Ritsumeikan Center for Asia Pacific Studies

RCAPS

RCAPS Working Paper Series

RWP-16001

China and Institution-Building for Environmental and Energy Cooperation in East Asia

July 20, 2016

Hidetaka Yoshimatsu
College of Asia Pacific Studies,
Ritsumeikan Asia Pacific University, Japan
&
Xuepeng Qian
College of Asia Pacific Studies,
Ritsumeikan Asia Pacific University, Japan

Ritsumeikan Center for Asia Pacific Studies (RCAPS)
Ritsumeikan Asia Pacific University (APU)
URL: http://www.apu.ac.jp/rcaps/

China and Institution-Building for Environmental and Energy Cooperation in East Asia

Hidetaka Yoshimatsu

College of Asia Pacific Studies,

Ritsumeikan Asia Pacific University, Japan

&

Xuepeng Qian

College of Asia Pacific Studies,

Ritsumeikan Asia Pacific University, Japan

China and Institution-Building for Environmental and Energy Cooperation in East Asia

Abstract: The main interest of this article is to address what factors have influenced China's devotion to institution-building for regional cooperation in East Asia. In addressing this question, it relies on a two-dimension framework comprised of the objective and formation of foreign policy. This article argues that regional institution-building for promoting environmental and energy cooperation in East Asia has not proceeded smoothly largely due to China's passive commitment, and that China's passive engagement in the regional institution-building derived from a policy objective of giving priority to domestic economic development and fragmented domestic administrative systems, which limited the ability of key administrative agencies to act in a concerted way with their counterparts in other countries.

Keywords: environment, air pollution, energy, institution-building, EANET, ASEAN+3

Introduction

For a long time, initiatives and projects for regional cooperation in East Asia stayed in a preliminary stage especially compared with Europe where regionalist ideas and projects have been advanced for more than half a century. The East Asian countries, which have a strong propensity to pay respect to maintaining sovereignty and domestic regime autonomy, have found a great difficulty in coordinating their myopic, individual interests for achieving far-reaching, collective interests. In the new millennium, however, the countries in East Asia intensified their efforts to promote regional cooperation in the expanding issue-areas and engage in the building of cooperative institutions.

In promoting institution-building in East Asia, particularly important is commitments of China. China has maintained a strong political presence as a permanent member of UN Security Council and a leader of the third world. Moreover, the country had developed as a preponderant economic power superseding Japan as the world's second largest economy in 2010. Given China's prominent political influence and economic capabilities, any attempts to create and develop institutions for regional

cooperation in East Asia are unable to achieve their original objectives without China's dedication.

The main interest of this article is to address what factors have influenced China's devotion to institution-building for functional cooperation in East Asia. In addressing this question, it relies on a two-dimension framework comprised of the objective and formation of foreign policy. The key assertion of this article is three-fold. First, regional institution-building for promoting environmental and energy cooperation in East Asia has not proceeded smoothly largely due to China's passive commitment. Second, China's passive engagement in the regional institution-building derived from a policy objective of giving priority to domestic economic development. Third, China's commitment was also hindered by fragmented domestic administrative systems, which limited the ability of key administrative agencies to act in a concerted way with their counterparts in other countries. Before delving into two empirical cases, the following section presents an analytical framework for this study.

The Objectives and Formation of Foreign Policy

Given growing Chinese political influence and economic presence, an increasing number of scholars have undertaken research on China's commitments to regional cooperation in East Asia. Some research has explored why China has interested in regional cooperation in East Asia. Xiao (2009) holds that China has made efforts to maintain and upgrade a harmonious and constructive relationship with its neighbouring countries especially with ASEAN. Zhao (2011) argues that China's regional cooperation in the economic and security fields derived from its calculation of domestic interest to create a peaceful peripheral environment for its economic growth and political stability as well as strategic calculation to enhance its position vis-à-vis Japan and the United States. Other scholars have analysed the form and influence of China's cooperation with East Asia. Garver (2006) examines China's engagement in transport development in Asia. Other studies have examined China's commitments to major regional institutions such as ASEAN+3 and ARF.

As China's external policies and relations have attracted growing academic interests, quite a few scholars have analysed them by focusing on domestic sources of

foreign policy. These studies have raised various domestic elements such as regime preservation, economic prosperity, and domestic policymaking as factors influencing China's external policy and relations (Wang, 2005; Lai, 2010). This study seeks to extend values and implications of research on domestic sources of Chinese foreign policy in the context of regional cooperation in East Asia.

In analysing China's East Asian policy from the domestic-politics angle, this article sets up a framework in terms of the objective and formation of foreign policy. The foreign policy is a crucial means for a state to maintain and enhance the national interest under the given international environments. In this respect, Holsti's conceptualisation of foreign policy objectives is useful for articulating the substance of the national interest. Holsti, who was dissatisfied with ambiguous nature of the term, national interest, presented the hierarchy of foreign policy objectives: core interests and values, middle-range goals, and long-range goals (Holsti, 1972, ch.5). Core interests and values can be described as those kinds of goals for which most people are willing to make ultimate sacrifices, and are related to the self-preservation of a political unit. The core interests and value ultimately aim 'to ensure the sovereignty and independence of the home territory and to perpetuate a particular political, social and economic system based on that territory' (Nieuwkerk, 2005, p.95). Holsti identifies three kinds of middle-range goals: responses to public and private demands through international actions, the increase of a state's prestige in the international system, and many different forms of self-extension or imperialism.[1]

A state's commitment to regional institutions is generally relevant to middle-range goals to promote private business interests or increase prestige in the international system except for cases when such institutions have strong constraints on state behaviour in the security field. However, China's distinctive political regime makes commitments to regional institutions more complicated in terms of foreign policy goals. The People's Republic of China has, since its foundation in 1949, advanced state construction under the single party dominance by the Chinese Communist Party (CCP). Under the party-state dominance system, 'the CCP's insecurity has been translated, through its organizations and propaganda, to be the "national interests" of rising Chinese power' (Wang, 2005, p.26). The CCP's legitimacy as China's single ruling

party is largely based on the effective management of domestic economic affairs. The party is gambling that the building of an economically prosperous society will literally buy its legitimacy in the eye of the Chinese people and that most citizens will care little about the CCP's political monopoly and democracy as long as their material lives continue to improve (Wang, 2005, pp.32-35). In other words, slow economic growth will be likely to provoke social uprisings and political backlashes, undermining the credibility of a slogan that 'China can only develop well under CCP leadership'. Accordingly, the Chinese policymakers need to formulate foreign policy that will be conducive to steady growth of the domestic economy and industry.

In the context of regional institution-building, Chinese policymakers seek to take advantage of regional institutions as a means to maintain a stable and predictable regional environment, which constitutes a prerequisite for the Chinese authorities to concentrate on domestic economic development. On the one hand, Chinese policymakers seek to draw benefits from regional institutions for domestic economic development including the acceleration of domestic economic reforms (Liu, 2012). On the other hand, they attempt to avoid a negative influence that the development of regional institutions might bring about on the domestic economy and society. Thus, China pursues the mixture of core interests and middle-range gaols in committing to regional institution-building.

Even if political leaders set up viable foreign policy objectives, the attainment of such objectives is heavily dependent of the successful formation of tangible policies to attain such objectives. In China, the state-party dominance has created the statist policymaking in which the state has played the dominant role in formulating public policies for every segment of the society. Despite growing pressure on pluralisation in the society, the party-state regime still retains the top-down governance system to manage political, economic and social affairs partly by institutionalising the pluralistic society as a means to respond to its rising interests and demands (Dickson, 2008). Equally important is that under the top-down political system, policymaking authority is disjointed and fragmented among plural government agencies that formulate and implement concrete policies. Under the so-called 'fragmented authoritarianism', central bureaucratic actors pursue consensus-building, often trying to draw positive support of

at least one key leader of the CCP (particularly the Standing Committee of the Politoburo). The policy development is achieved through incremental change in competition and coordination among plural bureaucratic agencies with duplicated mandate (Lieberthal & Oksenberg, 1988; Lieberthal, 1992). As a consequence of fragmented nature, China's policymaking structure lacks the key unified sense of purpose and the unified governance system, with contradictory juxtapositions of autonomy and clientelism, multiple centres of power as well as political and economic rivalry (Andrews-Speed, 2012, p.124). The fragmented decision-making system is likely to be a crucial constraint when a Chinese administrative agency commits itself to specific issues for promoting regional institution-building.

In advancing regional cooperation, specific government agencies in China engage in multilateral talks on developing regional institutions with their counterparts in other countries. However, these agencies are required to obtain an accord from key figures in the leadership on a new policy initiative and undertake intensive bargaining with other administrative bodies to determine basic postures towards the purposes of regional cooperation and proceed with tangible policies to realise them.

In summary, this article examines China's commitments to regional institution-building in East Asia with the following framework. The objective of foreign policy is directed towards maintaining the political legitimacy of the CCP leaders, and the political legitimacy is sustained by steady economic growth and the establishment of international prestige in East Asia. The formation of foreign policy is constrained by fragmented authoritarianism in which plural government agencies undertake incremental bargaining to formulate and implement foreign policy.

China has been a key player in promoting regional institution-building, and its positive commitments became a driver of regional economic cooperation. While financial cooperation in East Asia, which led to the launch of the Chiang Mai Initiative Multilateralisation (CMIM) in 2010, was sustained by China's positive involvements, the Regional Comprehensive Economic Partnership (RCEP) – a 16-nation free trade agreement (FTA) in East Asia – was first triggered by China-initiated proposal to consider the formation of a regional FTA in 2011 (Jiang, 2010; Fukunaga, 2015). This study expands the past research by choosing two cases that have contrasting outcomes.

The first case is relevant to environmental cooperation. In East Asia, there is a regional institution that has a 15-year history of existence with relatively solid administrative bodies and substantial activities: the Acid Deposition Monitoring Network in East Asia (EANET). EANET was launched in 2001 among 13 countries in East Asia in order to resolve transboundary air pollution problems in the region, and successfully formulated the Instrument of EANET in 2010. The second case is relevant to energy cooperation under the ASEAN+3 framework. The ASEAN+3 energy cooperation began in 2003, and concrete projects for energy security have been advanced through dialogues at forums targeting specific policy issues such as oil stockpiling, energy security, and oil market. While member countries formulated the oil stockpiling roadmap, its activities have been generally stagnated. In the following two sections, we will examine China's presence and role in the process of advancing regional institutions in these two fields.

Developing an Institution for Managing Air Pollution

The road from EANET to the EANET Instrument

As East Asia as a region achieved rapid industrialisation, an increasing risk regarding the excess atmospheric deposition of acidic substances was recognised among government officials, scientists and environmental activists. In order to take concrete actions to meet such a risk, the first expert meeting took place in October 1993 in Japan to discuss transboundary air pollution problems, and three subsequent expert meetings were organised between 1995 and 1997. Government officials and scientists from ten countries in East Asia discussed the state of acid deposition, effects on ecosystems, and future steps towards regional cooperation, and reached an agreement on the necessity of establishing a regional monitoring network with standardised monitoring methods and analytical techniques.

On the basis of shared recognition formed through the four expert meetings, the first intergovernmental (IG) meeting of the Acid Deposition Monitoring Network in East Asia (EANET) was organised in March 1998 in Japan. The government representatives from ten countries – Japan, China, South Korea, Mongolia, Russia, Indonesia, Malaysia, the Philippines, Thailand, and Vietnam – discussed the tentative Design of EANET and agreed to start the preparatory-phase activities of EANET from

the following month to 2000. At the second IG meeting in October 2000, participants issued the Joint Announcement on the Implementation of EANET, which contained three objectives of EANET: to create a common understanding of the state of acid deposition problems in East Asia; to provide useful inputs for decision-making at the local, national and regional levels; and to contribute to cooperation on issues pertinent to acid deposition among the participating countries. It also evaluated that the preparatory phase ended successfully, and decided to begin the regular-phase activities of EANET from 2001. The two pillars of the activities were to implement the monitoring of wet and dry depositions and those impacts on soil, vegetation and inland aquatic environments by using common methodologies, and to promote quality assurance and quality control (QA/QC) activities for gaining high quality monitoring data. At the third IG meeting in November 2001, participants adopted the Rules of Procedure for EANET, which addressed rules for admission and withdrawal, sessions of the IG meeting, and relevant bodies. Moreover, the first meeting of the Scientific Advisory Committee (SAC) was organised in the same month. By that time, the network's institutional framework was established with four main bodies: the IG meeting as the decision-making body, the SAC, the Secretariat, and the Network Centre that provides member governments with scientific and technical support.[2]

After the start of the regular phase in 2001, EANET produced cooperative results on several fields. The number of participants increased from 10 in 2000 to 13 by 2005 with three new members being accepted from Southeast Asia.[3] The number of monitoring sites increased from 69 (38 wet deposition and 31 dry deposition) in 2001 to 94 (52 wet deposition and 42 dry deposition) by 2008. High-quality data sets were developed through the implementation of QA/QC activities at the national level and under the Inter-laboratory Comparison Project schemes.[4]

There were two challenges that EANET had to meet to consolidate its foundation as a fully-fledged institution. The first was the sharing of financial burdens among participating countries. The management and activities of EANET were financially supported by one country, Japan. In order to develop EANET as an equitable regional institution, it was necessary to establish a system to share necessary costs among participating countries. At the fifth IG meeting in 2003, participants reached a common

agreement on the financial issue to 'make effort on a voluntary basis to contribute to the budget to be directly spent by the Secretariat using fully the latest UN assessment scale-based burden sharing' from the 2005 budget.[5] The second and related challenge was the adoption of a foundation document of EANET. EANET began practical activities in 2001 and its operation was based on the Tentative Design of EANET. The network did not have a formal official document stipulating the principles, the scope of activities, and the functions of administrative organs. A foundation document that would clarify the legal status of EANET was also necessary for drawing financial contributions from participating governments. At the seventh IG meeting in 2005 in Niigata, participants adopted the Niigata Decision, which decided that participating countries 'should begin a process to discuss an appropriate instrument and legal status to provide a sound basis for financial contribution to EANET'.[6] The result of discussions would be reported to the tenth IG meeting in 2008.

Discussions on a foundation document of EANET were confronted with great difficulty due to the members' diverse views on legal status, the scope of substances, and the scope of activities. The issue of legal status concerned whether the members would continue activities with a loose agreement as international networks or enhance the EANET consolidation with a formal framework agreement or a protocol. Some countries emphasised the need for a legal document in order to provide a solid foundation for strengthening the financial basis of EANET and for undertaking national activities on acid deposition smoothly. Others preferred a non-legally binding instrument on the grounds that it is inappropriate to adopt a legal document at a preliminary stage. As for the scope of substances, some countries gave support to a view that the scope should be expanded from 'acid deposition' to 'regional air pollution' because various polluted substances become the sources of acid rain through chemical reactions, and these substances needed to be monitored in the air in addition to in deposited conditions. Others argued that since the instrument was originally designed to provide the basis for financial contribution to EANET, all discussions should be based on the present scope – acid deposition –.[7] The scope of activities was another item of intense debate among the members. Some countries hoped that the instrument would have a broader scope of activities including emission inventory and simulation modelling in addition to monitoring. Others favoured a view that since many

participating countries still had much room for improvement in monitoring capabilities, the scope of activities should not be extended until the network's monitoring activities would have improved further.[8]

Talks on a foundation document took a long time to reach a conclusion. It was agreed at the tenth IG meeting in 2008 that the document would have a form of non-legally binding text, and the Instrument for Strengthening EANET was finally adopted at the twelfth IG meeting in November 2010. It took five years to realise the decision to adopt an appropriate document of EANET. As for the scope of substances and activities, it was finally agreed to 'monitor acid deposition' in East Asia. During prior discussions, phases to extend the scope – 'monitor, prevent and control' and 'regional air pollution' – were presented, but these phases were not adopted in the final text. As shown in engagements in other regions of the world, regional cooperation in managing transboundary air pollution needs to develop from monitoring to the examination of effects through modelling and the adoption of preventive measures. The EANET members were unable to follow such a developmental path through the instrument.

China's Reactions to EANET

While East Asia as a whole exhibited steady increases in acid spills, China was deemed to make particular contributions to growth of SO_2 and NOx with its rapid industrialisation. Given China's dominant position in the emissions of air pollutants, its positive commitment was indispensable for the successful launching of EANET. However, China exhibited unstable and lukewarm attitudes towards the launching of EANET. China joined four sessions of expert meetings in 1993-97, but did not necessarily show a positive posture towards the resolution of acid deposition problems. The Design of the EANET, which was formulated at the fourth expert meeting, begins with the phrase 'acid rain is broadly recognised as one of the most serious air environmental problems and is collecting global-scale interests'. The original draft of this part was 'acid rain is one of the most serious global environmental problems'. The expression was changed to reflect China's assertion that 'acid rain is a domestic environmental problem, not a global environmental one' (Akimoto, 2000, p.45). Moreover, the Chinese delegate asserted at the fourth expert meeting that the monitoring should be carried out using a method that each country had adopted.[9] This assertion

contradicted EANET's objective to establish a network with the standardised monitoring method.

The Chinese delegate announced that China could not participate in the EANET preparatory phase because it was in the process of drastic administrative reform and was not ready to prepare for the membership (Takahashi, 2000, p.112). After the start of the preparatory phase, China participated in the first IG meeting in March 1998 as an observer not a full member. The issue of China's participation was later settled by political decision. When Jiang Zemin, president of China, made a formal visit to Tokyo in November 1998, he stressed the need for enhancing bilateral environmental cooperation. Both governments issued a joint communiqué on environmental cooperation for the 21st century, which contained a phrase implying that both countries would jointly promote the establishment of EANET. Afterwards, China joined EANET as a full member.

After the formal launching of EANET, China made complicated commitments to its development. On the one hand, the country exhibited willingness to sustain the network's activities. During the fourth IG meeting in 2002, the Chinese government proposed contributing US$15,000 voluntarily to the secretariat budget annually.[10] This amount was small compared with the UN assessment scale-based burden (US$24,560), a criterion agreed at the fifth IG meeting in 2003 (Hara, 2009, p.8). But, this volunteer contribution had positive effects on the financial burden sharing issue. On the other hand, China's engagement in the network's monitoring activities was far from sufficient. Despite its broad geographical area, deposition monitoring spots were located in only four cities – Xian, Chongqing, Xiamen, and Zhuhai –, which were relatively affluent local cities that could conduct monitoring activities with their own capacities.[11] All of the cities are located in the southern part of China, and no monitoring sites existed in the northern part. China had more monitoring spots for acid deposition. For instance, there were 34 spots where the JICA provided grant aid to install monitoring instruments;[12] and there were over 900 monitoring instruments installed in cities by 2006 (Zhong et al., 2007). The official reason for this small number of monitoring sites for EANET was that since the level of data accuracy was high in EANET monitoring; most sites in China could not meet this high level. However, it was also the Chinese

government's unwillingness to undertake sufficient domestic monitoring that led to this small number of monitoring sites.

China showed a cautious posture towards the foundation document issue. This caution was typically exhibited in China's preferences for terminology regarding the document. At the seventh IG meeting in 2005, the Niigata Decision was adopted to begin a process to discuss an appropriate instrument and its legal status. In the Terms of Reference presented at the sixth IG meeting in 2004, the term 'regional agreement' was used. One year later, this phrase disappeared and a term 'appropriate instrument' with weak legal nature was used. Moreover, 'Niigata *Mandate*' was used as the title of a document at the preparatory stage towards the seventh IG meeting. This term aimed at clarifying the willingness of participants to reach a consensus within a fixed timeframe. However, the title was changed into 'Niigata *Decision*' with an ambiguous and neutral meaning. These changes resulted from China's preferences for weakening the legal nature of the founding document (Ando, 2006, p.182, pp.203-04). China's passive attitudes continued at the following meetings. When a working group on future development of EANET was held in April 2008, China presented an original draft of a legally non-binding instrument that stipulated financial affairs with the existing scope of substances and activities. The Chinese government, by presenting this alternative option, demonstrated its position that it would not join discussions on other types of instrument (Kanie & Sodeno, 2013, p.44). China's basic policy stances were that since EANET was established to tackle acid deposition problems, its activity should be limited to this area, and that since the formulation of a foundation document originally intended to provide the base for consolidating the network's finance, it was inappropriate to discuss the scopes of substances and activities (Kanie & Sodeno, 2013, p.42, 47).

Explaining China's commitments

In the trajectory of its commitments to EANET, China paid due attention to the impact that this international institution would have on the domestic economy and society. China's cautious attitudes towards the EANET participation had much to do with its possible impact on China's autonomy to pursue economic development. Indeed, the Chinese government recognised that local air pollution, including environmental degradation attributable to acid deposition, was getting worse, and that monitoring and

relevant scientific activities were important for resolving domestic air pollution problems. However, it did not hope to be seen by other countries as a pollutant source that threatens environmental conditions in territories outside China (Takahashi, 2000, p.112). The government's formal stance was that air pollution and acid deposition were domestic issues. Ultimately, the government hoped to avoid a situation that any international forums would intervene in its policy autonomy to pursue economic development. Such a hope could be confirmed in China's engagement in other environmental forums. China opposed the Northeast Asia Subregional Program of Environmental Cooperation (NEASPEC) project dealing with transboundary air pollution and the Northwest Pacific Action Plan (NOWPAP) activity plan on marine pollutions from land-based sources. Moreover, China demanded that the Transboundary Diagnostic Analysis of the TumenNET project to include a statement indicating that the results of the analysis were not official but simply the personal opinion of researchers, although the government had officially undertaken the project (Nam, 2005, p.87).

An additional factor is that China paid due attention to relative costs and benefits that the participation in EANET would bring about. The participation in the network was expected to gain financial and technical assistance to tackle domestic acid rain problems. However, China was worried about financial burdens in accompanying participation in EANET. If the EANET participation had invited requirements to establish more monitoring spots to collect sufficient data and to enhance the level of data accuracy, the Chinese government would have been forced to spend large funds for meeting such requirements (Hara, 2009, pp.8-9). The government, which put primary stress on economic development, did not hope to spend large funds for environmental protection at the time of the late 1990s.

The EANET members were unsuccessful in expanding the scope of activities and substances in enacting the Instrument of EANET. China was the veto player who rejected the development of EANET to this direction. As environmental conditions became worse in the new millennium, the Chinese government deepened the recognition that urban air pollution was one of the most serious environmental problems. The annual SO_2 emissions increased from 19.5 million tons in 2001 to 25.9 million tons in 2006 (SEPA, 2007, p.56). The 30 per cent of China's territory suffered from acid rain,

which cost at least 110 billion yuan (US$13.3 billion) annually.[13] The cost associated with deteriorating environments imposed serious burdens on economic development, a primary policy goal for the Chinese authorities. Accordingly, the Chinese government set the target of reducing total SO_2 emissions by 10 percent from the 2005 level by 2010 in the eleventh Five-Year Plan (2006-2010), and implemented various measures to achieve this target including the adoption of new rules on the promotion of local officials and performance standards for electric power plants (Cao et al., 2009). However, consideration to domestic air pollution problems did not necessarily lead to the acceptance of EANET's extending mandate and functions.

The fundamental reason for China's passive attitudes towards the extension of EANET's scope of substances and activities lay in the avoidance of international responsibility. China is located in the upwind position of circumpolar westerlies and its rapid industrialisation has contributed to growing emissions of air pollutants. If the scope of substances had been extended, China would have been required to provide information as a pollutant source and to assume greater responsibility for reducing air pollution (Kanie & Sodeno, 2013, pp.47-48). More generally, China was apprehensive that the EANET development would lead to a regulatory regime that might require participants to implement mandatory emission reductions. Such a development was likely to threaten China's overarching economic development goals. The multilateral environment agreements create international obligations that a member has to assume in reducing emissions of air pollutants by taking into account the effects on neighbouring countries. The Chinese authorities hope to avoid such obligations that will constrain the policy autonomy for environmental affairs. They are eager to retain policy autonomy to coordinate the pace of industrial growth and the protection of the environments by locating air pollution problems as purely domestic affairs.

Significantly, China's unwillingness to extend EANET's scope of activities and substances was relevant to problems in the government's decision-making system. The first problem concerns the inter-ministry level. The MEP is a relatively new ministry that was upgraded from the State Environmental Protection Administration in 2008, and its resources in terms of authority and manpower have remained limited. Accordingly, the MEP has faced difficulty in pushing forwards policies that are desirable from the

standpoint of environmental protection in possible opposition from other ministries or crucial stakeholders. For example, in many cases of pollution monitoring, large state-owned enterprises pretended to follow the MEP, but in fact, over the head of the MEP, requested the NDRC for lighter punishment. In the Environmental Protection Law of the People's Republic of China which was amended in 2014, it was mentioned in Article 13 that the MEP in conjunction with relevant departments (ministry-level), according to the national economic and social development plan, drew up the state environmental protection plan and implemented it under the approval of the state council.[14] Macro regulation departments such as the NDRC and the Ministry of Industry and Information Technology, continued to exert their strong influence on environmental policy and decision-making.[15]

As far as EANET's scope of activities and substances are concerned, the MEP needed an approval from high-level government leaders. When China agreed to join EANET as a full member in 1998 with top leaders' decision, this agreement was based on the recognition that EANET would undertake the monitoring of acid deposition. It was difficult for the MEP to accept EANET's new mandates that might lead to the foundation of a new regulatory regime. Under the top-down decision-making system, an approval of EANET's new mandates required a judgement at the vice-minister level on the basis of ministerial coordination because China's decision to participate in the network was made at this level.[16]

The second problem is relevant to the scattered administrative jurisdiction within the MEP. Since EANET as a program is totally managed within the MEP, the administrative structure seems to be simple. However, the ministry's EANET team consists of the China National Environmental Monitoring Center (CNEMC), Department of Environmental Monitoring (DEM), Department of International Cooperation (DIC), Chinese Research Academy of Environmental Sciences (CRAES), all of which were at the same level within the MEP. The CNEMC, an organ to undertake monitoring activities, is responsible for quality control and certification of the monitoring stations in the entire China and provides financing for local monitoring institutions (Mol, 2009, p.118). The DEM manages and coordinates monitoring activities including construction of monitoring networks, standard-setting, regulation

and decision-making, whereas the DIC undertakes international environmental cooperation including strategies and policy-making for this objective. From 2012, the EANET administration became more complicated as the China-ASEAN Environmental Cooperation Center (CAECC) also became a member of the team. The difficulty within policy coordination among these departments made China's commitments to EANET difficult. For instance, the DIC, facing the pressure from EANET, delivered a request to increase EANET monitoring sites to other departments such as the CNEMC and DEM. However, extending monitoring networks and improving data quality meant further opening of information, which would accompany political risks than benefits.[17] Without sufficient coordination among these departments or judgement made by the upper level, the decision of increasing monitoring sites is difficult to make, which could be the direct cause of China's passive attitudes for EANET.

The fragmented administrative jurisdiction has made it difficult for the Chinese government to accept the extension of EANET's activities. The CNEMC has been deeply involved in EANET operations as its researchers have joined the SAC activities and participated in the IG meetings in parallel to officials from the MEP. As long as EANET's activity is confined to monitoring alone, the CNEMC could coordinate China's commitments to the network's operations. However, when its activity would expand from monitoring to emission inventory and simulation modelling, administrative coordination from the upper level would be required.[18] In Japan, the National Institute for Environmental Studies, affiliated to the Ministry of the Environment, undertakes the activities of emission inventory and simulation modelling. In China, these activities are managed by other administrative agencies such as the Institute of Applied Ecology, Chinese Academy of Sciences.[19] This meant that administrative coordination would be required to make decision to accept the expansion of EANET's activities, and the Chinese government representatives were unwilling to agree on EANET's new mandates.

Developing Institutions for Enhancing Energy Security

The development of ASEAN+3 energy cooperation

In the new millennium, East Asia as a group has consolidated its status as a main driver of economic growth in the world. Steady economic growth has led to increasing demand for energy, and the rising demand for energy inevitably fuels steep competition among the countries for securing stable energy resources represented by oil and natural gas. Given such challenges, formal dialogues to advance energy cooperation in East Asia began under the ASEAN+3 framework. In July 2002, the first ASEAN+3 Senior Officials Meeting on Energy (SOME+3) was held in Bali, Indonesia. One year later, the second SOME+3 meeting was organised in Langkawi, Malaysia. At the meeting, senior officials agreed that the SOME+3 Energy Policy Governing Group (EPGG) would be established to provide overall policy directions and programme management for cooperation, and that common issues and concerns in energy security, natural gas development, oil market studies, oil stockpiling, and renewable energy would be discussed. Based on the agreement, the first SOME+3 EPGG meeting was held in Bangkok the following month. Through discussions at the two meetings, the basic framework for ASEAN+3 energy cooperation was consolidated.

In order to undertake concrete cooperative activities, forums were set up under the SOME+3 EPGG in five policy areas: energy security, oil market, oil stockpiling, natural gas, and new and renewable energy and energy efficiency and conservation (NRE and EE&C). The Energy Security Forum focuses on the development of emergency energy security communication. The Oil Market Forum discusses various issues in the oil market and oil industry in Asia in general and the Asia Premium issue in particular. The Oil Stockpiling Forum deliberates on the possible development of stockpiling programmes in member countries. The Natural Gas Forum examines investment in the exploration and production of natural gas as well as the development of gas transport infrastructure.[20] The NRE and EE&C Forum seeks the improvement of energy efficiency and renewable energy. The SOME+3 EPGG designated the ASEAN Centre for Energy (ACE) as coordinator for ASEAN and the Japanese METI as coordinator for the +3 members (Tanabe, 2011, p.100). The name ‘forum’ was adopted in order to stress the voluntary and non-binding nature of this cooperative framework (Tanabe, 2004,

p.231). The first Oil Market Forum and Oil Stockpiling Forum took place in Bangkok in November 2003, and the first Energy Security Forum was organised in Cebu, the Philippines, in February 2004. The first Natural Gas Forum and the NRE and EE&C Forum also took place within 2004.

In June 2004, the first ASEAN+3 Ministers on Energy Meeting (AMEM+3) was held in Manila, the Philippines. At the meeting, the ministers confirmed common goals of greater energy security and energy sustainability in East Asia, which would become the largest energy consumption region in the world. They then referred to three general principles: an equal and mutual relationship, taking diversity among countries into account; diversity in sources of primary energy supply; and the importance of the market mechanism.[21] The ministers decided to meet on a regular basis to discuss cooperation on common policy goals and work on further relevant studies and activities at senior official level. The ministerial meeting was institutionalised, and a meeting took place annually thereafter.

After the start of ASEAN+3 energy cooperation in 2003, a major development in cooperation was the inclusion of three new policy areas as the target of cooperation. The two areas – civilian nuclear energy and clean development mechanism (CDM) – were confirmed as new issues at the fourth and fifth AMEM+3 meetings in 2007 and 2008. While the cooperation on civilian nuclear energy was relevant to rules, regulations, technologies, and guidelines on the safe use of nuclear power, the CDM cooperation aimed to assist in the reduction of greenhouse gas emissions and the promotion of sustainable development. The ministers had discussed coal-related issues in terms of energy security from the first ministerial meeting, and coal was formally integrated as a target of the Energy Security Forum. The members explored cooperation on clean coal technologies, and coal trade and regulation, as well as environmental concern in coal use. At the seventh AMEM+3 meeting in July 2010, ministers formally reformulated the forums, consisting of: (i) the Natural Gas and Oil Market Forum; (ii) the Energy Security Forum, which includes oil stockpiling, coal, and civilian nuclear energy; and (iii) the NRE and EE&C Forum including CDM. The reformulation was a response to ASEAN's concern about the holding of too many meetings for energy cooperation. [22] In fact, forum-related meetings were organised nine times within one year, 2008.

ASEAN+3 energy cooperation functioned as a valuable platform to establish information sharing mechanisms. The sharing of information through an oil price database for ASEAN+3 countries was established. The participating countries also exchanged information through presentations on individual energy conditions and policies, which contributed to deepening understanding about concrete policy objectives and measures to enhance energy security and learning from precedent examples and best practices adopted by other countries. Moreover, regional cooperation led to capacity-building through the combination of training, site visits, and small group discussions. While the exchange of information was an important initial step in fostering confidence-building among participants, capacity-building programmes organised by advanced members provided practical benefits for developing members.

In some policy areas, member governments agreed to engage in a concrete joint project. The formulation of the Oil Stockpiling Roadmap (OSRM) was approved at the fifth AMEM+3 meeting in August 2008. In order to advance the formulation of the OSRM, the Working Group on the Development of the OSRM was set up and its first meeting took place in November 2008. The final report on the OSRM was submitted to the seventh AMEM+3 meeting in July 2010. The report presented country-based plans for commercial, processing, and national oil stocks in the period of 2010-2025. The OSRM had a critical value as the first attempt to integrate oil stockpiling plans of ASEAN+3 members into the common format. However, it did not become a substantial roadmap because several members did not submit a report on situations and future plans of oil stockpiling, and even the countries that submitted a report did not provide full information about the future plans.

A major feature in ASEAN+3 energy cooperation was the expansion of targeted policy areas without the deepening of cooperative activities in the existing policy areas. At the annual AMEM+3 meetings, ministers stressed the importance of further cooperation and integration in response to evolving energy climates. However, member governments were unsuccessful in shifting from the exchange of information to the coordination of national plans and/or the adoption of non-binding principles of behaviour for enhancing energy security (Ravenhill, 2013, pp.44-46). They also failed to

produce substantial outcomes in a joint project, which was based on voluntarism and gradualism.

China's Reactions to Regional Energy Cooperation

China did not make substantial commitments to ASEAN+3 energy cooperation. This is confirmed by the fact that the Chinese government sometimes did not send a head of energy administration – vice-chairman of the NDRC – to ASEAN+3 meetings. While the Chinese Embassy's Councillor in Cambodia, on behalf of the government, attended the second AMEM+3 meeting in July 2005, the Director General of the Energy Bureau joined a meeting two years later. Moreover, China's presence was generally weak and selective in the forums. While Japan, South Korea, and Malaysia each became a lead country of the two forums, China assumed this role only in one forum: the Natural Gas Forum.

China's passive posture towards energy cooperation became more salient after 2009. The Chinese government did not send its delegate to the eighth SOME+3 EPGG in March 2009 and the eleventh in July 2012. While China assumed a role as a lead country for the Natural Gas Forum, it did not send a delegate to the seventh forum meeting in November 2010. After the reformulation of the forums, China remained a lead country for the Natural Gas and Oil Market Forum. However, it did not play an expected role as a lead country. The first and second forum meetings were held in Bali, Indonesia and Inchon, South Korea, respectively, and China did not dispatch a delegate to the first forum meeting. The three-forum framework aimed partly to make the role of the +3 countries more clear, and China, Japan, and South Korea were expected to assume responsibility for leading each of the three forums. While Japan and South Korea have met this expectation by assuming a chair of the forum meetings, China's commitments were far from such an expectation.

Among five forums, the Oil Stockpiling Forum was particularly important because several ASEAN members such as Thailand and the Philippines had strong interests in developing oil stockpiling facilities, and on the basis of such interests, a joint action for oil stockpiling was pursued as a key project of energy cooperation. China could make contributions to the forum's activities because it had experiences of developing oil

stockpiling facilities. The Chinese government decided to establish the national oil stockpiling system in the tenth five-year plan (2001-2005), approved at the National People's Congress in 2001. In 2003, the Energy Bureau was created under the National Development and Reform Commission (NDRC), and the National Oil Stockpiling Office was set up by the bureau in order to formulate the strategic oil reserve policy. After intensive consultation with the IEA and oil companies, the bureau formulated a plan to establish national oil stockpiling bases with a total storage capacity of 14 million tons in Dalian in Liaoning Province, Huangdao in Shandong Province, and Daishan and Zhenhai in Zhejiang Province (Ehara, 2005, p.43). With the construction of the oil stockpiling facilities, the National Oil Reserve Centre (NORC) was created in 2007 so as to undertake the management and operation of oil stockpiling. Given China's accumulated knowhow of domestic oil reserve from its recent practical experiences, it could make cooperation on the development of oil stockpiling for ASEAN members.

However, the Chinese government did not make any meaningful contributions to cooperation on regional oil stockpiling. The members set up the Working Group on the Development of the OSRM to advance the formulation of the OSRM, and an introduction of examples, experiences and relevant information about existing oil stockpiling systems was expected at the group's discussions. A plan for future meetings was presented at the first meeting of the Working Group on the Development of the OSRM in November 2008. The plan was important in advancing cooperation on oil stockpiling in a speedy manner. The Chinese delegate suggested that the proposed timeframe of the future meetings is pressurised and the topics should be decided later as the economic situation changes rapidly.[23] Afterwards, the Chinese government lost interests in the working group's activity, and its delegate did not participate in most of the group's meetings.[24] Although the OSRM was formulated in July 2010, China did not provide any information about situations and future plans of oil stockpiling for the OSRM.

Explaining China's reactions

China has achieved high economic growth since the early 1990s, and its continuous growth increased the consumption of fossil fuels. As a consequence, China has steadily deepened dependence on overseas sources for energy resources since it became a net oil

importer in 1993. While the combined consumption of oil, natural gas and coal increased from 974 million tonnes of oil equivalent (MTOE) in 2001 to 1,719 MTOE in 2006 to 2,419 MTOE in 2011, imports of crude oil increased from 60.3 million tons in 2001 to 145.2 million tons in 2006 to 252.6 million tons in 2011. Such a trend raised China's sense of crisis for the procurement of stable energy sources in order to sustain long-term economic development and meet drastic changes in the society through the diffusion of home electrical appliances as well as rapid motorisation in major cities and the resultant high use of energy.

After China was forced to rely on energy resources from overseas sources, it tended to pursue bilateral arrangements to cultivate and secure deals with external energy suppliers. China advanced external linkages in the form of long-term crude oil/ liquid natural gas (LNG) supply contracts and equity investments in oil and gas fields abroad under the 'going-out' strategy (Lam, 2008; Lai, 2009). In July 2006, for instance, CNOOC signed an agreement with a Malaysian oil company Petronas to purchase LNG over 25 years. In January 2007, the China National Petroleum Corporation (CNPC) signed contracts with the Myanmar Ministry of Energy on conducting crude oil and natural gas exploration at three deep-sea blocks off Myanmar's western Rakhine coast, covering a total area of 10,000 square kilometres. These are just a few examples that China has signed long-term contacts on the development and supply of oil and natural gas in numerous countries across Asia, Africa, Latin America, and the Middle East.

Growing energy demand for economic development raised the strategic importance of the energy sector. Under such conditions, China sought to pursue bilateral engagements for gaining more secure control of overseas oil and gas supplies, particularly with partners who are current energy producers or those with energy production potential (Choo, 2009, pp.46-47). From such a policy stance, China did not find values in making substantial commitments to multilateral cooperation under the ASEAN+3 forum except for natural gas cooperation.

Significantly, administrative configuration had strong influences on the Chinese postures towards regional energy cooperation. As a consequence of an administrative reform in August 2008, the National Energy Administration (NEA) was newly established, replacing the NDRC's Energy Bureau. The establishment of the NEA aimed

to strengthen energy development strategy and policy coordination by absorbing other energy offices from the NDRC, the Office of National Leading Group, and the nuclear power administration of the Commission of Science, Technology, and Industry for National Defence (COSTIND) (Downs 2008: 43). The NEA also assumed the daily running of the National Energy Commission (NEC), which was established in January 2010 as the highest decision-making body for energy policy.[25] The administrative reform certainly broadened the NEA's mandate from the management of energy industries to the planning and implementation of energy policies to international commitments of energy affairs. However, the NEA remained as a vice-ministerial body without political legitimacy to coordinate diverse interests among more powerful actors, and its man-power was still inadequate for the broadened mandate. While the energy sector was regarded as an increasingly important policy area, its administration was still fragmented and porous with limited authority and capabilities of the key energy bureau.

The NEA has been the government agency that engaged in ASEAN+3 energy cooperation. The insufficient man-power and limited authority to manage the overall energy sector had significant influences on the agency's commitments to concrete projects undertaken by ASEAN+3 energy cooperation. Unlike its counterparts in Japan and South Korea, the NEA did not establish an integrative system to take advantage of scientific knowledge and practical know-how possessed by energy-related research think-tanks and affiliated organisations.[26] Such limitations hindered the NEA from making substantial engagements in regional energy cooperation.

Moreover, the possibility of policy coordination within the NEA influenced China's commitments to regional energy cooperation. The ASEAN+3 energy cooperation is undertaken by the department of international cooperation, which is in charge of strategies and policies for opening up China's energy sector and coordinating the development and use of oversea energy. Mobilizing resources for implementing regional cooperation requires support from various departments regarding oil and gas, energy conservation and scientific equipment, new and renewable energy, development and planning, and so on. These departments faced problems of unbalanced gains and political risks when concrete cooperation projects were proposed. Given continual

administrative reforms and the complexity of energy affairs, coordination among those departments was insufficient, leading to low efficiency in regional energy cooperation.

In the Chinese energy sector, there was an additional factor that created fragmented policymaking: the existence of powerful state-owned enterprises. The SOEs have exerted strong influences on the strategy and policymaking with their financial, political and human resources. The three huge SOEs – China National Petroleum Corporation (CNPC), China Petroleum and Chemical Cooperation (Sinopec) and China National Offshore Oil Corporation (CNOOC) – dominate the oil sector of China. CNPC and Sinopec established a powerful and autonomous position by retaining full and vice-ministerial ranking, close connections with government agencies, as well as membership of key executives in the CCP's Central Committee (Downs, 2006; Jakobson and Knox, 2010, pp.24-25). Energy SOEs is always the key field for China's economy and some of China's senior leaders came from these SOEs, such as Zhou Yongkang, Yu Qiuli.[27] Those factors have given SOEs more authority and autonomy in initiating oversea projects, which even urge the foreign energy strategies and policies in return.

In ASEAN+3 energy cooperation, the interests and strategies of these energy SOEs had direct impacts. Among five policy forums, the Natural Gas Forum was the only forum of which China became a lead country. The meetings of the forum and business dialogue were valuable opportunities to exchange information about the natural gas development plan in East Asia and present SOEs' business models and plans. In fact, mangers of CNPC, Sinopec, and CNOOC explained their corporate strategies in the natural gas field at the fourth natural gas business dialogue in October 2008. Thus, the Chinese government sought to take advantage of the ASEAN+3 forum to draw pragmatic benefits that were directly linked to the SOEs' business strategies, not finding a rationale to push forwards the activities of other forums.

Conclusion

This article paid attention to the process of creating multilateral institutions for regional cooperation in East Asia, and China's growing political and economic presence in the region. It sought to analyse China's policy behaviour, motivations, and the influence of such behaviour on the path of institution-building. For this objective, it investigated

China's regional commitments in terms of objective and formation of foreign policy through empirical cases in the environmental and energy sectors.

China's position was crucial for regional institution-building in the two cases examined in this study. In environmental cooperation, China's passive attitudes dampened initiatives to produce a foundation document for EANET with legally binding nature and the broader scope of activities and substances. In energy cooperation, China's indifferent postures became a vital impediment to the deepening of talks on development towards policy harmonisation among various policy forums, and led to a failure to produce a substantial oil stockpiling roadmap.

In explaining China's policy behaviour, this study took into account the objective of foreign policy. The Chinese policymakers regarded that the EANET development accompanying the broader scope of activities and substances would lead to the emergence of a regulatory regime that would constrain its policy autonomy to harmonise environmental protection and steady economic growth. The Chinese policymakers regarded the stable supply of energy as a prerequisite for continuous economic growth, and pursued bilateral linkages with specific countries, not finding interests in multilateral cooperation.

The Chinese bureaucratic system is highly fragmented with the duplication of the mandate among plural bureaucratic agencies. This bureaucratic fragmentation was seen in China's reactions to regional cooperation examined in this study. In the environmental sector, the administrative agencies concerned could not agree on the enhancement of regional cooperation partly because expanded cooperative activities would require coordination with other administrative agencies. In the energy sector, the fragmentation of energy-related policies among diverse bureaucratic apparatuses impeded the key administrative agency from holding the authority and capabilities to formulate the cohesive energy policy, and such limitations influenced the agency's concrete commitments to regional energy cooperation.

China's dedication is indispensable for developing framework institutions such as the ASEAN+3 forum, East Asia summit, or ASEAN Regional Forum. As this study demonstrates, China's devotion is also crucial in institution-building in specific policy fields. Given that Chinese policymakers still tend to give priority to domestic economic

development in engaging in functional regional cooperation, it is crucial to establish a common front among other East Asian countries to draw China's positive postures towards regional institution-building.

Notes

[1] The long-range goals contain plans, dreams, and visions regarding the political organisation of the international system, rules governing relations in that system, and the role of specific nations within it (Holsti 1972: 142).

[2] The Acid Deposition and Oxidant Research Centre (ADORC, currently the Asia Centre for Air Pollution Research, ACAP) located in Niigata, Japan, was designated as the Network Centre.

[3] Cambodia, Laos, and Myanmar joined EANET in 2001, 2002, and 2005, respectively.

[4] Dongya Suan Chenjiang Jiancewang Zhongguo Fenzhongxin Suan Chenjiang Jiance [EANET China Branch], China National Environmental Monitoring Centre, Accessed in February, 2015

[5] The Fifth Session of Intergovernmental Meeting. Available at <http://www.eanet.asia/event/ig/ig05.pdf>.

[6] The Seventh Session of Intergovernmental Meeting. Available at <http://www.eanet.asia/event/ig/ig07.pdf>.

[7] The Third Special Session of the Working Group on Future Development. Available at <http://www.eanet.asia/event/wgfd/wgfds3.pdf>.

[8] The Tenth Session of Intergovernmental Meeting. Available at <http://www.eanet.asia/event/ig/ig10.pdf>.

[9] *Asahi Shimbun*, February 23, 1997.

[10] The Fourth Session of Intergovernmental Meeting. Available at <http://www.eanet.asia/event/ig/ig04.pdf>.

[11] Interview, Asia Centre for Air Pollution Research, Niigata, Japan, June 2012.

[12] Interview, Japanese Ministry of the Environment, Tokyo, January 2013.

[13] *The People's Daily*, March 25, 2004.

[14] Zhonghua renming gongheguo huanjing baohu fa [Environmental Protection Law of the People's Republic of China], Ministry of Environmental Protection, China, Accessed in February, 2015

[15] *Economy & Nation Weekly*, October 12, 2012.

[16] Interview, Asia Centre for Air Pollution Research, Niigata, Japan, June 2012.

[17] Interview, Environmental Experts, Beijing, China, February 2015

[18] Interview, Environmental Experts, Beijing, China, February 2015

[19] Interview, Japanese Ministry of the Environment, Tokyo, January 2013.

[20] In the Natural Gas Forum, the Natural Gas Business Dialogue was organised in parallel to the forum meeting so as to explore how to facilitate commercial activities of wider use and development of natural gas.

[21] 'Joint Ministerial Statement ASEAN, China, Japan and Korea Energy Ministers Meeting (Manila AMEM+3) Makati City, Metro Manila, Philippines, 9 June 2004 "Forging Closer ASEAN+3 Energy Partnership"'. Available at <http://www.asean.org/news/item/joint-ministerial-statement-asean-china-japan-and-korea-energy-ministers-meeting-manila-amem3-makati-city-metro-manila-philippines-9-june-2004-forging-closer-asean3-energy-partnership>.

[22] Interview, Institute of Energy Economics, Japan, Tokyo, June 2013.

[23] 'Report of the First Working Group Meeting on the Development of Oil Stockpiling Roadmap for the ASEAN+3', 28 November 2008, Available at <http://aseanenergy.org/download/reports/energy_organisastion/asean+3/FINAL%20Report%20of%20the%201st%20WG%20%20Meeting%20OSRM.pdf>.

[24] Interview, Institute of Energy Economics, Japan, Tokyo, June 2013.

[25] The NEC, headed by Premier, supervises overall energy security and development affairs through the setting of strategic direction and policy coordination.

[26] The activities of the Japanese Agency for Natural Resources and Energy have been sustained by commitments from the Institute of Energy Economics, Japan and the Japan Oil, Gas and Metals National Corporation. In a similar vein, the Korean government agency could get support from the Korea Energy Economics Institute and the Korea National Oil Corporation in promoting its activities for promoting ASEAN+3 energy cooperation.

[27] Database of Zhongguo lingdao ganbu ziliaoku at Zhongguo gongchandang xinwenwang, [Chinese Leading Cadres, News of the Communist Party of China], Accessed in February, 2015

References

Akimoto, H. (2000) 'Higashi ajia no sanseiu heno torikumi'[Engaging in acid rain problems in East Asia], *Gaiko Foramu* (October): 42-46.

Ando, H. (2006) 'EANET: "Higashi ajia kyodotai" no senkuteki rentai' [EANET: A pioneering linkage for an East Asian community] in Tokai Daigaku Heiwa Senryaku Kokusai Kenkyujo (ed.) *Higashi Ajia ni 'Kyodotai' wa Dekiruka* [*Searching for the possibility of a 'community' in East Asia*]. Tokyo: Shakai Hyoronsha.

Andrews-Speed, P. (2012) *The Governance of Energy in China: Transition to a Low-Carbon Economy*. Basingstoke: Palgrave Macmillan.

Cao, J., Garbaccio, R., and Ho, M. S. (2009) 'China's 11th five-year plan and the environment: Reducing SO_2 emissions', *Review of Environmental Economics and Policy* 3(2), 231-250.

Choo, D. (2009) 'Northeast Asia energy cooperation and the role of China and Japan', in C. Len and A. Chew (eds) *Energy and Security Cooperation in Asia: Challenges and Prospects.* Stockholm-Nacka: Institute for Security and Development Policy.

Dickson, B. (2008) *Wealth into Power: The Communist Party's Embrace of China's Private Sector*. Cambridge: Cambridge University Press.

Downs, E. (2006) 'China: The Brookings foreign policy studies energy security series', *The Brookings Institution*. Available at <http://www.brookings.edu/~/media/research/files/reports/2006/12/china/12china.pdf>.

Downs, E. (2008) 'China's "new" energy administration', *China Business Review* 35.

Ehara, N. (2005) 'Chugoku, indo, ASEAN ni yoru senryaku bichiku no sosetsu no ugoki to IEA ni yoru kyoryoku' [Moves to create strategic stockpiling in China, India and ASEAN, and cooperation from IEA], *Sekiyu Tenne Gasu Rebyu*, 39(3), 39-48.

Fukunaga, Y. (2015) 'ASEAN's leadership in the Regional Comprehensive Economic Partnership', *Asia & the Pacific Policy Studies* 2(1), 103-15.

Garver, J. W. (2006) 'Development of China's overland transportation links with Central, South-West and South Asia', *China Quarterly* 185: 1-22.

Hara, T. (2009) Higashi ajia ni okeru kankyo kyoryoku ni kansuru ichi kosatsu [Environmental cooperation in East Asia], *Hokuto Ajia Chiiki Kenkyu* 15: 1-14.

Holsti, K. J. (1972) *International Politics: A Framework for Analysis*, 2nd edn, Englewood Cliffs, N.J.: Prentice-Hall.

Jakobson, L. and Knox, D. (2010) 'New foreign policy actors in China', *SEPRI Policy Paper* 26.

Jiang, Y. (2010) 'Response and responsibility: China in East Asian financial cooperation', *Pacific Review* 23(5), 603-23.

Kanie, N. and Sodeno, R. (2013) 'Ajia ni okeru kokusai kankyo rejimu keisei no kadai [Challenges for creating an international environmental regime in Asia], in Shunji Matsuoka (ed.) *Ajia no Kankyo Gabanansu* [*Environmental governance in Asia*]. Tokyo: Keiso Shobo.

Lai, H. (2010) *The Domestic Sources of China's Foreign Policy*. New York: Routledge.

Lieberthal, K. and Oksenberg, M. (1988) *Policy Making in China: Leaders, Structures, and Processes*. Princeton University Press.

Lieberthal, K. G. (1992). Introduction: the 'fragmented authoritarianism' model and its limitations. In Kenneth G. Lieberthal and David M. Lampton, eds. *Bureaucracy,*

Politics, and Decision Making in Post-Mao China. Berkeley: University of California Press, 1992, 1-22.

Liu, Q. (2012) *Regional Cooperation and China's Strategy towards East Asia*. Reading: Paths International.

Mol, A. P. J. (2009) 'Environmental governance through information: China and Vietnam', *Singapore Journal of Tropical Geography* 30: 114-29.

Nam, S. (2005) 'Ecosystem governance in a cross-border area: Building a Tuman River Transboundary Biosphere Reserve', *China Environment Series* 7: 83-88.

Nieuwkerk, A. V. (2004) 'South Africa's national interest', *African Security Review* 13(2), 89-101.

Ravenhill, J. (2013) 'Resource insecurity and international institutions in the Asia-Pacific region', *Pacific Review* 26(1), 39-64.

State Environmental Protection Administration (SEPA). (2007) *2006 Report on the State of the Environment in China*. SEPA: Beijing.

Takahashi, W. (2000) 'Formation of an East Asian regime for acid rain control: The perspective of comparative regionalism', *International Review for Environmental Strategies* 1(1), 97-117.

Tanabe, Y. (2004) 'Ajia enerugi patonashippu ni mukete' [Searching for energy partnership in Asia], in Y. Tanabe (ed.) *Ajia Enerugi Patonashippu* [Energy partnership in Asia]. Tokyo: Enerugi Foramu.

Tanabe, Y. (2011) 'Asian energy partnership: Opportunities and obstacles', in E. Thomson, Y. Chang, J. Lee (eds) *Energy Conservation in East Asia*. World Scientific: Singapore.

Wang, F. (2005) 'Beijing's incentive structure: The pursuit of preservation, prosperity, and power', in Yong Deng and Fei-Ling Wang (eds) *China Rising: Power and Motivation in Chinese Foreign Policy*. Lanham: Rowman &Littlefield.

Xiao, R. (2009) 'Between adapting and shaping: China's role in Asian regional cooperation', *Journal of Contemporary China* 18 (59): 303-20.

Zhao, S. (2011) ‘China’s approaches toward regional cooperation in East Asia: Motivations and calculations’, *Journal of Contemporary China* 20 (68): 53-67.

Zhong, L., Zhen, J., Lei, G., Chen, J., Che, W.(2007) ‘Kongqi Zhiliang Jiance Wangluo Fazhan Xianzhuan Yu Qushi Fenxi’[Current situation and trend analysis on the network of air quality monitoring] in *Zhongguo Huanjing Jiance [Environmental Monitoring in China]*23(2): 113-118