELD: Foundation for International Environmental Law Development

GHG: Greenhouse gas

KEEI: Korea Energy and Economics Institute (of Korea)

KEI: Korea Environment Institute (of Korea)

MKE: Ministry of Knowledge Economy (of Korea)

MoE: Ministry of Environment (of Korea)

PCGG: Presidential Committee for Green Growth (of Korea)

PMO: Prime Minister's Office (of Korea)

WG: Working group

1 Introduction

Climate change needs our immediate actions but the main cause of climate change, burning fossil fuels is an indispensable activity of our current economic system. Fundamental changes for low-carbon society, such as replacing enough amounts of non-renewable energy resources with renewable ones or constructing steady-state/de-growth economy, do not seem technically and politically feasible in the near future. Instead, currently the most salient policy tool against climate change is emissions trading. Levy and Newell (2005 cited in Bailey and Maresh 2009) explain the two core reasons of its popularity: one is “the appeal of this logic to both government and industry” (politically doable), and; the other is “the ancillary benefits that may arise from proving to industry that environmental measure need not be expensive” (cost-effectiveness).

The European Union Emissions Trading Scheme (hereafter: EU ETS) had started in early 2005 and entered its second phase (2008-2012). It is too early to evaluate the success of the scheme precisely because the scheme is currently under the first ‘serious’ implementation phase after three years ‘learning-by-doing period’ of the first phase (2005-2007). Hepburn (2007) indicates that the existence of the EU ETS itself is a huge success. Indeed, it is not only the first application of tradable permits scheme to greenhouse gas (hereafter: GHG) emissions, but also the biggest carbon market in the world now. It is not surprising many countries trying to introduce emissions trading are eager to know about the EU ETS.

The officials of a country, which tries to set up its own emissions trading scheme (hereafter: ETS), tend to give their attention to the detailed design elements of good preceding practices, and the EU ETS is an undeniably best practice in the world now because of its scale and implementation history mentioned above. Their interest usually focuses on the policy instrument itself, and they are apt to miss the policy-making process. The EU, a supranational organization currently has 27 member states of diverse political, social, economic and cultural background since 1 January 2007¹ (Rusche 2010). Although whether this diversity was an obstacle to introduction of ETS into the EU is a matter of a further research, it is not hard to imagine that the policy-making process for introducing an unfamiliar EU-wide environmental policy measure has been a long and winding road.

Recently, some academics throw light on the policy-making process for the EU ETS and the role of the European Commission² and its officials during the process (Skjærseth and Wettstad 2008b, Convery 2009, Skjærseth and Wettstad

¹ At the time of introducing the EU ETS, the EU had 15 member countries.

² The European Commission is the EU’s executive body (European Commission 2011a). I sometimes call this body the Commission in the paper.

2010). I think the researches on that matter are as valuable as those on detailed design elements of emissions trading for other ETS-candidate countries.

ETS is known as a market-based environmental policy tool originated from environmental economics (Pearce 2002). However, one of the critical contributors of emissions trading, Dales (1968) insists that “the question of how water [common-pool resources, author’s note] should be used is a purely a matter of collective decision-making”, and the market generated by the emissions trading is “nothing more than an administrative tool” which enable us efficiently attain the goal set by the collective decision-making. The total cap, scheme coverage and initial allocation method are essential elements of ETS and cannot be set only by economic theory. It is the collective or political decision-making process (with some help of economists and scientists) that determines those design elements.

I do not mean that economic theory has no influence over design choices of emissions trading. The point is the majority of ETS design elements, including the decision on introducing ETS itself, are destined to be determined by a political process in a democratic society. Therefore, it would be interesting to see how the European Commission has made its way through opposition or different opinions of people to ETS, what the Commission’s main strategies were, and what had to be compromised to announce its emissions trading proposal. These are my first set of questions to be answered in following chapters.

The emissions trading scheme, a textbook solution to degradation of common-pool resources was firstly applied in practice to air pollutants such as lead, ozone-depleting chemicals and sulfur oxides in the U.S. (Tietenberg 2006: 6-14). The EU has firstly embraced the idea of an emissions trading scheme for GHG although its opposition to the idea at the international climate change negotiation in the early stage (van Asselt 2010). A recent report of International Energy Agency reviews the existing and proposed mandatory emissions trading systems, and it covers seventeen following schemes and plans:

Mandatory emissions trading systems are already operating around the world (European Union, Norway, Switzerland, New Zealand, Alberta, New South Wales [NSW], United States Regional Greenhouse Gas Initiative [RGGI], Tokyo, United Kingdom Carbon Reduction Commitment Scheme [UK CRC]), are being planned (Western Climate Initiative [WCI] linking US states and Canadian provinces, California, *Korea* [my Italics], Japan, Brazil, China), or have reached an advanced stage of design (Australia, United States H.R.2454 proposal). (Hood 2010: 6)

Although it categorized Korea as “being planned” stage in the report, now it reaches “an advanced stage of design”; Korea recently announced a legislative proposal on GHG emissions trading and tries to set up its own trading scheme soon, hopefully in 2015 (PMO 2011)³. This proposal is being severely opposed by industry sector arguing that there is no reason to introduce ETS earlier than industrialized countries such as the U.S. and Japan or big emerging economies such as China, India and Brazil. These sentiments are well reflected on a recent remark of the former Minister of the Ministry of Knowledge Economy (hereafter:

³ The acronym PMO refers to the Prime Minister’s Office of Korea.

MKE)⁴ while in office: “Our livelihood depends on how well we do overseas as seventy percent of gross domestic product comes from trade, so the slightest increase in cost means we could lose business. There are fears companies could abandon their business here and rush to relocate overseas” (Shin 2010). His short statement shows some part of the whole complexity of introducing ETS into Korea (e.g., the need for internationally coordinated efforts, trade-offs between reducing GHG emissions and developing national economy, and issues of industry competitiveness).

The focus of the paper is the key design choices of ETS and the policy making-process to shape those design choices in the EU and Korea. The second set of my research question is, therefore, about the design choices and the policy-making process in Korea: how the Korean government has made its way through opposition from diverse stakeholders, especially from industry groups, and what had to be compromised to buy their support.

The EU ETS has been one of the crucial rationale of ETS-advocates’ arguments in Korea. Not surprisingly, the opponents have also used the EU ETS for their counter arguments by indicating weak points appeared during its implementation. The controversy over ETS continues now, and each stakeholder group keeps its original position. What they are missing is the process and condition of the EU which make it possible to overcome wide differences of opinion and improving the scheme phase by phase. Although there is 10-year-interval between the two ETS proposals, I think the policy-making practices of the EU can give some meaningful implication to Korean people, especially government officials.

I organize the reminder of the paper as follows. In the second chapter, I specify the aim, scope and methods of research. The third and fourth chapters give descriptions of the policy-making process of the EU and Korea respectively. Then I make a comparison between the processes of the EU and Korea based on evaluation criteria I have chosen. In the discussion part, I examine structural and institutional reasons behind the customary practices of the Korean policy-making process identified in preceding chapters and make policy recommendations for Korean government to find better ways of formulating policies on increasingly complex problems like climate change.

⁴ The Ministry of Knowledge Economy (MKE) of Korea is in charge of industry, commerce and energy policies and its former name was the Ministry of Commerce, Industry and Energy (MOCIE).

2 Aim, Scope and Methods of the Paper

2.1 Aim of the paper

The primary goal of the paper is to learn lessons from the EU's experience on designing and operating its ETS and the process of the Commission for shaping its ETS proposal. The parallel examination of Korea's ETS policy-shaping process and its key design elements leads to a vivid comparison between two similar processes of the EU and Korea for the same purpose, introducing ETS. This work also would make it possible to see the reasons behind the identified differences between two processes.

I write the paper, mainly for the policy-makers responsible for the climate change matter in Korea, but anyone interested in the policy-making process of the European Commission and Korean government may find some interesting points of their own. I roughly suggested my research questions in the introduction, but I think this is a good place to present my questions more clearly based on the aim of the paper explained above before proceeding further.

- (1) How the key design elements of ETS had to be changed or compromised to announce the final proposals in the EU and Korea?
- (2) Through which process the EU and Korea tried to build consensus on their ETS proposals respectively and to what extent were they successful?
- (3) What are the differences in the policy-shaping process between the EU and Korea and what are the reasons behind the differences?

2.2 Scope of the paper

Although I look into the proposal-making process on emissions trading in the EU and Korea from launching research projects to announcing legislative proposals, I mainly focus on stakeholder consultation processes, specifically what kinds of methods the officials used to build consensus among stakeholder groups for introducing ETS. All design elements and the whole policy-making processes of introducing the ETS cannot be dealt with in the paper, so I narrow down the scope of my inquiry as presented in this section.

2.2.1 ETS design choices

Tradable permits can be defined as “a transferable right to a common pool resource” in general use and “a transferable right to emit a substance that create pollution” in specific environmental application (Ellerman 2005). There are three main ways of implementing tradable permits scheme depending upon how tradable permits are generated and traded. They are credit trading, averaging and allowance trading (Ellerman 2005). It is allowance trading scheme that the EU is implementing and Korea is trying to introduce. This is also called cap-and-trade and the design elements discussed in the paper are relevant to this type of tradable permits scheme.

The basic operating mechanism of ‘cap and trade’ scheme is straightforward, and it is well summarized by Hood:

In an emissions trading system (ETS), liable entities – those responsible for emissions (for example electricity generators or large industrial plants) – must hold allowances to match their emissions over a given timeframe. A cap on the total number of allowances available sets a limit on the total quantity of emissions. Liable entities have the possibility to sell or acquire allowances, with a view to minimizing their cost of compliance. Trading of allowances establishes market price for emissions and promotes least-cost actions to meet the cap. (Hood 2010: 11)

The government should take several critical decisions to make the system described in the above quote work. At first, a country should have a national emissions reduction target and this decision is heavily influenced by international politics and national economic conditions. ETS is one of the many policy tools to reduce GHG emissions; therefore, I think the national cap-setting can be regarded as a prerequisite for implementing ETS not a subordinate design element of ETS.

The next step would be to decide the sectors to be covered by ETS, and it can be thought of as an internal or domestic burden sharing process among diverse sectors. Excluded sectors, or non-trading sectors are supposed to be under the other types of regulations for reducing their GHG emissions. This step of deciding coverage of the scheme is critical because reducing GHG emissions entails costs. The strong argument of industry sector is the international competitiveness issue. They insist that the increase of production cost, which their competitors in other countries do not bear, will cause the transfer of GHG emitting facilities to non-regulating countries. It is not hard to imagine the lobbies and politics around this design element. Thusly, the officials need to exert special efforts to build consensus on this matter and I choose this as my first key design choice of examination.

Now it is a time to allocate allowances to individual entities covered by emissions trading scheme. This step is setting emissions caps for each entity or firms. There are two main methods of allocation; one is auctioning and the other is free allocation. The additional cost of industry sector incurred by ETS varies considerably depending on the allocation method adopted. This is my second choice of the ETS design elements, and I deal with the details of these two design elements in Section 3.1.

2.2.2 Policy-shaping Process

I examine the activities of government institutions and officials for building consensus closely, especially those of leading agency for introducing ETS into the EU and Korea. They are the Directorate-General for the Environment (hereafter: DG ENV) of the Commission and the Presidential Committee for Green Growth (hereafter: PCGG) of Korea. I agree with the idea of Giddens in his book, *the Politics of Climate Change* in which the role of government and the state as a catalyst or facilitator underlines:

I don't want to deny that reaching international agreements is essential, or that any other agencies, including NGOs and businesses, will play a fundamental role. However, for better or worse, the state retains many of the powers that have to be invoked if a serious impact on global warming is to be made. (Giddens 2009: 91)

Establishing a European-wide ETS was mentioned for the first time in the Commission's communication document, *Climate Change – Towards an EU Post-Kyoto Strategy* of 1998 (Convery 2009) and currently EU ETS is in its second phase of operation, and I decided to concentrate on the early stage of policy-making, from the internal knowledge building to the announcement of the final proposal. From now on, I will call the processes until finalizing the proposal 'policy-shaping process' to differentiate this early-stage work from the whole policy-making process until enacting the Directive of the EU and the Act of Korea on ETS. During that time, the consensus-seeking activities of the government agencies were vigorous; therefore, it becomes easy to see approaches and practices of officials of the two agencies. The Commission had launched its first research project on ETS in January 1999 and finalized its proposal on emissions trading in October 2001. The PCGG launched the first one of three interrelated research projects on November 2008 and announced the proposal in April 2011. There is a time interval of ten years between these two proposal-making processes, but they took similar time, around two and half year.

Temporal scope of the paper covers from the internal knowledge building process of the EU and Korea for drafting a directive and a legislative bill on emissions trading respectively. At the time of commissioning research projects in both regions, introducing emissions trading was high on the agenda. This enabled officials of the Commission and the PCGG to use resources for developing detailed policies and building consensus. I summarize the scope of the paper in Table 1.

Table 1. The Scope of the Paper

	European Union	Korea
Time scope: from research to proposal	Jan 1999 – Oct 2001 (33 months)	Nov 2008 – Apr 2011 (29 months)
Two key design choices of ETS	Coverage of the scheme Allocation method of allowances	
Competent agency	DG ENV of the European Commission	PCGG of the Korean Government

2.3 Methods and limitations

The paper compares two policy-shaping processes of the EU and Korea for introducing emissions trading, and I defined the scope of the comparison in the previous section. I adopt a structured comparison method to see differences between the two processes and identify reasons behind them by following changes of two design elements of ETS. I use multiple sources of evidence, such as official documents of the European Union and Korean government, relevant literature, newspaper articles and my work experience in Korean government sector to examine the policy-shaping processes, and make a comparison between them. To show the identified difference more systemically, I decide to use the European Commission's *General Principles and Minimum Standards for Consultation of Interest Parties*.

It is natural to have some doubt about the validity of my comparison between the European Commission and the Korean government, and using one party's standards instead of some 'neutral' or 'third-party' ones. For the former matter, I have to acknowledge that the consensus-level over the ETS proposals of both entities can be affected by a number of factors. For example, international negotiations have a significant influence on national climate policies; the impacts of more or less rosy prospect after Kyoto Protocol in the early 2000s and gloomy outlook after Copenhagen Accords in the early 2010s on national climate policies cannot be the same. Moreover, each entity feels different weight of burden of GHG emissions reduction due to the differences in historical responsibility to climate change. In addition to that, the Commission, a supranational organization has a relatively long tradition of intensive consultation with "external experts and interest groups to safeguard the support of stakeholders for its legislative initiatives" (Quittkat and Finke 2008: 183), while the majority of the Korean government officials, in my opinion, "believes that rational analysis and scientific examination of facts will bring about unanimous consensus on policy solutions" (Radaelli 1999). It is impossible to detach the context from my 'cases', they always interact each other. Therefore, the causal relations between the policy-shaping process and the consensus-level over the legislative proposal should not be exaggerated. For this reason, I decided to show the different practices of consensus-seeking activities between the DG ENV of the Commission and the PCGG of Korean government in the analysis part of the paper without digging into the causality between process and consensus-level. For the latter point, I explain the reason why I decided to use the Commission's standards for stakeholder consultation in Section 6.2.

3 Theoretical Background

3.1 Theories on emissions trading

3.1.1 Theoretical development

A greenhouse gas ETS is one of many policy tools, which is developed by economists as a mitigation option against climate change. Many economists have suggested that the reducing GHG emissions can be achieved cost-efficiently through this scheme compared with the traditional ‘command-and-control’ style regulations (Anthoff and Hahn 2010). Before discussing the two ETS design elements of my choice, I look into the philosophical position and principal contributors of the scheme.

Status quo

Where the price of the right to emit greenhouse gas comes from and what are the implicit philosophical positions and assumptions behind this policy tool? The scheme generates price signal of GHG through scarcity arises from controlled issuance of emissions allowances (permits) by government. Its cost-efficiency is achieved by equalizing the marginal abatement costs of all firms covered by the scheme (McKibbin and Wilcoxon 2002).

It can be thought of as a market correction activity to include unpaid social costs incurred by economic activities. However, ETS does not try to estimate the social costs in monetary terms because it is simply impossible to do that. In other words, the price of the permits has no direct relation with the social costs generated by GHG emitting activities. It merely reflects the artificially generated scarcity, which mainly depends on the governmental decision about the total amount of allowances.

Supporters of market-based policy measures such as carbon taxes or emissions trading also emphasize the possibility of emissions reduction technology development by private companies as the price of ‘making pollution’ increase (Jaffe et al. 2002), and this is another alleged virtue of ETS. They have no doubt about the current economic and social institutions. Many economists have explained environmental problems using a convenient term ‘externality’ and it implies that the current economic system has no fundamental flaw and environmental problems can be tackled by ‘supplemental’ markets, such as carbon market for the case of climate change.

According to the article of Hopwood et al. (2005), *mapping different approaches to sustainable development*, the ETS corresponds to the status quo’s solution. Their mapping identifies three views on sustainable development:

[...] three broad views on the nature of the changes necessary in society's political and economic structures and human-environment relationships to achieve sustainable development: that it can be achieved within the present structures – status quo; that fundamental reform is necessary but without a full rupture with the existing arrangements – reform; and that as the roots of the problems are the very economic and power structures of society a radical transformation is needed – transformation (Rees 1995: cited in Hopwood et al. 2005)

More specifically ETS can also be labeled as a policy measure of ecological modernization in that it expects technological development (as a critical solution) through the market mechanism (Hopwood et al. 2005).

Contributors

Coase (1960) observed the “the reciprocal nature” of harmful effects and insisted that the “If factors of production are thought of as rights, it becomes easier to understand that the right to do something which has a harmful effect is also a factor of production.” The concept of polluting as a private right led to develop an idea of a market transaction as a solution against a harmful effect. Pearce (2002) commented: “For those opposed to more state regulation [...] Coase's argument opened up a substantial potential for free market environmentalism.”

Coase's idea was elaborated by Crooker and Dales “using hypothetical cases to illustrate the potential” of the theoretical framework respectively for the air pollution and water pollution case in late 1960s (Convery 2009). Anthoff and Hahn pay attention to two critical contributions of the early economists:

First, that it is, in principle, possible to design a system of marketable permits that achieves any particular target at least cost [...] The second point was that the distribution of property rights would not impair the achievement of an efficient result under certain conditions. (Anthoff and Hahn 2010)

3.1.2 Coverage

Gas coverage

In this section, I examine the coverage of carbon emission trading scheme. There are two-type of coverage to look into: gas coverage and sector coverage. Two practical matters are import to decide gas coverage, and this design element was not controversial during the policy-shaping processes both of the EU and Korea; therefore, I briefly mention the gas coverage of the EU ETS here and it will not be discussed in following chapters.

Among six greenhouse gases under the Kyoto Protocol,⁵ the EU ETS covers only energy-related carbon dioxide emissions and other gases are excluded from the trading scheme. It is an economically rational choice to include as many gases as possible to increase flexibility of the instrument; however, there are two important prerequisites for the inclusion of greenhouse gases other than carbon

⁵ Six greenhouse gases are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF₆) (UNFCCC 1998).

dioxide. One is setting equivalence should be established among different types of greenhouse gases because different impact of each gas to climate change due to their distinct physicochemical characteristics. Without any equivalence, it is impossible to trade between one gas and another. The other prerequisite is the technical and administrative feasibility of establishing reliable monitoring, reporting and verification system on those gases.

The former can be solved by applying Global Warming Potential (GWP) devised by scientists of IPCC.⁶ The Commission's emissions trading proposal clearly indicates that the exclusion is due to the too great uncertainties of monitoring other GHG and the Commission also considered the fact that over 80 percent of the GHG emissions in the Community was carbon dioxide in 1999 (European Commission 2001e: 9). However, it should be noted that the EU's Directive on emissions trading opens the possibility of including other five gases on condition that "monitoring and reporting of these emissions can be carried out with sufficient accuracy" in Article 24(3) (European Commission 2003a).

Upstream versus downstream

There are many control points during the whole life cycle of fossil fuels use from extraction to final consumption when policy-makers try to set up ETS. Mansur (2010) calls this design choice of ETS "vertical targeting" and emphasizes the relative character of the terms, upstream and downstream. In GHG emissions trading scheme upstream generally refer to regulating producers, processors and transporters of fossil fuels (e.g. refineries, coal preparation plants, coal mines, gas pipelines, gas processing plants and fossil fuel importers) and downstream means fuel users or GHG emitters (e.g. power generators, large industrial users, commercial facilities, households and car owners) (Yamin and Lefevere 2000). The advantages of upstream system are its comprehensive coverage and simplicity because the number of upstream participants is far less than that of downstream ones.

Sectoral coverage

The cost-efficiency of ETS originates from "differences in abatement costs between companies covered by the trading system, this would argue in favour of as wide and as varied sectoral coverage as possible" (European Commission 2000b: 14). Wide coverage is also unanimously supported by relevant researches on condition that "transaction cost can be kept low" (Michaelowa 2005). Other more or less practical factors need to be considered for determining sectoral coverage are as follows: "the potential effects on competition, administrative feasibility and the possible existence of alternative policies and measures" (European Commission 2000b: 14). Thusly, Hood's suggestion on determining sectoral coverage merits attention:

⁶ "While the GWP is a simple and straightforward index to apply for policy makers to rank emissions of different greenhouse gases, it is not obvious on what basis 'equivalence' between emissions of different species is obtained" (Smith and Wingley 2000; Fuglestvedt et al. 2003 cited in Forster et al. 2007).

[...] An initial focus on sectors with large abatement potential can make sense if it is politically or logistically difficult to implement a broader scheme. With a narrow scope some economic efficiency is lost and a higher emissions price will be needed to achieve a given level of emissions reduction, but this may be considered acceptable in light of easier implementation and political acceptability. However, even if a scheme begins with narrow coverage, it is important to ensure that the system is designed to be able to expand over time to include other sectors. (Hood 2010: 35)

3.1.3 Allocation method of allowances

Allocation of allowances is one of the most controversial aspects of designing and implementing ETS, “not only in terms of its impact on the fairness of the program but also on its cost-effectiveness” (Tietenberg 2006: 127). There are two categories of allocation methods; one is free allocation and the other is auctioning.

Auctioning is preferred by economists (Cramton and Kerr 2002) and this method “could avoid most, if not all, problems and distributional aspects which result in inefficiencies and complex rules” incurred by free allocation such as “accounting for early action, excess allocation at installation level, or treatment of new installations and closures” (Schleich et al. 2007: 15). There are additional benefits of allocating allowances by auctioning: outcome may be perceived as fair because auctioning follows polluter pays principle; it may generate early price signal, since bidding behavior based on the marginal abatement cost of a firm, and; the revenue from auction can be used for supporting energy-saving technology development or lowering distorting taxes (Schleich et al. 2007: 14, Hood 2010: 57).

Even though the advantage of the auctioning is evident in terms of efficiency, free allocation is more popular than auctioning in real application. Tietenberg indicates one implicit ethical issue of two allocation methods:

For auctions, the implied baseline control responsibility is for all sources to eliminate all emissions; when they fall short of that mark they must pay for the difference. [...] For existing sources, grandfathering implicitly assumes that emitters are entitled to emit specified levels as determined by the initial allocation; only emissions over those levels incur a financial liability in the form of payments for additional permits. (Tietenberg 2006: 131)

The different financial burden caused by the baseline differences among allocation methods makes industry sector exert political pressure to government for adopting free allocation, and “the flexibility offered by the many initial allocation possibilities” may make the political struggle worse (Tietenberg 2006: 127-138). Hepburn (2007) indicates that “fairness depends in large measure (but not entirely) on the initial allocation of the property rights” in ETS.

There are two types of free allocation: grandfathering and out-put based allocation (Hood 2010: 59). Grandfathering uses historical emissions as its reference (baseline) for allocation, but out-put based allocation uses future production levels instead. There is also benchmarking method. This is a sort of grandfathering; it uses historical data but “best practice emissions within their

industry” (Hood 2010: 59) Each method has its own advantages and disadvantages, but I will not go into detail here.⁷

3.2 Why consensus-building?

Although it is evident that consensus over introducing a policy facilitates the implementation of the policy, consensus-building is not always needed for a government to formulate and implement its policy. Compston (2010) suggests a number of political strategies of national governments, which “will enable them to take more effective action against climate change without incurring significant political damage.” Those include unilateral action, persuasion, damage limitation, and exchange policy concessions for acquiescence, just name a few. In his practical research about immediately available strategies for effective action, consensus-building is only one option of persuasion strategy.

Van Meter and Van Horn (1975: 461 cited in Hill and Hupe 2009: 46) present interrelationship among the level of consensus, implementation difficulty, and the amount of change needed: “implementation will be most successful where only marginal change is required and goal consensus is high.” According to this relationship, if a government wants to make a lot of change by introducing a new policy it needs to minimize implementation difficulties by building consensus on the policy. However, the amount of intended change is not the only factor for determining the level of consensus-seeking activity of a government. Innes and Booher note the changing character of problems and limitation of traditional processes for address them:

The uncertainty inherent in this complex system [...] meant that even powerful actors and knowledgeable experts could not make predictions on which effective policy could be based. (Innes and Booher 2010: 2)

I think climate change is a good example which is showing the uncertainty in a complex system. Although there are solid scientific evidences showing that human activity is the main cause of climate change, human knowledge on the climate system of the Earth is still far from perfection. A national government also has to think about the proper level of doing its ‘differentiated responsibility’ when it tries to set its national GHG reduction target. Climate change experts can provide useful information and statistics, but they cannot decide a ‘correct’ target. Even in this situation, governments can set their own GHG reduction target solely based on the experts’ opinions. The decisive point is, however, that “citizens are increasingly likely to mistrust data provided by government” and confidence in government is declining as a consequence (Innes and Booher 2010: 3-4).

The most two salient market-based policy measures against climate change, emissions trading and carbon tax also have some inherent uncertainties respectively: ETS can provide environmental certainty by setting the total

⁷ See Titenberg 2006 or Hood 2010 for more information on allocation methods.

emissions cap, but it has to live with fluctuation in price of allowances; carbon tax eliminates the cost (price) fluctuation by imposing a fixed-rate tax on emission of the certain amount of GHG at the expense of environmental certainty. Moreover, environmental effectiveness of ETS largely depends on the specific design of the scheme. Without internationally coordinated efforts, even a well-designed ETS in a country also involves a risk of being criticized as useless by skeptics.

To secure sufficient amount of change against climate change, which has inherent uncertainties and complexities, despite decreasing public trust in governments, I think policy-making through consensus-building among diverse stakeholder groups can be a promising approach.

4 Making EU ETS Proposal

The policy-shaping process for introducing ETS into the EU had been driven by the DG ENV of the Commission⁸ and it still has the initiative in implementing and revising the scheme. The EU-wide target, reducing six GHGs by eight percent during the period 2008-2012 compared to the levels in 1990, had settled under the Kyoto Protocol in 1997, and the target of the individual EU member-state determined through the Burden-Sharing Agreement (hereafter: BSA) in 1998 (Marklund and Samakovlis 2007). The cap-setting process is a prerequisite step to start any serious mitigation measure including ETS, but I do not deal with this in the paper. In this chapter, I explore the whole policy-shaping process of DG ENV by dividing it into three distinct stages: internal knowledge building; consultation process, and; announcement of the legislative proposal.

4.1 Internal knowledge building

4.1.1 Research projects

The Commission's DG ENV commissioned the Foundation for International Environmental Law Development (hereafter: FIELD)⁹ in London, together with the Center for Clean Air Policy (hereafter: CCAP)¹⁰ in Washington to conduct a research in January 1999 (Yamin and Lefevere 2000: 4). The title of the research was *design options for implementations of emissions trading regime for GHGs in the EC* (hereafter: FIELD Report). The officials of the DG ENV had to use outside expertise to grasp this unfamiliar climate change policy measure. The research of CCAP compiled lessons from preceding experiences of emissions trading, especially from those of the U.S., and the research done by the FIELD provided some of the legal parameters (Convery 2009). The DG ENV also commissioned one more research for estimating '*the economic effects of EU-wide industry-level emission trading to reduce greenhouse gases*' (Capros and Mantzos 2000). Although the Kyoto Protocol introduced the idea of emissions trading, the European Commission picked it up and developed the idea with the help of experts and parts of the industry (Skjærseth and Wettestad 2008a: 87). It is

⁸ Currently, Directorate-General Climate Action (DG CLIMA), established in February 2010, is in charge of revising and implementing the EU ETS (European Commission 2010a).

⁹ The FIELD is a London-based environmental NGO which has an expertise in international public law (Dreger 2008).

¹⁰ The CCAP is a Washington DC-based independent non-profit think tank for environmental policy, especially on climate change and air quality (CCAP 2008)

noteworthy that the FIELD itself is an ENGO and it also has close affiliation with other ENGOs, so “by providing convincing expertise” ENGOs could influence the Commission from the very early stage (Dreger 2008).

Another notable feature of the research projects which were commissioned by the DG ENV is that the researchers were well aware of the importance of clearly defining the roles among member states, the Commission and the Community, and the policy coordination between the ETS and other measures. Moreover, the research is firmly based on the reality of European context, not just focusing on the preceding practices of emissions trading or theoretical discussion on design elements; this increased the usefulness of the reports for officials of the DG ENV to prepare next steps. The above three research papers provided critical information and knowledge on emissions trading to staffs of the Commission. The Green Paper, a consultation document of the Commission, was also substantially influenced by those papers (Braun 2009, Convery 2009).

Coverage

The FIELD Report compares three main coverage options of emissions trading: upstream, downstream and hybrid. The researchers were well aware the advantage of upstream system mainly originated from its comprehensive coverage; however, they also predicts that the difficulty of reaching a community-level consensus on upstream system due to vested interests, and institutional and political obstacles (Yamin and Lefevere 2000: 44). It is evident that the consideration of sectoral coverage is only relevant to a downstream approach because it is almost impossible for a downstream scheme to include all small and medium size emitters such as vehicles and households (Yamin and Lefevere 2000: 25). Thus, it is required for a country trying to introduce downstream cap-and-trade ETS to update existing policies and measure and/or make new ones to balance burdens of emissions reduction between trading and non-trading sectors. The Interim version of the FIELD Report suggests one method to ensure equivalency between the two sectors: imposing “tough measures on non-traders (e.g., a high carbon tax) and then allow firms to opt out the measures and into trading” (Hargrave et al. 1999: 29).

Table 2. The Sectoral Coverage of the Interim Report and the Final Directive on Emissions trading

The Interim Reports (1999)	The EU ETS Directive (2003)
<ul style="list-style-type: none"> • Electricity and heat production • Iron and steel • Refining • Chemicals • Glass, pottery, and building materials (including cement) • Paper and printing (including paper pulping) 	<ul style="list-style-type: none"> • Energy activities (including mineral oil refineries and coke ovens) • Production and processing of ferrous metals • Mineral industry (cement, glass, and ceramic industry) • Other activities (pulp and paper production)

(Source: Hargrave et al. 1999, Yamin and Lefevere 2000)

The report emphasizes that emissions trading in the EU, whether upstream or downstream style, should be the Community-wide scheme and indicates that

“downstream approach with policies and measures still provides efficiency and environmental gains and can improve the efficiency of existing policies and measures” (Yamin and Lefevere 2000: 5). It does not recommend one specific kind of approach, but the research team provides “a workable middleground option”, the EU-wide downstream emissions trading model with policies and measures (Hargrave et al. 1999: 53). It also suggests criteria for determining sectoral coverage. The current sectors covered by the EU ETS are almost the same as those sectors suggested by the interim research report except one as presented in Table 2. The chemical industry, which had been included in the interim reports, was exempted from the ETS Directive of 2003.

Allocation method

In the EU, there are three levels of allocation¹¹ but the allocation of permits to individual entities (firms) covered by ETS is the main focus here. The FIELD Report presents two methods of allocation, free allocation and auctioning. It also provides that distributing allowances to entities is the role of Member States, not the Commission “subject to the Commission playing a more active watchdog role to ensure compliance with competition and state aid rules” (Yamin and Lefevere 2000: 31).

The authors of the report were also aware the efficiency advantages of auctioning and political attractiveness of free allocation as explained in Section 3.1.2. However, they indicate that the two allocation methods are not mutually exclusive and predicts that most member countries will use a combination of both methods of allocation (Yamin and Lefevere 2000: 30).

4.2 Stakeholder consultation

Rusche (2010) insists that the Commission’s consultation process for its emissions trading proposal “has to be seen against the background of an overall trend to involve all stakeholders at the early stage of policy design.” The trend was materialized through the White Paper on European Governance, of which the main objective was “to open up the policy-making process to get more people and organizations involved in shaping and delivering EU policy” (Rusche 2010). The Commission also adopted *General Principles and Minimum Standards for Consultation of Interest Parties* in December 2002 from the recognition that “there has not been a Commission-wide approach on how to undertake such consultation” (European Commission 2002: 3).

The Commission had two distinct consultation processes before the announcement of its legislative proposal on ETS. One is a more or less traditional

¹¹ Three levels of allocation are: (1) allocation responsibilities under the Kyoto Protocol among member-states; (2) allocation responsibilities between sectors, and; (3) allocation of permits to entities covered by ETS (Yamin and Lefevere 2000: 28).

procedure, the Green Paper and the other is a new intensive and consensus-seeking consultation process”, the European Climate Change Programme (hereafter: ECCP). The earliest Green Paper identified in the official EU website published in 1984 (European Commission 2011b), so it has a tradition of about 30 years. However, the ECCP was a new approach with the trend of wider participation in policy-making.

4.2.1 The Green Paper: start of the consultation process

The Green Paper, presented on 8 March 2000 was the start of the EU-wide consultation process for the Commission to receive stakeholders’ opinions on how to design EU ETS. Reactions and opinions were supposed to be made by 15 September 2000 (European Commission 2000b: 5); however, the final opinion received on 15 December 2000 and summary of the submitted opinions and feedback on them announced 14 May 2001 (European Commission 2001d). Stakeholders in the EU, therefore, had more than 8 months of time to express their opinions on the first emissions trading proposal of the DG ENV.

The four major topic of the Green Paper related to the design options of emissions trading are as follows: sectoral coverage, the initial allocation of emission allowance, the synergy with other policies and measures, and compliance and enforcement (European Commission 2000b). There are also ten questions for encouraging people’s participation, and almost all submissions provide their opinions under each question besides expressing other views which does not come under any question. Moreover, it is also impressive that the writing of the Green Paper is succinct and easy to understand. The staffs of DG ENV well summarized the key aspects of introducing ETS into the EU based on the results of their research projects and asked critical questions, which really needed inputs from diverse stakeholder groups. Finally, the Commission received 90 responses from individual companies, business associations, member-state governments, NGOs and academics, and the submitted opinions mounted up to 723 pages (European Commission 2010c).

Coverage

In the Green Paper, the Commission did not ask about upstream or downstream approaches; instead, its first question was “which sectors should be covered by emissions trading within community’ (European Commission 2000b: 16). It seemed that the Commission already had decided internally to use downstream approach. The word ‘upstream’ or ‘downstream’ cannot be found in the Green Paper, and there is no clear reason for its preferences for the downstream approach in it. The Green Paper suggested the same sectors as those of the Interim Reports and justifies its approach as follows:

Starting with a relatively small number of economic sectors and sources that contribute significantly to total emissions and for which the costs of reduction efforts differ significantly would substantially satisfy these criteria. (European Commission 2000b: 13)

Many submissions to the Green Paper including from the European Parliament, German government and several NGOs indicate that the Paper has neglected to pay attention to the upstream approach. In the *Summary of Submissions to the Green Paper*, the DG ENV argues that upstream scheme is similar to “energy taxation, that business submissions were clearly opposed to” (European Commission 2001d: 2). A response from European Business Council for Sustainable Energy points out the alleged reason for the Commission’s preference for “a relatively limited downstream trading system”; this downstream proposal would be considered as an environmental measure, not a fiscal measure, so it could be passed on a majority vote, instead of a unanimous vote in the Council¹² (European Commission 2010d). It is interesting to see opinions of industry in that the majority wanted an emissions trading scheme with a wide coverage both in terms of sectors and in terms of types of greenhouse gas because of the potential distortions of competition (European Commission 2010c).

Allocation Method

The Green Paper suggests two main methods of allocation, free allocation and auctioning as mentioned in Section 3.1.3 and 4.1.1. It says that it is also possible to combine above two methods of allocation. The choice of allocation methods does not affect environmental outcome, which is determined by the decision on the total amount of allowances (European Commission 2010c: 17). The Commission’s main concerns were leveling the playing field in the Community, deciding the harmonization-level of allocation methods among member states, and determining how to treat new entrants (European Commission 2000b: 16-20).

4.2.2 The ECCP Working Group 1

The first ECCP was a “multi-stakeholder consultative process” established by the Commission to find cost-efficient policies and measure to reduce greenhouse gas emissions at European level launched in June 2000 (European Commission 2010b). Its three main purpose were getting the wide range of expertise, building consensus, and increasing the international credibility of the EU in the area of climate change (European Commission 2003b).

The Commission formed a Steering Committee, which was coordinated by DG ENV, and “composed of members of all Directorate-Generals dealing with climate change-related issues [...] it then adopted the mandates, time tables and list of participants” (Rusche 2010). The ECCP had eleven working groups (hereafter: WG) to cover “an extensive range of policy sectors and instruments” for reducing greenhouse gas from flexible mechanisms of WG 1 to forest-related sinks of WG 11¹³ (European Commission 2010b).

¹² Indeed, the legal base of the emissions trading scheme was a critical issue. For detail, have a look at *The emissions allowance trading Directive 2003/87/EC explained* (Meadows 2006).

¹³ Established 11 working groups are as follows: 1) flexible mechanisms: emissions trading; 2) flexible mechanisms: Joint Implementation and Clean Development Mechanism; 3) energy supply; 4) energy demand; 5) energy efficiency in end-use equipment and industrial process; 6) transport;

ECCP WG 1: its purpose, institutional set-up and method of work

The WG 1 dealt with European emissions trading, specifically “the design principle of the scheme and the necessary regulatory framework” from July 2000 to May 2001 (European Commission 2001c). The final report of the WG 1 was presented on 1 May 2001. The Commission tried to build consensus on emissions trading through a series of meetings while receiving documentary comments on the Green Paper. The Green Paper gave stakeholders chances to express their opinion on emissions trading, and the ECCP WG 1 actively secured the supports from influential persons of distinct stakeholder groups.

The participants of WG 1 composed of nineteen main participants representing seventeen organizations: six representatives of the Commission; five from member states’ governments; five from industry and; three from environmental NGOs¹⁴ (Skjærseth and Wettestad 2010). The selection of each WG’s participants was determined by the Directorate-General in charge of the WG, but regarding participation of environmental NGOs, the DG ENV, the coordinator of the Steering Committee sent “an informal letter to all relevant environmental NGOs, asking the NGOs to coordinate amongst them which NGO would be present in which WG” (Rusche 2010). As can be seen the participants list in Appendix I, Climate Network Europe, World Wildlife Fund and the FIELD participated in WG 1. The FIELD is the organization which had done the research project for emissions trading commissioned by DG ENV and Dreger (2008) pays attention to the expertise of the organization on emissions trading. Skjærseth and Wettestad (2010) note that the consensus-building on the emissions trading in the ECCP WG 1 facilitated by the DG ENV’s participants selection “to include representatives that were positive to emissions trading, and those who a substantial interest in the issue.”

According to the final report of WG 1 (European Commission 2001c), this group met 10 times, each time for a whole day and “has enjoyed a high degree of continuity of participants and excellent levels of attendance.” Moreover, at the end of the meeting, all of them unanimously agreed on “the need to introduce emissions trading as soon as possible” although they could not reach the same conclusion on every design choices of the scheme (Skjærseth and Wettestad 2009). Behind the high level of participation and agreement, the role of the DG ENV was substantial. There was an attendance rule; if a participant did not show up twice, the person could not attend any more (Skjærseth and Wettestad 2008a: 82-83). Moreover, the chairman of the group, Mr. Jos Delbeke (the Head of Climate Change Unit of the DG ENV at that time) threatened the participants; “if the stakeholders wanted to make sure that the Commission would follow their idea, they had to try to achieve unanimity, as disagreement amongst the stakeholders would leave the role of the arbiter to the Commission” (Rusche 2010).

7) industry (sub-groups were established on fluorinated gases, renewable raw materials and voluntary agreements); 8) research; 9) agriculture; 10) sinks in agricultural soils; 11) forest-related sinks.

¹⁴ For the full participants list, see Appendix I.

Coverage

Unlike the Green Paper, the Chairman's background document (agenda of the meeting) of the Working Group's eighth meeting includes the issue of upstream and downstream approach (European Commission 2001a: 2), but the summary of the meeting shows that the participants did not discuss the matter at all (European Commission 2001f). Instead, they talked about how to treat power and heat generators in a downstream approach (i.e. the matter of direct or indirect emissions). This means that the WG implicitly agreed about the original downstream scheme suggested by the Commission because it is not necessary to think about direct or indirect emission issue in upstream approach. As for the issue, the majority of participants preferred the direct emissions approach, "in part due to the complexities of establishing, up-dating and applying carbon emissions factors for electricity consumed" despite the UK's preference for indirect approach for the purpose of securing its domestic scheme's compatibility with the EU's (European Commission 2001f, Skjærseth and Wettestad 2008a: 121).

The Commission's officials were well aware that the comprehensiveness of upstream scheme, but they adopted a pragmatic stance in this regards. Their core intention was to make the EU ETS start from 2005 and to include big emitters such as power and heat generators:

Definition of coverage of a trading scheme may be a case of "the best being the enemy of the good". If we strive for too comprehensive a system to start off with, it may take too long to develop, and the window of opportunity for "learning-by-doing" between 2005 and 2008 may have been lost. (European Commission 2001a)

Allocation method

The allocation methodology was dealt with in the second meeting of the WG 1. The agenda paper indicated that "all methods of allocation have potential advantages and disadvantages", and there is "trade-offs between simplicity, transparency and equity" (European Commission 2000a). The Group acknowledged that any allocation method cannot be perfect and agreed that combinations of different allocation methods (grandfathering and auctioning) would be feasible and desirable (European Commission 2000c).

Agreements in this group were not final decisions on ETS design choices but mere agreements among the participants. However, it is noteworthy that the Commission was materializing its emissions trading scheme from somewhat abstract knowledge obtained from external expertise to specific design elements for its emissions trading proposal through stakeholder participation process. Actually, the DG ENV was nurturing key supporters of the EU ETS by inviting key persons of each stakeholder group to WG 1 of the ECCP.

4.2.3 Two consecutive consultation meetings

The DG ENV had started to draft its proposal for EU ETS in January 2001 and finished it in May 2001, but the announcement of the proposal had to be

postponed due to opposition from industry sector, because they had anticipated another stakeholder consultations before finalizing the proposal (Skjærseth and Wettestad 2008a: 104, 121). Unsurprisingly, they lobbied through industry-friendly Directorate-Generals of the Commission such as DG Enterprise (Skjærseth and Wettestad 2008a: 121). The Commission had to hold two more consultation meetings in September 2001; the first one was with industry and environmental NGOs and the other one was with member states, EEA and accession countries. Here I deal with the first meeting only.

At the meeting with industry and ENGOs, the chair of the meeting, Mr. Jos Delbeke emphasized the purpose of the meeting was to make the Commission staff understand better the opinions of stakeholders, “rather than to promote any particular ‘vision’ of how things should be” (European Commission 2001b). As he said, it was difficult to discuss or suggest new topics because it was the late stage of the policy-shaping process; the consultation meeting could be compared to a wrap-up session of a conference. Familiar topics, such as the coverage of the scheme and the allocation method were discussed, but there were no new ideas. The only new things were the participants because until then the official face-to-face discussion was limited to the members of the ECCP WG 1, although it might have been possible for some stakeholders to meet the Commission officials to provide their opinions on the Green Paper.

4.3 Final proposal

The Commission announced its emissions trading proposal on 23 November 2001. There were no new provisions which had not been discussed with stakeholders during the consultation process in it. There were still disagreements on some ETS design elements in spite of the Commission’s efforts to build consensus. The important point here, however, stakeholder groups had sufficient time and opportunities to express their opinions and get feedbacks from the Commission. It was not the end of policy-making process. The proposal had to obtain approvals from the Council and the Parliament respectively. However, it was evident that the relatively high level of consensus among stakeholders on the proposal would facilitate the subsequent decision-making process and enable the Commission staffs concentrate on their work to obtain approvals.

The deviations of the proposal from the Green Paper in terms of coverage and allocation methods were exclusion of chemical sector and adoption of Community-wide free allocation instead of combination of grandfathering and auctioning (European Commission 2001e: 10). The chemical sector was excluded, according to the proposal, because its direct carbon dioxide emissions had not been so significant and the high number of chemical installation would cause the administrative complexity.¹⁵ The abandonment of auctioning, despite its

¹⁵ Skjærseth and Wettestad (2008a) insist that the chemicals sector was excluded from ETS for tactical reasons: “to weaken German opposition to emissions trading and strengthening

efficiency and operational advantage, was justified as “a common approach to protect internal market” (European Commission 2001e: 11).

4.4 Summary of the DG ENV’s process

To summarize, through three research projects and two consultation processes, the Commission drafted its legislative proposal for introducing an EU-wide emissions trading. The three research projects covered critical aspects of ETS: one was for constructing a workable middle-ground ETS model; another provided legal and institutional implications; the other estimated economic effect of introducing it into the EU. Before drafting a proposal, the Commission carried out two separate stakeholder consultation processes: one was more or less traditional and indirect method, receiving opinions on the Green Paper; the other was a face-to-face consensus-seeking method, the ECCP WG 1. The proposal was drafted based on solid researches and relatively strong consensus on ETS. Convery (2009) provides more than a dozen explanations of the European people’s agreement on ETS, and my process-oriented approach could be come under “high quality bureaucratic”.

cooperation with the chemical industry in the upcoming REACH [Registration, Evaluation, Authorization and Restriction of Chemicals, author’s note] process”.

5 Making Korea's ETS Proposal

The Prime Minister's Office (hereafter: PMO) had played a some role in coordinating various climate change policy measures suggested by relevant ministries and agencies, making national strategy for international climate negotiation, and preparing comprehensive national plan against climate change before the establishment of the PCGG in January 2009 (PCGG 2011b). The PMO was not strong enough to adjust the different opinions among relevant ministries, so it could not choose but to patch individual policies of each organization together (Byun 2010).

Korean government announced a plan to set the national GHG emission reduction target in August 2009 and finalized it in November of the same year at the State Council (PCGG 2011a): "it has set its voluntary 2020 emissions reduction target to a thirty percent reduction from its forecast under a 'business as usual' scenario" (Cho 2010). Because Korea was not an Annex B country to the Kyoto Protocol, and it did not have any internationally-agreed national GHG reduction target, so little wonder that there was controversy over setting the target. The PCGG, the leading organization for introducing emissions trading in Korea, also took the initiative for the target-setting process.

5.1 Internal knowledge building

ETS was also a new environmental policy tool to Korean policymakers. The first step was an internal knowledge build-up using external expertise as European fellows did. The PCGG (and the PMO) commissioned four research projects for its emissions trading proposal. I could find 10 additional policy research projects on emissions trading from policy research database of Korean central government¹⁶ and webpage of relevant ministries: five by MKE and another five by the Ministry of Environment (hereafter: MoE). The titles of fourteen researches are all different, but the majority of those researches are related to proposing design options for ETS as presented in Appendix II.

Why have the three organizations commissioned many similar researches on emissions trading respectively? Currently it is still unclear which ministry will be the competent agency for implementing ETS in Korea. The PCGG is an advisory committee, which does not have any executive function, and its main role is

¹⁶ The Ministry of Public Administration and Security of Korea (MOPAS) built and has operated a policy research database, the Policy Research Information Service and Management (PRISM, www.prism.go.kr) since 2006, and it covers all policy researches commissioned by central government ministries and agencies.

discussion or deliberation on policies and measures related to ‘green growth’ (PCGG 2009). Therefore, the active role of the PCGG on ETS can be thought as a temporary remedy to sidestep bureaucratic competition between MoE and MKE on emissions trading. Without the Committee, it was almost impossible to formulate a proposal on emissions trading, but the ambiguity in deciding an ETS-operating body led to the three parallel research activities on ETS.

Two words can be used to describe the research activity on emissions trading in Korea: one is overlapping and the other is repetitive. Apart from the problem of the overlapping research projects among agencies, it is difficult to say that the officials of the three organizations have a significant lead in understanding ETS compared to other stakeholders due to the job rotation system in Korean government sector. I think there is a casual relationship between the system and repetitive, similar researches, and this issue will be revisited.

The PCGG does not disclose its two critical researches (number 5 and 6 in Appendix II) which were done just before its first announcement of the proposal on emissions trading; therefore, it is difficult to see the opinions of experts on the two design elements of my choice. There is a legal ground of the non-disclosure. According to the Article 9 of the *Act on Disclosure of Information by Public Agencies* (2008), public agencies do not have to open information “pertaining to decision-making processes and internal-review processes” and there are many other reasons for non-disclosure.

5.2 Stakeholder consultation

5.2.1 First public notice

The official stakeholder consultation starts from public notice of a legislative proposal in Korea. This proposal is drafted by the competent ministry and inter-agency consultation should be completed before making public notice (Ministry of Government Legislation 2010). Public notice is a mandatory process required by the *Administrative Procedure Act* (2007). According to Article 43 of the Act, the competent ministry should have minimum 20 days for listening opinions from stakeholders and provide feedback to the person or group who submitted opinions on the proposal.

The PCGG made its first public notice on 17 November 2010, and the presentation material of the PCGG for its public hearing on 26 November said that it had six inter-agency meetings, five consultation meetings with selected experts and business organizations before the public notice (PCGG 2010a). The intention of emphasizing those meetings is obvious; the proposal had gone through an adequate consultation process although any detailed information on the process cannot be open to the public. The structure of the presentation is as follows: the rationale for introducing emissions trading; its progress until public notice; main content of the bill, and future plan. I think that the PCGG prepared the public hearing for the purpose of ‘education’ or ‘notification’ not ‘discussion’.

My interpretation of the intention of the public hearing can be fortified by looking at the time schedule of the event as presented in Table 3. This is a typical procedure of public hearings organized by government agencies in Korea. For a simple issue, a two-hour discussion will be enough to understand and discuss the problem. However, two hours are extremely short to have a meaningful discussion or reach any consensus on such a complex policy measures, the emissions trading scheme. Interestingly, the five leading business organization (two of them participate in the panel discussion of the PCGG’s public hearing) held a ‘counter’ public hearing on emissions trading on the same day of the PCGG’s event (The Korea International Trade Association 2010). Without mentioning the details of the industry’s public hearing, I think the ‘counter’ event itself shows the severe discontent of industry sector. It also reveals that no meaningful consensus-building process happened during the period of preparing the proposal.

Table 3. Time Schedule of the PCGG’s Public Hearing on ET Proposal

• Welcome speech	14:00~14:07 (7 min.)
• Introduction of the bill by the PCGG	14:07~14:20 (13min.)
• Panel discussion (8 selected experts)	14:20~15:25 (65 min.)
• Q & A and open debate	15:25~15:55 (30 min.)
• Closing remarks	15:55~16:00 (5min.)

(Source: PCGG 2010b)

5.2.2 Second public notice

After twenty days of public notice period, the ‘invisible’ internal policy-shaping process started again, so it became a reasonable strategy for stakeholders to provoke controversy such as using exaggerated numbers and distorted statistics for making their voices heard. Their strategy was partially successful, so the PCGG had to change some provisions of its first proposal and make the second public notice of the ‘revised’ proposal on 28 February 2011. The actual reason for the revision and its second notice was that the original proposal could not go through the mandatory deliberation process of the Regulatory Reform Committee on 13 January 2011. I summarize significant changes between the first and revised proposal in Table 4. There are two noteworthy points: one is the undetermined critical design element such as sectoral coverage; the other is too ambitious and strict design of the first proposal’s scheme such as 100 percent auction from 2021 and penalty up to KRW 1 million (roughly EUR 600) per tCO_{2eq} for non-compliance.

The former point is related to the legal system of Korea; the technical design elements of emissions trading can be decided by subordinate legislations such as Enforcement Decree made by the State Council or Enforcement Rules written by the competent ministry. The PCGG can start its official process for subordinate legislation on emissions trading scheme after completing the whole legislative process of the Act. Now, one can understand that the Korea’s ETS scheme

depicted in its proposal still has many uncertain points. The bill delegates many important ETS design choices to subordinate legislation and administrative plan, so it is difficult for stakeholders including the PCGG itself to discuss productively on how to design the ETS specifically. The second point, the ambitious scheme design of the first proposal provides an opportunity for pro-business research institutes to predict serious damage on competitiveness of industry sector due to cost increase.

Table 4. The Main Contents of the Two Proposals

	The first proposal (17 Nov 2010)	The revised proposal (28 Feb 2011)
Gas Coverage	All 6 greenhouse gases	No change
Coverage	Not determined. Sectoral coverage will be determined by the National Allocation Plan. The National Allocation Committee, which will be established by this legislation, will make the plan. It is still unclear whether the system will include indirect emissions or not. Voluntary opt-in is possible	No change
Start year	2013	2015
Allocation Methods	1 st phase (2013-2015): more than 90% of allowances should be allocated free of charge 2 nd phase (2016-2020): free allocation ratio will be determined based on international trends and evaluation result of 1 st phase 3 rd phase (2021-2025): 100% auctioning	1 st phase (2015-?): more than 95% of allowances should be allocated free of change From 2 nd phase: free allocation ratio will be determined based on impact on national economy such as international competitiveness of domestic industry, international trend, prices of commodities and evaluation of the previous phase of emissions trading
Penalty	For non-compliance: Penalty up to KRW 1,000,000 /tCO ₂ e _q or less than 5 times of the average market price of the allowance of the year	For non-compliance: Penalty less than 3 times of the average market price of the allowance of the year per tCO ₂ e _q

(Source: PMO 2010, PMO 2011)

5.3 Final proposal

The second proposal was adopted at the State Council on 12 April 2011 and will be transferred to the National Assembly in the near future (Park and Laurence 2011). Another round of fierce debate is waiting the proposal there. It is almost impossible to predict whether the National Assembly passes the bill or not because the opposition party says that it has no intention to vote for the proposal (Ham 2011). It will be out of my research scope if I deal with the political situations of the National Assembly in the paper. The industry sector has enough power to influence lawmakers, so there is also a significant possibility of further pro-business amendments to the PCGG's proposal.

The mandatory requirements to finalize a legislative proposal such as inter-agency consultation, listening public opinion through the public notice and deliberation by the Regulatory Reform Committee could not guarantee sufficient level of consensus over the proposal. All necessary ingredients have been used for preparing the proposal, but the taste is still bitter. All stakeholders keep standing at their original position. The more painful fact is that there are lots of other design choices of emissions trading which remain to be debated and decided.

5.4 Summary of the PCGG's process

The PCGG also had to use external expertise to grasp how to design ETS suitable for Korean context and commissioned four research projects including two which was commissioned by the PMO, the former organization in charge of coordinating government-wide climate change policy. Three projects among four were carried out by academics and one by researchers of the relevant national research institutes. The PCGG does not disclose three project reports including project on ETS design elements. The official stakeholder participation started after drafting a legislative proposal, not before, and there was no consultation document such as the Green Paper. The minimum consultation period was twenty days after the notice; therefore, both the PCGG and stakeholder groups needed to be vigorous to accomplish opposite goals. The stakeholder groups had to learn what ETS is and how to design it by themselves. Some pro-business amendments to the first proposal were made to buy support from industry sector, but the final proposal was not welcomed by the majority of stakeholder groups. Now another round of debate is waiting the proposal at the National Assembly.

6 Analysis of Policy-Shaping Process

6.1 Similarities

The EU and Korea chose the same policy measure, an ETS for the same policy goal, reducing GHG emissions in their jurisdiction, although there are many other policy measures against climate change. The rationale behind the choice is the theoretical cost-effectiveness supported by the majority of economists.

The policy-shaping process of emissions trading both in the EU and Korea composes of similar elements as presented in Table 5: internal knowledge building by using external expertise; inter-agency consultation; stakeholder consultation and; drafting and adoption of a proposal. Moreover, it took almost the same time for the EU and Korea to present their final proposal from the starting of the first research project; the DG ENV took 2 years and 9 months, and the PCGG took 2 years and 5 months.

Table 5. Policy-shaping Process of the EU and Korea

	EU	Korea
Internal Procedure (knowledge building)	Research projects Preparing the Green Paper (1999.01-2000.08: 1 year 7months)	Research projects Drafting of a bill by the competent ministry Inter-agency consultation Corruption impact assessment (2008.11-2010.11: 2 years)
Open consultation	Green Paper - Approval of other DGs - Stakeholder participation ECCP WG 1 meetings Consultation meetings (2000.08-2001.09: ~ 1 year 1months)	Public notice (minimum 20 days) of the draft bill - Competent ministry may hold public hearings or discussion meetings (2010.11-2011.02: ~3 months)
Internal Procedure (drafting a proposal and adoption process)	Preparing a White Paper or a legislative proposal Adoption of the proposal by the College of Commissioners	Review by the Regulation Reform Committee Review by the Ministry of Government Legislation Adoption of the bill by the State Council
Final proposal	Proposal for a Directive (2001.10.23)	Proposal for an Act (2011.04.12)
Time period (total)	1999.01-2001.10: 2 years 9 months	2008.11-2011.04: 2 years 5 months

6.2 Differences

The goal and chosen policy measure for achieving it in Korea were the same as the EU, but the stakeholders' reactions to the ETS proposal in two regions were quite different. I think the reasons for the difference can be found, at least partially, by examining and policy-shaping process of the DG ENV and the PCGG. Although I focus on the policy-shaping processes, especially on the open consultation stage, to find out the reasons behind the different level of consensus, this causality should be regarded as a partial one as presented in Section 2.3.

There are a lot of differences in consensus-building practice between the EU and Korea. I examined the policy-shaping process of the two entities in chapter 4 and 5. In this chapter, I evaluate only the consultation process of the EU and Korea based on the Commission's *General Principles and Minimum Standards for Consultation*. I choose the criteria because Korean government, unfortunately, does not have a similar comprehensive guideline for a consultation process, but the European Commission has one. My intention of the evaluation is not to single out the superior one but to show the differences of consultation process and identify weak aspects of Korea's practice more systemically. I think, therefore, using these criteria does not cause any serious problem.

The Commission's criteria suggest four general principles and five minimum standards. The four general principles are participation, openness and accountability, effectiveness, and coherence (European Commission 2002). I will use five minimum standards to evaluate consultation process of the Commission and the PCGG, and the standards are as follows: clear contents of the consultation process; consultation target groups; publication; time limits for participation; acknowledgement and feedback (European Commission 2002). I select two among five minimum standards which shows clear contrast between the EU and Korea.

6.2.1 Clear contents of the consultation process

The first standard requires that the government should provide "all necessary information to include responses" in a clear and concise way (European Commission 2002: 19). The Commission's main consultation document was the Green Paper, and I think that it is a well-prepared consultation document in that it explains what ETS is and main points of issue in an easy-to-understand manner and asks critical questions to facilitate stakeholders' responses. The Korea's official consultation process (of government legislation) starts with the public notice, but a competent agency only provides a summary of the proposal and the proposal itself as a consultation document. The legal terms are difficult for laymen to understand properly, and many Articles referring other existing Acts or delegating to sub-decrees make it a hard task to grasp the whole picture of the policy and the proposal. There are other ways of consultation such as a public hearing, but the patterns are not so much different. The focus of consultation

documents of the PCGG was providing information, and I could not find any consideration to facilitate responses from stakeholders in its documents.

It is worth noting the negotiation text used during the ECCP WG 1 meetings. The chair always prepared a “background document” to provide information on the main issues to be discussed in a given session for participants (Rusche 2010), and drafted summary of every meeting based on the discussion. The draft summary of a meeting was adopted at the next meeting by participants with amendment if necessary. Innes and Booher show the importance of negotiating text and evolving agreement:

A negotiating text provides confidence to participants that their ideas are being incorporated and clears away confusion about what has been decided. [...] The negotiating text is also a vehicle by which dialogue can continue outside the face to face discussion. Stakeholders can take it to their organizations and constituents, bring others indirectly into the deliberations. In the course of such discussion stakeholders’ own ideas evolve and they reflect in new ways on their work to that point. (Innes and Booher 2010: 95)

The PCGG also had many consultation meetings and public hearings for obtaining consensus on its proposal. I can see, however, the gap between the goals of the meetings and the way or skill of conducting them. Let us reexamine the PCGG’s presentation file in Section 5.2.2 which was used at a public hearing during the public notice period. It did not raise any point of issue, and the PCGG did not provide any summary or result after holding its public hearings. Stakeholders could not know whether their opinions were adopted or discussed further.

6.2.2 Time limits for participation

The PCGG used less time for finalizing its proposal on emissions trading than the DG ENV of the Commission, even though it used four more months for its research projects than its European fellows. That was possible by shortening the open consultation time; the PCGG used about three months for stakeholder participation while the DG ENV used more than 1 year for its interaction with stakeholders as presented in the Table 5 of the section 6.1.

The ‘minimum standards’ suggest that “the Commission should strive to allow at least 8 weeks for reception of responses to written public consultation and 20 working days notice for meeting” (European Commission 2002: 21). The Green Paper on EU ETS presented on 8 March 2000, and the opinions were supposed to be made by 15 September 2000 (European Commission 2000b); it allowed 27 weeks for written contributions. On the other hand, the PCGG made its first public notice on 17 November 2010, and submission had to be made by 7 December 2010; it only fulfilled the legal requirement of twenty days. ETS is an unfamiliar policy tool and the PCGG also did not disclose its research reports and only provided a legislative proposal. How could stakeholders provide any meaningful and constructive contribution after understanding the proposal within twenty days under those conditions?

6.3 Summary of the two approaches

6.3.1 DG ENV: hearing your voice

After reviewing the intensive consultation process of the Commission, it is interesting to come to know that “there are no binding rules for the organization [the Commission, author’s note]of the consultation process that precedes the legislative proposal” (Rusche 2010). The decision of choosing which method to use for the consultation is up to the competent Directorate-General of the Commission. The customary practice for hearing stakeholders’ voice is publishing a Green Paper and the DG ENV also used this method. It is prepared by the competent Directorate-General and “sets out policy options and asks consultation questions to stakeholders” (Rusche 2010).

The whole ECCP was not just for the ETS as mentioned in Section 4.2.2, but the activities of WG 1 were crucial “to promote consensus on main EU ETS design issues which could underpin the fleshing out of a specific and comprehensive directive proposal” (Skjærseth and Wettestad 2008a: 86). Skjærseth and Wettestad also insists that “important learning and legitimization took place in the ECCP WG 1.”

6.3.1 PCGG: making my voice heard

The PCGG followed the normal policy-shaping process of government agencies in Korea, and there was no error or mistake from the perspective of rules and laws. The consultation process of the PCGG can be characterized by the two words: late and intensive. It is late in that consultation starts after drafting a proposal. If stakeholders groups cannot make enough controversy over a proposal during the short public notice period, it will be difficult to make their voice heard. Therefore, the consultation process tends to be intensive. The PCGG also had to make stakeholder groups understand why its proposal was well-timed and adequate within a short period of time. As mentioned before, it did not provide any consultation documents for stakeholders and did not share any summaries of consultation meetings they had held or participated. It was, therefore, difficult to make any meaningful progress on building consensus over ETS.

7 Discussion and Recommendation

7.1 Discussion

I could identify differences in policy-shaping process, especially consensus-building practice between Korean government and the Commission. The weirdest thing is that it is still uncertain which organizations will operate the emissions trading scheme in Korea. Although the PCGG drafted the ETS proposal, its role is limited to advisory or deliberation due to its legal character as an ‘advisory committee’ as mentioned in Section 5.2.1. This situation is related to bureaucratic competition, and I discuss it in this chapter. The other salient inefficient and unreasonable practices are: overlapping and repetitive research projects; insufficient information disclosure; extremely short stakeholder consultation process, and; very ambitious design of the ETS system in the PCGG’s first proposal. These practices are closely interrelated one another, and I will identify three structural reasons behind them.

7.1.1 Mismatch between problems and government structure

The complexity and uncertainty of climate change requires a long-term perspective and multi-agency coordination. The political cycle is far shorter than that of the problem, climate change. This mismatch in time perspective is not a unique condition for Korea. The Commission and almost all governments in the world are also under the same constraint. Moreover, the limitation of current bureaucratic government is well recognized by Innes and Booher:

Bureaucratic agencies are hierarchical in structure, routinized their practices and each designed to fulfill a limited mission. They are unable to address the multiple goals of their constituencies, much less deal with rapid change. They cannot address the interdependencies among their missions to achieve sustainable management of natural resources. They are not set up to look at cities or regions as wholes, nor to address complex, rapidly changing problems. (Innes and Booher 2010: 3)

In addition to the limitation of bureaucratic government, a job rotation system of Korean government sector can be another obstacle for officials to have a long-term perspective. According to the survey done by Korean government, director- and director general-level officials in central government organizations were transferred to other positions (usually in the same agency) after working about 13-14 months on average in a position (Kim 2008). Under these circumstances, it is a good strategy for them to speed up the policy-shaping process for getting ‘points’

from their own achievements or to split a large whole task into small pieces for determining the amount of work they can do while they are holding their post.

Another side effect of this system is that it becomes difficult to track down an official (officials) for policy success or failure. The first official did the agenda-setting process; the next one completed a research project; the next one drafted a proposal and; current one is implementing the policy. If the policy outcome turns out to be a failure, it is highly probable the last person, i.e. the official who currently doing the task will be punished like the “Pass the Bomb” game. Moreover, some astute officials frequently make too ambitious policy because they can be benefited from their ambitious work of formulating the policy while escaping the difficulties of implementing it by being transferred to another position.

It is argued “that the European Commission had a lead of almost two years in its thinking about what an EU ETS should look like compared to most EU member-states” because of the three research projects commissioned by the DG ENV (Skjærseth and Wettestad 2008b: 97). On the other hand, it is difficult to say that the Korean officials of the PCGG had some lead in theories and practices of ETS compared to any stakeholder after finishing its research projects. In Korea, the knowledge building on ETS has been happening at some national research institutions such as the Korea Environment Institute (hereafter: KEI) or Korea Energy and Economics Institute (hereafter: KEEI) instead of government organizations. It is because newly transferred official has a strong incentive to launch new research projects for learning his/her tasks and gaining some time for adapting to new duties even though they have a pile of research reports about the same topic on their bookshelves. Moreover, it will be efficient if the new research can be conducted by the same research institution of previous researches.

The second point suggested in the first paragraph, multi-agency cooperation, is hampered by severe bureaucratic competition. It is natural to see some conflicts between economy- and environment-oriented government agencies and some level of tension is unavoidable and necessary in some degree. However, the harmful effect of current bureaucratic competition for this new ‘territory’ of climate change in Korea is getting serious, and I will visit this matter again in the coming section.

7.1.2 Banquet of cheap tactics

Surprisingly, the PCGG’s first ETS proposal was more ambitious than the EU ETS in some design choices. For example, it provided that all allowances would be auctioned from the third phase of trading (2021-2025). Even the EU, the front-runner of ETS is going to use more than 50 percent auctioning from its third phase (2013-2020) considering the (international) competitiveness of each sector (Hood 2010: 21). In addition to that, the penalty level of the first proposal was also extremely high. It was maximum KRW 1 million (about EUR 600).

I do not think that the provision of full auctioning and high penalty were the real intension of the PCGG. I have heard from a middle-grade executive of a

Korean company that many proposals on environmental regulations were too ambitious, and the ‘exaggerated’ provisions led to an overreaction of industry sector and unnecessary confusion for all. Why did the PCGG include such ambitious provisions? They are tactically exaggerated provisions and were to be corrected for soothing enraged stakeholders.

Industry sector has enough capacity to employ a ‘counter’ tactic. Pro-business research institutes had calculated the cost of the proposed ETS using the ‘strict’ provisions and announced the results. Among many other big numbers showing huge burden of energy-intensive companies, citizens under the pressure of recent inflation may have been alerted by the estimated twelve percent of maximum electricity price increase due to emissions trading (Joo 2011) and it seems that the PCGG’s ‘tactical exaggeration’ was fruitless.

7.1.3 Distorted compensation structure

I mentioned the difficulty of judging one official’s merits and demerits to a policy outcome because of the job rotation system of Korean government. Measuring performance of public servants is already difficult task without the rotation system. Korean government has actively introduced performance-related payment scheme since late 1990s (OECD 2005: 29). More incentive for high performance is easy and straightforward logic, which comes from a good intention. The performance evaluation of government officials is not an easy task for evaluators. Let us compare the accomplishments of two imaginary officials during one year: one has conducted twelve stakeholder consultation meetings and still struggling to reach consensus; the other has drafted a proposal only through expert-consultations and could make a public notice of it. If you are a director of the department with average one and half year tenure, and your outcome is also evaluated by your director-general, who will be your choice for higher payment?

The serious implication of performance-related pay in Korean government sector is related to the nature of the performance itself. Because it is difficult to evaluate an official’s work based on the outcome of his/her policy, especially which takes a long time to see the effect, it is inevitable to use easy substitutes in many cases. One of easy substitutes is securing more ‘policy territory’ or ‘resources’ such as budget or personnel through competition with other government agencies. This is more noticeable ‘accomplishment’ than the long-term success of a policy.

I am not saying that there is no advantage of introducing the performance-related payment scheme. The point is that the combination of partially rational systems with little thought of the context cannot guarantee the rationality of the whole system. In this case, I cannot sweep my doubts on the performance-related payment away for making the level of already bad bureaucratic competition worse.

7.2 Recommendation

As analyzed in the previous section, there are interrelated structural and institutional reasons behind the PCGG's policy-shaping process. A government has many different kinds of problems to be tackled; therefore, it should devise and apply appropriate approaches depending on the character of the problems. The laws and rules regarding public information disclosure and stakeholder consultation process should be thought of as minimum standards. Moreover, I think each government agency, especially those which have to tackle complex problems such as climate change and water management, just to name a few, needs to devise suitable approaches for formulating effective policies based on consensus beyond those minimum requirements.

7.2.1 Short-term measures

Provide sufficient information in an easy-to-understand and easy-to-access manner

Recently, there have been a lot of controversies over several key policy initiatives in Korea such as the Korea-U.S. beef negotiation and four-river restoration project. Introducing ETS in Korea is one of them although it was not as controversial as above two initiatives. Many disputes over public policies originated from the lack of credible information. Officials in charge of the policies have kept saying that opposition from stakeholder groups was caused by misunderstanding the policies. It might be true, but it would be the officials not the stakeholders to be blamed for the misunderstanding if officials did not provide enough information and learning opportunities for stakeholders to understand details of those policies in the appropriate stage of policy-making.

There is delicate information, which cannot be fully opened, such as information related to privacy, diplomacy or national defense. I cannot see, however, any reason for not disclosing the final research reports on emissions trading commissioned by the PCGG, for example. There was criticism of government's lack of communication and its remedy to the criticism was to make people understand the good aspects of the determined policy by providing government-made leaflets or advertising through media. These are wrong approaches. People want to have opportunities to express their opinions and see their opinions are considered seriously if they are reasonable. In other words, they want to be influential not to be influenced.

Increasing effectiveness and time-efficiency by stakeholder participation in the early stage

Many Korean people believe that quick decision-making and decisive action have contributed toward its economic development within a short period of time in the late twentieth century. At that time, decision-makers of government or industry sector pursued one major goal, economic development and did not have to consider other values seriously. The experience of success is sweet, and I think current policy-shaping process of the government sector still keeps the legacy of

the past; to speed up the policy-shaping process through experts-oriented consultation. Officials have regarded different voices of diverse stakeholder groups as obstacles of fast decision-making.

The requirements provided by laws in Korea are ‘literally’ minimum standards. Therefore, it is not impossible for a government agency to have an early, long and comprehensive consultation process under the current system if it has a necessity and an intention to do that. However, I think that making a government-wide non-binding guideline based on reflections of officials will provide valuable opportunities for them to think differently about stakeholder participation.

7.2.2 Mid- and long-term measures

Developing expertise of officials

The current job rotation system of Korean government is forcing officials to be generalists who know everything a little. The problematic aspects of this system are well recognized by many (Kim 2008) and there has been several trials to elongate the interval between transfers. Just asking to abolish the system cannot be a solution because that is only one salient feature of the whole Korean government system. The system is interrelated with employment and promotion process and it also has some beneficial function.

However, it is also evident that keeping the current job rotation system is not the way to go. It is difficult to provide specific ways to overcome the dilemma. Currently the same administrative laws and rules are applied to all central government agencies with little attention to the nature of the mission of each agency. I think the representative inter-disciplinary agencies such as the PCGG or MoE need to develop their own way of managing their organizations to deal with problems getting sophisticated. Just following government-wide common rules will undermine the ground of the agencies’ existence.

Evaluating the performance evaluation system of officials

I showed how the combination of interrelated factors such as performance evaluation scheme (performance-related payment), difficulty of evaluation officials based on policy outcome, and job rotation system can lead to an unexpected result, worsening bureaucratic competition in Section 7.1.3. I think there should be a proper analysis of the impact incurred by introducing the performance evaluation system including the performance-related payment scheme.

8 Conclusion

An official of the European Commission suggested “intensive and repetitive dialogue with stakeholders” as a solution to resolve conflicts over introducing ETS with industry sector at *the Korea-EU conference on climate change and emissions trading* in Seoul in March 2011 (Shin 2011). I think the remark may have dismayed many Korean officials who anticipated exceptional know-how to build consensus or brilliant strategies to persuade industry sector.

After looking into the two policy-shaping processes of the EU and Korea, I agree that “intensive and repetitive dialogue with stakeholder” is a key for building consensus on introducing ETS. That remark was an excellent summary of the Commission’s policy-shaping process. I think, however, they could not have enough time to discuss the details of the dialogue, and the paper can provide Korean officials with a little more information on it and an opportunity to reflect on their practices for shaping policies.

Some will argue that there is a fundamental difference between the EU and Korea. The EU has had a long desire to be a leader in international politics through taking initiatives in the environmental area (Skjærseth and Wettestad 2008a: 4). The U.S. withdrawal from the Kyoto Protocol gave it a chance to be a leader in international climate change politics arena (Skjærseth and Wettestad 2008a: 145). The EU’s mature economic structure, political ambition and the U.S. withdrawal from the Kyoto Protocol helped a lot establish the biggest carbon market in the world in the EU. Among the three factors, Korea does not have any. Moreover, the failure of setting the post-Kyoto regime at COP-15 made the difficult situation of introducing ETS in Korea worse. To overcome those difficulties the PCGG had to have more “intensive and repetitive dialogue” than the EU, but it just followed the ‘general’ practices and needed consensus went nowhere.

Is the EU ETS, a good example of the ETS helpful for other countries to introduce it? There is no doubt that the EU’s case provides a lot of lessons on how to design and implement the scheme while minimizing adverse effects of introducing the scheme. However, the rich information on emissions trading may make some people think that they have all necessary knowledge about it or they can have it if they just want. If they are officials or experts of a country which has little interest in consultation or deliberation process, the combination of decent preceding examples (information), experts (theory) and officials (authority) make the situation worse. It will be a big mistake if a handful of people makes a ‘perfect’ policy based on theories and information from preceding cases and dismisses the stakeholders’ voice.

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Korean titles have been translated by the author [...translation...]

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10 Appendices

Appendix I: List of ECCP WG 1 Participants

Category	Name	Representing
Commission (6)*	Jos Delbeke	DG ENV
	Peter Vis	DG ENV
	Mare Vanheukelen	DG ENV
	Anna Solemena	DG ENTR
	Mark Hayden	DG ECFIN
	Håkan Karlström	DG TREN
National Experts (5)	Gertraud Wollansky	Austria
	Dominique Bureau	France
	Franz-Joseph Schafhhausen	Germany
	Niklas Johansson	Sweden
	Ian Coates or Rhian Hawkins	UK
Industry (5)	Jean-Yves Caeneill	Euroelectric
	Klaus Mittelbach	BDI
	Chris Boyd	ERT
	Bertil Heerink	European Chemical Industry Council
	Bail Kyte	“Emissions Trading Group” UK
Environmental NGOs (3)	Rob Bradley	Climate Change Network
	Mark Kenber	World Wildlife Fund
	Jürgen Lefevere	FIELD

(Source: European Commission 2001c: 8-10)

* Numbers in parentheses are the number of participants in each stakeholder group.

Appendix II: List of Researches on ETS commissioned by Korean Government Agencies

No	Agency	Title*	Period	Research institution	Open
1	PMO	Study on establishing emissions trading and its operation	2008.08 – 2008.12	Korea University	No
2	PMO - PCGG	Study on compensation for early action to reduce emissions	2008.11 – 2009. 03	Korea Environmental Economics Association	Yes
3	MoE	Cost-benefit analysis of introducing carbon tax and/or emissions trading	2009.04.6 – 2009.11.30	Chung-Ang University	Yes
4	MoE	Study on proposal for emissions trading	2009.04.06 – 2009.11.30	Korea Environmental Law Association	Yes
5	PCGG	Study on legal issues of emissions trading and proposing law & institutional arrangement	2009.07.24 – 2010.01.22	Seoul National University	No
6	PCGG	Study on design elements and management system of emissions trading and drafting basic plan	2009.08.04 – 2009.12.30	KEI, KEEI	No
7	MKE	Study on developing financial products related to emissions trading	2009.09 – 2009. 11	KEEI	Yes
8	MKE	Study on design elements (coverage, allocation methods, verification, etc.) considering the situation in Korea	2009.12 – 2010. 08	KEEI	No
9	MKE	Study on strategy for integrating systems relevant to emissions trading	2009.12 – 2010.08	KEEI	No
10	MKE	Study on drafting proposal on emissions trading and supporting industry	2009.12 – 2010.08	Shin & Kim (a law firm)	No
11	MoE	Study on allocation method trend of foreign ETS and drafting proposal	2010.03.31 – 2010.11.30	Korean Legislation Research Institute	Yes
12	MKE	Study on minimizing social costs of emissions trading	2010.08 – 2010.12	KEEI	No
13	MoE	Assessing impact of introducing emission trading scheme on industry and devising policy measure for it	2010.10.27 – 2011.04.25	Korea Climate Change & Energy Institute	N/A
14	MoE	In-depth analysis of management system of major emissions trading schemes	2010.10.27 – 2011.04.25	Deloitte Anjin LLC	N/A

(Source: Ministry of Public Administration and Security 2011, Presidential Archives 2011)

* All titles are translated from Korean to English by the author.