China's Position in International Climate Change Negotiations: Continuities and Changes

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| 요약 |

제목: 국제기구변화협상(ICCN)에서의 중국의 입장: 연속성과 변화

중국은 급속한 경제성장에 따라 지구 기후 변화에 점점 더 중요한 역할을 담당하게 되었고, 국제기구변화협상(ICCN)에서 중국의 정책과 입장은 국제사회에 더 많은 관심을 불러일으켰다. 본고는 1990년대 이후 ICCN에서 중국 기본입장에 대한 역사적 비교를 통해, 기후 변화에 대한 중국의 입장이 연속성과 변화가 있음을 주장하였다. 즉, 연속성은 중국이 지속적으로 온실가스배출 감축의무에 대한 규제에 반대해 온 것이다. 변화의 측면은 중국이 ICCN에 대해 보다 유연하고 협력적인 태도를 취하고 있다는 점이다. 즉 중국은 환경개선비용, 생태적 취약성, 그리고 평등성의 원칙 등을 통해 환경변화에 대한 중국입장의 연속성과 변화를 가늠하고 있다.

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Climate change is the biggest global environmental problem facing the humankind as well as one of the greatest global challenges confronting the international community in the era of globalization. It goes without saying that China is a world environmental power with its largest population, most rapid economic growth rate and fourth biggest economy in the world. China currently ranks second in global greenhouse gases(GHGs) emissions.[1] And it is estimated that China will overtake the U.S as the biggest emitter of GHGs by 2025.[2] Therefore, China's policy on climate change has attracted widespread attention of

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from May 21th to 23th, 2006. For their valuable comments on this paper, the author extends his thanks to Mr. Gao Feng, the former China's Chief Negotiator for international climate change negotiations and currently Vice Executive Secretary of UNFCCC, Professor C.S. Kiang, the former Dean of College of Environmental Sciences, Peking University, Professor Tom Gold, Director of Berkeley China Initiative, University of California at Berkeley, and Dr. Jim Williams in U.C. Berkeley's Energy and Resources Group.

1) In 1997, China's carbon dioxide emissions made up 13.9 percent of the global total amount, only second to United State's 22.6 percent. See UNDP, *Human Development Report 2001: Making New Technologies Work for Human Development* (Beijing: China Financial & Economic Publishing House, 2001), p. 199.

2) Kevin A. Baumert, Timothy Herzog and Jonathan Pershing, "Navigating the Numbers: GHGs and international climate change agreements," http://pdf.wri.org/navigating_numbers.pdf, p. 18. It is estimated somewhere else that between 2030 to 2035, China will take the U.S place as the country with the largest GHGs emissions. See Qin Dahe "Global Climate, Environmental Change and Responsive Measures," *China Awards for Science and Technology*, Issue 1 (2005), p. 37.

the international community.[3] China has long been present since the initiation of the International Climate Change Negotiations(ICCN) in 1990.[4] Interestingly, there is a striking discrepancy between China's and foreign countries' evaluation on China's contribution to this important negotiation. While China sees itself as an active and responsible participant in ICCN, the international community, mostly the developed countries, is unsatisfied with China's refusal to make a binding commitment to reduce GHGs emissions, and frequently presses the Chinese government to take a binding target as soon as possible. For example, in 1998 Benjamin Gilman, chairman of the US House of Representatives' Committee on International Relations, characterized China's position on climate change at the Kyoto Conference as "a policy of 'Three Nos': no obligations on China, no voluntary commitments by China, and no future negotiations to bind China".[5] As several western scholars said,

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3) Yihui Ding, "Challenges and Opportunities: China and Global Climate Change," http://www.hwcc.com.cn/newsdisplay/newsdisplay.asp?Id=64033.

4) In December 1990, the 45th UN General Assembly passed Resolution 45/212, deciding that an Intergovernmental Negotiating Committee (INC) should be established by all the member states of the United Nations Framework Convention on Climate Change and the negotiation on drafting the convention should be initiated immediately. International climate negotiation was launched since then.

5) US House Committee on International Relations, *The Kyoto Protocol: Problems with US Sovereignty and the Lack of Developing Country Participation*,

"China's tough, sometimes inflexible positions have won China the reputation of hard-liner in international negotiation".[6] Apparently, the gap in cognition between China and the outside is detrimental to China's international image and peaceful development. Can this gap be narrowed down? The author argues that a systematic analysis of China's position in ICCN is necessary in that it will be conducive to a more accurate and objective evaluation of China's position, and will also contribute to the clearance of the some misperceptions of China's standpoint in ICCN and a better understanding of ICCN's future development. Therefore, the paper aims to address following questions: Have there been any changes in China's position since it entered into ICCN in 1990? If so, what are they? And what factors contribute to the continuities and changes in China's position on climate change?

I. Inadequate Answers: A Review of Current Literature

Scarce research has been conducted by Chinese scholars on

Hearing before the Committee on International Relations, House of Representatives, One Hundred Fifth Congress, Second Session, May 13, 1998.

6) Kristian Tangen, Grild Heggelund and Jrund Buen, "The Position of the Chinese Government in International Climate Negotiation," *World Economics and International Politics*, Issue 8 (2002), p. 37.

the evolution of China's position and policies in ICCN. Most of the research by Chinese scholars fits into the policy-oriented study, focusing on providing advice on what policy China should adopt in ICCN to maximize China's national interest.[7] Embarrassingly, it was the foreign scholars who first observed and analyzed the changes in China's position and policies in ICCN. In 2002 three Norwegian scholars, Kristian Tangen, Gorild Heggelund and Jorund Buen made a keen observation that some changes took place in China's stance on climate change after Kyoto Conference. They argued that China's stance was becoming increasingly flexible, as indicated in China's stance toward Clean Development Mechanism (CDM) shifting from skepticism to active support.[8] Accurate as their observation, it is far from being complete in generalizing the changes in China's position in ICCN. Bringing together China's official documents,

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7) For example, see Jiahua Pan, "Roadmap to Post-Kyoto Climate Agreements and Policy Choices by China," *Advance in Climate Change Research*, Issue 1 (2005); Kunming Zhang and Zongguo Wen, "China's Point of View and Countermeasures on Global Warming," *China Soft Science Magazine*, Issue 7 (2001); Xiaosu Dai and Ren Guoyu, "Scientific Evidences for Climate Change Negotiations," *China Soft Science Magazine*, Issue 6 (2004); Limao Wang, "Consideration of China Coping with Negotiations for Global Climate Change?," *Advance in Climate Change Research*, Issue 1 (2005); Qin, "Global Climate, Environmental Change and Responsive Measures."

8) See Kristian Tangen, Grild Heggelund and Jrund Buen, "The Position of the Chinese Government in International Climate Change Negotiations," *World Economics and International Politics*, Issue 8 (2002).

governmental statements and declarations in ICCN, this paper will make a comprehensive analysis of continuities and changes in China's position on climate change..

Several studies have been made on the origins of China's stance in ICCN. Zhang Zhihong emphasizes that China's climate change policy has been driven by three principal forces, namely promoting national interest, protecting state sovereignty, and enhancing international image.[9] His argument is meaningful. However, national interest is such a broad concept that it includes protection of sovereignty and promotion of international image. Obviously this framework has much to be desired. Xu Huaqing and Zheng Shuang posit that a country's position in ICCN is mainly influenced and decided by such factors as the rationales of decision-making, impacts of stakeholders, economic and environmental awareness, attitudes towards international affairs, measures taken to slow down the climate change, etc, and analyzed China's standpoint in ICCN accordingly.[10] The major problem with this analysis is that it is

9) Zhihong Zhang, "The forces behind China's climate change policy: Interests, sovereignty, and prestige," Paul G. Harris, ed., *Global Warming and East Asia: The Domestic and International Politics of Climate Change* (London: Routledge, 2003), p. 66.

10) Huaqing Xu and Shuang Zheng, "UN Convention on Climate Change and Kyoto Protocol: Outlook and Development of Negotiation, and Research on Responsive Measures," Dadi Zhou, etc. eds, *2003 Annual Book: Research on China's Energy* (Beijing: China Environmental Science Press, 2005), p. 263.

too comprehensive to be concise, leading to a weak causal linkage between the listed factors and China's position in negotiations. Ren Guoyu and Xu Ying on the other hand emphasize that it is the different projections of future climate change that lead to the difference between the position of the major players (including China) and country blocs.[11] This inspiring conclusion, however, fails to serve as a complete framework for understanding China's stance in ICCN. The forgoing Norwegian scholars' research is a more insightful study on this issue. It is powerful in explaining why China takes a hard-line position in ICCN from the relationship between economic growth and climate change and commitment to reduce emissions. But the major deficiency of the analysis is its neglect of the issue of South- North equity. As indicated in a host of facts, equity concern is crucial to China's policy making in ICCN.

Currently in international academia, two major models are employed to explain how a country's position is shaped in international environmental negotiations. One is "interest-based" pattern developed by Detlef Sprinz and Tapani Vaahtoranta. They argue that ecological vulnerability and the

11) Guoyu Ren and Ying Xu, "Major Developed Countries' Negotiation Attitude--Analysis Based on Future Climate Change," *Forum on Science and Technology in China*, Issue 2 (2000), p. 13.

abatement cost are the two crucial elements that decide a country's position and policies in international environmental negotiations. The more vulnerable a country is to environmental problems, the more willing it is to participate in international negotiations; the higher cost a country is going to pay for solving its environmental problems, the less willing it is to participate in international negotiations. According to this pattern, the participants in international environmental negotiations can be divided into four types: pusher, laggard, bystander and in-between.[12)]

Concise in form and clear in logic, this analytical pattern is convincing to certain degree. However, its applicability is limited by the complexity of international environmental negotiations. For instance, some scholars openly question the interest-based methodology in the study of EU's motive of continuously pushing the Kyoto Protocol even after the U.S. quitted. They point out that, rather than cost-benefit analysis, it is the internal institutional support and the desire of becoming the global leader in preventing climate changes that constitute the driving forces for EU. The study emphasizes that economic and environmental concerns do not necessarily dictate a nation's

12) Detlef Sprinz, Tapani Vaahtoranta, "The Interest-Based Explanation of International Environmental Policy," *International Organization*, Vol. 48, No. 1 (Winter 1994), p. 81.

stance in international environmental negotiations.[13] Also, since developed countries and developing countries bear differentiated responsibility for international environmental problems such model seems more compatible with comparison and assessment of countries within the same category.

The other pattern is two-level games theory developed by Robert D. Putnam, who emphasizes that decision-makers are under pressures from both international negotiations and domestic politics.

A synthesized research that encompasses both domestic and international circumstances, and the interaction between domestic politics and international politics, can better explain a country's behavior in international negotiations.[14] Useful as the two-level games theory may be, most decision-making theories, including the two-level games theory, are developed in America and therefore are concerned mainly with American politics. Misuse of these theories will lead to mistaken understanding, for decision-making patterns in countries with different political institutions are markedly dissimilar. This has been warned seriously by James Dougherty and Robert

13) Jon Hovi, Tora Skodvin and Steinar Andresen, "The Persistence of The Kyoto Protocol: Why Other Annex I Countries Move on without the United States," *Global Environmental Politics*, Vol. 3, No. 4 (November 2003), pp. 1-23.

14) Robert D. Putnam, "Diplomacy and Domestic Politics: The Logic of Two-Level Games," *International Organization*, Vol.42, No.3 (1998), pp. 427-460.

Pfaltzgraff, Jr.[15)]

With China's unique circumstances in mind, the author next will explain China's stance in ICCN by mainly employing the "interest-based" approach.

II. China's Position in ICCN: Continuities and Changes

Have there been any changes in China's position in ICCN since its participation in 1990? If so, what are they?

The evolution of China's position on climate change in ICCN is examined on four time points. They are 1991, 1999, 2001, and 2005 respectively. These four periods of time cover the early stage, the middle stage and the recent development of China's participation in ICCN. For the convenience of comparison, China's stance in different periods of time is listed in Table 1.

By making an in-depth comparison of China's basic position on climate change in different time, we make a brief summary of the continuities and changes in China's stance in Table 2. Based on these observations, we can draw following conclusions: China has held a consistent stance in ICCN, but various changes

15) James E. Dougherty and Robert L. Pfaltzgraff, Jr., *Contending Theories of International Relations: A Comprehensive Survey* (Beijing: World Affairs Press, 2003), pp. 645-646(*Chinese edition*).

do exist. What has stayed unchanged is China's persistent refusal of a binding GHGs emissions reduction commitment. What has been evolving is China's increasingly flexible and cooperative attitude towards ICCN. To be more specific, firstly, China's view on the Three Flexible Mechanisms, especially the Clean Development Mechanism, changed from suspicion to support. Secondly, in respect of financing and technology, China used to only stress the responsibility of developed countries to provide financial and technological assistance to developing countries. Now, China is more willing to pursue a win-win technology transfer mechanism and reciprocal technological cooperation. Thirdly, concentrated on United Nations Framework Convention on Climate Change and the Kyoto Protocol in the past, China now holds a more open attitude towards other forms of international climate change cooperation.

Table 1 China's basic position in ICCN in different periods of time

Year of 1991	1. All the countries take common but differentiated responsibility for climate change. 2. Each signatory country should develop comprehensive and effective cooperation based on the principle of equity, without infringing upon the sovereignty of the signatories. 3. Economic development is a necessary precondition for taking specific measures to tackle the climate change. Therefore, any measures should give thorough consideration to each country's average per capita emissions, guaranteeing proper consumption for developing countries. 4. Developed countries should provide developing countries with necessary financing and technology transfer in an equal and preferential term.[16]
	1. Before it becomes a middle development level country, China is unable to take binding GHGs emissions reduction target. However, the Chinese government will make great effort to slow down the increase of GHGs emissions. Also, China will continue promoting and participating in international cooperation. 2. We urge the developed countries to provide China with technology transfer and financial assistance to enhance China's ability to deal with climate change in accordance with the United Nations Framework Convention on Climate Change (UNFCCC) 3 .The Conference of the Parties to the UNFCCC should address itself to the following issues. Firstly, it should urge the developed

16) The Fourth Group of National Coordination Committee on Climate Change, "China's Preliminary Draft of International Convention on Climate Change," in Secretariat of Environmental Protection Commission of the State Council, eds., *Corpus of Documents of Environmental Protection Commission of the State Council,* Vol.2 (Beijing: China Environmental Science Press, 1995), pp. 263-279.

Year of 1999	countries to fulfill its commitment to reduce GHGs emissions, to provide technology transfer and financial assistance, in accordance with UNFCCC Article 4. Secondly, it should urge the developed countries to expedite the process of ratification of Kyoto Protocol in accordance with Article 25 in the Protocol. No additional prerequisites should be imposed. Thirdly, each signatory country should be open-minded in discussions of the measures to be taken to address climate change under each country's specific circumstance. Fourthly, the Conference should embark on discussion of approaches to fulfillment of the Principle of Equity, which includes preventing the perpetration of current inequity of GHGs emissions and energy consumption between developed counties and developing countries. Fifthly, specific working rules of the Three Mechanisms[17] in the Protocol should be made in strict accordance with the Kyoto Protocol.[18]
Year of 2001	1. Effective financial assistance and technology transfer are important for developing countries to enhance their ability to address the climate change. 2. The environmental effect of the Kyoto Protocol depends on carbon sink . We need to take a cautious attitude on this issue for the sake of our offspring. 3. The Three Flexible Mechanisms in the Protocol are helpful for the developed countries in cutting their emissions at a low

17) Kyoto Protocol was adopted in 1997 at the Third Conference of the Parties to the UNFCCC. Under the Protocol, industrialized countries are required to reduce their collective emissions of GHGs by 5.2% compared to the year 1990 from 2008 to 2012. To help the developed countries to lower the abatement cost, the Protocol envisages three "flexible mechanisms": Emissions Trading, Joint Implementation and Clean Development Mechanism.

18) Speech made by Jiang Liu, Head of China's Delegation at the 5th Conference of the Parties to the UNFCCC in 1999, http://www.ccchina.gov.cn/cn/NewsInfo.asp?NewsId=3876.

	cost. CDM will contribute to the sustainable development of developing countries. This session should be committed to building working rules of the Three Flexible Mechanisms. China endorses an early election and establishment of CDM Executive Committee and a prompt launch of CDM. 4. Strict compliance of the rules is indispensable to the implementation of the Protocol.[19]
Year of 2005	1. The Protocol should serve as our guidance. Fundamental principles established in UNFCCC, especially the "common but differentiated responsibility" principle, is the foundation of all the measures to be taken against climate change. 2. Actions will be taken within the framework of sustainable development. 3. Great importance should be attached to the technology when coping with climate change. In the face of climate change, technology is the final means we can rely on. Currently, the technology is available. What is missing is a mechanism for technology proliferation and transfer. We can't afford losing the best opportunity to protect the climate system. Technology development and transfer should be promoted in the spirit of innovation and reform. Two pieces of suggestions can be made on this issue. One is to build up an effective technology proliferation mechanism, which is not only consistent with the law of market, but also is oriented towards climate change and global sustainable development. In addition, this mechanism shall bring down the cost of technology transfer substantially so that the developing countries can afford it. The other one is to develop reciprocal technology cooperation. A lot of crucial energy technology for addressing climate change is yet in research. Concerted effort should be made by all the members of the international

19) Speech made by Jiang Liu, Head of China's Delegation at the 7th Conference of the Parties to the UNFCCC in 2001, http://www.ccchina.gov.cn/cn/NewsInfo.asp?NewsId=3874.

community to achieve significant breakthroughs. 4. Balance needs to be maintained between adapting to and slowing down climate change. 5. Great emphasis should be put on concrete actions. We call for that developed countries should faithfully fulfill their commitment to provide developing countries with technology and financing, which is necessary to cope with climate change. More discussions need to be held on international cooperative mechanism that is consistent with each country's specific circumstances and is able to promote more active involvement. Governments as well as private sectors should participate in the international cooperation against climate change, especially something similar to CDM that is creative and win-win cooperation.[20)]

Table 2: Continuities and changes in China's stance in ICCN

Topics	1991	1999	2001	2005
Whether to take binding target of GHGs emission reduction?	No	No	No	No
Whether to demand the developed countries should take the lead in cutting the emissions of GHGs	Unclear[21)]	No	No	Yes

20) Speech made by Jinxiang Wang, Head of China's Delegation at the 11th Conference of the Parties to the UNFCCC in 2005, http://www.ccchina.gov.cn/cn/index.asp.

21) China's position at that time was, "China will neither oppose nor attach too much importance to a binding emission reduction for the developed

Whether to require the developed countries to provide the developing countries with financing and technology assistance?	Yes	Yes	Yes	In respect of technology, emphasis switched to reciprocal technology cooperation and technology proliferation mechanism which takes into account both law of market and overall global climate situation. In respect of financing, emphasis shifted to discussion on new approaches to enlarge the scale of financing.
Whether to support the flexible mechanism?	No	Hesitant	Yes	Yes
Whether to support other forms of international climate cooperation mechanisms?	Unclear	Unclear	Unclear	Yes
Whether to use per capita emissions as a benchmark?	Yes	Yes	Yes	Yes

countries as stated in the Protocol," see The Fourth Group of National Coordination Committee on Climate Change, *Report on Preparation for International Negotiation on Climate Change* in Secretariat of Environmental Protection Commission of the State Council, eds., *Corpus of Documents of Environmental Protection Commission of the State Council*, Vol. 2 (Beijing: China Environmental Science Press, 1995), p. 259.

III. Understaning China's Stance: Abatement Cost, Ecological Vulnerability, Principle of Equity

How to explain the continuities and changes in China's position on climate change in ICCN? This paper puts forward three hypotheses.

Hypothesis 1: The higher the abatement cost is, the less willing China is to take GHGs emission reduction commitment, and the less active it is to participate in ICCN.

As far as abatement cost is concerned, it refers to the cost a country is going to pay for solving an environmental problem, mostly the economic cost. Any decision-making must take cost and benefits into account. Environmental decision-making is no exception. In fact, as early as it began to participate in the negotiation, the Chinese government had realized that "addressing climate change is far tougher than addressing ozone depletion because it is so complex and costly."[22] For China, abatement cost incurred by reducing the GHGs emissions includes:

Firstly, China's development space could be seriously restrained. ICCN in nature is the redistribution of such

22) The Fourth Group of National Coordination Committee on Climate Change, *Report on Preparation for International Negotiation on Climate Change*, in *Corpus of Documents of Environmental Protection Commission of the State Council*, Vol. 2 (p. 258).

environmental public goods as international GHGs emissions right. China is now undergoing rapid industrialization and enjoys huge potential for development . To cope with climate change necessarily means restructuring of energy industry which is the key to economic development. China is one of the few countries that rely heavily on coal for energy. The percentage of coal in the total consumption of energy was up to 76.2% in 1990, with this number being 67.1% in 2003.[23] Therefore, the potentialities of cutting carbon dioxide emissions by adjusting energy structure are limited. In addition, China's energy technology is lagging behind and its consumption efficiency is rather low. "The history and trend of different countries' development has shown that to approach the development level of industrialized countries necessarily means higher per capita energy consumption under China's current technology and consumption pattern. So far there is no precedence of achieving high per capita GDP with low per capita energy consumption."[24] Obviously, if current technology and consumption mode keep going on, China is bound to bear a higher per capita energy consumption should it

23) Shiying Gao , "China's Energy in 2003 and Outlook in 2004," in Dadi Zhou, etc, eds., *2003 Annual Book: Research on China's Energy*, p. 8.

24) Speech made by Jiang Liu, Deputy Director of the National Development and Reform Commission, "The Challenge of Climate Change and China's Responsive Strategy," at The Energy and Environment Ministerial Roundtable of 20 Countries, http://www.ccchina.gov.cn/cn/NewsInfo.asp?NewsId=3837.

develops into an industrialized country. Endorsement of reducing GHGs emissions under this condition undoubtedly will lead to lower per capita energy consumption, which in turn will definitely decelerate China's economic growth and weaken China's potential for future development. This is detrimental to China's ambitious "Three Stage Development Strategy," which is the overriding priority of Chinese government. This, of course, is opposed by China.

Secondly, economic growth will be slowed down by abatement cost. Reduction in emissions incurs enormous economic costs, therefore bringing down the growth rate of GDP. From the outset of the negotiation, the Chinese government had realized, though not on the basis of concrete research, that "the fundamental problem will not be solved with the international financing and technology assistance as only a drop in the bucket."[25] Existing research has shown that as the reduction of GHGs emissions is increasing, the marginal cost of carbon dioxide emissions reduction is going to rise. In 2020, the annual cost of abatement will reach 50 billion yuan if China fulfills its promise to cut the emissions by 10%.[26] If a 20%

25) The Fourth Group of National Coordination Committee on Climate Change, *Report on Preparation for International Negotiation on Climate Change*, p. 259.

26) Research Group of The Chinese Academy for Environmental Planning of the State Environmental Protection Administration, "Energy and Environment: China in 2020," http://www.ndrc.gov.cn/zwjjbd/hyyw/t20051107_48390.htm.

reduction is made in 2000, the GDP will decrease by 0.42%.[27] If a 20% reduction is made in 2030, the GDP will decrease by 0.351%.[28] These statistics show that the earlier China promises to cut its emissions, the greater the impact is on the development. Besides, analysis made by some foreign scholars on the huge cost incurred by implementing Kyoto Protocol carries some worrisome implications for China. According to the third report of IPCC, in the absence of emissions rights trade, implementation of the Protocol will lead to a 0.2%–2.0% reduction in GDP in developed countries. It is shown in a report that full implementation of Kyoto Protocol will cost as much as 700 billion dollars. [29]

Due to the huge abatement cost, China repeatedly stresses that it's beyond China's capacity to take any binding GHGs emissions reduction commitment.

In 1998, Chinese government set up National Coordination Committee on Climate Change to replace a Coordination

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27) Yong Ye, "Macroeconomic Evaluation on China's Emission Reduction of GHGs" Ph.D. diss. (Tsinghua, 1993) quoted from Dapeng Cui, *An Political Economy Analysis of International Climate Cooperation* (Beijing: Commercial Press, 2003), p. 205.

28) Quoted from Dapeng Cui, *An Political Economy Analysis of International Climate Cooperation* (Beijing: Commercial Press, 2003), p. 205.

29) William D. Nordhaus and Joseph G. Boyer, "Requiem for Kyoto: An Economic Analysis of the Kyoto Protocol," *The Energy Journal*, Issue 22 (2001), p. 93.

Committee on Climate Change which was established under the Environmental Protection Committee of the State Council in 1990 and transferred the administration of its daily work from China Meteorological Administration to National Development and Planning Commission. This is a strong signal that in China's eyes climate change is not only an environmental issue but also a development issue. In 1999's ICCN, under big pressure from the western countries to cut its GHGs emissions, China made it very clear that China would not take any GHGs emissions reduction commitment before China reaches middle development level.

On the other hand, however, if participation in ICCN helps to reduce China's abatement cost or makes the reduction possible, China will adopt a cooperative attitude.

At the advent of the Three Flexible Mechanisms, China was skeptical of them, fearing that this would result in buck-passing of the developed countries by luring the developing countries into cutting the emissions.[30] However, as the Three Flexible Mechanisms got clarified gradually, China's attitudes began to change after the Bonn Conference, expressing its appreciation of Joint Implementation and Emission Trade and showing great

30) International Institute for Sustainable Development (IISD), "A Daily Report on the Eleventh Session of the INC for the Framework Convention on Climate Change," *Earth Negotiation Bulletin*, Vol.12, No.5 (1995), http://www.iisd.ca/download/asc/enb1205e.txt.

interest in CDM, viewing it as "a creative mechanism of the international community to address the global climate change, conducive to sustainable development of developing countries as well as achievement of emissions reduction target by developed countries."[31] CDM is initiated by developed countries to achieve their binding GHGs emissions reduction target by way of cooperation with developing countries. The core of CDM is to allow developed countries to obtain Certified Emissions Reductions (CERs) from the joint project in cooperation with developing countries. The CDM project made it possible for China to lower its abatement cost by getting more advanced energy technology and partial financing from developed countries. After 2000, to make the best use of the opportunities offered by CDM which was stipulated in the Protocol, the Chinese government set up the CDM Assessment Council consisting of ministries concerned. Temporary Regulations on the Administration of Clean Development Mechanism Project was issued on June 30th, 2004. In 2005, Conference on Chinese CDM was held. Key parts of the CDM project are fixed in areas like enhancement of energy efficiency, development of new and renewable energy, recycling of methane and coal seam gases,

31) Speech made by Weixin Jiang, Deputy Director of the National Development and Reform Commission at the opening ceremony of Conference on Chinese CDM, Oct. 20th, 2005, see http://cdm.ccchina.gov.cn/UpFile/File506.pdf.

etc.[32] It is also noted that CDM projects should encourage environmentally-friendly technology transfer. Up to September 2005, National Development and Reform Commission had ratified 8 CDM projects. Among them, one project of wind power from Inner Mongolia received the ratification form CDM Executive Council and was registered on July 26th 2005.[33] China plans to develop several hundreds of CDM projects in 2008.[34] According to a research by a foreign scholar, China will get about 400 million to 1 billion dollars from CDM from 2008 to 2012. This is a large sum of money compared with the allocated sum from Global Environment Fund (GEF).[35]

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32) Guangsheng Gao, "Management of Chinese CDM," http://cdm.ccchina.gov.cn/Upfile/File393.pdf.

33) Speech made by Jiang Weixin, Deputy Director of the National Development and Reform Commission at the opening ceremony of Conference on Chinese CDM, and Lü Xuedu: "Development of CDM-Report at Conference on Chinese CDM," see http://cdm.ccchina.gov.cn/UpFile/File506.pdf.

34) Guangsheng Gao , "Management of Chinese CDM," http://cdm.ccchina.gov.cn/Upfile/File393.pdf.

35) Kristian Tangen, Grild Heggelund, Jrund Buen, "The Position of the Chinese Government in International Climate Change Negotiations," p. 38.

Hypothesis 2: The greater ecological vulnerability caused by climate change is, the more willing China is to reduce its GHGs emissions, and the more cooperative it is in ICCN.

Ecological vulnerability is ecological system's ability to cope with and recover from an environmental problem. The greater ecological vulnerability an environmental problem incurs, the more destructive this environmental problem is to the ecological system.

The basic logic in this hypothesis works like this: the greater the vulnerability incurred by climate change, the greater damage is inflicted on China by climate change, therefore the more concerned China is with the climate change, and the more pressing is China's demand for promotion of cooperation in ICCN. In order to push forward the negotiation, China is likely to adopt a more flexible and more cooperative stance, even to make an earlier commitment to cut the GHGs emissions.

The current situation is that China is still following the "pollution first, treatment second" pattern which was prevalent in developed countries' early stage in industrialization. Environmental protection is not fully implemented in reality. Even in the field of environment, measured by ecological vulnerability, climate change is not the most pressing problem for China.[36]

With environmental protection being paid insufficient attention

in China and climate change not being a priority in China's environmental agenda, China doesn't feel it urgent to push forward ICCN and promote international cooperation on climate change by making big concessions. Nevertheless, it is worth noting that as the ecological vulnerability caused by climate change grows, China is gaining an increasingly deepening understanding of climate change and paying more and more attention to this problem. So, China sincerely hopes that big progress be made in ICCN and therefore adopts an increasingly cooperative attitude.

From the outset of China's entry into ICCN, ecological vulnerability has been an important factor in the formation of China's positions in negotiation.[37] At the beginning, China knew very little about the climate change's specific impact on itself and was very prudent during the negotiation. As the negotiation went on, ministries concerned started up a great deal of research project on climate change. Studies emerged in large number on the impacts of climate change on China's politics, economy and

36) See *The Ninth Five-Year Plan of National Environmental Protection and Outlook for 2010, The Tenth Five-Year Plan of National Environmental Protection, and State Council's Resolution on Implementation of the Scientific Development Concept and Promotion of Environmental Protection.*

37) Speech made by Mr. Jian Song at Special Conference of Environmental Protection Commission of the State Council, in Secretariat of Environmental Protection Commission of the State Council, eds. *Corpus of Documents of Environmental Protection Commission of the State Council,* Vol. 2, p. 249.

ecological system.[38] IPCC also issued its second and third report. According to the evaluation in the second report, doubling of the density of carbon dioxide in the air may bring about a 1%–1.5% reduction of GDP in developed countries (in US, the reduction is about at 1%) while a 2%–9% reduction of GDP in developing countries. Obviously, climate change exerts greater negative influence on developing countries than on developed countries. Based on research both home and abroad, the Chinese government gradually came to the conclusion that "China's fragile ecological system is vulnerable to climate change. According to the preliminary research by Chinese scientists, climate change will continue to exert significant influence, mostly negative, on China's society and ecosystem".[39] The judgment that climate change exerts more negative influence than positive influence is an strong indication of China's rising ecological vulnerability caused by climate change. It also shows

38) On the significant development of China's research on climate change, see Zhang and Wen, "China's Point of View and Countermeasures on Global Warming," Yiyu Chen, Yongjian Ding, etc., "Assessment of Climate and Environment Changes in China (Ⅱ): Measures to Adapt to and Mitigate the Effects of Climate and Environment Changes," *Advance in Climate Change Research*, Issue 2 (2005).

39) Speech made by Jiang Liu, Deputy Director of the National Development and Reform Commission, "The Challenge of Climate Change and China's Responsive Strategy" at The Energy and Environment Ministerial Roundtable of 20 Countries, March 15th, 2004.

that there is a close relationship between China's national interest and global climate change. During the whole negotiation, China's increasingly flexible and cooperative stance in ICCN is consistent with the rising cognized ecological vulnerability. In June 2003, China took part in the first Carbon Sequestration Leadership Forum held by America's Ministry of Energy and signed the Charter of Carbon Sequestration Leadership Forum later. In the conference, the Chinese representative emphasized that "technology development and cooperation, especially those between the developed countries and developing countries, is an important approach to reduce the GHGs emissions and slow down global warming."[40] China's participation in the Asia-Pacific Partnership on Clean Development and Climate is the most recent example of China's active promotion of "more international cooperation mechanisms that fit each country's specific situation and promote active involvement."

40) Speech made by Ambassador Jiehu Yang at ministerial conference of Carbon Sequestration Leadership Forum, see http://www.ccchina.gov.cn/cn/NewsInfo.asp?NewsId=3858.

Hypothesis 3: The more equal the responsibility each country is to take, the more likely for China to assume the obligation to cut its GHGs emissions, and the more cooperative attitude China will hold towards ICCN.

As shown in the history of international cooperation, efficiency and equity are the recurrent themes in international organizations and international cooperation. Proper balance between efficiency and equity is the precondition to a successful international cooperation. As a result, the first principle of UNFCCC is that the parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof. But there is huge controversy over the specific meanings of the principle of equity in ICCN.[41] For China, principle of equity in ICCN should include the following elements:

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41) On discussions about this problem, see Yugao Xu and Jiankun He, "Principle of Equal Rights on Climate Change," *World Environment*, Issue 2, (2002); Paul G. Harris, *International Equity and Global Environmental Politics* (Aldershot: Ashgate, 2001); Elle Wiegandt, "Climate Change, Equity, and International Negotiations," in Urs Luterbacher and Detlef F. Sprinze, eds., *International Relations and Global Climate Change* (ambridge, MA: MIT Press, 2001).

Firstly, the principle of common but differentiated responsibility. China considers that developing countries and developed countries have different responsibilities in international cooperation against global warming. Countries should go beyond rhetoric of common responsibility to assume differentiated responsibility. As Song Jian commented on China's policies on China's international environmental cooperation in 1992, "The population in developed countries that makes up only 25% of the world's population consumes however 80% of the world's resources. Since 1760s, A 60% increase in the carbon dioxide amount in the air was contributed by the oil and coal burnt by developed countries during their industrialization. Currently, developed countries' carbon dioxide emissions of makes up of 75% of the total amount in the world, with their per capita emissions as much as 3.12 ton, which is 8 times more than that of the developing countries. Therefore, the principle of common but differentiated responsibility must be followed."[42] Based on convincing scientific research, China's perspective claims the moral high ground. UNCFFF has specially declared that "Noting that the largest share of historical and current global

42) Jian Song, "To Achieve Sustainable Development by Developing Environmental Protection Industry" in Secretariat of Environmental Protection Commission of the State Council, eds. *Corpus of Documents of Environmental Protection Commission of the State Council*, Vol.2, pp. 445-446.

emissions of GHGs has originated in developed countries". Greater responsibility calls for greater contribution. Consequently, the developed countries should make larger and earlier contribution to the campaign against global warming. Additionally, as the negative impacts of global warming are emerging and the developing countries are the greatest victims, it is therefore in the developed countries' duty to help the developing countries enhance their capability to slow down and accommodate themselves to climate change so that the loss can be limited to a minimum amount. In this regard, the faithful fulfillment of the common but differentiated responsibility is the greatest equity.

Secondly, the principle of differentiated capabilities for different countries. China holds the view that mere emphasis on historical responsibility is not enough to solve the problem of climate change. Each party to the Protocol should adopt appropriate measures to cut down and adapt to the negative impacts of climate change based on their respective capacity. Capable countries, especially in terms of financing and technology, should contribute more to the campaign against global warming. This is also the essential of the principle of equity. At present, the developed countries, with their enormous technological and financial capacity, are capable to make greater contribution. Thus, the developed countries ought to provide the

developing countries with financial and technological assistance to help the developing countries enhance their capability to slow down and adapt to climate change.[43]

Thirdly, the principle of equal per capita emissions right, namely the equally distributed rights to emissions. Accordingly, a country's right to emissions is the product of its population and the international average per capita emissions. In ICCN, China stresses that per capita energy consumption and emissions amount as basis of the negotiation on the reduction of GHGs emissions.[44] Developing countries' survival emissions should not be equated with developed countries' luxury emissions.[45]

Since the initiation of ICCN, the principle of equity has not been faithfully followed, to which the Chinese government has voiced their disappointment and dissatisfaction.[46] Owing to their failure to faithfully fulfill their due commitment, there is a huge gap between the developed counties and developing countries

43) The Fourth Group of National Coordination Committee on Climate Change, "China's Preliminary Draft of International Convention on Climate Change," p. 265.

44) *Ibid*.

45) International Institute for Sustainable Development (IISD), "Report of the Fourth Conference of the Parties to the UN Framework Convention on Climate Change: 2-13 November 1998," *Earth Negotiation Bulletin*, Vol.12, No.97 (November 16, 1998), http://www.iisd.ca/vol12/enbl1297e.html.

46) Speech made by Jiang Liu, Head of China's Delegation to the 10th Conference of the Parties to the UNFCCC, see http://www.ccchina.gov.cn/cn/NewsInfo.asp?NewsId=3838.

on per capita energy consumption and emissions amount. While USA whose per capita as well as total energy consumption ranking first in the world refused to ratify the Kyoto Protocol, China is under no moral obligation to make any commitment to reduce its emissions. As one report issued by World Resource Institute points out, "Their(developing countries) current reluctance to take on legally binding emission targets is based in part on the lack of leadership evidenced by richer, developed countries in tackling climate change."[47]

Due to the growth of population, the economic development and the restriction of the coal-based energy structure, China's carbon dioxide emissions have been on the rise. In 1992, China's contribution to the total amount of carbon dioxide emissions accounts for 11.98%, with the number being 14% in 1997 and an estimated 18% in 2020.[48] From 1990 to 2001, the net increase of carbon dioxide emissions is 823 million tons, making up 27% of the total increase. It is estimated that there will be a 132% increase in emissions in 2020 which is even larger than the global total increase from 1990 to 2001.[49] In respect of per capita

47) Kevin A. Baumert and Nancy Kete, "The U.S., Developing Countries, and Climate Protection: Leadership or Stalemate?" see http://pdf.wri.org/usdcs.pdf.

48) IEA/CIAB, *World Energy Outlook 2000*, http://www.iea.org/textbase/nppdf/free/2000/weo2000.pdf, p. 206.

49) Yang Su, "The Insects Have Grown up with Strong Wings? History and

carbon dioxide emissions, China's per capital emissions will reach the internationally average level in 2030.[50] China is quickening its step in contributing to global climate change. In 20 to 30 years, China will gradually become an undisputed large emissions producer, and it will gradually lose the advantage of low per capita emissions. Confronted with mounting pressure, China must be more flexible and more active in ICCN to relieve the pressure.

IV. Conclusions

The world is getting warmer, and the world's concern over China's position and policies in ICCN is increasing. There are different interpretations and evaluations on China's position and policies. The author argues that since China entered the ICCN in 1990, there have been both continuities and changes in China's position and policies: what has remained unchanged is that China still refuses to take a binding GHGs emissions reduction commitment, while China's attitude towards the international climate negotiations has become more flexible and cooperative. Abatement cost, ecological vulnerability and principle of equity are the major factors contributing to the continuities and changes

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Outlook of Kyoto Protocol," *World Environment*, Issue 2 (2005), p. 7.

50) Qin Dahe, *op. cit.* (2005), p. 37.

in China's position.

Firstly, in ICCN, the higher the abatement cost is, the less willing China is to take an emissions reduction commitment, and the less active it is to participate in international climate cooperation. On the one hand, due to the huge abatement cost, China insists that it does not assume any responsibility to reduce the GHGs emissions. On the other hand, if participation in ICCN helps to reduce China's abatement cost or makes the reduction possible, China will adopt a more cooperative attitude.

Secondly, the greater ecological vulnerability caused by climate change is, the more willing China is to reduce its GHGs emissions, and the more cooperative it is in international climate cooperation. With environmental protection being paid insufficient attention in China and climate change not being a priority in China's environmental agenda, China doesn't feel it urgent to push forward ICCN and promote international cooperation on climate change by making big concessions. Nevertheless, it is worth noting that as the ecological vulnerability caused by climate change grows, China is gaining a deeper understanding of climate change and paying more and more attention to this problem. There is an ever-increasing tie between China's national interest and global climate change. In fact, China's adoption of a more cooperative attitude in ICCN is driven increasingly by mounting internal pressures.

Thirdly, in ICCN, the more equal the responsibility each country is to take, the more possible for China to assume the obligation to cut its GHGs emissions, and the more cooperative attitude China will hold towards international climate negotiations.

From the inception of ICCN, the principle of equity has not been faithfully followed. As a result, China's unwillingness to take any commitment to reduce its GHGs emissions gains widespread understanding from the international community. However, with its per capita emissions as well as total emissions on the rise, China's contribution to global warming is increasing greatly. So the responsibility and international pressure are also growing. To relieve the pressure, China will be more flexible and more active in ICCN. *

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