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Three Hurdles for Emissions Trading Scheme

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Jill Kosch O'Donnell
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Introduction

After months of roadblocks that seemed to signal the demise of South Korea's proposed emissions trading scheme (ETS), the South Korean parliament passed legislation establishing an ETS on May 2, 2012, during the final plenary session of the eighteenth National Assembly. South Korea is now on track to set a double precedent: creating the first nationwide greenhouse gas ETS in a developing country and being the first in Asia to do so.

The ETS is expected to take effect in 2015. Emissions trading is one of many policies that fall under President Lee Myung-bak's "Green Growth Strategy," a signature initiative of his administration aimed at reducing greenhouse gas emissions and creating new engines of economic growth through investments in clean energy technology. In November 2009, President Lee announced a voluntary emissions reduction target for Korea of 30 percent below the expected level by 2020—a significant move for a country that is classified as a non–Annex I (developing) country under the United Nations Framework Convention on Climate Change and has no obligations under global treaties to reduce its emissions. This is a prime example of what President Lee has called a "me first" attitude toward climate change, the idea that countries must act to mitigate climate change without waiting for others to act first. In order to be successful, the ETS will have to clear at least three hurdles on the road to implementation: a presidential decree process during which industrial interests could try to weaken the scheme, a bureaucratic turf battle over which ministry will run the scheme, and domestic political changes that could affect the ETS.

Background: The Road to Passage

During a tortuous journey to passage, the ETS bill gained broad support among lawmakers and the grudging acceptance of some in the industrial sector after the government agreed to delay the implementation of the scheme until 2015 and increase the number of emissions allowances that would be given away for free. But the ETS bill was set aside when bitter divisions over the U.S.-Korea Free Trade Agreement roiled the National Assembly and froze action on other legislation in November 2011. Then, early in 2012, the controversial issue of whether to add one seat to the 299-seat National Assembly overtook the parliamentary agenda and stalled the ETS bill's momentum just as lawmakers were moving into full election mode.

As recently as April, the conventional wisdom was that the clock had all but run out on passing the ETS in 2012. The National Assembly had already missed President Lee's 2011 year-end deadline for approving ETS legislation. As the April 11 parliamentary elections neared, when all seats in the unicameral National Assembly were in contest, the odds of ETS becoming law narrowed to near zero. The parliamentary elections commanded attention as President Lee's majority Saenuri Party sought to fend off the possibility that an alliance of two liberal opposition parties could win a majority and take control of the National Assembly. The Saenuri Party won a slim majority in the April election by securing 152 seats. The ETS bill then became one of sixty bills the eighteenth National Assembly approved at the last possible opportunity.

The ETS was not a campaign issue and has not resonated strongly with the public. "The general public does not see their involvement in ETS," Chung Suh-yong, a professor at Korea University, said in an interview.[1] In fact, ETS seems to have attracted more enthusiastic headlines around the world than it has in Korea. Australian newspapers quoted Australian government ministers lauding the news from Korea. Media reports from New Zealand have highlighted possibilities for linking Korea's ETS with New Zealand's. European news sources have praised Korea for seeking to emulate the European Union's emissions trading scheme. Yet some Korean media reports covering the National Assembly's last plenary session did not even mention the ETS.

The Legislation

According to Chung, the European Union's Emissions Trading Scheme (EU ETS) has served as a model for Korea.[2] The EU ETS covers eleven thousand energy and industrial installations that must meet emission reduction targets. Based on the principle of "cap and trade"—under which a cap is set on the aggregate amount of emissions allowed by participating firms—firms receive emissions allowances within that cap that they can buy or sell as needed.

Emissions trading is premised on the idea that different firms face different costs in reducing their emissions. Trading on these differences makes the market for emissions allowances work and ensures that emissions are cut where it is least expensive to do so. As economist Erik Haites has written, emissions trading provides "an economic incentive to sources with low-cost emission reduction opportunities to implement larger reductions and sources facing high-cost emission reductions to buy surplus allowances or credits from low-cost sources."[3] He argues that this incentive allows an aggregate level of emissions reduction from a group of specific sources to be achieved at a lower cost than simply mandating this same level of emissions reduction. Haites goes on to say that "typically, the larger the number of participants, the greater the diversity in compliance costs and the larger the potential cost savings."[4]

This is where South Korea runs into trouble. Commenting on South Korea's ETS legislation in an interview, Chung said, "Size matters."[5] The interconnected nature of Korean industry means that the market for tradable permits could be too small to work effectively. As described in an essay by Karl Moskowitz, South Korea's *chaebol* system of family-run conglomerates results in an "extremely high level of industrial asset concentration and control of diverse enterprises."[6] This means that what looks like a large number of firms on paper is effectively a much smaller number for the purposes of domestic emissions trading. The number of participants in an ETS scheme in South Korea would be small—dramatically smaller than the eleven thousand participating in the EU ETS.

"It is not wise for Korea just to copy the system of the EU ETS without making a frank assessment," Chung argues, adding that further study is needed to determine whether the EU ETS can be a model for Korea.[7]

Three Hurdles for ETS

The National Assembly's passage of the ETS was only the first step in bringing the scheme to life. That action kicked off the process of forming a presidential decree, which will spell out in detail how the scheme will work. Numerous press reports have indicated that the legislation does not specify which firms would be covered, where permits would be traded, or how they would be priced.[8] The Lee administration will seek public input from industry and other interested parties as it determines these details through the presidential decree, touching off a second debate over the ETS.

In order to be effective, the ETS will have to survive the influence of industry critics who could try to shape the scheme's details in order to mitigate its impact on their businesses. This is the first, and perhaps most significant, of the hurdles that the ETS will have to overcome. Industry opposition to the ETS remains significant in South Korea. The Korean Chamber of Commerce and Industry (KCCI), a major business lobby, has been a consistent and vocal critic of the legislation. At a news conference in Seoul last year, KCCI executive vice chairman Lee Dong-keun summed up the industry position by saying, "forcing firms to buy carbon permits to cover their emissions output will surely bring competitive disadvantage to our industrial edge."[9]

Government studies lend some credence to this view. The state-owned Korea Energy Management Corporation has calculated that implementation of an ETS could impose an additional cost of 5.6 trillion won ($5 billion in U.S. dollars) on Korean industry.[10] In addition, a recent study by the Korea Energy Economics Institute calculated South Korean gross domestic product (GDP) losses under various emissions-reduction policy scenarios.[11] The study found the steepest GDP losses under a scenario where no new clean energy technologies were implemented and the smallest GDP losses when the government invested revenues raised from the ETS, or from a supplementary carbon tax, into clean energy technology research and development. An important point of the study is that even with R&D investment, GDP will not begin to grow until 2043. That is a long time for businesses to face additional costs under an ETS.

During interviews conducted in Seoul last year, sources indicated that Korean industry was willing to accept an ETS until it became clear that the United States and Japan had abandoned or shelved their own efforts to institute emissions trading. It seems that the industrial sector has not bought into President Lee's "me first" paradigm, but rather into a "me first" strategy that recognizes its own business interests as foremost.

A second hurdle for Korea's ETS will be a bureaucratic turf battle, already under way, over which ministry will run the scheme. Under President Lee, the Ministry of Environment has maneuvered itself into a position where it would oversee emissions trading, an endeavor that the Ministry of Knowledge Economy (South Korea's equivalent to the U.S. Department of Energy) believes should be under its purview. According to the *Korea Herald*, the Ministry of Environment opposes plans by the Ministry of Knowledge Economy to launch a pilot carbon trading program this summer that would be similar to the one the Environment Ministry is already running.[12] "I think two or three government agencies are heading toward serious battle on this issue," Chung said.[13]

Finally, there is the possibility that a future parliament could change the ETS. Three political factors are worth considering. First, only half of the National Assembly's parliamentarians (151 out of 299) voted on the ETS bill on May 2. The bill passed overwhelmingly among those who voted (148 to 3), but this outcome may not represent a strong mandate given that half the parliament did not participate in the vote. Second, the new National Assembly is one in which almost half of all lawmakers (about 140) are newly elected.[14] It is unclear where they may stand on the ETS. Third, South Koreans will elect a new president in December. The winner of that contest may have different ideas about emissions trading in Korea than does the current administration.

Implications

Even if South Korea were to succeed in reducing its emissions significantly, would it matter for the climate? Although South Korea registers the fastest-growing emissions among member countries of the Organization for Economic Cooperation and Development (OECD), the country is still a backbencher in terms of its contribution to global emissions. According to preliminary estimates from the U.S. Department of Energy's Carbon Dioxide Information Analysis Center, which measures CO_2 emissions from fossil fuel combustion to cement manufacture, South Korea's CO_2 emissions reached a record high of 153 million metric tons in 2010, compared with 2.24 billion metric tons in China, and 1.49 billion metric tons in the United States in that same year. Together, China and the United States account for about 41 percent of the global total while South Korea is responsible for only 1.6 percent. Limiting emissions in South Korea would have no appreciable impact on arresting the trajectory of global emissions; that will require action by China and the United States.

Why is South Korea willing to do something that it has no obligation to do under global treaties—something that no other developing country has so far stepped up to do? And why is it willing to do something that will have little impact on mitigating climate change? One answer to these questions may have to do with shaping the future playing field of climate change mitigation. By doing more now than global treaties require, South Korea may be securing a better position for itself when it someday moves into the category of developed countries.[15] This could also be one reason why South Korea has championed the idea of a Nationally Appropriate Mitigation Action (NAMA) registry, a framework that allows developing countries to undertake voluntary mitigation actions that are recognized internationally and become eligible for financial support from advanced nations.

A second answer to these questions has to do with economic self-interest. As Young Soo-gil, chairman of Korea's Presidential Committee on Green Growth, has said, Korea's "push to introduce the carbon trading scheme in 2015 will help the nation develop green industry technologies to reduce energy consumption. It will give momentum for the country to get ahead of other countries in green businesses."[16] Gaining global market share in clean energy technologies has always been an important factor in the government's green growth strategy; the ETS is seen as one more way to advance this effort.

Finally, a third lens through which to view South Korea's actions on cutting emissions is that of showing leadership and gaining prestige. Formally adopting a voluntary target and implementing an ETS to achieve it is a prime example of President Lee's "me first" strategy on climate change mitigation. He has also emphasized the public relations benefits of cutting emissions, saying that "our ambitious target will help enhance the country's international status and national pride."[17] The virtue of becoming the first non–Annex I country to implement emissions trading sometimes seems like an end in itself, one that fits into Korea's overall strategy of enhancing its image on the international stage. This helps explain what can seem like inconsistent actions by South Korea. For example, during President Lee's visit to Turkey in February, South Korean firms signed a memorandum of understanding with a Turkish electricity firm on a $2 billion project to build a coal-fired power plant.[18] Pushing emissions reduction at home while seeking contracts abroad to build coal-fired power plants are ostensibly contradictory actions, but both contribute to South Korea's overarching goal of raising its international profile. The Lee administration's push for an ETS in South Korea must be understood within this context.

President Lee has also spoken often of Korea's role as a bridge between developed and developing countries on the issue of tackling climate change, an idea that others have picked up on as well. As reported in the *Korea Times* last November, the outgoing British ambassador in Seoul, Martin Uden, urged South Korea to pass the ETS bill, saying during a press briefing, "We need Korea to pass it [ETS legislation] so countries like Korea will feel they can do something now regardless of moves by other nations."[19]

But would other countries follow the leader or take a free ride? As a greater share of the emissions reduction burden is borne by certain countries, a lesser share remains for other countries to take up. After South Korea's implementation of an ETS, some developing countries could calculate that there is less reason for them to do so, not more. While some analysts suggest that Korea's move to begin emissions trading will embolden China's efforts to begin a pilot carbon trading scheme in seven major cities and provinces, this Chinese project was in progress long before the Korean parliament adopted the ETS. Moreover, an ETS in South Korea in the absence of a successor treaty to the Kyoto Protocol may not be enough to convince other countries to follow South Korea's lead. Acknowledging this possibility in a December interview on the sidelines of global climate talks in Durban, South Africa, former South Korean prime minister and current chairman of the Global Green Growth Institute Han Seung-soo said that the ETS depended on the success of the climate negotiations: "If you don't have [the] Kyoto mechanism in operation, then many countries will be very reluctant to go on for this system."[20] The Kyoto Protocol remains in force, but a successor treaty that requires action by developed and developing countries alike has yet to be negotiated.

Conclusion

The spirit of “me first” may yet win the day in Korea; whether it prevails in the way President Lee intended remains to be seen. Each of the three hurdles involves a narrower version of “me first” that could threaten the overall goal of an effective ETS in Korea: industry critics protecting economic interests, government ministries seeking to maximize their own role in the ETS, and untested parliamentarians who may choose to weigh in on the ETS in ways yet to be seen. The second debate over ETS that is now unfolding will answer these questions.

Endnotes

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2. Interview with author, March 6, 2012.
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About the Author

Jill Kosch O'Donnell, a former junior associate of the Asia Foundation, is a writer with a special interest in energy policy. She holds an MA in international relations and international economics from the Johns Hopkins University Paul H. Nitze School of Advanced International Studies.