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**CHINA'S PARTICIPATION IN GLOBAL CLIMATE CHANGE
COOPERATION: FROM THE 1980S TO THE POST-KYOTO
ERA**

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The China Policy Institute, part of the School of Contemporary Chinese Studies at The University of Nottingham, was set up to analyse critical policy challenges faced by China in its rapid development. Its goals are to help expand the knowledge and understanding of contemporary China in Britain, Europe and worldwide, to help build a more informed dialogue between China and the UK and Europe, and to contribute to government and business strategies.

Executive Summary

1. Environmental protection became a basic state policy in China in the early 1980s. Since then a large number of laws and regulations have been promulgated.
2. China's official participation in the international climate negotiations has evolved in three stages: 1990-1992, 1992-1997, and 1997 through present.
3. During the first stage, China formulated its official position for international climate change negotiations, which was also successful in establishing a unified front among developing countries.
4. The second stage largely overlapped with the life-cycle of the Kyoto Protocol. China emphasised that the implementation of existing commitments should be the COP's major concern.
5. During the third stage, the main issue was how to uphold the avoidance of developing countries commitments and how to relate to the Kyoto Mechanisms.
6. The meeting in Copenhagen was very controversial for China, and China was blamed by many governments for the failure of the meeting. As the summit did not achieve planned results, there is still need for more negotiations on legally binding final agreements.
7. China has joined many international organisations and signed several international treaties on climate change mitigation and adaptation. China is especially active in international carbon cooperation.
8. China, being one of the major contributors and also one of the potential victims of climate change, has become one of the main recipients of climate-related aid in bilateral and multilateral cooperation projects.

China's Participation in Global Climate Change Cooperation: from the 1980s to the Post-Kyoto Era

Ksenia Chmutina*

Three Stages in China's Participation in Global Cooperation

1.1 Environmental protection became a basic state policy in China in the early 1980s. Since then a large number of laws and regulations have been promulgated. China has made great efforts in developing steps towards climate change mitigation and the promotion of energy conservation. Since then, China's official participation in the international climate negotiations has evolved in three stages: 1990-1992, 1992-1997, and 1997 through present.¹

1.2 The first stage started from the 1980s. In 1988, an inter-agency group was established by the Environmental Protection Commission with approval from the State Council. The National Climate Change Coordination Group was formed to facilitate the work of the formulation of China's position for international climate change negotiations. This group consisted of the State Science and Technology Commissions (SSTC), which was responsible for response strategies, the National Environment Protection Agency (NEPA), which was in charge of impact assessment, the State Meteorological Administration (SMA), which was in charge of scientific assessment and acted as the lead agency, and the Ministry of Foreign Affairs (MOFA), which lead the Chinese delegation during negotiations.²

1.3 During the Intergovernmental Negotiating Committee negotiations in 1991, China strongly opposed the idea of targets and supported the general framework convention with no specific responsibilities. China was also successful in establishing a unified developing countries front in order to resist any singling out of developing countries commitments by the developed countries. From the very beginning of the

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¹ Harris, P., & Yu, H. (2005). Environmental change and the Asia Pacific: China responds to global warming. *Global change, Peace and Security*, 17(1).

² Bjorkum, I. (2005). *China in the International Politics of Climate Change: A Foreign Policy Analysis* (FNI Report 12/2005).

international negotiations on climate change, China earned the reputation of a 'hard-liner'³. The core elements of China's negotiation position were: an emphasis on the major scientific uncertainties of climate change; a focus on protection of national sovereignty; the historical responsibility of the industrialised countries; and the transfer of new and additional funding and technologies to developing countries. China together with other developing countries was able to influence the structure of the Convention.⁴

1.4 The second stage largely overlapped with the lifecycle of the Kyoto Protocol. In 1992, China signed the UNFCCC and then ratified it in 1994. There were six more INC meetings between Rio and the first Conference of the Parties, during which China emphasised that the implementation of the existing commitments should be the COP's major concern and underlined that China was not interested in negotiating until the Annex 1 Parties had implemented all their commitments. When parties gathered in Kyoto for the COP-3, China initially proposed that developed countries reduce their emissions of GHG⁵ to 1990 levels by 2000, and a further 7.5%, 15% and 20% by 2005, 2010 and 2020 respectively, giving a total reduction of 35% by 2020.⁶

1.5 In May 1998, China signed, and then in August 2002 ratified, the Kyoto Protocol that came into force on February 16th, 2005. At this stage, China's voluntary efforts had thus far been insufficient, especially in terms of implementation and enforcement. In response to the EU's concern about the projected rise in its GHG emissions, Chinese officials noted that they could make a concerted effort to place environmental protection at the top of their policy agenda. However, China generally was sceptical of Kyoto mechanisms. China and other developing countries objected to Article 17 on emissions trading stating that it would not reduce emissions, and proposed it to be deleted from the Protocol.⁷

³ Economy (1994) in Bjorkum (2005)

⁴ This can be seen in Article 3.1 of the Convention, which calls on the Parties to protect the climate system "on the basis of equity and in accordance with their common but different responsibilities and respective capabilities. Accordingly the developed country Parties should take the lead in combating climate change and the adverse effects thereof" [UN 1992].

⁵ CO₂, CH₄ and N₂O

⁶ Bjorkum (2005)

⁷ The Kyoto protocol divided all countries into two groups: developed Annex I countries, which are obligated to reduce their GHG emissions to approximately 5% below their 1990 level by 2012, and developing Annex II countries, which are not subject to these rules [UNFCCC 1997].

1.6 In preparation for the implementation of the Kyoto protocol, the government set up a scrutiny council for the Clean Development Mechanism (CDM) and promulgated the Interim Measures for Operation and Management of CDM. CDM is one of the three so-called flexible mechanisms under the Kyoto Protocol. It allows developed countries to invest in emissions reduction projects in developing countries to achieve emissions reduction credits.

1.7 When it was first proposed in 1997, the CDM was met with scepticism in China. It was received more positively later on because China was able to see the opportunities for improving its energy efficiency and combating local pollution problems. The idea of the Joint Implementation (JI) was also met by China sceptically as China saw this as an instrument created primarily for the developed countries' benefit as it helped them to avoid domestic actions.⁸

1.8 From about 1997 onwards, China's participation in international climate change cooperation entered a third stage. The main issues during this stage were how to uphold the avoidance of developing countries' commitments and how to relate to the Kyoto Mechanisms, especially the CDM⁹. During the COP-4 meeting in Buenos Aires, China together with India and other developing countries, rejected the voluntary commitments idea and remarked that developed countries should change their patterns of production and consumption¹⁰. After the next COP-5 meeting in Bonn, China started to discuss the rules and procedures in the practical implementation of CDM projects. COP-7 agreed on the Marrakesh Accord in November 2001, which included the establishment of the CDM Executive Board, the clarification of project cycle and relevant stakeholders, and the recognition of Certified Emissions Reduction (CERs).¹¹

1.9 The CDM mechanism is the most important instrument for China in the UN-led mitigation. The CDM's target is to encourage sustainable development in non-Annex 1 developing countries, and thereby to enable Annex 1 developed countries to invest in emissions reduction projects in non-Annex 1 countries, thus reducing the cost of

⁸ Freestone, D., & Streck, C., eds. (2005). *Legal Aspects of Implementing the Kyoto Protocol Mechanism: Making Kyoto Work*. Oxford: Oxford University Press.

⁹ Harris and Yu (2005)

¹⁰ Heggelund, G. (2005). *International CER market and CD experiences in developing countries* (final report).

¹¹ Lin, W., Heggelund, G., Yangen, K., & Feng, L.J. (2004). *Efficient implementation of CDM in China*. Report prepared for Norwegian Ministry of Foreign Affairs. Beijing.

compliance with their commitments. Examples of CDM projects in China are the building of hydroelectric and wind power facilities, destruction or replacement of GHGs in industries, fuel substitution, and waste heat recovery and utilisation in industry. The investing developed countries are issued CERs, which are the credits assisting them in complying with their Kyoto targets; one CER equals one tonne of CO₂ equivalent.¹²

1.10 It is important to point out that CERs do not reduce emissions and therefore “false credits” from non-additional projects would increase overall emissions¹³. Currently China is the biggest CDM host with 2,023 out of the 4,869 global projects. These will be issued 110 CERs with 95 mln tonnes of reduced emissions in CO₂ equivalent. CERs are considered national property and are used in supporting activities dealing with climate change. The main areas where CDM operates in China are energy efficiency, renewables, and methane recovery and utilisation.¹⁴

1.11 The following COP meetings were also complex, and until now, there has been no agreement on commitments. China did not leave the position it showed during the FCCC and has been very consistent throughout the 15 years of international climate change negotiations. Many targets for 2006 were not met, and as was acknowledged by the Chinese SEPA that the situation with water and air pollution has become even worse. China’s position on the Kyoto Protocol stems from the Chinese government’s mutually contradictory policies of maintaining record economic growth and expanding prosperity and of protecting the environment and preserving social stability.

1.12 It is important to discuss the most recent COP-17 meeting held in Copenhagen in December 2009. In May 2009, six months before the meeting in Copenhagen, the NDRC issued “The Implementation of the Bali Roadmap: China’s Position on the Copenhagen Climate Change Conference”¹⁵. In this document, China outlined the main principles of the UNFCCC and its Kyoto Protocol, and gave the objectives of the Copenhagen Climate Change Conference. It was also emphasised in the Roadmap that it was important to enhance the “full, effective and sustained implementation of the

¹² Heggelung, G., & Buan, I.F. (2009). *China in the Asia –Pacific Partnership: Consequences for UN Climate Change Mitigation Efforts?* International Environmental Agreements, 9(3), p. 301-17.

¹³ Wara, M. (2008). Measuring the clean development mechanism’s performance and potential. *UCLA Law Review*, 55, p. 759-1803.

¹⁴ Heggelund (2009)

¹⁵ NDRC (2009). *Implementation of the Bali Roadmap*, May 20.

UNFCCC" by means of cooperation, mitigation, adaptation, technology development and transfer and financial support. The last section of the document stated that developed countries should further quantify their emissions reduction commitments (with reductions of at least 40% below their 1990 level by 2020).

1.13 Just before the actual COP-17 meeting in December 2009, China announced its emissions cut target: "*China will cut CO₂ emissions per unit of GDP by 40-45% by 2020 from the 2005 level, increase the share of non-fossil fuels in primary energy consumption to around 15% by 2020, and increase forest coverage by 40 mln hectares and forest stock volume by 1.3 bln m³ by 2020 from the 2005 levels*"¹⁶. As can be seen, China's reduction is measured in carbon intensity, which differs from the traditional measurement of emissions in tonnes. The summit in Copenhagen was very controversial for China, and China was blamed by many governments for the failure of the meeting. As the summit did not achieve the results planned, there was still need for more negotiations on legally binding final agreements.

International cooperation

2.1 Since the 1980s, China has joined many international organisations and signed several international treaties. China's role in international politics and cooperation has increased dramatically since then. Many factors drive China to be more active in international carbon cooperation. They include scientific knowledge and political consensus; international regime enhancement; information sharing and public awareness; differences in technologies and their costs; trade liberalisation; TNCs expansion; and the issue of China's image.¹⁷

2.2 One of the ways in which China is showing its international cooperation on climate change mitigation is in the short term by coping with climate change through enhancing carbon management and improving energy efficiency, and in the long-term by reducing the GHGs and mitigating future climate change through financing the development of low carbon technologies. By no means does international cooperation

¹⁶ BBC News (2009). China unveils emissions targets ahead of Copenhagen. BBC News Online, 26 November.

¹⁷ RCSD (2006). *Understanding China's Energy Policy*. Chinese Academy of Social Science, Beijing.

always bring China benefits.¹⁸ The following figure 3 shows two-dimensional impacts of China's participation in international cooperation.¹⁹

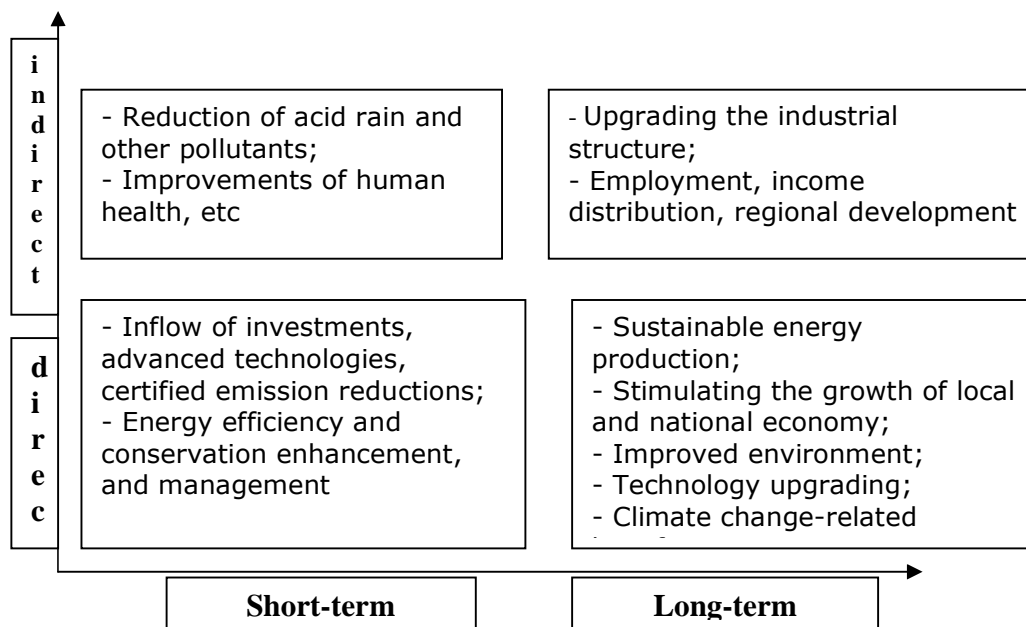


Figure 1 Two-dimensional impacts for China's participation in international cooperation

2.3 China, being a major contributor and also a potential victim of climate change, has become one of the main recipients of climate-related aid through bilateral and multilateral cooperation projects of the World Bank, the UNDP, the Asian Development Bank, and other agencies. Moreover, China gets a lot of financial support through bilateral cooperation projects on climate change with the USA, Canada, Australia, Switzerland, and Norway. The largest bilateral projects are: the EU-China Energy and Environment Partnership; the Fossil Energy Protocol between the USA and China; and the Climate Change Partnership of Australia and China.

2.4 Another important cooperation in the area of climate change is between China and the UN cooperation. China took its seat in the UN in 1971, and now undertakes a very important role in representing developing countries in the UN. The United Nations Environmental Programme was established in the 1970s, and has had good

¹⁸ Johnson, T.M. (2001). Foreign Involvement in China's Energy Sector. In E. Economy & M. Oksenberg, eds. *China joins the world*. NY: Council of Foreign Relations Press.

¹⁹ RCSD (2006)

relationships with China ever since. China has established foreign missions in the UNEP after the Stockholm conference, and the UNEP is playing an important role in establishing environmental institutions in China. It has also contributed to strengthening SEPA's position within the Chinese government. The following are the main elements of China-UN cooperation²⁰: training of personnel and policy making; public awareness; technical assistance; and networking.

2.5 China also receives 17% of its total funding for climate change projects from the Global Environmental Facility, 70% of which is used on energy efficiency projects and renewable energy projects, etc. In 2002 CDM projects were established in China; from 2002 to 2005 the total foreign investment in the development of four CDM projects²¹ in China accounted for approximately 7.73 billion RMB (US \$ 0.93 billion).²²

2.6 China can be characterised as a key factor in climate change discussions and negotiations as it has an influential position in the "Group of 77 and China". It is a rather heterogeneous group with largely different interests but acts united in climate change negotiations. China plays a major role in forming the position of the developing countries in these negotiations, which is that it was the developed countries which produced most of the GHG emissions that are causing the problems that the world is facing now; moreover, the technological capacity of developed countries for reduction of emissions and mitigation of climate change is much better than that of developing countries.²³

Multilateral agreements

3.1 *The Asia –Pacific Partnership (APP) on Clean Development and Climate*: The APP is one of the climate change mitigation initiatives working outside of the UN. It is a seven-country pact with the aim of reducing emissions through technology and voluntary public-private partnerships²⁴. The APP countries are working with China in carbon-associated areas, and this has proved successful. There are some projects with multilateral banks that are involved in financing incentives and the programmes

²⁰ Heggelund, G. (2007). China's climate change policy; domestic and international developments. *Asian perspective*, 31 (2), p.155-91.

²¹ Xiaogushan Hydro Project in 2003; Huitengxile Wind Project in 2004; Zhaonan Wind Project in 2005; Daliangzi Hydro Project in 2005.

²² RCSD (2006)

²³ Bjorkum (2005)

²⁴ Heggelund (2009)

identified by the task forces that expand the use of technologies and practices designed to promote the objectives of the Partnership²⁵. International cooperation has a big impact on technology transfer due to the following reasons:

- They strengthen innovation capacity (R&D): there are more than 400 RD&D centres in China set up by TNCs;
- They enhance technology integration and linkages: there is a possibility for China to acquire a complete package of technologies that is a mix of equipments, know-how and managerial skills;
- They upgrade the overall technology levels/capacities;
- They promote private sector participation.

3.2 In 2006, the APP issued its communiqué outlining that the “Partnership will be consistent with and contribute to our efforts under the UNFCCC and will compliment, but not replace, the Kyoto Protocol.” The APP has established main task forces that will focus on renewable energy and distribution generation, power generation and transmission, and reducing energy consumption in the following industries--steel, aluminium, cement, coal mining, and building and appliance. There are also five projects listed as ‘cross-cutting or other’. China is involved in all task forces, but not all projects, and is a co-chair of the Cleaner Fossil Energy Task Force and the Power Generation and Transmission Task Force.²⁶

3.3 There is a number of factors that explain why China is highly involved in the APP. The main motivation is the potential of the APP to contribute to China’s energy security challenges as all task forces are related to energy production, energy intensive industries, or energy efficiency. Secondly, the APP focuses on technology that coincides with Chinese goals. Thirdly, the APP countries would like to mitigate climate change without giving up their development growth, which is very attractive to China. Fourthly, the APP provides a way for China to position itself in the global arena.²⁷

3.4 *The Renewable Energy and Energy Efficiency Partnership (REEEP)*: The REEEP is a global public-private partnership that structures policy and regulations for clean energy and provides the financial support of these projects. The aim of REEEP is to

²⁵ RCSD (2006)

²⁶ APP (2009). Communiqué from the Asia-Pacific partnership on clean development and climate inaugural ministerial meeting. Shanghai, China.

²⁷ Heggelund (2009)

accelerate the integration of renewables into the energy mix and to advocate energy efficiency as a way to improve energy security and reduce GHG emissions. China has received support for more than 10 different projects with a total cost of around 700,000 Euros.²⁸

3.5 *International Carbon Sequestration Leadership (CSLF)*: CSLF is a voluntary climate initiative of developed and developing countries--members of which are involved in technology cooperation in order to reduce emissions. It has been organised as a technical working group to develop technology and recesses for dealing with GHG emissions independent of other climate change activities. It carries out different projects and demonstrations, including projects on Carbon Capture and Storage (CCS), hydrogen, and low-carbon fuels for transportation, etc²⁹.

Bilateral agreements

4.1 *US – China Memorandum of Understanding on Biomass Development*: In December 2007, a Memorandum of Understanding was signed between China and the USA. Its aim was to promote further research to propagate the greater use of biomass. The Memorandum outlined a large number of tasks for cooperative efforts between the two countries with a focus on the exchange of scientific, technical, and policy information on biomass production and its conversion into biofuel and bio-based products and chemicals.³⁰

4.2 *Market Transformation programme – Partnership with the UK*: An agreement on partnership was signed in 2006. The aim of this partnership is to harmonise and to cover product performance specification at a global level. Theoretically, this project would let China develop a more informed approach to product policy. It focuses on the efficiency of appliances.

4.3 *The UK – China Action Plan on Climate Change and Energy*: “The UK–China Action Plan on Climate Change and Energy” was outlined in December 2007. Its main objectives are to “ensure climate security and secure, clean energy supplies at

²⁸ Li, J. (2007). *Mitigation Climate Study – China* (Occasional Paper for Human development Report UNDP)

²⁹ As above.

³⁰ www.iea.org

affordable prices by promoting a faster transition to a low carbon economy in China, and China's role in delivering an international framework". This main target is made up of seven objectives:

- encouraging China to engage positively in international negotiations;
- raising awareness and understanding of the need to adapt to climate change;
- persuading key national and regional political and industrial policy-makers and leaders of the need to address climate change;
- accelerating the delivery of key technology cooperation projects, including the Near Zero Coal Emissions project;
- persuading China to borrow for clean energy projects from the World Bank and the Asian development Bank, and to maximise its opportunities under the Environmental Transformation Fund;
- strengthening China's performance on improving energy efficiency;
- strengthening China's ability to better forecast future energy demand.

4.4 *Memorandum of Understanding between the National Development and Reform Commission of the People's Republic of China, and the Department for Environment, Food and Rural Affairs on establishing a China-UK Climate Change Working Group:* The Memorandum was signed in London in December 2006. It is to run for five years, at the end of which the Working Group will meet again. The main aim of the Memorandum is to cooperate and share knowledge on climate change. The main areas covered by the Memorandum are: science work; energy efficiency; energy technologies; approaches to adaptation; the use of flexible mechanisms, particularly CDM capacity building activities.

4.5 *EU-China Energy and Environment Partnership:* Annually, the EU supports several energy efficiency, renewable energy and other carbon reduction-based technical projects in China. The aim of the cooperation is to improve energy efficiency, enlarge the utilisation of renewable energy, develop natural gas markets, and encourage sustainable energy use.³¹ China also has bilateral agreements with Australia, Canada, Japan, and some individual EU countries.

³¹ Li (2007)

4.6 China actively participates in international efforts on climate change mitigation and takes part in multilateral, regional, and bilateral cooperation. However, China's principal position has not changed dramatically, and it is unlikely that its major policies will be reviewed in the near future.