FROM INTERNATIONAL LINKAGES TO INTERNAL DIVISIONS IN CHINA

The Political Response to Climate Change Negotiations

Hyung-Kwon Jeon and Seong-Suk Yoon

Abstract

In negotiations about climate change, China has participated as both a co-operator and a defector. To explain China's contradictory attitude, this article examines both international and domestic factors. Although international linkages played an important role in earlier stages, their influence was significantly limited by domestic constraints as the negotiations deepened.

Keywords: climate change, China politics, Kyoto Protocol, epistemic community, environmental negotiations

Introduction

Climate change began to be perceived as a serious environmental problem, particularly among scientific communities, in the late 1980s. As a global environmental issue, climate change is expected not only to disturb the ecosystem but also to have a serious impact on human life. By awakening the environmental concerns of scientists and policymakers around the world, the issue has become an international imperative. Negotiations on the problem have drawn a variety of political responses from different states.[1]

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1. The climate change negotiation process consists basically of the United Nations Framework Convention on Climate Change (UNFCCC) in 1992; the Kyoto convention in 1997; intergovernmental negotiations, such as the Intergovernmental Negotiating Committee (INC) from 1990–92; the Conference of the Parties (COP) since 1995; Subsidiary Bodies meetings; and a series of workshops.

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Contrary to general predictions, China was the first country in the world to ratify the UNFCCC, in 1992. However, recently Beijing has attempted through negotiations to reverse the convention. This inconsistency creates the need to examine both the political background and implications of the negotiations. The features of China's response to climate change negotiations suggest that the dynamics of international environmental politics are at play. Early on, China, as one major country bearing responsibility for greenhouse gas emissions,[2] played a critical role in the development of climate change negotiations, showing a strong commitment to participate in the regime and comply with international norms. The Chinese urged the world to endorse global environmental cooperation. However, as shown by a close examination of China's later policy response, Beijing in fact has not treated global warming seriously nor has it implemented substantial environmental policies focused on diminishing emissions. Moreover, China, as one of the environmental superpowers, has often retarded the negotiation timetables in order to avoid being compulsorily targeted for emission reduction. In November 2004 at the 10th meeting of the COP, the UNFCCC's supreme body, Beijing declared that China could not accept the Kyoto Protocol[3] and instead joined the Asia-Pacific Partnership (APP) in July 2005. The APP is led by the U.S. and perceived as an anti-Kyoto Protocol program. A major reason for China's participation in the new program seems to be to avoid high cost commitments related to the binding emission reductions being included in the next stages of the Kyoto Protocol. Although this does not mean that officials are entirely ignoring environmental cooperation, China's defection from the protocol has elicited criticism.

What, then, makes China take such a dualistic position as both a cooperator and a defector on the same issue? This article explores the question in the context of international linkages and domestic constraints. It examines the way China's interest and policy priorities are constructed and the reasons they change. By focusing on China's policy responses from the early stage of negotiations in the late 1980s to the embodied and internalized stage of the Convention in the late 1990s, this analysis reveals the political dynamics and implications behind the negotiations.

Theoretical Review: How to Limit International Linkages?

As international environmental problems become more politicized, new ideas about these issues and relevant policy solutions—otherwise likely to be

2. According to the International Energy Agency (IEA), China's CO_2 emissions reached 13.2% of total global emissions in 1999, the second highest level. IEA, *CO_2 Emissions from Fuel Combustion, 1971–99* (Organization for Economic Cooperation and Development [OECD], 2001).

3. The Kyoto Protocol was adopted in Kyoto, Japan, on December 1997 in order to embody the UNFCCC.

neglected—are injected into domestic political debates. From an institutional perspective, international institutions have been deeply involved in this process, influencing national policy responses. National governments respond to incentives and pressures from international institutions. In the case of global environmental issues, epistemological approaches as well as institutionalism both give us explanatory perspectives on the problem of international cooperation.

The epistemic communities, consisting of scientists or experts who share and agree with common knowledge and norms, may facilitate a state's cooperation through international linkages.[4] From this viewpoint, the success of cooperation depends substantially on epistemic agreement on scientific knowledge, norms, public opinion, and social values. Emerging bilateral and multilateral linkages among epistemic groups have had considerable influence on policy-making, outcomes, and implementation by altering the balance of power among domestic or international political groups. The perspective here focuses on how such linkages inject new ideas into the Chinese state and population and how external opportunities and pressures induce environmental cooperation. Nevertheless, we find that the linkages do not always influence a nation's policy preferences as anticipated.

There are several different ways of explaining Chinese environmental politics. First, the political structure-centered views of international negotiations argue that the extent of the state's autonomy from social forces determines the country's relative power.[5] Similarly, Keohane and Milner assert that the state's responses virtually depend on domestic institutions, admitting that the influence of internalization penetrates states in various ways.[6] This provides us with a useful perspective to explain China's forceful attitude in the negotiations.

Second, a bureaucratic politics explanation[7] assumes that policy outputs reflect competition or compromise, such as log-rolling and back-scratching, among bureaucrats.[8] Therefore, the policy attitude of decision makers depends

4. See Peter M. Haas, "Introduction: Epistemic Communities and International Policy Coordination," *International Organization 46:1* (Winter 1992), p. 3.

5. See Peter Katzenstein, "International Relations and Domestic Structures," ibid. 30:1 (Winter 1976), pp. 1–45; and idem, *Between Power and Plenty* (Madison: University of Wisconsin Press, 1978).

6. Robert O. Keohane and Helen V. Milner, *Internationalization and Domestic Politics* (N. Y.: Cambridge University Press, 1996), pp. 233–58.

7. "Bureaucracy" indicates bureaucrats and their organizations that are supposed to "functionally" operate on the process of foreign policy, yet, "politically" operate to the top decision maker and other policy agents.

8. See Lawrence Freedman, "Logic, Politics, and Foreign Policy Process: A Critique of the Bureaucratic Politics Model," *International Affairs* 52:34 (1976), pp. 434–49.

on their respective ministry. Although some criticism has attended the bureaucratic politics approach in that it may overlook external influences and the changeable positions of bureaucrats, this lens remains useful to help explain the case of China, in which the power of bureaucrats is relatively strong and external influences are often blocked by institutional resistance.

Third, social actor-based studies argue that environmental policies are mostly formed by competition and compromise among social forces and political groups.[9] This view in part is apt, in that non-governmental environmental groups, as well as semi-non-governmental organizations (semi-NGOs), have increasingly influenced environmental policy in China. But there is still growing skepticism as to whether such a civil society exists and whether social groups there have autonomous roles. Most environmental movements appear among semi-governmental groups under governmental approval. More important, the social groups do not intend to be involved in politically sensitive issues, so their actual role remains problematic.

Finally, the interaction perspective illuminates how and why nations come to cooperate, or not, on international environmental issues. Elizabeth Economy, who has closely examined China's environmental politics, provides us with a useful perspective to understand the relations between domestic and international politics on environmental issues.[10] Reviewing various empirical studies, she found that the question of why and how the state does or does not commit itself to international environmental cooperation is best answered by an interactive explanation. In China, the linkages among international and domestic groups changed resource balances among actors, altered actors' interests or perceptions, or provided a means for pushing other policy priorities through the transfer of funds, technology, and know-how. However as Economy recognizes, the impact of international linkages must be understood in the context of an individual state's domestic political structures, policy processes, and traditional policy priorities.

We can draw two critical ideas from these arguments: it is relevant to analyze China's policy response in view of international linkages and it is even more important to highlight the role of domestic factors focused on the political economic structure and the bureaucracy.

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9. Refer to Jeff Frieden, "Sectoral Conflict and U.S. Foreign Economic Policy," in *The State and American Foreign Economic Policy*, ed. G. John Ikenberry, David Lake, and Michael Mastanduno (Ithaca, N. Y.: Cornell University Press, 1988), pp. 59–90; and Helen Milner, *Resisting Protectionism: Global Industries and the Politics of International Trad*e (Princeton, N. J.: Princeton University Press, 1988).

10. Elizabeth Economy, "Chinese Policy-making and Global Climate Change: Two-Front Diplomacy and the International Community," in *The Internalization of Environmental Protection*, ed. Miranda A. Schreurs and Elizabeth Economy (New York: Cambridge University Press, 1997), p. 15.

China's Policy Formation and Its Development

Global Warming as a Political Issue

Climate change emerged as a significant global political issue in the late 1980s, attracting growing attention from scientists, the public, and policymakers around the world. Unlike the ozone layer problem, where a scientific consensus emerged early on stratospheric ozone depletion and its likely human impact, there was substantial controversy about the likelihood, magnitude, and consequences of global warming. Global warming is a multi-sectoral issue impinging upon industry, energy usage, transportation, agriculture, and forestry. As a result, the issue has been the most disputed among international environmental conventions. By being incorporated in various political economic variables, the problem has become increasingly politicized.

Given the different positions of participants in climate change negotiations—from those dependent on oil exports to those facing the crisis of rising sea levels—it is hard to garner international agreement. Dealing with proposals to significantly reduce energy use or to shift to non-fossil fuels has produced large-scale political opposition from powerful groups.[11] This suggests that the variables influencing the process of negotiation are highly complex.

China's Perspective on Climate Change Problems

Under its socialist market economy system, which provides the framework for its open-door reform policy, China has been increasingly exposed to international opportunities and constraints. It is true that China's unique system has led to rapid economic growth and better living standards, but it has also spawned environmental damage, locally and globally.

Considering China's overwhelming reliance on coal, regarded as a main source of greenhouse gas emission, the issue of climate change is linked inextricably to the issue of the pace of economic development. China's perspective on the environment and development derives primarily from the country's historical experience in modernizing and boosting economic growth but also from its response to pressures from developed countries. Faced with both pressures and incentives from abroad, China established its own position on global environmental problems. In July 1990 at its 18th meeting, the Environmental Protection Commission (EPC) of China's State Council issued a proclamation called "Guanyu Quanqiu Huanjing Wenti Zhongguode Yuanli yu Lichang [China's principles and positions on global environmental problems]." The declaration highlights the principles of the responsibility of developed countries for global

11. See Matthew Paterson, *Global Warming and Global Politics* (New York: Routledge, 1996), p. 14.

environmental deterioration, the harmony of both environmental protection and economic development, the recognition of developing countries' right to develop, the sovereign equality of all states, and the need for new and additional funds for developing countries. These principles formed the basis for China's stance throughout the international negotiations.[12] China's cooperative attitude in environmental matters has often shifted, according to Beijing's understanding of the varying opportunities and constraints behind the negotiations. Most responses were formulated under these principles, which were approached not environmentally but diplomatically.

Policy Responses to the Negotiation

Because of differing interests and perspectives on economic development in China, the policy preferences of internal agencies through pro-development forces to environmental groups diverged as each became deeply involved in the energy and environmental policymaking process. However, as realist researchers have pointed out, China's international environmental policy was largely formulated under the priority first to maximize material capabilities and second to avoid high-cost commitments where possible.[13] This has been its general tendency throughout international environmental negotiations.

The climate change negotiations may be grouped roughly into three phases: (1) the initial phase of scientific studies on climate change under the Intergovernmental Panel on Climate Change (IPCC), a special group of international scientific experts designated by governments, from 1988 to 1991; (2) the UNFCCC negotiations from 1991 to the signing of the convention in 1992; and (3) the Kyoto Protocol negotiations, as the follow-up measure of the UNFCCC, from 1992 to the late 1990s.

Early phase. In the early stages of the regime, from 1988 to 1991, the IPCC conducted scientific studies on the phenomenon of climate change to understand its potential impact and possible response strategies. Whether to participate in this work was a major issue for China; after internal study and evaluation, the government finally selected a group of officials from the State Science and Technology Commission (SSTC), the National Environmental Protection Agency (NEPA), the State Meteorological Administration (SMA), and the Ministry of

12. For more information on China's principles of international environmental issues, see Zhijia Wang, ed., *Zhongguo Huanjing Waijiao* [China environmental diplomacy] (Beijing: China Environmental Science Press, 1999), pp. 228–31.

13. See Alastair Iain Johnston, "China and International Environmental Institutions: A Decision Rule Analysis," in *Energizing China: Reconciling Environmental Protection and Economic Growth*, ed. Michael B. McElroy, Chris P. Nielsen, and Peter Lydon (Cambridge, Mass.: Harvard University Press, 1998), p. 565.

Foreign Affairs (MOFA) to prepare for the IPCC meetings. They were organized into teams according to the IPCC structure: science, effects, and responses. The SMA contingent directed studies on the science of climate change; the NEPA, which was reorganized into the State Environmental Protection Administration (SEPA) in 1998, prepared a report on the possible effects of climate change. The SSTC initiated programs to develop response measures and the MOFA coordinated the negotiating strategy.

By 1991, the Chinese government had organized a domestic policy consultation structure and formulated guiding principles on climate change. This element of the UNFCCC process offered significant potential and opportunities for cooperation involving various groups in China. For example the Climate Change Information Exchange Program (CCIEP) run by the UNFCCC secretariat listed several proposals and projects involving greenhouse gas inventories in China, including a mitigation study for Zhejiang and Jiangsu Provinces and two completed projects done in cooperation with the Asian Development Bank, World Bank, and the United Nations Development Program (UNDP).[14] Through this interaction, China began to awaken to its environmental vulnerability and responsibility on climate change. At the earlier negotiation stages, it appears that environmental forces in China coexisted with conservative bureaucrats whose main concerns centered on economic growth and state sovereignty.

Middle phase. As a member of the governing council of the U.N. Environment Program (UNEP), China since the 1990s has concluded numerous multilateral and bilateral environmental cooperation accords.[15] In addition, from 1991 to 1992 Beijing hosted as many as 10 international environment-related conferences to underline its attention to global environmental problems including climate change. From the beginning of the UNFCC in 1991, China, as a key player, participated in plenary and smaller discussions to assume a leadership role among developing countries and also announced strict rules about international environmental cooperation. Beijing's diplomatic rhetoric in that period suggested it was appearing to comply with the principle of sustainable development agreed upon internationally to benefit future generations. This has the goal of maintaining a harmonious relationship between the environment and the economy. Much of China's activism in early periods has tended to aim at improving its image as a responsible major power in the international environmental area.

14. See Abram Chayes and Charlotte Kim, "China and the United Nations Framework Convention on Climate Change," in ibid., pp. 517–20.

15. China has joined and signed 50 international environmental treaties over 15 convention areas and 27 bilateral agreements. *Zhongguo Huanjingbao* [Chinese Environmental Press], <http://www.zhb.gov.cn/index10.htm>, accessed July 14, 2004.

Follow-up phase. However, when we pay closer attention to China's attitudes in follow-up sessions, we find that it actually distorted the international norms and early commitments. As the negotiation deepened and was internalized, the Chinese delegations began to assert that existing local or regional policies took precedence over global ones even when addressing environmental problems. Global policies must not be permitted to slow China's economic development. In this context, China opposed any toughening of reporting requirements or emissions ceilings for developing states. A Chinese delegate remarked in October 1994 that "we do not approve of any attempt designed to make the developing countries also accept concrete restrictive targets through amending the convention or carrying out negotiations on new protocols."[16] The argument is premised not only on the principle that developed countries are primarily responsible for global warming but also on rejection of much of the emerging scientific consensus in the U.N. behind global warming projections.

Faced with external criticism, China continued to raise new issues such as the principle of state sovereignty in an effort to develop its resources as it wished, entangling the problem in global North-South conflicts. During sessions of the INC, Chinese delegations repeatedly argued that since greenhouse gas emissions originated primarily from developed countries, these countries should bear the primary responsibility for addressing climate change.[17] Chinese attendees raised new issues about the scientific validity of climate change. Indeed, the delegation at the 1995 INC meeting explicitly challenged the scientific consensus that had been accepted. They also shared the contrary position taken by the Global Climate Coalition, the American lobbying group for the oil and coal industries, whose members they apparently met with during the conference.

After concluding the Kyoto Protocol in 1997, the Beijing government reorganized the National Climate Change Cooperation Small Groups (NCCSG), consisting of 14 agencies, to project a more systemic and effective response to the protocol. A closer look at the power relationships among these agencies shows that conservative bodies such as the State Planning Commission (SPC) and MOFA play a leading role. In other words, domestic policy is dominated by groups with the most to lose from tough commitments to environmental nurturing—or whose purpose is mainly to promote and protect China's capability for resource exploitation.[18] As is generally known, once an issue has entered the realm of foreign policy implementation Chinese officials and citizens are required to speak with one voice in public.

16. Xinhua News Agency, October 20, 1994.

17. See Chandrashekhar Dasgupta, "The Climate Change Negotiations," in *Negotiating Climate Change*, ed. Irving Mintzer and J. Amber Leonard (New York: Cambridge University Press, 1994), p. 133.

18. Johnston, "China and International Environmental Institutions," p. 578.

The Roles of International Linkages

In many cases, international institutions or epistemic communities play important roles in the process of environmental cooperation by linking up with domestic counterparts. With these linkages, an incentive structure is created by two factors: the appearance of a broad consensus on how to address global environmental ills and the political utility of the international institutions within which that consensus is articulated. This incentive structure can spur nations to environmental action. The international epistemic communities, in one sense, can play a critical role in putting environmental issues on the international agenda. On the other hand, these communities can legitimize and strengthen the hand of environmental forces that have traditionally remained weak. In addition, epistemic communities can lead the state to change its policy through recommendations that it adhere to international environmental norms.

Sharing Knowledge and Setting Agendas

In the process of setting an environmental negotiation agenda, scientific consensus is very important. Global warming and ozone depletion are phenomena that could not be apprehended without scientific discovery and certainty. For example, the IPCC, which has provided the intellectual framework for global negotiations on climate change through its scientific study, anticipated the impacts of climate change on the world and proposed possible response strategies.[19] Despite some disputes on the scientific certainty of global warming, IPCC warnings gave crucial impetus to policy arguments.

In China, where climate study and environmental forces have been weak, a change of domestic policy could only occur when international linkages effectively induced a restructuring of state institutions or encouraged new environmental perspectives domestically. There are many indications that interaction with and funding from foreign agencies have supported and elevated scientific forces as well as the Chinese government, in various ways.

When the problem of climate change was first noticed and placed on the agenda, there existed few mature scientific communities in China that worked on climate related problems. By 1985, though, China had begun a rudimentary study at the Atmosphere Research Center of the Chinese Academy of Science in concert with American specialists. The researchers observed and sampled greenhouse gases in the Minqin Desert in Gansu Province for three years so that elementary knowledge of climate change could be established. In many ways, such contacts and exchange programs helped Chinese scientists to perceive the extent and calamity of climate change.[20] The American scientists

19. See IPCC, *Climate Change: The Science of Climate Change* (New York: Cambridge University Press, 1990).

20. Author interview with an official of the Energy Research Institute of China's State Development Planning Commission, Beijing, August 2, 2001.

also invited Chinese experts to the U.S. to work on energy and climate science. The Americans assisted the Chinese government in trying to access international funds and encouraged the international community to help China take concrete measures in response to climate change. China's Energy Research Institute, under the auspices of the SPC,[21] became the focal point for international work on energy and climate change in large part through the sponsorship of the Battelle Institute in the United States. Battelle offered six-month training programs in the U.S. for Chinese researchers, gave them sophisticated energy-efficiency computer modeling programs, and shared methods for estimating levels of carbon dioxide emissions that the Chinese eventually used in their calculations for the political negotiations.[22]

Japan also played a significant role in helping the Chinese tackle environmental concerns. Japan has emerged since the late 1980s as the principal provider to boost China's capacity through resource flows, technology transfers, and technical expertise.[23] Beside such bilateral contacts, China has attracted aid from international organizations. The World Bank, Asian Development Bank, UNEP, and the UNDP all took an active interest in providing monitoring equipment for greenhouse gas emissions, sharing computer modeling techniques, offering technological assistance to develop response measures, and training Chinese environmental officials.

With these linkages, China overcame some of the funding and technological shortcomings of its research program; thus, the research on climate change gradually progressed. In 1991 China began to openly recognize that global warming results from massive greenhouse gas emissions.[24] As noted, besides scientific communities, many intergovernmental organizations as well as foreign governments played important roles in boosting China's environmental training, awareness, and cooperation. The international linkages—including epistemic communities—that emerged at that time around the issue of climate change sparked a virtual explosion in the amount of information transmitted between the Chinese and foreign specialist communities.

Imposing Legitimacy and Policy Recommendations

Another way the epistemic community linked to China has influenced domestic politics is that it has given environmental forces higher priority and greater legitimacy than before in internal policy discussions. Scientific groups, well acquainted with climate change matters, could strengthen or weaken the position of authorities involved in internal disputes over policy. Environmental

21. In 1998, the SPC was reorganized into the State Development Planning Commission.

22. See Economy, "Chinese Policy-making," p. 24.

23. For China, Japan has been the largest Official Development Assistance (ODA) donor.

24. NEPA, *Zhongguo Huanjing Gongbao* [Report on the Chinese environment] (Beijing: NEPA, 1991).

advocates traditionally have been politically weak in China but they used international linkages to spotlight their policy priorities, bolstering their political position. Chinese researchers, drawing on their scientific understanding of how carbon dioxide emissions affect global warming and how energy efficiency might be achieved, used new knowledge on climate change to link energy policy to an international environmental agenda.[25]

Actually, by publishing a comprehensive report in late 1995, the IPCC led China's environmental forces in acquiring policy legitimacy and influence. Specialists in fields such as energy conservation, environmental studies, oceanography, and meteorology gained access to ideas as well as to a system of technology and funds transfer. These exchanges and collaborative efforts increased the Chinese understanding of climate change; the range of response options they considered in some cases actually transformed the thinking of Chinese officials.[26]

The scientists and energy experts linked the climate change issue with international interests and tried to use the linkages to help generate a domestic proactive agenda or at least reinforce their political position. In June 1992, for example, after signing the UNFCCC, the State Council ratified the "Ten Measures for the Chinese Environment and Development" and announced a sustainable development strategy. These measures focused on enhancing officials' ability to respond to climate change through various efforts to absorb carbon dioxide manufacture, such as controlling population growth, improving energy efficiency, recycling energy, afforestation, recovering desert areas, and developing eco-agriculture. These efforts show that Chinese officials at that time considered climate change to be a serious environmental problem and worked to comply with international efforts. According to a Chinese climate change researcher, the progress of scientific studies and preparation of domestic policies formed a respondent framework that reflected the basic features of an international climate convention.[27]

We find another instance of the international scientific community engaging in policy recommendation in the China Council for International Cooperation on Environment and Development (CCICED, Zhongguo Huanjing yu Fazhanhezuo Weiyuanhui).[28] As an authoritative Sino-foreign scientific advisory council and policy forum, it has sought to appeal to the Chinese government to consider both the environment and development, to cooperate in a sustainable development policy, and to encourage both governmental financial policies

25. Referred in Hsu Szu-Chien, "International Linkage and China's Environmental Policies," *Issues and Studies* 36:3 (May/June 2000), pp. 61–65.

26. Economy, "Chinese Policy-making," p. 21.

27. Author interview with a chief official in the Research Academy of Environmental Science of China and Research Institute of Climate Change Impact, Beijing, August 1, 2001.

28. The community was established in 1992 by the China State Council. Its members count 47, including 25 Chinese and 22 foreigners.

and market mechanisms. Among its members, the Chinese portion is mostly composed of related ministries and prominent scholars while the foreign contingent consists of environmental ministries from developed countries, experts in environmental and development fields, and representatives of international financial institutions. For example, at its second session in October 1997 the council recommended to the government that it reinforce effective financial measures and induce market-oriented incentives for attracting foreign capital and technology into policies.[29] The council has also tried to support China in collaborating with the international community in environmental and developmental areas. Of course most of the organization's efforts substantially corresponded with the IPCC's measures, which represented conventional recommendations of the international scientific community.

The Limited Role of the Epistemic Communities

Linkages among epistemic communities do not always ensure a cooperative stance in environmental policymaking. In China the efficiency of linkage-enhancing international cooperation has tended to significantly diminish because of the country's unique political economic system. The key issues emerging in negotiations such as treaty implementation, technology transfer, and financial inducement mechanisms tend to depend on political economic interests, which are needed to support the intellectual property of domestic forces, rather than the scientific issues themselves.

China's skeptical view of the role of epistemic communities also appeared in its perception of the IPCC. Most Chinese policymakers recognized that the 2,500 members of the IPCC are in part organized and dominated by Western groups, thus raising questions about the imbalance of the membership and even about the certainty of greenhouse effects. As interested actors concerned with domestic scientific and political issues begin to contest policy priorities, the epistemic community's role becomes quite limited. This suggests that although the epistemic community has the initiative in launching the negotiations, other domestic factors may be involved in and further influence clarification of policy priorities and selections.

Domestic Constraints

As noted above, it is unlikely that international linkages involving negotiatory mechanisms can directly determine Chinese policies. The Beijing government has tried to block some aspects of international influences; officials constantly

29. CCICED, SEPA, ed., *Di'erjie Zhongguo Huanjing yu Fazhan Guojihezouweiyuanhui Diyicihuiyi Wenjian Huibian* [The document collection at the 2nd session of the CCICED] (Beijing: China Environmental Science Press, 1998), pp. 36–37.

politicize environmental issues by taking political action under the aegis of China's right to strong autonomy.

The following section focuses on the structural factors of a socialist market economy in terms of energy market and state-enterprise relationships. The analysis reveals the role of bureaucrats, who have substantially constrained China's policy options in addressing climate change based on hierarchical divisions in the bureaucracy.

Socialist Market Economy

China's excessive dependence on fossil fuels for ceaseless economic development has inevitably led to a negative stance in climate change negotiations. Even though the shape of energy dependence in China's development is not a unique case, it can illuminate the features of the Chinese political economy as well as critical constraints in international cooperation. This degree of dependence suggests that China inevitably faces such constraints when addressing its energy policy at domestic and international levels.

The energy problems of China in relation to greenhouse gas emissions are tied to higher levels of energy demand and lower efficiency of energy compared with the economic growth rate; overdependence on coal, which has a higher coefficient of emissions; the decentralized small scale economy; and decentralization and lack of an efficient administrative system. Most features of the problems derive from the characteristic mode of economic growth and structural factors of political economy. In relation to China's policy response on climate change, we can identify three factors: a typical structure of energy industry and market, the relationship between the state and enterprise, and administrative decentralization.

First, the traditional means of energy production and consumption remains unchanged even in the midst of reform and open door policies. In spite of the reform-driven partial market economy, the energy industry has been largely controlled by the government in terms of national policy. It is widely known that China is one of the largest energy consumers in the world and one of the few countries that rely mainly on coal. Having an industrial structure that overconsumes fossil fuels, China has had difficulties liberalizing its energy (especially coal) price system, largely derived from aspects of the socialist market economy. Under the system, energy resources have not yet been properly evaluated; the lack of market competition for energy conservation has led to low public awareness of the need for rational utilization of energy.

Though a reform policy was introduced in 1978, the Chinese market and major industries still have been subordinated to and controlled by the state. This institutionally hampers the possibility to shape a reasonable free market price system in China. In relation to greenhouse gases in particular, the irrational price system has very important implications because the energy market—

TABLE 1 *Energy Consumption in China, 1978–1997*

	1978	*1985*	*1995*	*1997*
Primary energy consumption (MTCE)	57,144	76,682	131,176	142,000
Consumption rate (%)				
Coal	70.7	75.8	74.6	73.5
Oil	22.7	17.1	17.5	18.6
Natural gas	3.2	2.2	1.8	2.2
Hydro and atomic power	3.4	4.9	6.1	5.7

SOURCE: State Statistical Bureau (SSB), , *Zhongguo Tongji Nianjian, 1978, 1985, 1995, 1997* [China statistical yearbook] (Beijing: China Statistical Press).
NOTE: MTCE means metric tons of carbon equivalent.

relatively free from price signals—gives actors no incentives to preserve resources, leading to an increase in the cost of environmental administration. In China, because energy prices are relatively lower than in free market countries, there is no motive for enterprises to displace fossil fuels with clean sources of energy such as natural gas, hydropower, or atomic power. Moreover, coal, which has higher emissions than other fuels, is preferred because it is cheaper than oil and natural gas, even though their emission factors are much lower. In this respect, Chinese enterprises have no motivation to reform economic activities overly dependent on energy.

This also implies that China is likely to depend on relatively more-polluting energy industries such as petrochemicals, steel, construction, and mining in order to maintain the present system and ensure a predictable future through "developing socialist productivity." China's heavy industries have been the primary triggers of carbon dioxide emissions by overconsuming energy resources, mostly coal.

As Table 1 shows, the structure of energy consumption in China has not changed substantially even following reform and the policy of opening up. By the 1990s, the patterns of consumption had gradually improved; the proportion of coal use decreased from 75.8% in 1985 to 74.6% in 1995 and 73.5% in 1997, while use of oil, natural gas, hydropower, and atomic power increased. However, coal still accounted for much of the energy used; the proportions of non-fossil fuels—natural gas, hydropower, and atomic power—were insignificant. An energy-industrial structure with such inveterate weaknesses is not likely to see improvement soon despite the reforms.

More important, even though China has shown relatively major achievements in energy conservation since reforms began, conservation regulations and policy measures remain within the framework of the traditional planned economy. Indeed, China responded to the need for energy efficiency through a command-

and-control approach, with the State Economic and Trade Commission (SETC) and the Department of Raw Materials of the SPC setting policy. Since 1980 the central government has passed 30 energy conservation (efficiency) laws. However, such regulatory measures have not led to strong economic incentives for improving the efficiency of any input factor.

Secondly, the relationship between the state and enterprise, which has been reshaped by reform and the open-door policy, has distorted the market-price structure. China's so-called socialist market economy—espoused by Deng Xiaoping in October 1992—united both "plan" and "market" mechanisms that involved many contradictory factors. Though much rhetoric has been heard about "harmony" or "combination" as well as the efforts to unite both mechanisms in the Chinese political economy, the market mechanism has inevitably been controlled by the government. Also, the suturing of two heterogeneous factors, designed by China's reform group to block possible political instability in the transition period, has led to discord and created many problems such as a distorted market and price mechanism.

In the period of transition toward a free-market economy, China on the one hand has permitted a market price mechanism to allow for production of surplus commodities, while on the other it has applied fixed prices to other goods. Under the circumstances, the coal industry that grew under the protection of the central and regional governments has generated overproduction; this led to price reductions, triggering a waste of energy. Because of the close state/enterprise relationship, many enterprises (particularly state-owned ones) have not suffered punishments or sanctions by supervisory authorities.[30] Conversely, private firms have suffered more from punitive measures and financial constraints than either state- or province-owned enterprises. In other respects, public firms have been managed well, under the financial and institutional support of the central or local governments. For example in the 1980s as the Chinese mine industry became deregulated, about one million regional mines opened hastily while many non-state-owned mines producing impure coal accelerated their production. In particular, state-owned large enterprises as well as province-owned operations, largely collective enterprises, tended to become relatively free from governmental restriction. As a result, most of the coal mines, whose management situation grew worse under deficits, have survived. This state/enterprise relationship may consequently offset the efficiency of an enforcement system by charging emission fees and fines for illegal pollution. Because of the lower cost of punishment in China, most enterprises tend to disregard the slight fine and even regard it as

30. According to the author's field survey, many Chinese enterprises have discharged serious pollution relatively unrestricted from the government's control. In fact, 56.2% of sample business persons replied that they never have faced any sanctions on their companies for pollution, while 32.9% have been punished, and only 11% received an advance warning for five years (1997–2001). A sample survey was conducted in Beijing from July 10 to August 20, 2001.

conferring a "right to pollute." In my survey, more than half of the Chinese enterprises preferred to opt for a fine than to take measures to prevent pollution, which cost more.[31]

Political economic decentralization has prompted officials engaged in local government to devote themselves to their regional interests. Under decentralization, the institutional dislocation among sectors and the administrative isolation of local authorities have also further distorted the energy problem. The scattered small enterprises, which originated from the former Chinese socialist path, make administrative control more difficult and the control costs higher. Having no clear experience of terminating a prior institutional path, China still adheres to the role of owner state and plays important roles in controlling enterprises and markets in order to develop the socialist political economy. In spite of various efforts at reform, market divisions, regional protectionism, and the inertia of economic agents allowed regional governments to control and administer enterprises by various means. The central party-state bureaucracies were a less formidable obstacle to market reforms, and previous waves of administrative decentralization created the possibility that provincial politicians could become a reformist counterweight to the more conservative center. As a result, local governments have had relatively strong policy autonomy and their influence on policy, on occasion, surpassed that of the central government. Consequently, decentralization, by making it hard to impose central controls on the regions, spawned the formation of an excessively energy-wasting economy nationwide.

Hierarchical Division of Bureaucracy

The Chinese bureaucracy under the socialist system is characterized by high politicization and hierarchical division, rarely found in other countries. As a bureaucratic socialist state, China has depended on a hierarchic structure of political elites in the decision-making process. This hierarchical bureaucratic system, however, was accompanied by the dominance of conservative bureaucrats such as those at the SPC and MOFA, making them dependent on the institutional inertia of the traditional authoritarian mechanism. The complex features that were derived from such a politicized and hierarchic system in the Chinese bureaucracy have limited the horizontal contacts among political authorities. As a result, China's main policies concerning issues such as economic development or state sovereignty have easily led to political cooperation, while policy tuning based on functional cooperation and exchange, such as environmental protection, has often been overlooked. The debates on Chinese environmental policy also occur in a closed bureaucratic system. However, it

31. According to the author's survey question, "Would you select the 'cost' of environmental equipment or the 'fine' as provided by laws assuming that the fine is lower than equipment cost?" about 47.6% of Chinese enterprises chose the former, while 52.4% chose the latter. See ibid.

should be noted that the bureaucratic authoritarian mechanisms in China's environmental policy process are necessarily concomitant with the political priorities of the Communist Party, the State Council, and the SPC.[32]

In the case of environmental policies at the national level, numerous bodies are involved: the Politburo, SPC, the Environmental Committee of the National People's Congress, the NEPA, and various ministries. But only the NEPA has brought its demands for greater environmental interest into open debate in its journals and some other publications. Thus, the lack of echoes from other departments has prevented open debates. Not surprisingly, the Chinese delegates participating in the international negotiations have reflected these domestic bureaucratic features, expressing the stiffest oppositional posture against concluding any binding commitment over China.

The bureaucratic division also reflected bureaucrats' perceptions about the environment and natural resources. The Chinese government historically has shown separative thinking on nature, in that officials tended to regard natural materials that could be used directly or economically by humans in the future as *resources*, while seeing nature or physical phenomena with indirect value and also useless for people as the *environment.*[33] Concerning these two aspects, Chinese authorities generally have tended to regard protecting natural resources as a more important and urgent issue than protecting the environment. They treat resource management as a primary task because it is closely related to industrial development. Environmental protection is considered a secondary matter. Chinese authorities have regarded environmental management as a new jurisdiction for regulating environmental pollution, which was separated from the traditional authority to manage resources.

The NEPA's authority, thus, was expected to control environmental management to prevent pollution. Its authority was kept apart from the jurisdictions for managing natural resources. The NEPA has often held a vague position and been involved in conflicts over authority with other governmental bodies managing energy and natural resources. Occasionally, disputes arise among the Chinese ministries about whether environment or resources should be preferred. This competition, of course, is closely related to the bureaucratic divisions that inevitably led to a predominance of conservative political bureaucrats.

As climate change negotiations progressed, China confronted the need to regulate the speed of economic growth. In the spring of 1990, the relative emphasis placed on the environment over development and China's initial position on climate change were both established at a meeting of the NEPA,

32. See Lester Ross, *Environmental Policy in China* (Bloomington: Indiana University Press, 1988), p. 11.

33. Luilin Jin, Wang Qin, *Zhongguo Huanjing yu Ziranziyuan Lifa Rougan Wenti Yanjiu* [A study on some problems in legislations about Chinese environment and natural resource] (Beijing: Beijing University Press, 1999), pp. 8–13.

SSTC, SPC, and MOFA to prepare for the UNFCCC negotiations. At the meeting, the NEPA and SSTC, as the main authorities responsible for the matter, declared that China as a key international player would have to participate actively in climate negotiations and emphasize Beijing's strong commitment to international cooperation on climate change. However, the conservative ministries that substantially influenced Chinese diplomatic policy resisted any compulsory impositions or commitments that would be subject to international restriction. Instead, these officials tried to use climate change issues to realize their own interests, rather than present fundamental alternatives to energy policy in the domestic political process. After this meeting, the National Coordination Panel on Climate Change (NCPCC) was set up. The panel included a wider range of Chinese bureaucracies with some interest in climate change policy, including the SPC, MOFA, and Energy Ministry (MOE), and experts participating on China's behalf in three work groups set up by the Eighth Meeting of the IPCC held in Zimbabwe in November 1992. The SPC's primary mission has been to promote economic and industrial development, and thus the body has been receptive to hard and fast commitments that might constrain energy development or economic growth.[34] Also the MOFA view, reflecting dominant concerns, was that any involvement on global warming should not affect economic development. The ministry was in charge of actual multilateral negotiations and was instrumental in efforts to build a coalition of developing states opposed to strict environmental commitments at the negotiations. MOFA's mission was to ensure that multilateral agreements protected China's sovereign independence to unilaterally pursue development and environmental policies—and to maximize China's opportunities to access Western financial and technological assistance.[35] The energy ministry as well as the SPC rejected the idea of restructuring energy industries and introducing new but expensive technologies, which were expected to reduce carbon dioxide. The MOE asserted itself directly to minimize any constraints on developing energy industries, and has retained its bureaucrats' preference for coal as an energy source. When the climate change agenda was established, for example, Energy Minister Huang Yicheng asserted in discussions that it was necessary for China to produce 1.4 billon tons of coal and 200 million tons of oil in the future, because the country aimed to double its gross national product (GNP) by the year 2000.[36] These stances were mainly derived from the Chinese bureaucrat's beliefs that rapid and continuous economic growth is a more urgent problem.

34. Elizabeth Economy, "Negotiating the Terrain of Global Climate Change Policy in the Soviet Union and China Linking International and Domestic Decisionmaking Pathways," Ph.D. diss. (University of Michigan, 1994), pp. 154, 179.

35. State Council, "Zhongguo Duiyu Quanqiu Qihou Bianhuade Lichang yu Duice" [China's position and response on climate change problems], *Zhongguo Huanjing Kexue* [Chinese Environmental Science] 11:6 (1991), pp. 457–59.

36. Tianshen Wen, "China's Energy Resources: Present and Future," *China Today* (February 1990).

The predominance of the SPC, MOFA, and MOE in the policymaking process was reinforced by the preferences of top leaders. Deng Xiaoping's legacy, indeed the legitimacy of Communist Party rule, was closely tied to rapid economic development. Under these circumstances, there appears to have been a shift of control over international environmental policymaking to those institutions predominantly concerned with maximizing development (e.g., SPC) and preserving China's independence to pursue the development strategies it saw fit (e.g., MOFA). Although the NEPA and SMA wielded influence throughout the earlier negotiations, as internal negotiations progressed the MOFA and SPC grasped control of the policymaking process. As a result, the claims of environmental scientists were pushed out of the policy process. The range of proactive views expressed was distilled to a set of principles that represented the more conservative perspective advocated by the SPC and MOFA. The preamble of the Chinese draft treaty on climate change was attached to a report by the State Council's Climate Change Coordination Small Group on the preparation for the UNFCCC negotiations in 1991.[37]

It should be noted that the predominance of these conservative entities could be easily reinforced by Chinese socialist mechanisms, which are closely linked with the state's strong autonomy and dualistic political economic system. These conservative forces have been well positioned to reflect their preferences onto the decision-making process of national environmental policy in China. Also, their positions could be buttressed and reshaped along the desired path according to China's unique socialist market economy: irrational market system, state/enterprise relations, and administrative decentralization.

Summary and Political Implications

We can summarize and draw some political implications from the negotiations as follows. First, as more environmental problems were recognized as global issues, additional linkages among scientists and experts on the environment developed. Scientists, bureaucrats, journalists, and representatives of environmental NGOs who share a common concern and expertise about an issue at both the domestic and international levels often tried to link together to solve the problems. Thus, they were able to have an impact in introducing scientific concerns about an environmental issue into domestic policy debates, as well as in setting an agenda for international environmental cooperation.

Second, in China the process of environmental cooperation is overly politicized. The influence of international linkages has tended to diminish because of the unique political bureaucracy. In China, where political power has long surpassed scientific or societal forces, international negotiations have been largely led by bureaucrats, who prefer to push for economic growth or state

37. See State Council, "Zhongguo Duiyu," p. 264.

sovereignty without any efforts to coordinate opinions in internal negotiations. The characteristic Chinese bureaucracy, dependent on prior socialist ideology and institutional paths, has given conservative forces a political predominance over environmental groups. As a result, environmental forces that acquired policy legitimacy from linkages with international epistemic communities in earlier stages of the negotiation gradually weakened; China converted its position on commitments from cooperator to vetoer in the negotiations. The overall shape of China's policy on climate change negotiations suggests that officials participated purely to use the political and economic opportunities to increase the inflow of advanced environmental techniques and foreign capital while blocking all aspects of external pressure by asserting political autonomy.

Third, the Chinese market mechanism disadvantages foreign investors and firms but provides favorable instruments for China to set up and carry out strategic measures on international environmental politics. China has often declared to the world that it has a "small government but big market"; in reality it acts like a bigger government in need of mechanisms to manage, implement policies, and control market incentives. It is commonly perceived that the advantages of capital options to enter or exit are not likely to be freely realized in the Chinese market because the signals of relative price are often distorted or even blocked. Such an irrational market mechanism has acted in important ways to filter off any external pressures and blocked all negative influences from international agencies. With this in mind, foreign countries and investors could demand that Beijing reform related institutions and market structure by using various types of leverage—which would threaten officials with the possible removal of capital and technology from the country.

Finally, it should be noted that by blocking international pressures, Chinese domestic institutions would actually diminish China's legitimacy in international negotiations. Actions that thwart opportunities for international support to China inevitably increase the political and economic opportunity cost. Considering that domestic institutions are hostile to the world economy, the harder the reform process, the higher the opportunity cost. The capacity of Chinese institutions, therefore, cannot react against external pressures in the long run, but they can impose some hindrances in the short term.

Conclusion

As China recognized, the market mechanism[38] under the Kyoto Convention could have positive effects on environmental industries and on the reform process of

38. The Kyoto mechanism includes a "clean development mechanism (CDM)," "joint implementation (JI)," "activities implemented jointly (AIJ)," and "emissions trading (ET)," which are market-oriented mechanisms. See Kyoto Protocol 1997, Articles 6, 12, 17, <http://unfccc.int./kyoto_mechanisms/items/1673.php>, accessed August 17, 2005.

domestic structures for China. The Kyoto mechanism contains inter-state cooperative measures to reduce greenhouse gas emissions. The mechanism enables countries to access cost-effective opportunities to reduce emissions or to remove carbon from the atmosphere in other countries by various market means. In this regard, it can be seen as a "carrot-and-stick" measure that provides attractive economic opportunities for China while forcing more-drastic structural reform. With the effectuation of the Kyoto Protocol in 2005, the mechanism is expected on the one hand to spread widely and bear fruit globally. On the other, it brings contrary action such as the Asia-Pacific Partnership on climate change. With China becoming a member of the APP in 2005, observers around the world wondered whether it will actually withdraw from the Kyoto Convention. Under the umbrella of APP, China may try to develop new ideas to reverse its earlier commitment while seeking opportunities and/or technologies that might pose less of a threat to its economic growth.

For the time being, China may try to strengthen its negotiating leverage in the two contradictory environmental regimes by stating vague positions in which both cooperative and uncooperative stances are involved. Such a double-dealing pose could be maintained until the first commitment period of the Kyoto Convention.[39] For China, however, there is no reason to stay in the Kyoto regime when subsequent negotiations are expected to focus on imposing compulsory duty on developing countries. If unilateral opportunities to maximize material gains are closed off, coalition building among nations is unsuccessful, and the country is compelled to sign a follow-up treaty, then the state will choose the least constraining options. China would regard the binding commitment as a critical obstruction to its economic development. In this consideration, the leadership may finally decide to break from the Kyoto regime and seek new opportunities through a partnership with powerful states in the APP. This would be a different approach from prior attempts such as building a coalition of developing countries to weaken commitments. The questions of what China's next justification of such a problematic posture would be and how the Chinese policy response could change, still remain.

39. Because China was not a member of the Annex I countries in the first period, it has no compulsory duty to reduce greenhouse gas emissions right now. Annex 1 nations are those with a responsibility for compulsory emissions reduction, such as the industrialized countries that were members of the OECD in 1992, plus countries with economies in transition (the EIT Parties), including the Russian Federation, the Baltic States, and several Central and Eastern European states. See <http://unfccc.int/parties_and_observers/items/2704.php>, accessed April 1, 2005.