

## Chapter 12: Regional Environmental Governance in East Asia: Collapse or Arrested Development?

### 1. Quest for Regional Environmental Governance in East Asian Region

Campbell (2005) points out that environmental regionalism is often viewed as a more feasible, effective and democratic approach for addressing environmental problems that transcend national boundaries than globalization for two reasons. First, primarily because a smaller number of countries are involved, regionalism is seen as more likely to facilitate participation and represent the interests of all the parties, making it also more democratic than a global approach. Second, concerns about the potentially negative impacts on multilateral trading system of linking trade and environmental issues within the World Trade Organization (WTO) have fostered the view that the regional level provides a better platform to address international environmental issues than the global level, possibly in the context of regional trade agreements.

In deepening economic and environmental interconnectedness in the East Asian region, coupled with the enthusiasm for European integration, several nations sought for a similar kind of regional economic and environmental regime. As seen in Chapter 10 and 11, regional free trade agreements and regional environmental policy can bring positive environmental impacts under certain conditions. These results support the establishment of a regional environmental regime to mitigate adverse impacts of globalization.

In reality, however, no regional environmental regime has been established so far in the East Asian region. There are a number of issue-specific regional environmental initiatives and frameworks, but they are often duplicating, overlapping, and ineffective. Contrary to Europe, none of them has evolved into a formal institution. This casts doubt about the future perspectives for a regional environmental regime, in spite of the daunting environmental challenges that need to be managed effectively in the region.

This chapter employs the diagnostic analytical method proposed by Young (2008) to examine why an issue-specific regional environmental regime failed to provide effective solution and to evolve into a formal institution in the East Asian region.

### 2. Analytical Methods

There are a number of driving forces that cause changes in environmental institutions. Traditional political scientists emphasize three factors as driving forces for regime shift: (a) the rise (and fall) of a dominant power or hegemon, (b) economic interests, and (c) ideas as underlying causes of institutional change. Nguitragool (2011) pays special attention to the role of idea, norm, cognition and discourse in the East Asian region: experiences of colonization made political leaders

suspicious about foreign aid and resist external intervention at the outset. Regional environmental governance cannot be formulated nor effectively function without change of this norm.

Rozman (2004) breaks down these factors to apply them to East Asia. He suggests five conditions to achieve regionalism in East Asia: (a) national strategies for modernization that give important weight to the contributions of neighboring countries; (b) national identities that accept neighboring countries as partners rather than threats and oriented one's own country to trusting relations across boundaries; (c) recognition that the dominant role of the United States does not preclude an evolving balance of power on a regional level; (d) incremental progress in bilateral relations sufficient to put territorial disputes and other problems aside; and (e) a vision of regionalism that shows the way to reap substantial advantages without posing serious concerns. These aspects more or less emphasize the importance of bilateral relations, history of conflict and institutional norms of the larger system.

While these factors help explain institutional change in general, more detailed analysis is required to explain the change and effectiveness of a particular environmental institution in East Asian region. While the United States has actively intervened to the reformation of economic and financial institutions in the East Asian region (see chapter 9), it shows little interest and plays a limited role in the formation of a regional environmental regime. This implies that there exists no dominant power or hegemon in the formation of regional environmental governance in the East Asian region, while dispersed distribution of power can increase transaction cost of reaching an agreement.

By contrast, problem attributes exert a critical impact on the negotiation power and interests of a nation. Characteristics of the players, ranging from nations to individual actors also have impacts on the environmental institutions: a government assumes higher political, economic and administrative costs, thus claims large side payment<sup>2</sup> to comply with the regional agreement when group of subjects are large, heterogeneous, and have close relations with political elites.

Young (2008) lists a number of factors that are particularly important for institutional design and categorized them into the four Ps: Problems, Politics, Players and Practices. Major characteristics of the problem are assessed to analyze implications for the nature of the regime needed to solve the problem or that lead to its failure. Political setting constitutes a boundary within which institutional arrangements function to solve the problem. Characteristics of principal players as well as that of domestic actors that are responsible for the problem, affect the nature of the regime that is required to address it effectively. Finally, efforts to form regime takes place in broader or overarching settings featuring well-established social practices or meta-practices that those endeavoring to form issue-specific regimes must accept as given.

The same author also presents the idea of political feasibility that aims to probe the compatibility

of proposed arrangements with the defining features of the political setting (Young 2008). It brings productive insights beyond the existing analysis. However, it does not clearly mention state sovereignty, overall bilateral relations and history of conflict of actors that are profoundly embedded in the larger system and appear when forming a regional regime in the East Asian region.

This study adds these specific factors to the institutional diagnostics analysis method to examine the evolution of particular issue-specific regional environmental regimes in the East Asian region.

### 3. A Brief History toward Regional Environmental Institutions

#### 3.1 Emergence of initiatives, frameworks and regimes

As shown in [Table 12-1](#), regional environmental initiatives and frameworks appeared in the early 1990s with the normalization of relations among states following the collapse of the Soviet Union. Alarm about a global environmental crisis and action plans declared at the United Nations Conference on Environment and Development (UNCED) raised environmental awareness in many East Asian nations, convincing their governments to accept international environmental initiatives.

Initially, Japan took the lead by hosting an annual meeting of the Environmental Congress for Asia and the Pacific (ECO ASIA) in 1991. Criticism against environmentally destructive activities by the Japanese government and companies, coupled with its hope of raising its presence in the international politics, prompted it to make international commitments to increase the amount of official development assistance (ODA) that aimed for environmental protection in 1989 and 1992. The Japanese people supported the provision of environmental ODA, hoping that such tragic pollution damages as they had occurred in Japan should not be repeated in East Asia. The UNCED pushed Japan to further increase bilateral environmental assistance.

Japan gradually became active in regional environmental cooperation, realizing that it suffered from environmental and economic damages by transboundary environmental issues. It hosted a series of meetings for experts on that issue during the 1993-97 and initiated the creation of the Acid Deposition Monitoring Network in East Asia (EANET) in 1998 to mitigate the adverse impact of transboundary acid rain. In 2008, it proposed to establish the regional 3R Forum aiming to promote effective use and to prevent improper disposal of recyclable goods through high-level policy dialogue and assistance in the projects <sup>1</sup>.

South Korea proposed an annual Northeast Asian Conference on Environmental Cooperation (NEACEC) in 1992, inviting the United Nations Environmental Programme (UNEP) to join it. It also supported the adoption of the Northwest Pacific Action Plan (NOWPAP) in 1994 as a part of the Regional Seas Programme of UNEP to address marine pollution problems in the Yellow Sea. It led to the regional oil spill contingency plan among Japan, China, South Korea and Russia in 2005. The Asian economic crisis of 1997 made South Korea recognize the importance of a regional

framework. It initiated a tripartite ministers meeting with Japan and China. In this line, it organized the annual Tripartite Environmental Ministers Meeting among Japan, China and Korea (TEMM) in 1998 as a part of tripartite ministers meeting and implemented several specific projects under this framework.

However, UNEP and South Korea failed to build an environmental regime to address marine pollution problems in the Yellow Sea. Chung (1999) holds that this accrues to a lack of hegemonic power, limited influence of scientists or environmental experts on policy-making, and insufficient funds that prevented them to persuade hesitant China to cooperate. When initiating the NOWPAP, South Korea attempted to bring in the concept of “ecological region” and development of its own epistemic community to expand the scope of the regime, as UNEP did in the process for the Mediterranean Action Plan (Med Plan). It invited UNEP in the process, with susceptibility to the idea of multilateralism from the perspective of a regional power (Lee, 2008). Insufficient side-payments failed to convince China to join the regime (Brettell, 2007). By contrast, it has not played a leading role in the acid rain regime, in terms of providing new concepts and side-payments to raise economic interest. Hence, they had to give up building a strong multilateral regime, abandoned the role of a regional mediator between China and Japan, and weakened the Northeast Asia policy.

Instead of playing a role of mediator, South Korea created the new concept of green growth and attempts to diffuse it to developing nations as a more acceptable understanding of sustainable development. It convinced the UNESCAP to adopt it as an Asian-wide policy at the Seoul Initiative on Environmentally Sustainable Economic Growth in 2005. After the global financial crisis in 2008, it persuaded UNDP and OECD to adopt it as a worldwide concept, and to put it as a main topic on the agenda of the Rio+20 UN Conference on Sustainable Development in 2012.

ASEAN members states, faced with serious air pollution and haze by land and forest fires, took an initiative to cooperate in tackling the problem. It adopted the Cooperation Plan on Transboundary Pollution in 1995 and then a Regional Haze Action Plan (RHAP) in 1997 that called for stricter enforcement of existing laws against companies and others who set fires to clear forests. This plan placed peer pressure on Indonesia, but could not satisfy all member states. This dissatisfaction incited the members to take a further step to the Agreement on Transboundary Haze Pollution that mandated strict enforcement of existing laws and enactment of new laws. This agreement entered into force in 2003, but the ratification process proceeded slowly: the severely affected nations of Malaysia, Singapore and Brunei ratified it before March 2003, while the Philippines followed suit in 2010 and Indonesia is still pending. Despite of the delay in ratification, ASEAN took one step further to sign an Agreement on Disaster Management and Emergency Response in 2005. Indonesia presented the Plan of Actions on Forest and Land Fires Control in

Southeast Asia (PoA) in 2006.

China has long been reluctant to make an active commitment to regional environmental initiatives and frameworks. Still, it has benefitted from technologies as well as financial and intellectual capital provided by non-governmental organizations (NGOs) and foreign nations to enhance its environmental policy (Economy, 2004). It also joined regional initiatives and frameworks that aimed at information exchange and scientific research such as EANET, NOWPAP and TEMM. Together with Mongolia, it initiated the establishment of the Northeast Asia Anti-Sandstorm Alliance in 2006.

### 3.2 General Characteristics

This chronology helps outline characteristics of the emerging regional environmental regimes in the East Asian region. First, the urgency and seriousness of pollution incidents have motivated governments to cooperate on the regional level to address these problems. Crisis management was the main motivation for environmental initiatives and cooperation in the region, as it was in the field of security and finance. This is in sharp contrast with Europe and North America where the primary drivers of region environmental protection are concerns about the effects of differences in environmental standards on national competitiveness and market access (Campbell, 2005). This does not mean that differences in environmental standards and/or its enforcement have not caused the displacement of dirty industries at all in East Asia. Rather, it has not raised concern about the competitiveness and market access there.

Second, there is an abundance of unilateral, bilateral and regional initiatives and frameworks, with some of them overlapping, especially those that focus on the environment in Northeast Asia (Campbell, 2005). South Korea first competed with Japan to establish institutions for information sharing in the 1990s. In the 2000s, South Korea capitalized on the same regional institution of the UNESCAP to replace Japan-initiated urban environment program with green growth. This reflects the lack of an integrated institutional framework in East Asia.

The last characteristic is a reliance on voluntary cooperation, non-binding agreements, and a weak institutional infrastructure to address regional environmental problems. Although ASEAN member states went beyond voluntary cooperation in approaching haze pollution at last, the final agreement is still not legally binding, thus there is no provision for sanctions in case of non-compliance. This approach raises concerns whether responses to regional environmental problems can be consistent and effective in the long run.

## 4. Diagnostic Analysis of Institutional Factors

Among the above mentioned regional environmental initiatives and regimes, two particular cases,

Northeast Asian acid rain and ASEAN haze pollution, are extensively analyzed. Although both of them do not have legal binding that allow sanction in case of non-compliance, they aim for problem solving beyond information sharing and exchange.

#### 4.1 Northeast Asian acid rain initiative

##### 4.1.1 Major characteristics of the problems

The acid rain problem has faced different interpretations of the problem and diverse proposals on procedures by major parties to solve it. First, China and Japan defined the problem differently. Japanese researchers, in collaboration with their European counterparts, suggested China was mostly responsible for acid deposition in Japan, and insisted that source prevention in China was the most prominent measure for problem solving. To disprove this argument, Chinese government initiated its own research to find out that acid deposition in Japan mainly came from volcanos in Japan while China bears little responsibility (Table 12-2). However, it conceded that hundreds of *Chinese* cities had suffered from sulfur emission and acid rain that were caused by *domestic* fuel combustion and, as an immediate response, designated sulfur and acid rain control zones. To fill this cognitive gap, Japanese government initiated the establishment of EANET as a way of uncovering cause and effect. However, Chinese government has refused to conduct joint research and the monitor of its domestic sources. It strategically left it untouched, because uncovering accurate causal effects might worsen its position in the negotiation over this issue.

China and Japan also had different interpretations on the procedure of problem solving. By the late 1990s, Chinese government had little knowledge and experiences on both policy instruments and technical measures to solve the problem. The measure that it had mostly taken was the massive shutdown of industrial plants. It was not cost-effective, however, because it claimed huge amount of economic losses to industries and local governments, prompting illegal operations and discharge. Japan, by contrast, has the idea and experience of rapid reduction of industrial pollution without curbing economic growth. Accurate scientific evidence on the cause and effect, and total pollutants load control that was brought about, was the key in convincing reluctant industries to comply with the stringent emission standards while keeping economic growth intact. Still this measure also claimed high administrative and compliance costs when implemented effectively and in a fair manner (Mori, 1999), thus was evaluated as largely uneconomic (OECD, 1977). South Korea criticized Japan for taking too strong an approach.

##### 4.1.2 Basic features of political setting

There is persistent distrust among countries in Northeast Asia. China aimed to thwart Japan's power and to take over the leadership in East Asia (Rozman, 2004). China promoted a free trade

agreement (FTA) with ASEAN as a means of strengthening its presence and influence in the region (Lee, 2008). This attitude met resistance in Japan and made Japan feel that it was obliged to pursue national interests. Nationalist backlash also appeared in Japan when South Korea and China revealed national rivalries. Japanese are getting insecure about the rise of economic and military power of China. Nonetheless, China has been expanding “core national interests” in territory and security as it gained economic power. It started to deliver marine forces to threaten neighboring countries to accept “solutions” on cross-border conflicts that favors China. The retaliatory attitude on all sides has further degraded mutual trust, making it more politically difficult to reach an agreement that generates mutually beneficial results within this region.

South Korea is also reluctant to accept Japan’s leadership in environmental politics in the region. As it becomes confident about its development process, especially after overcoming the economic crisis in the late 1990s, it attempted to take over Japan’s leadership in the region. It has actively concluded FTA with ASEAN, EU and the United States while resisting to sign one with Japan owing to concerns about an expanding trade deficit.

#### 4.1.3 Principal actors and players

With the aim of becoming an influential nation in international politics, coupled with the strategy of avoiding criticism over an increase in trade surplus, Japan increased its provision of official development assistance (ODA). At the UNCED, it committed to provide JPY 0.9-1 trillion of ODA in the environmental field during 1992-97. To attain this target, it increased bilateral environmental ODA to Asian nations that faced environmental degradation. However, it has rarely required policy and institutional change of the recipient nations in order to avoid recipients’ criticisms of policy intervention—criticism that the Japanese government is least willing to accept. Rather, it emphasized its traditional concept of “self-help” that attached importance to the ownership of recipients in the problem solving process (Japanese MOFA, 1997). This “conservative” stance, coupled with financial assistance in the form of concessional loans and responsive stance to environmental degradation in East Asian nations, attracted few recipients. To attract recipients’ interests, Japanese government relaxed the terms of the conditions of the concessional environmental loans, employed the idea of capacity development in the environment to deliver experiences of urban and industrial pollution control in Japan, and broadened the scope of environmental aid to include energy and transport projects that would generate both environmental and economic gains, such as energy conservation, district heating systems and mass transit system (Mori, 2011). At the same time, it worked on to China to recognize severe environmental pollution and to assume responsibility for transboundary air pollution. The acid rain initiative has emerged amid an increase in environmental ODA to China. However, this initiative has not brought in any

innovative ideas and discourses in the process.

Chinese political elites have often been influenced by environmental discourses and agendas in the international conferences. China's participation in the United Nations Conference on Human and Environment led to the establishment of the first formal environmental protection apparatus. The UNCED inspired environmental and scientific experts to launch a domestic and international offensive to advance the cause of environmental protection and introduced the concept of sustainable development to China (Economy, 2004). President Hu Jintao announced this concept as a guiding principle in 2003 and the Communist party declared to adopt it as a major policy direction in 2007. At this point, the global discourse of sustainable development has convinced China to adopt environmental policies at national level.

Nonetheless, China usually behaves as a rational actor in practice. On the one hand, it accepted foreign environmental assistance as long as the assistance provided financial and intellectual capital and technology to solve the problem. China had long suffered from the tradeoff between the expansions of energy supply capacity on the one hand, and a structurally heavy reliance on coal and its inefficient use on the other, which caused severe air pollution. Resolution of power shortage and an oversupply of coal in the 1990s allowed the Chinese government to implement institutional reforms to improve energy efficiency and air quality. The National Environmental Protection Administration (NEPA) revised the Air Pollution Act to introduce a total pollutants load control for several pollutants. However, the NEPA lacked financial resources to enforce these policies. In order to request funding, the NEPA published the "Trans-Century Green Project Program," a list of pollution sources that had caused serious environmental degradation and environmental projects that should be urgently implemented. Once recognized the effectiveness of technological solutions through foreign environmental aid, the state increased expenditure for environmental investment and implemented a variety of stringent environmental and energy policies, ranging from the shut-down of small coal-fired power plants, mandating large coal-fired power plants to install fuel-gas desulphurization and on-line continuous monitoring equipment, to imposing specific charges on sulfur emission, and setting a sulfur emission reduction target by 10% during the 11<sup>th</sup> Five-year Plan (Mori, 2008a).

On the other hand, China is cautious about an international commitment to emission reduction. At the outset, the Chinese government did neither have sufficient knowledge on measures and costs of emission reduction nor enough financial capital to prevent pollution from a large number of sources that were heterogeneous in terms of industry, ownership and location. Its conventional policy instruments of massive shutdowns generated a serious tradeoff between pollution control and economic growth, the central concern to keep legitimacy of the authoritarian state. It has resisted making a firm international commitment on emission reductions even if it has stringent *domestic*



targets.

#### 4.1.4 Broader institutional settings

There are at least three institutional constraints that prevented the conclusion of an emerging effective agreement on reducing acid rain. One is the serious concern about ceding sovereignty to international environmentalisms. China has been strictly denouncing interferences in internal affairs and has rejected having any obligations in international environmental agreements imposed by industrialized nations. While the Chinese government accepted foreign aid to enhance capacity for environmental monitoring in local governments, it remains unwilling to share information or grant access to data on the sources and distribution of sulfur emissions for the reason of sovereignty or core interest.

Second, there is no formal regional institution in Northeast Asia, regardless of the field. Although this has an advantage in that concerned parties can always create new norms and operational principles to the issue at hand, this made it difficult for a nation to organize a core group that takes the initiative to forge an agreement: no negotiation can be possible when single nations refuse to participate.

The third constraint is Japan's preference to bilateral approach and reliance on foreign aid in diplomatic policy. Japan has long continued its bilateral, project-based environmental aid and cooperation to ensure taxpayers' support to aid provision by minimizing ineffectiveness and manipulation of recipients, and to avoid complications that might accompany the multilateral approach. The Japanese government launched the provision of bilateral environmental ODA to East Asian nations before Japan had convinced them to implement EANET. In addition, it failed to form any kind of framework that aims for *reduction* of acid deposition that leads to firm commitment of emitter nations on the basis of equal state responsibility. These approaches obscured the link between bilateral environmental aid and acid rain initiative, failing to make political elites in East Asian recognize that Japanese environmental ODA was a side-payment to the sulfur reduction. China clearly denied this linkage in spite of significant direct impact of the Japanese environmental aid on sulfur reduction in China (Mori, 2008b).

This denial, coupled with the incapability of financing for cleanup all the pollution sources, forced Japan to nominate a concept of sustainable urban development as a discourse of Asian environmental strategy, and initiated the adoption of the Kitakyushu Initiative for a Clean Environment at the Ministerial Conference of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP). Although it targeted mostly seriously damaged cities, it demands stringent environmental regulations and strict implementation backed by increased fiscal expenditure. For fear of impairing economic growth, this concept was not widely accepted.

This created a space for South Korea to bring in the new concept of “green growth.” Its positive attitude toward economic growth, coupled with South Korea’s success in bringing it into the international limelight, enabled East Asian nations to share it.

## 4.2 ASEAN haze regime

### 4.2.1 Major characteristics of the problems

The haze pollution problem has similar characteristics as acid rain. Although all the concerned nations conceded that Indonesia was the source of the problem, there were different interpretations on the underlying cause of the problem and procedures for solving it. Malaysia and Singapore defined the problem narrowly down to land and forest fires so as to avoid issue linkage with illegal logging trade that brought economic gains to them (Nguitragool, 2011). With the success at large-scale commercial palm oil plantations in the Malaysian peninsula, ASEAN adopted zero-burning policy and replanting technique as a long-term strategy within the Cooperation Plan on Transboundary Pollution in 1995. By contrast, Indonesia recognized that the land and forest fire problem was caused by poverty, corruption and land rights conflicts, and that illegal logging activities had accelerated this problem. Although the boundary between legal and illegal logging became blurred under the local autonomy, the Indonesian government insisted that the solution would come from the ban of overexploitation of natural resources in Indonesia on the part of Malaysian and Singaporean government against their industries, not from the zero-burning or controlled burning. This difference in defining the problem generated a vicious circle of ASEAN’s smaller, ineffective actions and Indonesia’s non-ratification to the pact.

While Indonesia has suffered from damages, it has little incentive for voluntary reduction and cooperation for the above reason, as well as the below mentioned patronage system. This attitude, coupled with the historical status of regional leader, allowed Indonesia to exercise veto power to strengthen its bargaining power on the institutional negotiations.

### 4.2.2 Basic features of political setting

Malaysia and Indonesia have a history of conflicts and long-standing hostility. This intensified the quarrel over forest fire and illegal logging, forcing Malaysia to dispatch troops to help put out the fires without consent of Indonesia, while making Indonesian political leaders suspicious about the intention of Malaysia (Nguitragool, 2011). By contrast, Singapore resorted to silent diplomacy and refrained from criticizing Indonesia.

In Indonesia, forests have been a significant source of economic and political power. The Suharto government launched a number of development programs including transmigration and rice projects in tropical peat lands, which caused serious environmental degradation. Corruption and cronyism

became pervasive through forest concessions to the military and business colleagues of Suharto's family, which weakened the government ability to maintain law and order. This patronage system persisted and remained prominent even after the Suharto era: many politicians required illegal loggers to provide bribes prior to general election under the democratic regime so as to finance their election campaigns, which accelerated illegal logging (Nguitrageol, 2011). Under Local Autonomy authority to issue licenses to companies was delegated to the local governments while the monitoring and guiding role of the central government was weakened. This allowed local governments to ignore the forest laws and issue licenses to companies to log natural forests with legal permits. Unclear land tenure systems provided legal loopholes and companies' exploitation of local communities disabled the government to identify the real culprits (Nguitrageol, 2011). These political settings made it extremely difficult for the Indonesian government to have political will and well-intentioned administrative measures from relevant and influential authorities to cope with illegal logging and forest fire.

#### 4.2.3 Principal actors and players

The Asian economic crisis and the resignation of Suharto, which triggered political and economic turmoil, deprived Indonesia of its confidence and pride as a regional leader. Under the ASEAN haze regime, Indonesia was always criticized as the cause of the problem. Slowing down the ratification process was one of its attempts to regain its status as a regional leader and the resurgent nationalism following the loss of Sipidan and Ligitan to Malaysia in 2004 (Nguitrageol, 2011).

In addition, the Indonesian government was significantly influenced by domestic political power in deciding its behavior to cope with land clearance and forest fires. Prevailing corruption and cronyism, coupled with legal loopholes and a large number of heterogeneous actors increased cost of compliance to the haze agreement, because the compliance called for transformation of socio-economic, political and the patronage system. On the other hand, dependence on political allies, coupled with persistent political and economic turmoil weakened the political position of the presidents, forcing them to distract attention from land and forest fire. The Ministry of Environment faced strong resistances from the Ministry of Forest and vested interests in the forest industry. Failure to receive vigorous support from domestic epistemic community increased the difficulties of the Ministry of Environment to bring forward a counterargument from an ideational point of view (Nguitrageol, 2011).

Furthermore, Indonesia had to take local customs and interests of the target groups such as smallholder farmers and plantation firms into account. It has been reluctant to accept new practices of zero-burning and controlled burning at the domestic level, for these practices are in conflict with

the existing dominant institutions, increasing vulnerability of ethnic minorities in uplands. This further weakened the effectiveness of the zero-burning policy despite Indonesia's formal acceptance. Recognizing difficulties in implementing the zero-burning policy, ASEAN brought in the concept of controlled burning as a supplement.

As a victim of haze, Malaysian authorities publicly criticized Indonesia for its ineffectiveness of tackling land and forest fire, and for refusing to talk about legally binding actions and enforcement. However, it depends heavily to Indonesian land in expanding palm oil plantation to meet the growing world demand. In addition, it has been criticized for the trade in illegal timber that intensified forest fire and haze. This partly mitigates its pressure to Indonesia (Nguitrageol, 2011).

Still, Indonesia might have felt that it was unfairly treated during the negotiation process if ASEAN adopted harsh punitive measures to cope with the haze, recognizing limited reciprocity in the regional agreement (Nguitrageol, 2011). Malaysia and Singapore made insufficient cooperation to enhancing compliance and enforcement. This increased dissatisfaction on the part of Indonesia, made it reluctant to cooperate with prevention of land and forest fire.

Nonetheless, Indonesia has enacted a number of laws to deal with forest and land fires and presented the PoA in 2006 in order to avoid criticism and pressure from other ASEAN member states. President Bambang Yudhoyono and executive branches of the state have attempted to convince legislators to ratify the Haze Agreement. However, success is still uncertain because of its recognition that the treaty will bring no clear benefits to Indonesia, coupled with little support at local level on the grounds that the economic interests outweighs the environmental and health concern.

#### 4.2.4 Broader institutional settings

ASEAN nations have serious concerns about ceding sovereignty to regional and international environmentalisms. Having lost control over natural resources under colonial rule, some Southeast Asian nations are particularly sensitive to compromising their sovereignty that would limit their authority in this area (Campbell, 2005). Being aligned by its cardinal principle of nonintervention in the internal affairs of members, ASEAN kept its neutrality and confined itself to nonbinding agreements. In addition, ASEAN member states do not share an identical set of interests because of the distinct economic, political philosophies, system and level of development (Nguitrageol, 2011). Faced by severe damage, epistemic community and civil society organized the international policy dialogue, which led to their participation to the ASEAN's Ministerial Meeting on Haze in 1998. However, the norm of non-intervention and non-interference was explicitly maintained, giving little space for them to exert influence on regime formation.

In addition, ASEAN member states have long regarded management of natural resources as a

domestic issue. This discourse led to the emphasis that the RHAP should be implemented at national level and complemented by the implementation of plans at sub-regional and regional level. It also prevented neighboring nations to cooperate, let alone intervene at the initial stage of regime formation.

The principle of sovereignty, non-intervention and non-interference, and the discourse that the natural resource management is a matter of internal affairs, nonetheless, has been changed in the process of cooperation. While the Agreement on Transboundary Haze Pollution does not contain a mechanism for addressing violation, it allowed creating a formal mechanism in which closer cooperation could be pursued, including annual meetings to review and evaluate effective implementation of the agreement and to set up a regional haze fund and an inventory of existing resources that helped fire-fighting activities and disaster management in the region. Although scope and range is limited, Indonesia allowed neighboring nations to intervene in domestic affairs in the national action plan, which led to cooperation of Singapore with Jambi Province and of Malaysia with Riau province.

## 5. Linkage with Other Regimes

### 5.1 Free trade regime

Linkage with free trade regime can provide additional incentive to comply with the regional environmental agreement. In Europe, Central and East European nations (CEE) finally accepted the *Acquis* to harmonize the environmental laws and regulations to the requirements of European Union (EU), considering the large economic gains from the access to EU market, coupled with EU provision of environmental cooperation. The EU has also assessed environmental impact and attempted to include environmental provisions and cooperation in the negotiations on regional trade agreements (OECD, 2007).

On contrast, free trade regimes have no link with environmental protection in the East Asian region. Japan supported China's accession to WTO, but had no concern about industrial relocation on the ground of differences in environmental regulations. South Korea also has not minded about industrial relocation that seeks for looser environmental regulations in the process of concluding FTAs with China and ASEAN. While ASEAN is creating a common regional market, it has never negotiated environmental provisions in the process.

Pressure came from NGOs that mobilized international, public and government support to force plantation and timber companies to adopt social and environmental sustainability standards into their business practices in Indonesia and Malaysia. In response, an increasing number of foreign companies allied with NGOs to put pressure on them (Nguitragool, 2011). The United Kingdom also concluded a memorandum of understanding with Indonesia to establish a system that verified

legality and ensured traceability, and to publish the state of illegal trade. Yet this pressure has not changed the content of the ASEAN trade pact.

## 5.2 Climate change regime

At the outset of the global climate negotiation, most East Asian nations had been inactive, and placing top priority on economic growth. Even when they showed concern about environmental challenges, they focused mostly on domestic rather than global ones due to insufficient capacity and skeptical attitudes toward climate change. With the exception of Japan, they are all grouped into non-Annex-I countries in the United Nations Framework on Climate Change (UNFCCC) that have no obligation to reduce GHG emissions.

Nonetheless, the climate change debate has changed the structure of the underlying factors that had constrained the formation of a regional regime.

First, Kyoto Protocol created a space for Non-Annex I countries to receive advanced environmental technologies, to gain large amounts of windfall financial benefits, and to gain multiple environmental benefits through this linkage. Major East Asian countries increased the number of UN-approved Clean Development Mechanism (CDM) projects and gained Certified Emissions Reductions (CERs). China has gained the largest share, followed by India, Brazil and South Korea. Investments were concentrated on a few sectors that could obtain large amounts of CERs with little economic and natural risks, such as Hydro fluorocarbons (HFC) reduction, methane gas recovery, wind and hydropower (Table 12-3). While the forest sector has received the least CDM projects and prevention of land use change, such as deforestation, generates no CER under the current CDM conditions. Indonesia, together with Papua New Guinea, Costa Rica and Brazil formed the forest group to propose the Reducing Emissions from Deforestation and Forest Degradation in developing countries (REDD), setting it up as a major agenda at the Indonesia-hosted COP 13 in 2007. This led to the agreement on international assistance to pilot projects and capacity building for monitoring, reporting and verification (MRV). The United Nations set up the REDD Programme to provide funds to those partner countries whose national program was approved, including Indonesia, Vietnam, Philippines and Cambodia.

Second, multilateral negotiation on the post-2012 regime required major GHG emitters including China, South Korea and Indonesia to have binding reduction obligation. This reflects the fact that emerging economies have dramatically increased their emissions, which may offset efforts for emissions reduction by Annex I countries, and that the United States would return to the pact only under the condition that China also does its share of emission reduction. This has gradually convinced political leaders in the emerging economies to change their recognition, agreeing to announce their mid-term GHG emissions reduction targets in the form of the Nationally

Appropriate Mitigation Actions (NAMA), and submitted them to the United Nations (Table 12-4).

Third, the climate change issue has changed the understanding of the problem by linking energy, sulfur emission, and sustainable development on the one hand, and forest fire and loss of biodiversity on the other hand. Coupled with the global hike of energy price and increase in energy import, the Chinese government approached the root cause of the problem: tradeoff of energy shortage, inefficient use and air pollution. It described the energy efficiency target as a binding target of the 11<sup>th</sup> Five-Year Plan (2006-2010) and the 12<sup>th</sup> Five-Year Plan (2011-2015). It has implemented complementary measures and personnel policies of the Communist Party of China to force local governments to attain the target. It also published a renewable energy target, attracted foreign companies to invest in CDM projects for renewable energy, and provides subsidies to domestic manufactures to enhance competitiveness over renewable energy equipments. Although not aiming at energy reduction in absolute terms and for sulfur reduction directly, these policy measures are expected to mitigate, if not eliminate the acid deposition.

Singapore attempted to shift the understanding of the problem by strategically linking influential transnational environmental norms of climate change and loss of biodiversity with Indonesian forest fires. To put pressure on Indonesia towards ratifying the ASEAN haze agreement, Singapore brought the case of land and forest fires and haze pollution to the UN General Assembly in 2006. It also persuaded ASEAN member states to adopt energy, sustainable development and climate change as the central theme at the ASEAN summit in 2007 at the risk of worsening bilateral relations with Indonesia. This action finally forced Indonesia to create a national climate change action plans in 2007, which set out targets for reduction of forest fire hot spots by 75% in 2012 and by 95% in 2025.

Finally, the climate regime allowed environmental NGOs to join international environmental agreements. This offered NGOs opportunities not only to legitimize themselves, but to organize global networks for information sharing, and to enhance their intellectual and lobbying capacity even under the authoritarian regime.

Still, a regional climate regime faces the barriers of national sovereignty. Although the Chinese government envisaged 40-45% reduction of GHG emissions per GDP by 2020, it insisted that this target was not an internationally binding commitment and fiercely refused international MRV for emissions reduction.

## 6. Conclusions

In this chapter, we investigated why regional environmental initiatives and frameworks have been largely ineffective and have not yet evolved into a formal institution in the East Asian region, employing the diagnostic analytical method proposed by Young (2008), and drawing on the cases of

Northeast Asian acid rain initiative and ASEAN haze regime. The main findings can be summarized as follows.

First, while mutual distrust and sovereignty that followed the Asian way of non-intervention and non-interference has been mitigated in the process of regional environmental cooperation, especially among ASEAN member states, major characteristics of the problem, especially different definitions of the problem and procedure for solving it, coupled with the underlying national economic interests that were critically influenced by structure of domestic actors, hindered the formation of an effective regional regime for both acid rain and haze problems. China and Indonesia felt little, if any reciprocity from regional acid rain and haze regimes: they worried about the huge costs of detecting and managing a large number of heterogenic sources while being dissatisfied with insufficient environmental cooperation. This motivated them to exercise the de facto veto power to avoid binding obligations being imposed on them.

Second, the climate change issue has changed the interests of major players in both regimes, and brought an influential global environmental norm into the region. It has diverted attention of East Asian nations from the regional environmental regime to a global climate regime, which might have accelerated the collapse of the regional regime. Nonetheless, this change in interest and ideational factors offered an opportunity for China and Indonesia to address the underlying causes of both regional acid rain, and forest and land fire through its interaction with both problems.

It remains to be seen how effective the climate regime functions to reduce GHG emissions, and sulfur emissions and forest and land fires at the same time, given the legally non-binding nature of the national action plans. It is also a future challenge how far the global climate norms and regime can contribute towards solving problems of regional acid rain, forest fire and haze.

#### Note

1. 3R refers to reduce, reuse and recycle of waste.
2. Side payment is a payment made by one or more parties in an agreement to other parties, to induce them to join the agreement that brings benefits.

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Table 12-1 Brief History of Environmental Institutions in East Asian Region

1991	Japanese Ministry of the Environment launched to host annual Environment Congress for Asia and the Pacific (ECO ASIA).
1992	Japan made a commitment to provide environmental aid amounted to JPY 0.9-1trillion for 1992-97 at the UN Conference on Environment and Development.
1992	South Korea proposed to hold annual Northeast Asian Conference on Environmental Cooperation (NEACEC), in cooperation with UNEP
1993	UNESCAP supported to establish the Northeast Asian Subregional Programme on Environmental Cooperation (NEASPEC)
1993	Japanese Ministry of the Environment hosted the first expert meeting for the Acid Deposition Monitoring Network in East Asia (EANET) (trial implmentation in 1998)
1994	Northwest Pacific Action Plan (NOWPAP) was adopted in September 1994 as a part of the Regional Seas Programme of UNEP
1994	Ministers of Environment of ASEAN members agreed to set minimum ambient air and water quality standard and set up Urban Air Pollution Monitoring and Control Programme
1995	ASEAN adopted the Cooperation Plan on Transboundary Pollution
1997	ASEAN adopted the Regional Haze Action Plan
1999	With proposal of South Korea, the annual Tripartite Environmental Ministers Meeting Among Japan, China and Korea (TEMM) was launched.
2000	UNESCAP, with the back of japan, adopted the Kitakyushu Initiative for a Clean Environment as a way of sustainable urban development
2002	ASEAN members signed the Agreement on Transboundary Haze Pollution, with the legal assistance of the UNEP (made effective in 2003)
2004	ASEAN+3 held the New and Renewable Energy Forum at Seoul
2005	UNESCAP, with the back of South Korea, adopted the Seoul Initiative on Environmentally Sustainable Economic Growth (green growth) and addressed eco-efficiency
2005	Under the NOWPAP, Japan, China, South Korea and Russia adopted a regional oil spill contingency plan
2006	China, together with Mongolia, initiated to form a Northeast Asia Anti-Sandstorm Alliance
2008	Japan proposed to establish regional 3R Forum at the East Asia Environment Ministers Meeting

Source: Author's own compilation.

Table 12-2 Estimated contribution to sulfur deposition in Japan (%) (1990)

Model	Sources of Deposition (%)			
	Japan	Volcanoes	China	Korean Peninsula
Ichikawa et al. (1995)	40	18	25	16
Ikeda et al. (1995)	37	28	25	10
Carmichael et al. (1995)	38	45	10	7
Huang et al. (1994)	94 <sup>(1)</sup>		3	2
Chinese Academy of Science (1995)	85 <sup>(1)</sup>		10	4
Calori et al. (2001) <sup>(2)</sup>	38	9	40	13

Note 1: Means both Japan and volcanoes.

Note 2: This estimation is for the year 1995.

Source: Mori and Hayashi (2012: 13).

Table 12-3 CDM projects by Sector, as of August 2007 and August 2011

Type	As of August 13, 2007		As of August 1, 2011	
	Number	Total emission reduction by 2012 (t-CO2)	Number	Total emission reduction by 2012 (t-CO2)
HFC reduction	13	398,598,690	22	487,271,300
N <sub>2</sub> O reduction	12	148,371,066	65	253,614,791
PFC reduction and SF6 substitution	0	0	15	2,105,823
Reforestation	1	340,223	29	9,310,528
Cement	17	20,035,939	46	42,126,175
Material processing			1	26,216
Energy saving	46	7,747,162	139	44,372,904
Energy saving and fuel conversion	0	0	1	72,673
Fuel conversion	24	7,308,777	97	131,581,293
Use of waste gas and heat	62	101,818,062	265	232,924,745
Renewable energy	580	338,028,811	3,010	1,054,045,142
Methane gas	176	137,221,475	311	271,424,726
Biomass	155	59,863,295	395	117,321,588
Biogas	0	0	380	72,097,659
Biofuel	0	0	1	37,762
Hydropower	130	50,368,799	1,090	336,525,811
Windpower	106	63,523,778	775	239,358,944
Other renewables	13	27,051,464	58	17,278,652
Prevention of leak	0	0	5	7,766,151
Transport	1	1,725,941	6	2,669,691
<b>Total</b>	<b>757</b>	<b>1,024,356,881</b>	<b>3,702</b>	<b>4,557,825,744</b>

Source: Author's calculation based on Institute for Global Environmental Strategies (2007, 2011).

Table 12-4 East Asia's Commitments on Climate Change

Year	Commitment
1997	Japan agreed to reduce 6% of GHG emissions by 2012 compared with the year 1990 level at COP 3.
2002	Cambodia, China, Japan, South Korea, Malaysia, Thailand and Vietnam ratified the Kyoto Protocol.
2003	Philippines ratified the Kyoto Protocol.
2004	Indonesia ratified the Kyoto Protocol.
2007	With the proposal of the umbrella group (Papua New Guinea, Costa Rica, Indonesia, Brazil), the Reducing Emissions from Deforestation and Degradation in Developing countries (REDD) was set up as a main agenda of COP 13.
2009	EU announced 30% of GHG emissions reduction by 2020 if other developed countries commit the same amount of reduction. It also made recommendation to developing countries to reduce GHG emissions by 15-30% compared with business as usual (BAU) scenario.
	Japan announces a mid-term plan to reduce 25% of GHG emissions by 2020 compared with the year 1990 level, on the condition that all the major countries sign in the ambitious agreement.
	Indonesia announces the 26% of GHG reduction target by 2020 when compared with BAU scenario.
	Taiwan announces 0% increase in GHG emissions in 2025 compared with the year 2000 level.
	South Korea commit to reduce 30% of GHG emissions by 2020 compared with BAU scenario (4% decrease from the 2005 level).
	China set a target of reducing the intensity of carbon emissions per unit of GDP by 40-45% by 2020 compared to the 2005 level (8.5% reduction compared to BAU in 2020).
Malaysia announces reduction of the intensity of carbon emissions per unit of GDP in 2020 by up to 40% compared with the level.	
2010	South Korea, China, Malaysia, Indonesia wrote down the above target in the Nationally Appropriate Mitigation Actions (NAMA) and submitted to the United Nations.

Source: Author's own compilation.