

Chapter 1 Evolution of Environmental Governance in the East and Southeast Asian Region: A Historical Perspective

1. Introduction

Many developing nations in East and Southeast Asia, such as South Korea, China, Vietnam, Thailand and Indonesia were dominated by authoritarian regimes after independence. Civil society has long been repressed and has had limited impact on controlling pollution and advancing sustainable development, though the extent varies considerably among nations. International society also has exerted little influence due to the customary international law principle of sovereignty, non-intervention and non-interference. Experience of losing control over natural resources before the World War II made many East and Southeast Asian nations take a hostile attitude toward intervention to internal affairs.

Several East and Southeast Asian nations have transitioned to democratic regime since the late 1980s. South Korea and Taiwan moved to democratic regime in the late 1980s, Thailand in the early 1990s (1), and Indonesia in the late 1990s.

Rapid integration into the globalizing market and the resulting changes of economic and social systems has intensified environmental degradation with increasingly transnational implications, making it difficult for the state to address the problem on its own. Hence, the state is required to allow a variety of actors to join in and to orchestrate them to participate in environmental governance in a proper manner.

This chapter picks up major drivers to examine how they have exerted influence on East and Southeast Asian developing nations and other actors to increase their role in environmental governance.

2. Initial Driving Force: International Environmental Aid

The 1972 United Nations Conference on Human and Environment and the 1992 United Nations Conference on Environment and Development (UNCED) affected many East Asian nations in creating major environmental laws and regulations and establishing within the central government an administrative organ in charge of environmental issues. At the outset, they capitalized their authoritarian regime on establishing centralized, hierarchical, and closed administrative institutions, and to employ command-and-control policy instruments. They established government organizations in charge of the environment, “borrowed” environmental regulations and standards from industrialized nations to implement in their jurisdictions, and increased resources and delegated authority for environmental protection. International donors assisted them in creating such institutions, and implementing environmental impact assessments (EIAs), increasingly

imposed as a funding requirement (Yap, 1994). Canada, for instance, attempted to transfer knowledge and skills in EIA to Thailand and Indonesia (Eedy and Hurlen, 1994).

During 1996-2005, major international donors provided US\$116 billion as environmental aid, which the Development Assistance Committee under the Organization of Economic Co-operation and Development OECD-DAC defined as Official Development Assistance (ODA) that had the environment as its primary purpose or that had the environment as an important secondary purpose. East and Southeast Asia received a share of 38% from these funds (Figure 1-1). Japan had provided more than three quarters to this region (Figure 1-2). In line with its aid principle of "self-help," Japan allocated environmental aid in providing subsidized loans for investments in monitoring, pollution abatement technologies and infrastructure that were readily available for solving serious environmental pollution. Japan's bulk of environmental aid pushed Chinese government to implement environmental projects that had been prepared in the Ninth Five Year Environmental Protection Plan and the Trans-century Green Project Program. It also demonstrated the effectiveness of technological solutions to political elites of China (Mori, 2008). Since then, Chinese government has increased environmental investments, adopted stringent environmental regulations and enhanced local implementation (Mori, 2008). Furthermore, China has utilized the Canadian support to the China Council for International Cooperation on Environment and Development (CCICED) as a vehicle to gain intellectual capital including proposals for solving environmental issues that were of high priority to China (Imura, 2004). Moreover, it has learned experiences of environmental policies of Europe and Japan, adjusted them in the domestic context to implement. Feed-in tariff for renewable energy, Euro IV standard for regulations on automobile exhaust emissions and policies promoting "circular economy" can be referred to as such policies (Mori, 2011).

However, international donors have often faced several barriers to inducing policy changes (Keohane, 1996). First, donors often have higher concern for the environment while recipients show higher interests in economic growth. Even if recipients do show environmental concern, they often place higher priority on domestic environmental degradation than on transnational or global environmental problems for which donors have higher concern. Second, both donors and recipients seek to maximize their own benefits while shift costs to others. Donors seek to exert influence to policy change in recipients with least cost, while recipients seek to obtain maximum financial capital from donors while attempt to avoid policy change that may weaken political support. Unless both parties have at least some confidence in the other's commitment, no agreement will be reached. Even when agreements are reached, they have incentive to behave strategically. Finally, recipients do not always have sufficient techniques, analytical tools, incentives or organizational structure to decide and manage the aid effectively. Faced with these constraints, international donors gained

little, if any success in convincing East Asian nations to have stringent and effective environmental policies and implementation, even if they showed good performance at project level (see Ross, 1996). Recipients' lack of stringent policy and effective enforcement has discouraged international donors to continue environmental aid.

In addition, the authoritarian approach that East Asian nations had taken often caused the serious implementation deficits at the street level: policies made centrally are rarely sensitive to the local circumstances in which local governments operate; and the structure of administration prevents learning from being communicated up the administrative hierarchy (Dryzek, 2005: 95-96). East Asian nations, however, did not take them seriously as they placed higher priority on economic growth and did not show strong willingness to enforce nor provide enough legal authority and resources to the organizations in charge.

To overcome these barriers, together with avoid criticism over adverse environmental impacts of the assistance, the World Bank stopped financing of logging operations in old-growth forests and construction of dams and began to replace these by forest and water sector adjustment loans to promote environmental reform (Ross, 1996). The Bank recognizes the root cause of the environmental problems as the undervaluation of the environment and social institutions that regulate the use of environments and allow their use on a non-profit basis. With this logic, the Bank provided forest sector loans or emergency loans on the condition that recipients should reform forest policy to include private ownership of environmental resources, transformation of community-managed uncapped lands into transnationally regulated zones for commercial logging, pharmaceutical bio-prospecting, export-oriented cash cropping as well as megafauna preservation and eco-tourism (Goldman, 2005). It also assisted water sector reform consisting of privatization of public utilities, full cost recovery and reduction of subsidies.

Nonetheless, the effectiveness and sustainability of this intervention is under question. The Bank-imposed forest policies have seriously impacted the environment and society due to a lack of enforcement, unclear boundaries of conversion or degraded forest areas, non-transparent concession operations, and a lack of community participation in implementation and control of the resources. In Indonesia, for example, this resulted in acceleration of oil palm plantation (World Bank, 2000). The Bank-imposed water sector reform allowed multilateral private water companies to join in the recipient water sector, but they frequently violated the agreements, raised water tariffs, managed resources improperly and charged excessive connection fees and tariffs. This resulted in an increasing number of people who cannot get access to clean water, as typically appeared in Johannesburg and Manila (Flynn and Chirwa, 2005; Kluge and Scheele, 2008). Thus recipients increasingly reversed the bank-imposed policy package and/or refuse it once they recovered from balance of payment crisis (2).

In response, international donors take more indirect intervention that emphasizes community empowerment on the one hand, and emphasize policy learning and inter-linkage between policy and environmental technology on the other hand (Mori, 2011). The World Bank initiated several “innovative” environmental programs, including the eco-watch program that disclosed the rating of firms’ emission discharge, referring to the Toxic Release Inventory in the United States. It assumed that disclosure would empower stakeholders such as communities, investors, workers, and the public to exert pressure for better monitoring, and thus incentivize pollution reduction in areas where government regulation was weak (World Bank, 2000a). At the same time, the Bank replaced massive afforestation projects that had often disregarded local livelihood by community-based environmental conservation projects. Bilateral donors have also emphasized the community-based approach and allocated financial capital to nongovernmental organizations (NGOs) that are assumed to have comparative advantage in collaboration with local community and community-based environmental programs.

Germany and Denmark attempted to diffuse “innovative” environmental policy instruments and programs as a way of policy learning. Influenced at the World Summit on Sustainable Development in 2002, South Korea and Taiwan seriously implemented sustainable development strategies under the Democratic Party governments. China and Thailand adopted feed-in tariff and invited Danish and German firms to join in their market to increase the supply of renewable energy (Mori, 2011).

3. Domestic Pressure for Environmental Protection

Upsurge of the middle class resulting from industrialization, coupled with the end of the Cold War led to uncovering of people's frustration against concentrated power and political repression, and vitalized democratic movements. This, in turn, induced a widespread debate on not only the political freedom and institutional democracy, but also the empowerment of civil society and public participation in the political systems. Environmental protests that had been suppressed under authoritarian political regimes also frequently broke out.

Democratic institutions and environmental movements have placed pressure on the state to develop institutions for the environment. In Japan, democratic institutions allowed victims of environmental hazards and the media to raise their voice and to exert influence on voting, monitoring courts ensure unbiased judgment, and pressuring local governments for an effective and persuasive enforcement of environmental legislations, all of which brought a rapid reduction of industrial pollution (Mori, 2012b). South Korea implemented various types of participation mechanisms at national and local governments, ranging from advisory committees for environmental policy-making, public-private forums, reward systems for monitoring and reporting

of environmental violations as a way of enhancing environmental policy and conflict management (Jeong and Seo, 2012). Taiwan saw a court ruling that admitted procedural flaws in decision of the EIA Review Board, which led to the suspension of a large industrial development project. It also admitted public involvement in divergent forms, including representation in decision-making bodies, participation in public hearings, demonstrations, sit-ins, and litigations during the two decades of burgeoning democratization (Yeh, 2012). Thailand's democratic movement in the 1990s and the resultant 1997 Constitution supported protests against government-sponsored development projects, and opened a political window for networking among community groups (UNDP Thailand, 2003). Rising environmental awareness of the people, coupled with easier access to information through internet has also encouraged their empowerment. Even in China where democratic movement had been completely crushed in 1989, the number of protests against industrial pollution and forced land exploitations by local governments has increased recently. The State Environmental Protection Administration (SEPA) implicitly allowed central media to uncover the environmental conflicts to place pressure on local governments in charge. With the assistance from the World Bank, the SEPA implemented an eco-watch program that enables local governments to obtain, process, and disclose firms' state of emission to mobilize community to place pressure to industrial pollution, which came up with the Environmental Information Disclosure Act 2007.

However, democratization has not automatically created better institutions for the environment. There were several constraints on the part of the government namely,

- lack of sufficient political will to undertake environment-friendly policy development
- weak coordination between various ministries and agencies dealing with environmental governance
- the absence of a comprehensive national environmental policy that could be translated into effective enforcement measures
- lack of funding
- inherent vagueness of standards, partly due to the fact that "borrowed" standards were inappropriate for local circumstances
- insufficient enforcement authority of the environmental institutions (Adeel and Nakamoto, 2003: 222-223).

In addition, most of the nations have not adequately ensured pluralistic, participatory environmental decision-making, access to information, and justice in a transition from authoritarian to democratic government (Mori, 2012a). This shortcoming, coupled with a growth-oriented

strategy, has allowed states to initiate development projects that disregarded their environmental implications. In Japan, local governments, major driving forces for stringent environmental regulations and effective enforcement in the 1970s, turned their attitudes in the 1980s to cooperate with the central government to obtain subsidy for attracting industrial plants and tourism industry (Mori, 2012b). This accelerated development projects and environmental degradation accordingly. It was not until the Japanese government faced a severe fiscal deficit and fierce local protests that it seriously started to take environmental benefits and costs into account in appraising development projects.

In Taiwan, people distrust courts and the law due to the lack of a sound legal system of environmental liability and the notorious history of the courts under the authoritarian regime—where courts were more like a tool of suppression than a way to realize justice (Yeh, 2012). As a result, various protests and environmental movements preferred out of court political deals. In Thailand, industries and business took over the power from military governments in the democratization process, and the most democratic constitution in its history was enacted in 1997 and valid until 2006, when the Thaksin administration was toppled in a military coup. Nonetheless, the state has promoted environmental conservation as far as it is in conformity with their interests. Industrial afforestation is promoted, as a means of watershed and flood protection and seeking profits, while local communities relying on forests for their livelihood have not acquired the right to protect forest (Mori, 2003). Environmental impact assessment procedure has often been ignored or implemented only after projects had already started.

Recent globalization, coupled with liberalization and privatization has increased competitive pressures of capital accumulation while shrinking the political autonomy, legitimacy and function of the state. This has significant implications to domestic environmental governance. On the one hand, it has accelerated exploitation of environment and natural resources. In Indonesia, democratization and local autonomy delegated regencies (*kabupaten*) and municipalities (*kota*) authority to issue permission on development and share revenue from resource exploitation. This institutional rearrangement, coupled with the World Bank forest sector loan that required removal of entry barriers for foreign companies, has motivated resource-rich local governments to excessively issue logging concessions and permissions for forest conversion for palm oil plantations, and has helped development projects that would negatively impact the natural environment and local society. Yet the central government has no more authority to prevent such negative impacts. Complex and lengthy procedure and limited standing of an environmental case constrain the role of court ruling (Mori, 2004).

Globalization has also had significant impacts the transition economies of China and Vietnam. Increased amount of FDI became an engine of economic growth while a source of environmental

degradation at the same time. The accession to the World Trade Organization (WTO) accelerates decline in the share of state enterprises, modernization of industrial plants and change in the industrial structure, which reduces environmental pollutions and opened the door for states to a wide range of new market-based policy approaches.

4. Regional Integration and Environmental Governance

Increasing international division of labor and the movement toward market integration in the East Asian region can have both positive and negative impacts on the environment. On the one hand, market pressure may trigger regulatory competition, leading to a “race to the bottom” in terms of social and environmental standards to attract firms. On the other hand, the quest for international competitiveness may push efficient use of resources and reduced emission of exhaust gases and waste from firms. Firms may urge the state to implement more stringent regulation to take advantage in the international market. States are increasingly adopting more stringent standards of their richer and green trading partners, and even compete to implement innovative environmental policy domestically and put it forward to higher level of governance to gain a first mover advantage (Vogel, 1997).

Referring to the EU experience, there are several preconditions for market integration to work as a driving force of upward harmonization of environmental policies. First, the region has a shared understanding of environmental protection. The EU described provisions on environmental protection in the EU Constitutions in 1997 to share the precautionary principle, with pressures from then newly accessed Northern European nations that had already implemented more stringent environmental policies (Mori, 2012c). This led to the directives and regulations based on this principle, as well as to the initiatives toward environmental policy integration.

Second, there should be a high level of political commitment to market integration, which enables a nation to delegate part of their national sovereignty to regional decisions. Negotiation will fail when a nation requires too many provisions on special treatments, and/or if it pursues a drop of competitiveness of the rivals in the region in the process.

Third, market integration provides economic gains to participant nations large enough to cover the increased cost of, for example, compliance with environmental regulations. Central and East European (CEE) states accepted the *Acquis* to access to the EU, hoping that they could gain larger economic gains. The EU has extensively used the Cohesion Fund to financially support CEE states to comply with all the requirements in the *Acquis*, including environmental requirements, which rendered to avoid weakening environmental regime as well (Homeyer, 2005).

The Asian economic crisis triggered a cognitive change by reinforcing the perceived impact of the regional environmental disaster and the sense of vulnerability of many Southeast Asian nations.

Many nations became less tolerant of regional environmental impacts. This induced a number of initiatives and frameworks, including the ASEAN Agreement on Transboundary Haze Pollution and the Acid Deposition Monitoring Network in East Asia (EANET) (chapter 12 in this volume).

However, there are too many regional environmental initiatives and frameworks that are overlapping and ineffective in implementation. Nations that suffered from damages have competed to propose regional environmental initiatives and frameworks to protect themselves from damages, with little consideration to reciprocal benefits. They failed to reach a common understanding and share environmental norms to solve the problem.

In addition, there is no serious political commitment to regional market integration except among ASEAN. Although the Asian economic crisis motivated East Asian nations to employ regional approaches as a way of crisis management, China, together with the United States fiercely opposed Japan's proposal to establish an Asian Monetary Fund (AMF), bringing a much weaker institution of the Chiang Mai Initiative that arranged multilateral currency swap among ASEAN, China, Japan and South Korea. Instead, each nation has sought for trade agreements for its own benefit, without regard to negative economic implications to their rivals. This is especially true of South Korea that actively initiated free trade agreements (FTAs) with ASEAN, EU and the United States. Unlike the North American Free Trade Agreements (NAFTA) and EU-ACP Economic Partnership Agreements, it has rarely incorporated environmental provisions into the agreement. China has been responsive to regional FTA after accession to the World Trade Organization while seeking for stronger ties with Europe as an export market and with the Middle East and Africa to secure energy and other resources. On contrast, South Korea, China and Japan have only made a snail progress toward the tripartite free trade agreement despite potentially large economic and environmental gains from increased production and resource efficiency (chapter 10 in the volume).

All of these factors led to the collapse of the regional environmental regime and failure of the upward harmonization of environmental policy in the region.

5. Domestic Responses to the Global Climate Regime

International governance institutions had been ineffective in environmental protection, because of East Asian states' priority on industrial development, their strong perception against unduly imposition of a "Western" ethic, and adverse impacts of compliance on their economy (Adeel and Nakamoto, 2003). This was the case in international climate change negotiations and the formulation of climate change policy, due to insufficient capacity and skeptical attitude toward climate change. With the exception of Japan, East Asian nations have no obligation to reduce greenhouse gas (GHG) emissions.

Nonetheless, the global climate regime has changed the environmental norm, interest, and cost

and benefit profile in the East Asian nations. After the Marrakech Accord had described the modality, procedures and guidelines for Clean Development Mechanism (CDM), East Asian nations have gradually sought opportunities to gain windfall financial benefits and to obtain advanced environmental technologies from industrialized nations. These benefits encouraged many East Asian nations to ratify the Kyoto Protocol. As time passed, the number of UN-approved CDM projects to gain CERs has dramatically increased in major East Asian nations during the period of 2007-2011 (Table 1-1). The Chinese government has gained considerable windfall revenue by imposing higher levy to the HFC-23 reduction and N₂O decomposition projects, both of which generate larger CERs with cheaper costs. Although the forest sector has received the least CDM projects, prevention of land use change is likely to bring financial capital under the Reducing Emissions from Deforestation and Forest Degradation (REDD) in developing countries. The United Nations has set up a pilot REDD Program to provide funds to those partner countries whose national programs are approved, including Indonesia, Vietnam, Philippines and Cambodia.

One of the outstanding feature of the climate regime is that CDM and REDD is changing cost and benefit profile at local level. Under the existing regional and global environmental regime, the cost of environmental protection is often imposed on local communities with little compensation, which causes severe conflict and nullifies the effectiveness of the regime. CDM and REDD, by their mandate of contributing to sustainable development, allows local actors to improve their livelihood. An approval of unilateral CDM projects at the UN, in which host nations develop carbon reduction projects with local technology to find out foreign partners that merely purchase CERs, enabled local actors to reflect local needs and to gain from projects, enhancing the sense of ownership. Methane recovery from livestock, for example, can provide multiple gains to farmers, ranging from reduction of chemical fertilizer and fossil fuel consumption, improvement of inner air quality and water quality nearby, to additional revenue from CERs.

This change in cost and benefit profile at local level, in turn, makes it easier for a state to make a firm commitment to environmental regime. Increased sense of ownership and economic gains enables East and Southeast Asian states to save cost of monitoring and enforcement, reducing the risk of non-compliance with the international commitment. The interaction between GHG emission and acid rain and/or haze and forest fire convinced the Indonesian government to create a national climate change action plan in 2007, which set out targets for reduction of forest fire hot spots by 75% in 2012 and by 95% in 2025.

The upsurge of the debate over the post-2012 framework has brought the global environmental norm to East Asian nations. While the international climate regime failed to conclude binding agreement on GHG emissions reduction after 2012, many East Asian nations submitted the Nationally Appropriate Mitigation Actions (NAMA) that shows GHG emissions reduction targets

by 2020 to the United Nations. Despite its voluntary nature, East Asian nations have implemented a variety of policies to attain this target, taking future international negotiations into account. They initiated fiscal stimulus in the name of green new deal, provided subsidy for consumers to purchase energy-efficient electric appliances and automobiles, and increased government spending for high-speed trains and renewable energies. South Korea, China and Taiwan implemented a feed-in-tariff for renewable energy, though South Korea turned it into a renewable portfolio system in 2012. Indonesia cut its fuel subsidy in 2004 and 2008 as a means of both reducing fiscal deficit and carbon emission. These serious actions may lead to East Asian regional policy such as an emission trading scheme, an East Asian counterpart of EU-ETS, as a way of efficient reduction of GHG emissions.

Their cognitive changes in part have intensified linkage between climate actions and nuclear power at the same time, generating controversy. The governments of South Korea, China and Taiwan, and Japan have accelerated the process of installing new plants to reduce carbon emissions from fossil fuel-fired power plants, and to satisfy the increasing demand for energy at the same time. The Fukushima nuclear accident dramatically reduced the credibility of nuclear safety claims and rendered it difficult for Japan to operate the existing nuclear plants, let alone to find suitable locations for new ones. This prompted the Japanese government to implement a feed-in-tariff system for renewable energy, time-of-day power pricing and carbon-energy taxation, while compromising its commitment to the GHG emissions reduction by 25% by 2020. China, which shelved its plans for new nuclear power plants after the Fukushima accident, has recently started new projects.

6. Hybrid System in Environmental Governance

Faced with decreasing influence of international environment aid and shortfall of regional and global environmental regimes to provide effective environmental governance, an expectation rises that there are circumstances under which private sector can become a part of the solution. To the extent that the Porter Hypothesis holds true, private firms that take an early action to stringent environmental regulation will gain financial profit and enhance their international competitiveness in the global market at least in the short run. In addition, the global convergence of standards and regulations will widen the market of technologies (Jacob et al, 2005). Leading companies may have ample incentives to work with the government to diffuse their “innovative” standards and regulations worldwide to explore the market for their technologies and products. Export-oriented firms and transnational corporations abide by more stringent standards and regulations in the export markets to increase export. Product-oriented regulations, such as the EU Regulation on Hazardous Substances (ROHS) and the Registration, Evaluation, Authorization and Restriction of Chemicals

(REACH) have shown to impact the supply chain of the products, thus forcing all the firms along the supply chain of a product to change materials and processes even in East Asia.

States have an incentive to emulate or refer to other nations' successful policies when faced with uncertain policy alternatives in order to legitimize it and bring about a preferred outcome. Given the information gap between states and firms, states rely increasingly on knowledge of the private sector, including transnational corporations, in determining standards and regulations. However, states adopt policies and measures only when they are consistent with the domestic political, economical and social contexts (Tews, 2003). They tend to avoid adopting actions that may bring significant distributional impacts, as exemplified by the snail-paced progress of renewable energy diffusion policy in Japan and the wastewater fee in Thailand.

Civil society and environmental NGOs can serve as transnational channels of communication through which information on policies in other political constituencies can be communicated. They have expanded their transnational network to collaborate with their counterparts in developing nations, to provide intellectual capital and to support their empowerment. Many East Asian states have long suppressed NGOs and their activities on the grounds that these may deter state development projects, cause social unrest and ultimately spur anti-government movements. However, democratization has opened new spaces for creating such transnational channels of communication. Even China, where an authoritarian regime still dominates, the state allows transnational networking of civil society and environmental NGOs as long as it can serve to complement intellectual capital and enforcement of the national and local governments.

7. Concluding Remarks

We can map out the findings of this chapter on the evolution of environmental governance in the East Asian region depicted in Figure 1-3a, 1-3b, and 1-3c. By the late 1980s when authoritarian states sought development to legitimize their regime, and kept the principle of sovereignty, non-intervention and non-interference, international environmental conferences and foreign aid were the only way of influencing norms and interests of political elites. Democratization, and environmental protests that followed by prompted political and economic elites to recognize that the state should have environmental institutions (Figure 1-3a).

In the Asian economic crisis in the late 1990s, political and economic elites perceived the sense of vulnerability in economic and ecological terms, and sought for regional cooperation as a form of crisis management. Severe ecological damages made them perceive the importance of environmental norms, but they intensified export-oriented growth strategy as a way of overcoming economic vulnerability. Regional environmental initiatives and frameworks did not always address the underlying causes of the problem, while they made China and Indonesia perceive the huge

amount of compliance costs that accrued to a large number of heterogeneous emitters. Coupled with overlapping roles and ineffectiveness, and historical mutual distrust among neighboring nations, these initiatives and frameworks failed to bring effective outcomes (Figure 1-3b).

Climate regime has helped overcome this logic of state sovereignty partly because it is perceived as a global environmental norm that accepted common but differentiated responsibility, and partly because new financial mechanisms have changed the cost structure both at national and local level. This has made it easier to approach the underlying causes of the problem. Private sector actors and civil society increasingly command a significant place as both transnational channels of communication and driving forces of more stringent and effective environmental policy. While the practices of state-over-society remains to a varied extent, the hybrid environmental governance system has become more prominent in East Asia as depicted in Figure 1-3c.

The jury is still out on the question whether the evolution of environmental governance can change the course and mode of economic development in the East Asian region. The following chapters will go in more detail to see how each constituent of multi-level environmental governance in the East Asian region has rendered the change.

Note

1. Thailand is unique in that it experienced the first election in 1933 while has been mostly governed by military-dominated regimes by 1994.
2. Uprisings against water privatization in 2000 forced contracts with private company terminated in Cochabamba and La Paz/El Alto in Bolivia. Consumer groups' pressures pushed Jakarta government to refuse raising water tariff, which led to the exit of Thames Water and Suez from the private water supply in Jakarta, Indonesia.

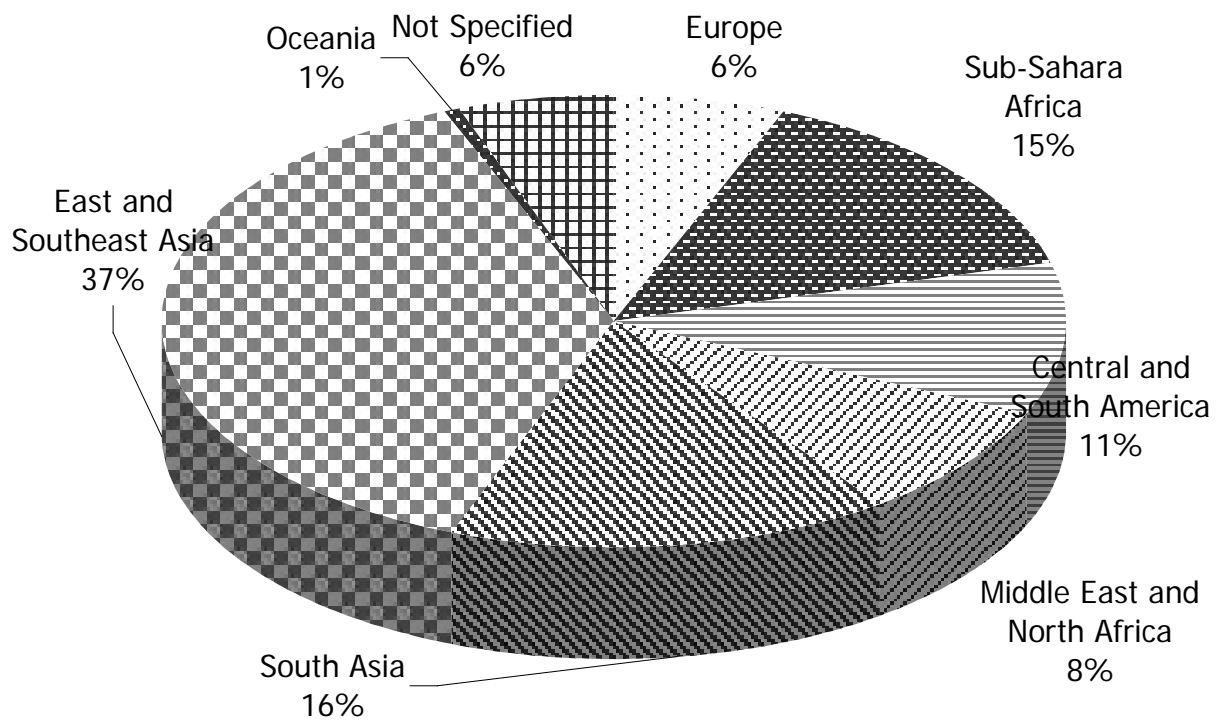
References

- Adeel, Z. and N. Nakamoto (2003) "The future of environmental governance in East Asia," Adeel, Z. (ed.), East Asian Experience in Environmental Governance: Response in a Rapidly Developing Region, Tokyo: United Nations University Press, 217-232.
- Dryzek, J.S. (2005) The Politics of the Earth: Environmental discourses. 2nd edition. Oxford: Oxford University Press.
- Eedy, W. and L. Hurlen (1994) "Managing tropical forest development: Technology transfer in environmental assessment," in Goodland, R. and V. Edmundson (eds.), Environmental Assessment and Development, Washington DC: The World Bank, 48-53.
- Flynn, S and DM Chirwa (2005). "The constitutional implications of commercializing water in South Africa," in McDonald, David A., and Greng Ruiters (eds.), The Age of Commodity:

- Water Privatization in Southern Africa, London: Earthscan, 59-76.
- Goldman, M. (2005) Imperial Nature: The World Bank and Struggles of Social Justice in the Age of Globalization, New Haven: Yale University Press.
- Homeyer, I. (2005) “Differential effects of enlargement on EU environmental governance,” in Carmin, J. and S.D. VanDeveer (eds.), EU Enlargement and the Environment: Institutional Change and Environmental Policy in Central and Eastern Europe, London: Routledge, 52-76.
- Institute for Global Environmental Strategies (2011) IGES CDM project database, Update on August 2011, http://www.iges.or.jp/en/cdm/report_cdm.html
- Institute for Global Environmental Strategies (2011) IGES CDM project database, Update on August 2011, http://www.iges.or.jp/en/cdm/report_cdm.html
- Imura, H. (2004) “Japanese cooperation to China’s environmental problems,” in Research Group on Environmental Problems in China (eds), Handbook of Chinese Environment 2005-2006. Tokyo: Sousousha: 69-76. (in Japanese)
- Jacob, K. et al (2005) Lead Markets for Environmental Innovations, New York: Physica-Verlag Heidelberg.
- Jeong, H.S. and W.J. Seo (2012) “Democratization, decentralization, and environmental governance in Korea,” in Mori A. (ed.), Democratization, Decentralization and Environmental Governance in Asia, Kyoto: Kyoto University Press, 52-71.
- Keohane, R.O. (1996) “Analyzing the effectiveness of international environmental institutions,” in Keohane R.O. and M.A. Levy (eds.), Institutions for Environmental Aid. Cambridge: The MIT Press: 3-27.
- Kluge, T and U Scheele (2008). “Private sector participation in water supply and sanitation: A contribution to attaining the Millennium Development Goals or merely the export of old solutions?,” in Scheumann, Waltina, Susanne Neubert and Martin Kipping (eds.), Water Politics and Development Cooperation: Local Power Plays and Global Governance. Berlin: Springer-Verlag. 205-226
- Mori, A. (2003) “Kingdom of Thailand,” in Japan Environmental Council (ed.), The State of the Environment in Asia 2002/2003, Tokyo: Springer: 183-188.
- Mori, A. (2004) “Impact of decentralization on the environmental management of central government and regions: An analysis in view of capacity, incentive and long-term commitment,” in Mori, A (ed.), Impact of Decentralization on Local Environmental Management in Indonesia: A Case Study of Semarang, Research Report for International Collaboration Research of the Heiwa Nakajima Foundation for 2003, 43-68.
- Mori, A. (2008) “Impacts of Japanese environmental ODA loan on environmental policy and institution in China,” in Mori, A., K. Ueta and H. Yamamoto (eds.), Environmental Policy in

- China: Current State, Policy Evaluation and Environmental Aid, Kyoto: Kyoto University Press, 305-328. (in Japanese)
- Mori, A. (2011) “Overcoming barriers to effective environmental aid: A comparison between Japan, Germany, Denmark, and the World Bank,” Journal of Environment and Development 20 (1): 3-26.
- Mori, A. (2012a) “Democratization, Decentralization and Environmental Governance in East Asia: An Introduction,” in Mori A. (ed.), Democratization, Decentralization and Environmental Governance in Asia, Kyoto: Kyoto University Press, 1-25.
- Mori, A. (2012b) “Development and environmental policy under Neo-corporatism: Slow progress toward pluralistic decision-making in Japan,” in Mori A. (ed.), Democratization, Decentralization and Environmental Governance in Asia, Kyoto: Kyoto University Press, 26-51.
- Mori, A. (2012c) “Development and challenges of environmental policy integration in EU and member states,” in Mori A. et al, Environmental Policy Integration and Changing Course of Economic Development in East Asia, Final Research Report Submitted to Ministry of Japan, 46-72. (in Japanese)
- OECD-DAC (2008) International Development Finance 2008 CD-ROM.
- Ross, M (1996) “Conditionality and logging reform in the tropics,” in Keohane, R.O. and M.A. Levy (eds.), Institutions for Environmental Aid, Cambridge: The MIT Press, 167-197.
- Tews, K., P.O. Busch and H. Jörgens (2003) “Diffusion of new environmental policy instruments,” European Journal of Political Research 42, 569-600.
- UNDP Thailand (2003) Thailand Human Development Report 2003, Bangkok.
- Vogel, D (1997) “Trading up and governing across: Transnational governance and environmental protection,” Journal of European Public Policy 4(4): 556-571.
- World Bank (2000) Indonesia: The Challenges of World Bank Involvement in Forests, Washington DC: The World Bank.
- Yap, N.T. (1994) “Environmental assessment: The process in Thailand and Canada,” in Goodland, R. and V. Edmundson (eds.), Environmental Assessment and Development, Washington DC: The World Bank, 35-47.
- Yeh, J.R. (2012) “Transitional environmentalism: Democratic institutions, courts, and civil society in Taiwan,” in Mori A. (ed.), Democratization, Decentralization and Environmental Governance in Asia, Kyoto: Kyoto University Press, 86-103.

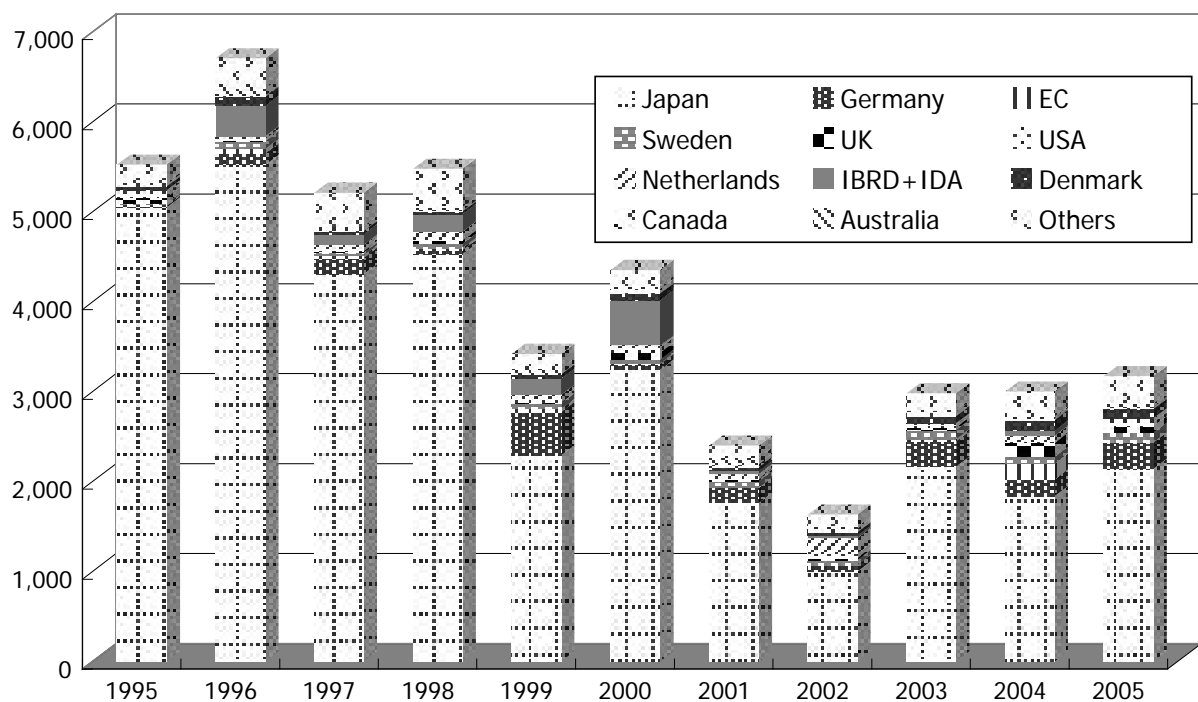
Figure 1-1 Commitment Amount of Environmental ODA by Region, 1995-2005



Source: Calculated based on OECD-DAC (2008).

Figure 1-2 Commitment Amount of Environmental ODA to East and Southeast Asia by Donor, 1995-2005

Unit: US\$ billion



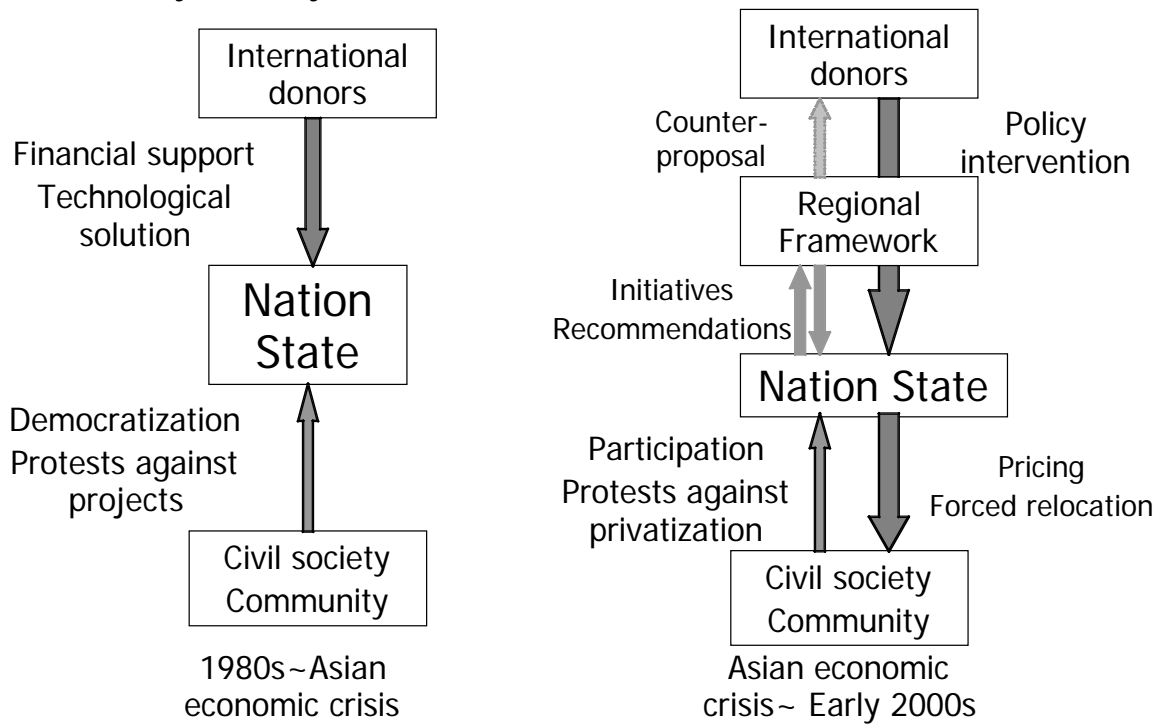
Source: OECD-DAC (2008) cited in Mori (2011)

Table 1-1 CDM projects by Host Country, as of August 2007 and August 2011

Host country	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)
China	104	426,844,851	1,677	1,276,789,502
India	267	187,131,906	785	303,439,082
Brazil	104	107,087,357	228	155,120,391
Mexico	89	39,955,799	142	60,014,194
Malaysia	16	11,463,346	108	29,450,220
Indonesia	9	10,773,936	74	29,020,424
Vietnam	2	6,814,760	74	14,122,586
South Korea	14	86,408,037	67	107,781,322
Philippines	10	1,938,201	58	8,550,644
Thailand	3	3,972,525	57	14,176,566
Chile	19	19,451,374	55	32,111,780
Colombia	6	2,925,827	34	16,336,478
Argentina	10	26,308,586	25	36,806,341
South Africa	10	12,332,795	20	16,656,766
Nigeria	1	10,525,546	5	20,315,925
Others	93	70,422,035	293	2,437,133,524
Total	757	1,024,356,881	3,702	4,557,825,744

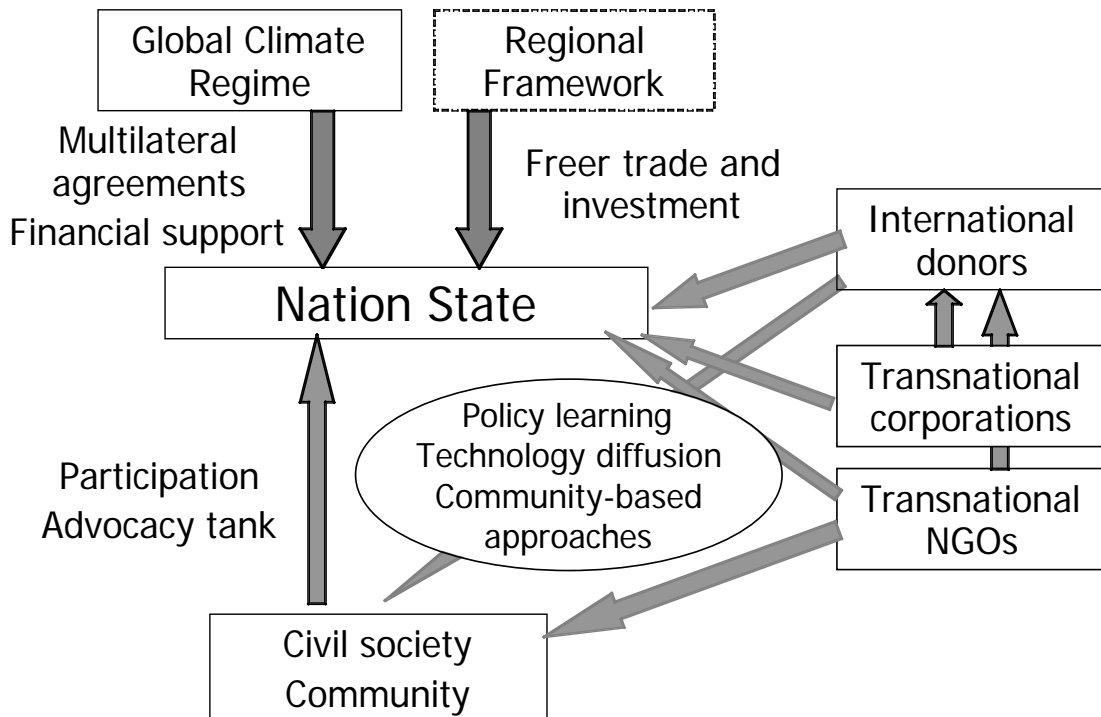
Source: Author calculation based on Institute for Global Environmental Strategies (2007, 2011).

Figure 1-3a and 1-3b Environmental Governance in East and Southeast Asian Nations by the mid-1990s and by the early 2000s



Source: author.

Figure 1-3c Environmental Governance in East and Southeast Asian Nations after the mid-2000s



Source: author.