

THE GREEN DÉTENTE: ENVIRONMENTAL NEGOTIATIONS AS A TRUST-BUILDING MECHANISM FOR THE TWO KOREAS

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Countries worldwide are increasingly attempting to address issues involving climate change and the environment, and the same phenomenon is occurring in the Korean Peninsula. The Republic of Korea is taking a growing leadership role in the global movement towards green growth. But what if this momentum was directed closer to home? This paper aims to assess the Green Détente as a policy mechanism for trust-building on the Korean Peninsula. It attempts to explore whether opportunities are available for environmental cooperation between the two Koreas as a stepping stone to future bilateral exchange.

After over 60 years of division, the Korean Peninsula still remains a highly polarized geopolitical arena. Issues involving nuclear weapons tests, human rights violations, drug trafficking, and cyber warfare surround the poor, isolated Democratic People's Republic of Korea, while its richer, capitalist southern neighbor, the Republic of Korea, now boasts a full-fledged democracy and is an increasingly important international player in middle power diplomacy. While much of the world has started to view North Korea with keen interest, its seemingly aberrant behavior and a lack of transparent information have made North Korea one of the most complex and difficult diplomatic challenges today. For its immediate neighbors, especially South Korea and Japan, provocative actions from the Kim regime pose an urgent regional security concern.

Peace and stability on the Korean Peninsula and its vicinity, therefore, depend largely on North Korea and its relations with its neighbors. However, due to continued mistrust and political impasse, improvements in diplomacy

seem unlikely. This paper will examine an alternative policy instrument, namely environmental negotiations, as a key means of trust-building on the Korean Peninsula. First, the paper will survey the development of environmentalism in South Korea and its engagement with environmental policy making in the domestic and international spheres. Second, it will describe North Korea's current environmental situation, its underlying causes, and the regime's domestic responses. Last, the paper will explore environmental cooperation as an inter-Korean exercise and discuss future prospects, developments, and challenges. This research serves to enhance the understanding of the role the environment has played in South Korea's recent history and suggests possibilities for its role in the future of South Korea's foreign policy developments, especially in engaging North Korea.

South Korea and the Environment: A Policy Tool

South Korea's efforts for environmental cooperation in Northeast Asia began within the past century when growing public awareness of the consequences of environmental degradation resulted in multiple international regimes on the protection of various environmental issues. While regional environmental cooperation in both Europe and North America has developed into largely functional entities, for countries in Northeast Asia, commonly defined to include China, Japan, Mongolia, North Korea, Russia (the Russian Far East), and South Korea, regional steps to environmental cooperation have materialized only recently within the past two decades.

Environmental issues are numerous in scope and variety, but one key common trait is its trans-boundary nature. Rapid industrialization and urbanization in Northeast Asia, largely driven by energy and resource-intensive industries, have led to remarkable economic growth while simultaneously placing strains on the environment. Air and water pollution, increased carbon emissions, and waste discharge are some of many direct ramifications of industrialization, but deforestation, desertification, water scarcity, land degradation, biodiversity loss, and threats to ecosystem and health are all pressuring Northeast Asia in multidimensional ways. Because such environmental externalities can be unidirectional, multidirectional, or both, there has been an increased awareness of and recognition for the environment as transcending national boundaries and posing risks that incur economic, social, and health costs; with issues such as acid rain, marine pollution, and more recently dust and sandstorms becoming prominent, an increasingly environmentally conscious civil society is taking shape.

Environmental movements in South Korea developed largely in tandem with domestic democratization movements. After the Korean War, South Korea's primary policy goal was two-fold: national security, with unbridled, export-oriented economic growth as the main method of achieving this goal, and a foreign policy that reflected its staunch, anti-Communist world view.¹ The speed of South Korea's economic growth resulted in an equally rapid destruction of the environment. In fact, former President Park Chung-hee, who governed South Korea from 1961 to 1979 under authoritarian rule, was noted to have stated in 1962 at Ulsan, an industrial city housing petrochemical industries and later shipyard and automobile assembly lines, "Dark smoke arising from factories is symbolic of our nation's growth and prosperity."² While small environmental groups, often based in universities, had existed since the 1970s, it was not until the 1980s that environmental movements began to gain a foothold in civil society. Expansions in environmentalism occurred from a convergence of several factors. First, by the late 1980s, South Korea entered phases of democratization, with social movements that placed pressure on the government to introduce domestic policies that focused on overlooked public needs. Among these various issues included the environment, which by this point was noticeably degraded at the expense of rapid economic development. Expanded efforts in environmentalism by a now wealthier society with more political freedom resulted in marked changes in civil society. In 1990, the Environment Administration, formerly a subsidiary of the Ministry of Health and Society, was promoted to the Ministry of Environment, and greater measures were set in place by the judiciary to ensure strengthened environmental protection.³

While democratization in the late 1980s accelerated the mobilization of civil society in environmental issues, it was not without precedent. In 1982, the Korea Pollution Research Institute (KPRI), the first organized environmental group in South Korea, was founded and had since its inception played an important role in raising environmental awareness. Despite its limited political capacity, KPRI was responsible for exposing environmental disasters such as the Onsan Illness, a public health scandal that involved local drinking water being chemically contaminated by the Onsan Industrial Complex. Developments in democratization allowed environmental groups

1 Esook Yoon, "South Korean Environmental Foreign Policy," *Asia-Pacific Review* Vol. 13, no.2 (2006): 76.

2 Su-Hoon Lee, "Environmental Movements in South Korea," in *Asia's Environmental Movements: Comparative Perspectives*, ed. Yok-shiu F. Lee and Alvin Y. So (New York, Routledge: 1999), 90-96.

3 Yoon, 77.

to organize and expand, while increased media coverage on environmental scandals, including tap water contamination in Seoul or phenol pollutants in the upper Nakdong River, transformed these issues to matters of personal concern. By 1992, 8,884 cases of environmental issues received newspaper coverage, a tremendous increase from 479 cases just one decade before.⁴

The 1992 United Nations Conference on Environment and Development, also known as the Earth Summit, in Rio de Janeiro further strengthened South Korea's growing environmental outlook. At Rio, South Korea viewed environmental issues as a strategic niche market for foreign policy and positioned itself as a mediator between developed and developing countries. It urged developed countries to the principle of common but differentiated responsibility while simultaneously offering financial assistance to developing countries.

Soon after the Earth Summit, South Korea focused on establishing a regional architecture for environmental cooperation. In 1992, the South Korea-led environment symposiums with Japan initiated in 1988 was reorganized as the Northeast Asian Conference on Environmental Cooperation (NEAC), a forum that now includes China, Mongolia, and Russia and encourages sharing of environmental information and understanding. In 1993, South Korea partnered with the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP), and the Asian Development Bank (ADB) to establish the North-East Asian Subregional Programme for Environmental Cooperation (NEASPEC). With all Northeast Asian countries represented, NEASPEC allows comprehensive multilateral cooperation based on capacity building and information sharing to address environmental challenges in the region. In 1994, as part of the UNEP's Regional Seas Programme, South Korea hosted the first meeting for the Northwest Pacific Action Plan (NOWPAP) with all Northeast Asian countries except Mongolia for collaboration on coastal and marine environments. In 1999, South Korea initiated the Tripartite Environmental Ministers Meeting (TEMM) with China and Japan to promote environmental management among the three countries. TEMM meets on an annual basis and collaborates on multiple areas of the environment including climate change, biodiversity, contamination control, dust and sandstorms, and electronic waste. At present, South Korea cooperates with all countries in Northeast Asia on a bilateral level on environmental issues,

4 Su-Hoon Lee, 105.

except with North Korea.⁵

Segyehwa (Globalization) and the Environment: Integrating with the Global Community

South Korea's explosive engagement in environmental multilateralism (and bilateralism) strongly correlates with its overall policy pursuing globalization in the 1990s. With the end of the Cold War and South Korea's admittance to the United Nations in 1991, *seggyehwa*, or literally globalization, became South Korea's top policy objective. Used as a public slogan by former President Kim Young-sam from 1993 to 1998, *seggyehwa* represented South Korea's first push towards gaining leadership and a greater role in the international community. Recognizing South Korea's dire need for integration with the global community, Kim announced in 1995 six different *seggyehwa* targets that would help South Korea develop into a global player: education, the legal and economic order, politics and the press, public administration, the environment, and culture and attitudes.⁶ This belief translated directly in the administration's foreign policy. Kim's first foreign minister, Han Sung-joo, declared in 1993 the following:

With the advent of the era of globalism, Korea's diplomacy needs to pay more attention to such universal values as freedom, justice, peace and welfare... We will take an active part in international efforts to tackle global issues such as international peace and security, disarmament and arms control, eradication of poverty, protection of environment, and efficient utilization of natural resources. Through such engagement, we will play our due part in making a more just, safe, and prosperous world.⁷

South Korea quickly joined multiple multilateral and intergovernmental organizations following this time. It joined the WTO in 1995, the OECD in 1996, and became a part of 21 different treaties and institutions under the

5 Esook Yoon, 83.

6 B.C. Koh, "Segyehwa, the Republic of Korea, and the United Nations," in *Korea's Globalization*, ed. Samuel S. Kim (Cambridge, Cambridge University Press: 2000), 198.

7 Ibid.

United Nations.⁸

By now, the environment was firmly established as a domestic issue and by recognizing the environment's increasing importance on the global playing field, a large component to *seggyehwa* thus became devoted to mobilizing South Korea's global efforts on the environment. Needless to say, South Korea became involved in most of the major global environmental agreements since then: the Montreal Protocol in 1989, the Convention on International Trade in Endangered Species of Wild Fauna and Flora in 1993, the Basel Convention on International Trade in Hazardous Wastes in 1994, the United Nations Framework Convention on Climate Change (UNFCCC) in 1994, the Ramsar Convention on Wetlands in 1997, the Convention to Combat Desertification in 1999, and the Kyoto Protocol in 2002. Han stated to the United Nations that South Korea, as the world's thirteenth largest economy at the time, planned to "assume responsibilities commensurate with [its] standing in the international community," and Kim Yong-sam's *seggyehwa* policy and South Korea's international commitments both indicate the importance it placed on the environment as an area for Korea to grow its international stature.

These efforts towards multilateralism on the global scale have worked in tandem with South Korea's regional leadership at bolstering environmental cooperation in Northeast Asia. South Korea has played a strategic role in mediating between developed and developing countries in the Earth Summit, and now its emphasis on environmental leadership suggests middle power diplomacy in a regional and international arena that is without clear leaders. In Northeast Asia, juggling between the two regional powers, China and Japan, presents a daunting task, but environmental negotiations offer an opportunity for South Korea to maneuver strategically around pressing issues, especially since environmental issues also touch upon economic growth, energy security, and national security.

Using the Environment to Fuel Economic Growth

On February 2008, former President Lee Myung-bak revealed his Low-Carbon and Green Growth Strategy, a set of plans for South Korea's long-term development that Lee claimed to be a "new national development paradigm." Lee's strategy offered to tackle the impact of the worsening global recession on the domestic economy with an economic stimulus package of

8 Yoon, 79.

US\$ 38.1 billion, 80 percent of which was allocated to “more efficient use of resources such as fresh-water, waste, energy-efficient buildings, renewable energies, low-carbon vehicles, and the rail network.”⁹

Less than one year later, South Korea officially announced its National Green Growth Strategy, which included the Five-Year Plan for Green Growth (2009-2013) that aimed to implement Lee’s vision of sustainable growth through a set of three strategies and ten policy directions.

Table 1: Five-Year Plan for Green Growth (2009-2013), Strategies and Policy Directions¹⁰

Strategies	Policy Directions
1. Measures for climate change and securing energy independence	1. Reduce carbon emissions
	2. Decrease energy dependence and enhance energy self-sufficiency
	3. Support adaptation to climate change impacts
2. Creation of new growth engines	1. Develop green technologies as future growth engines
	2. Greening of industry
	3. Develop cutting-edge industries
	4. Set up policy infrastructure for green growth
3. Improving quality of life and strengthening the status of South Korea	1. Green city and green transport
	2. Green revolution in lifestyle
	3. Enhance global cooperation on green growth

Source: UNEP Overview of the Republic of Korea’s National Strategy for Green Growth (2010)

While the environment has always been a key policy mechanism for South Korea’s foreign diplomacy as seen thus far, the National Green Growth

9 United Nations Environmental Programme (UNEP), *Overview of the Republic of Korea’s National Strategy for Green Growth* (Geneva, 2010), 6.

10 UNEP, 17.

Strategy represents a significant change in national understanding of the country's priorities. Some experts, such as Esook Yoon, have criticized South Korea for cherry-picking international environmental agreements based on its economic priorities. More specifically, while South Korea has often led regional environmental initiatives and adopted most global frameworks governing environmental issues since *seggyehwa*, Yoon claims economic interests more than the environment," especially in relation to climate change negotiations and sewage discharge into coastal waters, two environmental challenges that pose a significant economic cost to South Korea.¹¹ Although this may have been true as of Yoon's publication, South Korea has since then stepped up its environmental governance in the international arena. In 2009, South Korea became the first non-Annex I Party to the Kyoto Protocol to voluntarily reduce its carbon emissions by 30 percent by 2020, the highest reduction level recommended by the Intergovernmental Panel on Climate Change to developing countries.¹² From 2012 to 2014, the Ministry of Land, Transport and Maritime Affairs (MLTM) has tightened enforcement on dumping wastewater into the ocean in multiple phases, banning the disposal of livestock manure and sewage sludge into the ocean in 2012, food wastewater in 2013, and industrial wastewater and sludge in 2014.¹³ South Korea's petition to expand the Global Green Growth Institute from a nongovernmental organization to an intergovernmental body, as well as its attempts to host the Green Climate Fund, both of which were successful, show its dedication to match words with action. These developments in the international front coincide greatly with a revised domestic understanding of the importance of the environment as a policy instrument.

Critics of the National Green Growth Strategy claim that the government has merely green-washed existing industries by placing uneven emphasis on large construction projects that inherently create carbon emissions or nuclear and hydropower projects whose environmental friendliness are questionable.¹⁴ Whether South Korea's green growth paradigm will allow economic growth by addressing root sources of

11 Yoon, 80.

12 UNEP, 9.

13 Sayuri Umeda, "South Korea: Ban on Dumping of Food Wastewater in the Ocean Comes to Force," *Library of Congress*, February 7, 2013, http://www.loc.gov/lawweb/servlet/lloc_news?disp3_I205403482_text (accessed April 27, 2015).

14 For more information, refer to Maggie Mazzetti, "Assessing South Korea's National Strategy for Green Economic Growth," *SAIS US-Korea Institute 2011 Yearbook* (2011): 71-74.

environmental problems or present merely a rebranded “business-as-usual” approach remains to be seen. Nonetheless, domestic dialogue on the environment and its nontraditional roles in policymaking has undoubtedly made its mark.

North Korea’s Environmental Crisis

Ideology and North Korea’s Environment

While South Korea honed its environmental diplomacy, North Korea has led a different approach to environmental decision-making. Central to North Korea’s political worldview is its *juche* ideology of self-reliance. While *juche* has been studied to grasp a better understanding of North Korea’s political economy, it also presents an opportunity to comprehend the nature of environmental discourse in North Korea and how that may come to change in the future.

In understanding environmental discourse in North Korea, Atkins et al. (1998) underscore the need to place North Korea in the context of modern Korean history. Repressed under Japanese occupation and severely debilitated by the Korean War, North Korea has viewed itself as an embattled state, “with few friends [and] a hostile natural environment with a mountainous topography that restricts the amount of arable land and climate extremes swinging from severe floods one year to drought the next.”¹⁵ For Kim Il-sung, the environment represented a natural challenge, one that was “but another enemy to be defeated by socialist ingenuity.” In 1981, Kim declared, “It is the duty of communists to master and remake nature.”¹⁶

With *juche*, a central tenet to self-reliance is the concept of human domination over nature and technological optimism. Humans are able to modify nature through modern technology so that social benefit is maximized, and this concept was sustained through the implicit assumption that natural resources are effectively limitless. With this ideological outlook, North Korea carried on numerous environmental projects, including the irrigation of 1.4 million hectares of cultivable land that included 1,700 reservoirs fed by

15 Peter Atkins, Ian Simmons and Brian Roberts, *People, Land and Time* (Oxford, UK: Hodder Education, 1998), 228.

16 Peter Atkins, “The Dialectics of Environment and Culture: Kimilsungism and the North Korean Landscape,” in *Environment and Development: Views from the East and the West*, ed. Amitava Mukherjee and V.K. Agnihotri (New Delhi, Concept: 1993): 309-32.

25,800 pumping stations, 40,000 kilometers of irrigation canals, and an interconnected system of hydropower plants.¹⁷ Massive land reclamation projects also ensued: the Nampo West Sea Barrage, 300,000 hectares of new arable land by 1987, 100,000 hectares of tideland reclamation, and the damming of multiple rivers and bays.¹⁸

These major infrastructure projects altered the North Korean landscape, giving what Atkins claims is a “human meaning of landscape.”¹⁹ North Korea’s top-down approach in unilaterally transforming nature to fit its political and economic needs further became apparent at the onset of its economic collapse with the demise of Communism in Eastern Europe in 1989 and the fall of the Soviet Union in 1991. To date, studies by the UNEP show that North Korea suffers immense challenges in deforestation, water quality degradation, air pollution, and land degradation.²⁰ According to Byun, systemic problems plagued North Korea as well: a focus on heavy industries that prioritized quantitative growth, competition for legitimacy with South Korea, unsustainable dependence on low-grade coal especially after the fall of the Soviet Union, inability to invest in protection facilities and infrastructure, and the absolute absence of civil society groups.²¹

Perhaps recognizing the severity of its state of the environment, North Korea has also begun to initiate internal projects aimed at improving the environment, namely the “National action plan for land degradation/desertification and drought protection (2006-2010)” or the “Ten-Year Plan for Afforestation/Reforestation (2003).”²² However, these policies have not yet shown profound impact in recovering the environment.

State of the Environment

In 2003, UNEP, in partnership with UNDP and the National Coordinating Committee for Environment, published the first (and only) state of the environment report on North Korea, providing a comprehensive survey of environmental problems faced by North Korea at that time. Without much improvement in North Korea’s economy, it is highly unlikely that the

17 Ibid.

18 Ibid.

19 Ibid.

20 United Nations Environment Programme (UNEP), *DPR Korea: State of the Environment* (Bangkok, 2003).

21 Jinsuk Byun, “The Environmental Issues of a Unified Korea,” (paper presented at the 1st Annual Conference of the CSIS-USC Korea Project, Los Angeles, California, August 20-21, 2010).

22 UNEP, 14.

environmental challenges detailed by UNEP have improved in recent times; it is much more likely that environmental issues have worsened. These issues are summarized below to provide a contextual background for discussions to follow:

Table 2: Summary of Environmental Challenges in North Korea

Environmental Issue	Cause	Effect
1. Deforestation	Conversion to low-grade agricultural land	More than 40 percent of forested lands lost since 1985
		Increased vulnerability to extreme climate events (e.g. severe floods, landslides, and mud flows)
	Source of firewood to meet energy demand	Production of firewood for heating increased from 300 million m ³ in 1990 to 720 million m ³ in 2000
2. Land Degradation	Very high levels of fertilizer and pesticide use	Unstable agricultural systems
		Soil acidification
		Increased water degradation from runoffs
3. Water Quality Degradation	Around 70 percent of industrial sites not properly installed with industrial wastewater treatment facilities	Severe industrial pollution in waterways. For example, more than 50 percent of sewage is dumped into the Taedong River without treatment.
4. Air Pollution	Heavy dependence on coal for primary energy.	High levels of air pollution (specific data unavailable)
	Heavy industrial dependence on mining and manufacturing	High levels of air pollution (specific data unavailable)

Information adapted from UNEP DPR Korea: State of the Environment (2003)²³

23 The energy sector in North Korea is comprised of 70 percent coal, 15 percent hydropower, and the

Recent Developments

While official data on the state of North Korea's environment still remain elusive, several recent developments allow room for optimism, especially in agricultural reform and increased desire for external assistance.

Lankov (2015) states that a policy of agricultural reforms in 2013, also known as the "6.28 Measures," has helped increase agriculture in North Korea to around 5.1 million tons of grain, which is above the recent average of 4.5 million tons.²⁴ The 6.28 Measures allow for one or two neighboring families to register as a "small work team" and retain 30 percent of their annual harvest. Similar to policies implemented in China in 1978 when agricultural production jumped by 50 percent within seven years, these reforms, Lankov claims, will bring "easy economic improvement, both in the countryside and in major cities." This has also had a considerable impact on stabilizing North Korea's market rice prices, which are often used as proxies to gauge inflation in the country.²⁵

North Korea has also increasingly invited foreign experts to assess its environment in the hopes of obtaining strategies on restoration and improving food security. For instance, in March 2012, North Korea partnered with the American Association for the Advancement of Science and the Chinese Environmental Education Media Project to host a conference that brought together 14 scientists from eight different countries with 75 local scientists and officials.²⁶ On a related note, Habib (2013) has found that North Korea is increasingly a willing participant of the UNFCCC in the international dialogue on climate change, despite its confrontational nuclear diplomacy. Habib attributes this change in stance to four possibilities: 1) using the UNFCCC as a means to address climate change vulnerabilities, 2) using the UNFCCC to address vulnerabilities in agriculture via capacity-building provisions, 3) using the UNFCCC to modernize the energy sector, and 4) using the Clean

rest on timber, which is used disproportionately for cooking and heating by those living away from North Korea's industrial centers. Refer to Byun (2010).

24 Andrei Lankov, "North Korea Farm Policy Changes Point to Better Harvests," *Radio Free Asia*, February 4, 2015, <http://www.rfa.org/english/commentaries/parallelt-thoughts/lankov-farm-03042015120240.html> (accessed April 27, 2015).

25 Kang Mi Jin, "Trade and Rations Behind Stable Prices," *Daily NK*, February 3, 2015, <http://www.dailynk.com/english/read.php?catald=nk01500&num=12938> (accessed April 27, 2015).

26 Joanna M. Foster, "North Korea's Choked Environment," *New York Times*, March 30, 2012, <http://green.blogs.nytimes.com/2012/03/30/q-and-a-north-koreas-choked-environment/> (accessed April 27, 2015).

Development Mechanism (CDM) to obtain foreign currency revenue.²⁷ In fact, North Korea is currently home to seven hydropower projects that may generate up to 241,000 Certified Emission Reductions (CERs) that are valued at US\$ 1.3 million.²⁸ These developments show that North Korea is now voluntarily participating with the outside world on issues related to the environment as long as such participation caters to the interests of the regime.

Environmental Negotiations: Future Prospects, Developments, and Challenges

Green Détente: The Environment and the Final Frontier

As established thus far, South Korea has had a history of mobilizing environmental dialogue for strategic purposes (integrating with the international community, initiating regional middle power diplomacy, or utilizing green industries to propel economic growth). President Park Geun-hye's Green Détente is a continuation of this trend. Park's Green Détente aims to direct South Korea's expertise in environmental negotiations to the Korean Peninsula and engagement with North Korea.

Historically, previous attempts at inter-Korean reconciliation have occurred mostly from unilateral humanitarian and food aid from South Korea. The Green Détente instead recognizes that unilateral aid alone can neither reduce political and military anxiety nor lead to sustainable practices in restoring the environment. At the core of the Green Détente is the understanding that environmental cooperation is a symbolic venture that will allow a platform for apolitical, non-military dialogue that can help restore the environment in North Korea while also providing an opportunity for economic growth throughout the peninsula. It assumes that South Korea will be the net giver of environmental services through technology transfers, financial assistance, facility and equipment support, and sharing of research and know-how. The Academy of DMZ Sciences lists multiple areas of industry that are potential candidates for cooperation: reforestation, CDM projects,

27 Benjamin Habib, "DPRK Meets UNFCCC: An Introduction to North Korea's Interactions with the International Climate Change Regime," *International Review of Korean Studies* 10, no.1 (2013): 65-83.

28 Ladka Bauerova and Alessandro Vitelli, "North Korea, Eco State?" *Bloomberg Business*, May 31, 2012, <http://www.bloomberg.com/bw/articles/2012-05-31/north-korea-eco-state> (accessed April 27, 2015).

agriculture, renewable energy, biodiversity protection and the DMZ Peace Park.²⁹

While the Green Détente, as a North Korea-oriented foreign policy tool, is necessarily politicized, South Korea's rationale for environmental engagement is much broader than just diplomatic rapprochement and "trust-building." Rather, environmental cooperation with North Korea satisfies five of 10 policy directions in South Korea's Green Growth Plan; of the five, all four policy directives in Strategy 2: Creation of New Growth Engines are included (see Table 1). With Japan already a global leader in cutting-edge green technologies and China exhibiting economies of scale from unbridled investments in renewable energy, the danger of being squeezed out of the market for South Korea is high. Providing assistance to North Korea in the environmental sector presents an untouched market and an opportune moment for South Korea to develop and export green technologies.

There are several ways to evaluate whether the Green Détente will be a feasible policy option. First, South Korea has an obvious advantage in capital and technology that can be mobilized to develop guidance and partnership in the environment, an area in which North Korea is currently seeking assistance. Second, as noted previously, North Korea is interested in hosting CDM projects, and the Green Détente presents an opportunity for both Koreas to engage in positive UNFCCC-based initiatives. Third, by partnering with UNDP and UNEP, both of which have field experience working in North Korea, the Green Détente presents a greater opportunity to develop a legitimate environmental community throughout the peninsula. However, significant challenges threaten the successful implementation of the policy. First, there is a disconnect in the scientific research, technological development, and cultural awareness between the two Koreas. More importantly, there lacks a framework within South Korea for these expert communities to converge and attain a mutual understanding of North Korea. For instance, in a survey of South Korean experts on how to best install renewable energy capacity in North Korea, Sul-Ki Yi has found that differences between the perspectives and positions of engineers, security experts, and foreign policy experts are difficult to bridge, given their distinctly different priorities and viewpoints.³⁰ Second, South Korea's May

29 The Academy of DMZ Sciences, *Geurindaetang teureultonghan hwangyeong gongdong chaechujin banghyang* [Policy Directions for an Environmental Community through Green Détente] (Seoul: The Academy of DMZ Sciences, 2013), 38-132.

30 Sul-Ki Yi, Hwa-Young Sin and Eunnyeong Heo, "Selecting sustainable renewable energy source for energy assistance to North Korea," *Renewable and Sustainable Energy Reviews* (2011), 562.

24 Measures, which ban most trade between North and South Korea, trips to the North, and aid to North Korea, make it difficult for any component of the Green Détente to actually materialize. Before the May 24 Measures were implemented, environmental NGOs in South Korea routinely provided North Korea with supplies to construct nurseries and greenhouse infrastructure as an effort to aid reforestation. In the current political environment, such exchanges are banned. However, as of April 27, 2015, the Ministry of Unification approved the shipment of 15 tons of fertilizer to North Korea by a South Korean charity group, showing signs that the May 24 Measures may be gradually easing to allow room for cooperation.³¹

North Korea and the Green Détente

Implicit in the Green Détente is North Korea's willingness to cooperate. Recent examples of North Korea's openness in dealing with environmental issues show that the regime is willing to be flexible as long as its own policy objectives are met. Most experts view regime stability as North Korea's primary objective. Yet, as can be seen with the 6.28 Measures, top decision-makers in North Korea who were once afraid to implement small (but necessary) agricultural reforms in the event that they would trigger political crises are now relaxing control. Likewise, increased eagerness in participating with the UNFCCC comes at least at some level with an implicit acknowledgment of North Korea's vulnerability to climate change and the ramifications this susceptibility has on regime stability.³² While North Korea undoubtedly shows greater flexibility in the environmental arena, there is no guarantee that North Korea will cooperate with South Korea on constructing an environmental community throughout the peninsula despite the Green Détente's potentially positive sum results. Furthermore, South Korea also lacks the leverage to coerce North Korea into cooperation other than simple goodwill diplomacy.

Whether the Green Détente will truly lead to a sustainable environmental paradigm in North Korea is another point of debate. Kihl and Hayes (1997) emphasize that the key to solving North Korea's environmental problems are four-fold: 1) institutional reforms are needed to internalize

31 Reuters, "South Korea allows first fertilizer aid to the North since 2010 sanctions," April 27, 2015, <http://www.reuters.com/article/2015/04/27/northkorea-southkorea-fertilizers-idUSL4N0XO1FV20150427> (accessed April 27, 2015).

32 Benjamin Habib, "Climate Change and the Terminal Decay of the North Korean Regime," (paper presented at the Oceanic Conference on International Studies, Brisbane, Australia, July 2-4, 2008).

currently ignored environmental externalities; 2) new technologies must be adopted in sectors such as forestry and mining; 3) pragmatic economic reforms, such as opening North Korea to foreign investment and introducing market-based pricing, should be adopted; and 4) building institutional capacities to monitor and enforce environmental regulations.³³ Not included in Kihl and Hayes' list, however, is the need for civil society to be included in the policy-making process. As seen in South Korea's experience with environmental movements, environmental management can only be sustained in the presence of an active civil society with access to political freedoms and symmetric information. It is no coincidence that environmental movements in South Korea occurred concurrently with increased democratization.

North Korea's political context obviously bars most of the five requirements mentioned above, and thus it remains to be seen if the Green Détente will just be a replay of South Korea's unilateral, aid-reliant engagement policies with its neighbor. However, the Green Détente presents an opportunity to provide technical assistance, supply badly needed green equipment, and transfer scientific know-how – channels that ultimately can lead to sustainable capacity-building. With environmental scientists from multiple countries already taking the initiative to create a more informed scientific community in North Korea,³⁴ it makes sense for South Korea to pursue its Green Détente policy despite the potential setbacks and uncertainties of feasibility.

Conclusion

Looking at South Korea's history of environmental engagement, it becomes clear that its recent announcement of a Green Détente is an extension of traditional policy. Since democratization, South Korea has refined its environmental discourse, and the leadership roles it has played in both the regional and international spheres on environmental issues have distinct political inextricability. That South Korea has announced two major environment - themed policies in recent years – the National Green Growth

33 Young Whan Kihl and Peter Hayes, *Peace and Security in Northeast Asia* (New York: M. E. Sharpe, 1997), 116-117.

34 Delegation members of the March 2012 environment convention hosted by Pyongyang have been aiming to create ongoing collaborations among scientists present at the meeting. For instance, one scientist is working with the Society of Ecological Restoration to set up a chapter in China to exchange technological information with North Korean scientists.

Strategy and the Green Détente – may seem odd to some, but in essence those two policies work in tandem to bring policy instruments in both domestic and foreign affairs under the guise of soft power diplomacy.

North Korea's stance is critical to the success of President Park's Green Détente. While numerous documented (and undocumented) uncertainties exist for the successful implementation of the Green Détente, the greatest possibility for failure rests simply in North Korea's unwillingness to comply. That North Korea's environment is in a severe state of deterioration is no recent revelation, but it is interesting to note that the Kim regime has become increasingly flexible in dealing with environmental challenges, whether by implementing small but unprecedented agricultural reforms, complying with climate change frameworks, or openly soliciting foreign researchers and environmental scientists. These new developments tend to suggest that North Korean leaders are starting to find the environment to be a venue for furthering their own policy objectives, namely regime stability and longevity, and with that comes a tacit acknowledgment of North Korea's vulnerabilities to climate change and environmental security.

While certain regulatory frameworks in South Korea, especially the May 24 Measures, currently hinder progress on the Green Détente, it remains to be seen whether the environment will ultimately play a greater role in building trust on the Korean Peninsula and hopefully become a common space for the two Koreas to cooperate in the hopes of sharing a united future. **Y**