

CHINA'S PEACEFUL DEVELOPMENT AND GLOBAL CLIMATE CHANGE: A LEGAL PERSPECTIVE

Qin Tianbao



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INTRODUCTION

At the beginning of the new century, China's President, Mr. Hu Jintao, presented the strategy of 'peaceful development'. Based on an objective analysis of the evolution of China and a summary of the experiences and lessons of great powers around the world, as well as more general international trends, he clarified the direction of China's development. 'Peaceful development' is a significant choice for China's development strategy in the context of globalisation and a serious Chinese commitment in response to doubts and concerns with its rise in the international arena.

The years since the adoption of the reform and openingup policy have witnessed China's astonishing economic and social achievements. This has led China into an intermediate stage of industrialisation and rapid urbanisation, a period of peak consumption of resources and environmental impact as previously evidenced in the histories of developed countries. The rapid economic growth presently experienced is mainly crude and presupposes a huge input of raw materials, natural resources and energy. This has, in turn, provoked widespread concerns with China's growth rate, namely its impact on global resources, consumption and the environment. A fearful sentiment prevails in the international arena in this regard; it is even abused by those with traditional views on security issues in order to argue forcefully about the 'China Threat' doctrine generally, or the 'China Threat to the Environment' specifically. There is evidence to suggest that failure to resolve environmental problems arising as a consequence of socioeconomic development may give rise more frequently to international friction and thus constrain the peaceful development of China and realisation of its strength.

This new trend deserves serious attention. It is time for the Chinese authorities to take positive measures in response to environmental problems and international concerns. This paper starts by examining environmental issues during China's peaceful development and its international repercussions, then seeks solutions in principles, norms and institutions under international law, and finally makes proposals as to policies and legal steps to tackle these issues.

CLIMATE CHANGE ISSUES DURING CHINA'S PEACEFUL DEVELOPMENT AND ITS INTERNATIONAL IMPACT

Ever since the late 20th century, environmental degradation around the globe has been exacerbated. Climate change, trans-boundary pollution, land desertification, sharp loss of biodiversity, marked increase of dangerous substances, shortages of resources and energy, all seem threatening. Faced with such serious challenges the international community is paying great attention to environmental preservation and taking realistic action at all levels. Regrettably, China's economic upsurge is paralleled by the same environmental losses and they exceed the average levels around the world in corresponding fields. There is no denying that these challenges, that circumvent China, will have a material impact on the evolution of global environmental change. Among these, climate change is the most controversial problem and there is the utmost pressure to undertake commitments.

Conventional wisdom states that human activities produce more greenhouse gases in the atmosphere, which enhances the greenhouse effect and thus warms the climate. Climate change induced by global warming will have a huge impact on the ecosystem and human socioeconomic conditions. The direct consequent of global warming is the elevation of the sea level, which will endanger coastal regions and island countries. It will cause an abnormal climate, and exacerbate desertification and drought. Its effect on agriculture will be immense; it will displace growth belts of crops northwards and affect traditional ways of production and life. It will also increase the frequency of pest disasters which are threats to human health and crop growth.

¹ Yang Chaofei, 'Analysis of Energy and Resources Problems During China's Peaceful Development', 2 Journal of Central Communist Party School 95, 95 (2005).

Ongoing international efforts to protect the global environment and prevent anthropogenic warming culminated in the UN Framework Convention on Climate Change² signed in 1992 and the Kyoto Protocol³ in 1997. Both have come into effect with provisions for developed countries to limit and reduce emissions. Though excused temporarily, China will definitely be under intense pressure to do the same in the long-term. The United States has refused to sign these treaties on the pretext of the objecting to the exemption of developing countries from such obligations. Currently, China's total level of CO₂ emissions is the second highest in the world. Other greenhouse emissions such as methane and nitrous oxide are also greater than those of most countries. From 1990 to 2001, CO₂ emission in China increased by 82.3 billion tons, accounting for 27 per cent of the increase worldwide in the same period. It is expected that around 2025, China might well replace the United States as the country with the highest CO₂ emissions in the world.⁴ Developed countries in Europe and the United States are pressing developing countries to assume their obligations to limit and reduce emissions after 2012. This will be a tough challenge for China, a developing country that is technologically backward, heavily populated, and is experiencing rapid economic growth.

A related issue is that the worldwide energy shortage is being most acutely experienced in China. Shortages of energy resources during China's economic development have become more and more serious and the increasing reliance on imports has intensified pressure on the global supply of resources. For a long time now, China's economic growth has been crude and at the cost of huge inputs of raw materials and energy. Accelerated industrialisation and economic globalisation means that China's position as a major energy resource consumer in the world is irreversible.

China's energy consumption per output is 2.4 times higher than the average level of other countries; 4.97 times that of Germany, 4.43 times of Japan, 2.1 times that of the United States, and 1.65 times that of India,

2 The United Nations Framework Convention on Climate Change, New York, 9 May 1992, 31 Int'l Leg. Mat. 849 (1992). also a developing country. China's GDP and total resource consumption is also out of proportion with each other. China's contribution to the world economy is 4.3 per cent at a cost of 7.4 per cent of global oil consumption and 30 per cent of coal.⁵ It is not feasible to curb crude growth of this type, which is reliant on heavy resource consumption, in the next twenty or thirty years.

China's current development depends on excessive use of energy. When excessive exploitation of domestic energy led to a shortage in domestic supply, China began to import what it needs. In anticipation of a large increase in oil consumption and shortages in domestic output, 60 per cent of its crude oil needs will have to be imported by 2020, which compares with the current 34 per cent. The pressure this consumption will place on global supplies is evident. China' population of 1.3 billion, is equivalent to the total population of developed countries. If China were to follow the example of industrialised countries and match the United States in terms of per capita car possession and petrol consumption, China would be consuming 80 billion barrels of oil a day - the current daily output worldwide is 64 million.⁶

Given the facts above, China's traditional mode of economic growth has led to a sticky environmental situation. These sticky problems, if left unresolved, will induce huge risks for China's peaceful development and, also, worsen the global environmental situation. It is possible, therefore, to understand why its neighbours and economic competitors, fearful of China preying on their resources, are not showing a friendly or tolerant attitude to its peaceful development.

INTERNATIONAL LAW ON CLIMATE CHANGE INVOLVED IN CHINA'S

PEACEFUL DEVELOPMENT

It is essential that China resolves environmental bottlenecks without delay in order to, first, eliminate

³ The Kyoto Protocol to the Framework Convention on Climate Change, Kyoto, 16 March 1998, 37 Int'l Leg. Mat. 22 (1998).

⁴ Xie Zhenhua, 'On Ecological Environment and Sustainable Development', in Theories Progress Editorial Board ed., Upholding and Implementing Scientific Outlook on Development 96, 98 (Beijing, Central Communist Party School Press, 2004).

⁵ Jiang Zhi, 'Sustainable Development: Six Challenges for China in the 21st Century', *Chengdu Daily*, 6 September 2005, p. 3.

⁶ Cao Fengzhong, Economy, Environment and Development 24 (Beijing: China Environmental Science Press, 1999).

any doubts about the poor environmental situation by stakeholder countries and, secondly, to help realise China's peaceful development. Knowledge and understanding of international principles, rules and regimes for the resolution of environmental issues are prerequisites for finding solutions and this paper examines the relevant international norms on climate change.

3.1 Origin and Evolution of Climate Change Related International Law

Global climate change is one of the major environmental problems common to humanity as a whole. Climate change is also one of the most demanding challenges enduring from the 20th century to the 21st century. States have paid great attention to it and are resolved to take action to limit and reduce emissions of greenhouse gases (CO₂ in particular). The 43/53 Resolution of the UN General Assembly, adopted in 1988, admits that climate change problems are 'issues of common concern of humanity'; 'urges the international community to give top priority to climate change' and ratifies the work report by the Intergovernmental Panel on Climate Change (IPCC) established by the UN Environment Program and the World Meteorology Organisation. The 45/212 Resolution adopted at the 45th session of the UN General Assembly in 1990 laid down the establishment of the Intergovernmental Negotiation Committee (INC) on the Framework Convention on Climate Change to engage in negotiations.

The negotiation process has been filled with entangled contradictions, fights and compromises as climate change is relevant to the major economic, social and environmental interests of each country. States hold different positions rooted in the differences in their economic development, energy structure, industrial structure and level of energy-related techniques and the degree to which they have been affected by or anticipate being affected by climate change. During negotiations there are roughly two groups: developed countries and developing countries. Developed countries, the EU in particular, argues for detailed objectives and timetables for reducing emission of greenhouse gases such as CO₂; while developing countries, India and China, for example, object to such provisions as they are likely to restrain their economic development in the long term.

Since the first negotiation held in February 1991 in Washington, in the US, five negotiations have been held

under the auspices of the INC and a compromise on the provisions of the Convention was reached on 9 May 1992. At the UN Conference on Environmental and Development held in 1992 in Rio de Janeiro, 154 states and the European Community signed the UN Framework Convention on Climate Change (referred to hereinafter as the 'Convention'). The Convention came into effect on 21 March 1994 and, up to now, 184 member or regional organisations have acceded to the Convention as contracting parties.

The Convention does not provide detailed standards for limiting and reducing the greenhouse gas emissions of each state. Yet it is the first international convention which involved participation of all members of the international community. It is a legislative act by the international community to assert climate change as a serious threat, which lays down a sound foundation for follow-up international initiatives. The Convention is a framework legal document of international law due to scientific uncertainty and the entangled interests of negotiating states. Tt simply provides, in principle, that parties listed in Annex I (namely developed countries and countries undergoing transition to a market economy) are obliged to reduce emissions of greenhouse gases before others, and leaves the details for later annexes, protocols and other channels.

In order to realise its effective implementation, representatives of parties signed the path-breaking Kyoto Protocol after arduous claims and compromises during the third meeting of parties to the Convention in 1997. The 1997 Kyoto Protocol (referred to hereinafter as the 'Protocol') changed the practice of the Convention limiting greenhouse gas emissions in a qualitative way and imposed legally binding restraints on parties listed in Annex II (mainly developed countries). It required them to reduce greenhouse emissions by an average of 5.2 per cent in 2012 on 1990levels and exempted developing countries from similar reduction obligations. This is the first time in history that quantitative restraints on emissions of specific pollutants have been imposed on specific countries under international law. The Protocol has introduced three 'flexibility mechanisms' (known as the 'Kyoto Mechanisms') under which assistance is available to developed country parties to carry out their limitation

⁷ Wang Xi, International Environmental Law 158 (Beijing: China Law Press, 2nd ed. 2005).

and reduction obligations in respect of emissions. These are, first, the 'Joint Implementation' mechanism (JI), which is applicable to developed countries and Eastern European countries undergoing transition to a market economy; secondly, the 'Emission Trading' mechanism (ET), which is applicable to developed countries; and, thirdly, the 'Clean Development' mechanism (CDM) for developed and developing countries. These mechanisms were originally designed to reduce emission of CO₂ in a most cost-efficient way for countries (developed countries in particular).

The Protocol is a positive step towards the objective of reducing and limiting emissions of greenhouse gases, although it also leaves many issues unresolved due to the compromises of negotiating parties. And it came into effect under tough conditions. As provided in Article 25 of the Protocol, the Protocol will enter into force under the following two conditions. First, ratification by no less than 55 Parties to the Convention; second, these parties had to include those included in Annex I which accounted in total for at least 55 per cent of the total CO₂ emissions for 1990. The second condition is of particular importance and is the substantive condition for the implementation of the Protocol.

CO, emissions of the US in 1990 accounted for 36.1 per cent of the total emissions of parties listed in Annex I. The US president George W. Bush declared he would not ratify the Protocol, casting a shadow over its destiny. Parties concerned compromised and reached the Marrakesh Agreement at the seventh Conference of the Parties held in 2001, which rescued the Protocol and signalled the triumph of global multilateralism over US unilateralism. The withdrawal of the US has greatly reduced its potential effect on the environment. Russia became the focus for a concerned international community that was keen for the Protocol to come into effect as soon as possible. Russia's CO₂ emissions in 1990 accounted for 17.4 per cent for the parties listed in Annex I, and its ratification would satisfy the conditions for implementation. The Russian State Duma and the Federal Council both ratified the Protocol in October 2004. President Vladimir Putin signed the Protocol on 5 November 2004. On 16 February 2005, 90 days after Russian ratification, the Protocol came into effect and became legally binding norms of international law.

3.2 Outline of International Law on Climate Change

The Convention and the Protocol constitute the core of international law norms on climate change. They declare that climate change is the 'common concern of humankind' in an attempt to achieve the ultimate objective of stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. The Convention and the Protocol make an important contribution to international law by introducing the concept of 'common concern of humankind'. It means that states enjoy sovereign rights over climate change related activities within their respective jurisdictions. However, the international community as a whole is entitled to raise justified concerns with activities occurring in the jurisdiction of a specific state which has an impact on climate change because climate change is of interest to humankind as a whole. In other words, 'events previously under national jurisdiction', including economic activities likely to cause climate change, are incorporated under the jurisdiction of international law on climate change due to their relevance to the common interest of humanity. Guided by the concept of common concern of humankind, the Convention and Protocol provide specific principles and regimes on climate change with the following characteristics:

3.2.1 Reiteration of the Principle of State Sovereignty on Climate Change subject to Restraint

As discussed above, climate change involves each state's major economic, social and environmental interests and it is critical to define climate change and its negative trend in international law. During Convention negotiations, the opposition between developing countries and developed countries (or between 'under national sovereign jurisdiction' and 'common heritage of humankind' positions⁸) was stark. In general,

⁸ There were disagreements and contradictions within both groups. Among developed countries, the EU supported mandatory provisions which the US opposed; and among developing countries, small island countries vulnerable to climate change argued for strict restrictions while major developing countries, such as India, were opposed. See Wang Xi, note 7 above at 157, 158.

developing countries argued that each state has the right to exercise permanent sovereignty over their natural resources and that they can develop and exploit their natural resources and energy reserves according to their environmental and developmental policies. This would give each nation jurisdiction for climate change and its adverse effects on economic development, as restricted by reduced and limited greenhouse gas emissions. Developed countries, argued for developing countries to abandon their position, and held that climate change should be declared a 'common heritage of humankind' in order to legally justify intervention by the international community in the climate change related activities of a country. During negotiations, there was strong opposition to declaring climate change as 'the common heritage of humankind' and, after rounds of consultations and concessions, a consensus was reached in support of the 'common concern of mankind' declaration.

In the final analysis, there are fundamental differences between 'common concern of humankind' and 'common heritage of humankind'. The primary element (or feature in law) of a 'common heritage of humankind' is the exclusion of possession in any form and, therefore, exclusion of any claim to sovereignty of any state or group of states in law. ¹⁰ 'Common concern of humankind', on the other hand, is a concept under international law which denotes activities or resources previously under the national jurisdiction of individual states. It respects each state's national sovereignty and does not seek to 'publicise' or 'internationalise' resources or activities *per se* in connection with greenhouse gas emissions and their impact on the atmosphere in national jurisdictions. ¹¹ Thus, the 1992 Framework Convention

on Climate Change reaffirms the principle of State Sovereignty in international cooperation to address climate change: 'States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies'. ¹²

Meanwhile, the common concern of humankind established by the Convention constitutes a kind of restraint on the principle of permanent sovereignty over natural resources adhered to by developing countries. The Convention admits that each country still enjoys sovereignty over activities and resources of common concern of the international community but imposes upon each country obligations to manage and protect these activities and resources for the sake of the common interest of humankind. 13 These provisions of the Convention have historic roots. In light of the evolution of the theory of permanent sovereignty over natural resources, the rights holder undertakes to fulfil obligations set by the international community with a view to balancing the interests of all parties and realising the principle's primary objective - sustainable development. Principle Two of the Rio Declaration is most representative. It provides that 'States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies,' This expands the permanent sovereignty principle and also imposes responsibility on the permanent sovereign power, namely 'the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.' It has become enshrined in customary international law. The Convention carries on with the idea and adopts the same wording as Article 2 of the 1992 Rio Declaration on Environment and Development to highlight the international obligation of each country for the common concern of humankind. Article 3, Paragraph 3 of the Convention points out that parties should take precautionary measures to anticipate, prevent or

⁹ The Malta proposition to the 43/53 Resolution of the UN General Assembly on climate change used the word 'common heritage'. See UN General Assembly Resolution 43/53, Protection of Global Climate for Present and Future Generations of Mankind, UN Doc. A/RES/43/53 (1988).

¹⁰ See Ian Brownlie, Principles of Public International Law (Chinese Version translated and edited by Zeng Lingliang and Yu Minyou) 266-267 (Beijing: China Law Press, 2003); Alexandre Kiss, International Environmental Law (Chinese Version translated by Zhang Ruosi) 11-113 (Beijing: China Law Press, 2000) and Christopher C. Joyner, 'Legal Implications of the Concept of the Common Heritage of Mankind', 35 International Law & Comparative Law Quarterly 190 (1986).

¹¹ Jutta Brunnée and Stephan J. Toope, Environmental Security and Freshwater Resources: A Case for International Ecosystem Law', 41 Yearbook of International Environmental Law 73 (1995).

¹² See Nicolaas Jan Schrijver, Sovereignty Over Natural Resources: Balancing Rights and Duties in an Interdependent World 29-132, 351-378 (Cambridge: Cambridge University Press, 1997).

¹³ Qin Tianbao, Legal Issues Concerning Access to Genetic Resources and Benefit-sharing 97 (Wuhan: Wuhan Press University, 2006).

minimise the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing taking such measures. Article 4 of the Convention too provides common and general obligations to be performed by all states, developed and developing. All these provisions are derived from the restraint of individual states' sovereignty in favour of a common concern of humankind and the requirement that each state fulfils its obligations in respect of climate change and its adverse effects on the environment.

3.2.2 Stress upon Substantive Justice in Respect of Climate Change and State Obligations to Solution thereof

First, common responsibility prohibits developing countries from evading their obligations to protect the global environment under pretexts such as low economic development, technical weaknesses or lack of professionals. As humanity has only one Earth, the efforts of several developed countries alone is far from enough to protect global climate resources and the participation of developing countries is essential to the international effort to control climate change. Furthermore, global warming has adverse effects for developing countries as well. The damage is often heavier than it is for developed countries. Thus developing countries need to take part in the common obligation to curb global warming together with developed countries.

However, the common responsibility is not synonymous with 'equalitarianism'. Though developing countries and developed countries share a common responsibility to curb global warming, developed countries have to undertake the greater or even major responsibility. The justification for this qualification is the historic and current global environmental situation. Historically, the industrialisation of developed countries was based on the exploitation of resources and energy from colonies and quasi-colonies and at the cost of over-consumption of fossil fuels and caused emissions of greenhouse gases such as CO₂. Statistics from the International Energy Agency shows that US emissions of greenhouse gases account for 25 per cent of the total of all countries. Its per capita emissions is 5.2 times that of the world average, 1.9 times that of Germany, 2.2 that of the UK, 2.25 that of Japan, 3.2 that of France, and 8.7 that of China.¹⁴ In other words, the advanced economies of developed countries have been achieved at the cost of more energy and greenhouse gas consumption than that of other countries. Developed countries, therefore, should assume special responsibility for protection of the global climate. Either social justice theories or principles under environment law of the 'polluter's responsibility' and the 'beneficiaries' contribution to damages' dictate that developed countries must shoulder greater responsibility for reducing and limiting greenhouse gases than developing countries.

The 'common and differentiated responsibility' principle finds expression in general as well as in specific provisions of the Convention. Article 4, Paragraph 2(a) provides that developed countries take the lead in modifying longer-term trends in anthropogenic emissions consistent with the objective of the Convention; by measures such as those listed in Article 4, Paragraph 2 of the Convention on specific commitment for developed country parties. This includes the provisions: developed country Parties and other developed Parties shall provide new and additional financial resources; assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to those adverse effects; and take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies in developing countries. Also, the Kyoto Protocol provides the objectives developed countries must achieve from 2008 to 2012: compared with the figures in 1990, the European Union shall cut emissions by 8 per cent; the US by 7 per cent; Japan and Canada by 6 per cent; Eastern European countries by 5-8 per cent; and New Zealand, Russia and Ukraine, instead of cutting emissions can stabilise them at the 1990 level.

Developing countries, though currently exempt from definitive limitation and reduction responsibilities under the Convention and the Protocol, are obliged to compile lists of countries emitting greenhouse gases, make and implement national plans for the reduction and limitation of greenhouse gas emissions, maintain and enhance sequestration pools of greenhouse gases, promote scientific research, undertake information and education

¹⁴ Zhong Shukong, Challenges and Opportunities in the 21st Century - Global Environment and Development 20 (Beijing: World Affairs Press, 1992).

programmes with public participation. They also have some general commitments. In addition the Kyoto Protocol urges developing countries to formulate, 'where relevant and to the extent possible', national and (where appropriate) regional programs to improve the quality of local emission factors, activity data and/or models which reflect the socioeconomic conditions although it does not require them to make new commitments. Furthermore, the establishment of the clean development mechanism applicable to interactions between developed and developing countries by the Kyoto Protocol is the first step to involving developing countries in the global effort to reduce and limit greenhouse gas emissions. Thus, developing countries assume responsibilities for curbing climate change under the principle of 'common but differentiated responsibilities' and they are exempt only from detailed obligations to limit and reduce emissions.

The Convention and Kyoto Protocol arrangements result from the consideration of the special needs of developing countries and the partition of responsibility reflects substantive justice. 15 Developing countries, faced with the two-fold pressure of environmental protection and economic development, should be exempt from responsibilities (detailed limitation and reduction objectives) disproportionate with their past and current contribution to the problem and their current capabilities. And in respect of general commitments to be undertaken by developing countries, Article 4, Paragraph 7 of the Convention provides that: 'the extent to which developing country Parties will effectively implement their commitments under the Convention will depend on the effective implementation by developed country Parties of their commitments under the Convention related to financial resources and transfer of technology and will take fully into account that economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties'.

3.2.3 Stress on Economic Efficiency of Implementation Mechanisms of the Convention and Protocol

The cost-efficiency principle is one of the fundamental principles essential to the realisation of objectives of the Convention. Paragraph 3, Article 3 provides that 'policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost'. That is to say, parties should pay due attention to efficiency under conditions of substantive justice while carrying out their reduction and limitation responsibilities. The JI, ET and CDM are all flexible mechanisms required by the cost-efficiency principle.

As said earlier, global climate change is the 'common concern of humankind' in law, which justifies the right of the international community as a whole to be appropriately concerned with climate resources of global significance as well as the partition of responsibilities and obligations between members of the international community. Following this principle, each state has the right to emit a specific amount of greenhouse gases for economic development; and, with commercial transactions in the international community, rights can be traded through market mechanisms. ¹⁶ Thus, countries with sufficient financial power can buy from other countries, particularly from developing countries, the credit to emit greenhouse gases and reduce or replace measures to limit or reduce emissions. This is because reduced emissions of greenhouse gases will benefit humanity as a whole wherever they occur.

The cost-efficiency principle has a role to play in connection with the theoretical foundations laid down. As economic growth is uneven among states, the cost to achieve the same limits and reductions of greenhouse gas emissions differs in different countries. For example, if the rate of energy use in Country A is 50 per cent higher than in Country B, the cost of enhancing energy use rate and reduce CO₂ emission in A may be three or five times higher than that in B. Another example: if it costs 10,000 US dollars to plant one hectare of forest to absorb CO₂ in Country A, while in Country B it may cost only 100 US dollars it will be more cost effective to limit and reduce emissions in Country B. So, Country A can provide Country B with financial and technical assistance to achieve a net reduction in the concentration and quantity of greenhouse gases in the global atmosphere. The quantity to be reduced can be apportioned between the two countries as negotiated in

¹⁵ Qin Tianbao, 'Analysis on the Objection of the US to the Kyoto Protocol: A Perspective of International Law', in Zeng Lingliang ed., Wuhan University Luojia Jurists' Forum 282, 286-287 (Wuhan, Wuhan University Press, 2002).

¹⁶ Liu Daqun, 'Commentary on the UN Convention on Climate Change', in Wang Tieya ed., Chinese Yearbook of International Law 190, 195 (Beijing: China Foreign Translation Press, 1996).

advance, which is the trade of credit. It is theoretically sound and deserves exploitation in practice. These are the theoretical grounds for introduction by the Kyoto Protocol of the JI, the ET and the CDM, three flexible implementation mechanisms for developed country parties. They apply, respectively, to credit trading between developed countries and Eastern European countries in transition to market economies, between developed countries, and between developed countries and developing countries.

Objectively speaking, such flexibility should avoid possible constraints upon economic development in developed countries resulting from implementation of their commitments to limit and reduce greenhouse gas emissions. For developing countries, it means more foreign capital and technologies will be available to improve their energy efficiency. On the whole, it will serve to achieve a net reduction in greenhouse gas concentration and quantity in the global atmosphere at a low cost and high efficiency. There are grounds to give developed countries the option to make use of these flexible mechanisms and cooperate with other countries (countries in economic transition and developing countries) to carry out credit trade.

It is noteworthy that a reasonable balance must be reached between efficiency and equity of GHG emissions reduction, namely, the efficiency of GHG reduction shall be based on its substantive equity.¹⁷ Despite their advantages, flexible mechanisms have inherent deficiencies. First, developed countries might use flexible mechanisms to transfer their own limitation and reduction responsibilities to credit seller countries (mainly developing countries) in order not to meet their commitments. Secondly, the flexibility mechanisms involve the transfer of state-of-the-art-technology between developing countries, and are likely to curb initiatives in developed countries for technical innovation. Thirdly, flexible mechanisms might challenge the official assistance by developed countries to developing countries already in place and restrain the long-term development of the energy industries in developing countries. Given such concerns, at the First Conference of Parties of the Convention, it was provided that flexible mechanisms are complementary means of implementation and secondary means for the realisation of Convention objectives; flexible

mechanisms may not be used in any form to derogate from commitments made by parties in the Convention.

3.3 The Impact on China of International Law in Respect of Climate Change

The Chinese government has always attached importance to global environmental issues and sent delegations to the 1991 Convention. On 11 June 1992 Premier Li Peng of the State Council ratified the Convention in Rio on behalf of China. On 5 January 1993 China deposited the ratification letter. The Convention entered into effect on 21 March 1994 and it came into force in China on the same day On 30 May 1998 China signed the Protocol and deposited its ratification letter on 30 August 2002. On the same day the Protocol came into force, 16 February 2005, it was implemented in China.

Limited and reduced greenhouse gas emissions, as established in the Kyoto Protocol, are relevant for the aggregate amount and efficiency of energy consumption of a state. China's per capita GDP has just exceeded 1,000 US dollars and industrialisation has just entered the intermediary stage. The period in which per capita GDP increases from 1,000 US dollars to 3,000 US dollars is critical with an implied increase in demand for energy as the acceleration of urbanisation, construction of infrastructures, such as high rise buildings, highways, railways, airports and power stations, pose huge demand for cement, steel and non-ferry metal and other raw material. A huge amount of greenhouse gas emissions in this period is unavoidable. China, together with other developing countries, is not obliged to assume responsibility to limit and reduce emissions of greenhouse gases under the Convention and its Protocol, which gives China 'valuable spatial and temporal room for emission' for China's peaceful development. The entry into effect of the Kyoto Protocol will have a major impact on China's future, particularly on its peaceful development.

Though the Kyoto Protocol does not impose responsibilities on China in the first commitment period, it will become a focus for negotiations in the second, and might well be directed to assume responsibilities as a party to the Convention.

¹⁷ See Tianbao, note 15 above at 282, 288-289.

China ranks second in the world for total CO₂ emissions and emissions of other greenhouse gases, such as methane and nitrous oxide (N2O), also ranks high worldwide. From 1990 to 2001, the net increase of China's CO₂ reached 82.3 billion tons, accounting for 27 per cent of the total increase worldwide for the same period. Emissions are expected to increase by 32% between 2002 and 2020, which will be greater than the total increase worldwide from 1990 to 2001. China's CO, emissions are expected to exceed those of the US, making it number one in the world, by around 2025.¹⁸ The pressure from developed countries to urge developing countries to assume responsibility for limiting and reducing greenhouse gas emissions is gaining weight day by day, particularly with the rapid increase in greenhouse gas emissions by China and other developing countries. 19 The pretext for the US's refusal to ratify the Kyoto Protocol is because major developing countries, China, India and Brazil, are not obliged to limit and reduce emissions of greenhouse gases. The US's position testifies to the greater pressure on China in respect of climate change despite its derogation from the 'common but differentiated responsibilities' of the Convention.

During the negotiations for the Kyoto Protocol, China and other developing countries united and won a great triumph in resisting developed countries' attempt to set emission limiting and reducing responsibilities for developing countries. However, it would be unrealistic to exempt China from limitation and reduction responsibilities under the historic responsibility principle, given its current rapid increase in greenhouse gas emissions. And developing countries are not united as to whether or not developing countries should assume limitation and reduction responsibilities. At the Fourth Conference of Parties of the Convention, the host country, Argentina, called for developing countries to make 'voluntary commitments'. What is more, island countries among developing countries expressed the wish that developing countries assume responsibilities for limiting and reducing emissions.

Against this background, China will face greater pressure relating to the UN Framework Convention on Climate Change. Inappropriate domestic policy and law might have an adverse impact on China's image and status on the international arena, which could obstruct its peaceful development.

4

POLICY AND LEGAL REACTIONS TO CLIMATE CHANGE INVOLVED IN CHINA'S PEACEFUL DEVELOPMENT

Still a developing country, China's primary task is economic and social development and elimination of poverty. As said earlier, China's image as a great emitter of greenhouse gases will become more prominent with its rapid economic growth and energy demands for a long period to come. The Kyoto Protocol coming into effect will be followed by a new round of negotiations on climate change. China will be a top target in negotiations for future protocols and will come under pressure of developed countries led by the US and EU. It is incumbent on China to make an effort to react positively to climate change challenges as a major power in the international community. The author proposes policy and legal countermeasures at international and domestic levels in order to maintain China's position and state interests in future negotiations and promote China's strategic objective of peaceful development.

4.1 Policy and Legal Reactions on the International Level

4.1.1 Fundamental Position: Active Participation in International Activities, Implementation and Negotiations on Climate Change

First, it should be expressly established that China must participate and try to play an increasing role in future negotiations on climate change related instruments, irrespective of the pressures it faces. This should be the basic position of China in response to climate change. Indeed, the primary task facing China is to argue for the right to achieve industrial growth and for sustainable development or to argue for emission levels that are essential for peaceful development.

¹⁸ Tao Yong, 'Kyoto Protocol's Entry into Force Law Constitutes Great Pressure for China', Legal System Morning, 16 February 2005, p. 4.

¹⁹ See Tianbao, note 15 above at 287.

It is necessary that China, as a major developing country with global influence, give full play to its capacity to integrate in a comprehensive way in the international climate change regime as established under the dominance of developed countries. This is to maintain the international order and the just allocation of interests, and promote China's national interests, which are more and more global. For the world, this is the logical condition for establishing a just and reasonable new order in international politics and economics as well as China's important contribution to maintaining world peace and stability during its peaceful development. In respect of climate change, it is the most effective way for China to fully participate in the next protocol negotiations and the drafting of (Intergovernmental Panel on Climate Change) IPCC research reports. This should ensure compatibility with China's national interests and create a more flexible space for economic construction. Meanwhile, diplomacy on environmental issues should be carried out with as many countries as possible in order to strengthen alliances and consolidate their negotiating position on climate change, such as enhancing coordination and cooperation with the Group of 77 and Greenpeace. Publicity of such positive achievements should be intensified in order to improve China's image in environmental issues and allow it to take further initiatives.

4.1.2 The Guiding Principle: Adherence to the New Idea of State Sovereignty for Integration of National Interest and Common Interest of Humankind

The guiding principle for China on climate change would be to uphold the new theory of state sovereignty balancing national interests and common interests of humankind with a view to serving its interests, in accordance with the current situation and trends in climate change and international law.

The issue of climate change affects the boundaries of sovereign states and blurs, to some extent, the boundary between international and domestic affairs. However, in the final analysis, the principle of sovereign states and the supremacy of a state's interests always subsist in an international community based on nation states, which is once again demonstrated by international law norms on climate change. Thus, it is advisable that China adheres to the principle of state sovereignty and enunciates more determinate objectives of its national

interests during the next round of negotiations. Specifically speaking, China must emphasise its right to develop as people of all nations in the world are entitled to do. And, while striving to alleviate and accommodate climate change, China shall support the basic needs of its people and those in other developing countries. This means supporting their rights to economic growth, alleviate poverty, social progress, environmental protection and rational use of resources, and their right to not have to commit to, or assume, international responsibilities disproportionate to their economic strength (that is, 'not to make commitment to emission reduction before China becomes an intermediary developed country').

On the other hand, under customary international law, each state enjoys the sovereign right to develop according to its national environment and development policies and, at the same time, undertakes that activities under its national jurisdiction do not exacerbate climate change to such an extent so as to injure the environment of other countries. And each state is under a common responsibility to alleviate climate change and protect the global environment for the sake of the common interest of humanity as a whole.²⁰ China will face much pressure for assuming emission limitation obligations in the new round of negotiations as a result of deeper understanding of climate change, its adverse effects in the international community and China's increasing proportion of emission in the total amount worldwide. Thus, if China were to adhere to its own right to economic development and attempt to evade its responsibilities for global environmental protection, this would lack theoretical foundation and would lead it into an impasse. Actually, the expansion of the global common interest has given rise to a shift from national interest orientation to national and global interest orientation in state sovereignty theory.²¹ It would be wise for China to react to the requirements of the common interest of humankind, adopt a cooperative attitude to the exercise of sovereignty, and choose a way forward that facilitates developmental objectives and reduces the increasing emission rates. Participation in the global effort to curb emissions in this way will win the sympathy and support of most countries and safeguard national interests to the maximum.

²⁰ See Wang Xi, note 7 above at 95, 113.

²¹ Zhai Yucheng, 'Trends in Sovereignty Under International Law', 3 Wuhan University Law Review 1, 5-6 (1997).

4.1.3 Fundamental Principle: Adherence to the Principle of Common but Differentiated Responsibilities of Developed and Developing Countries

The progress of limitation and reduction actions are not satisfactory ten years after the Convention entered force and the Protocol came into effect. The principle of 'common but differentiated responsibility' (CBDR) was followed by provisions in the Convention and its Protocol. However, progress has been slow and arduous in the implementation of commitments by developed countries to alleviate and accommodate climate change, particularly with regard to financial assistance and technical transfer. It is reasonable to say that failure to carry out the principle of 'common but differentiated responsibility' has negatively affected the accommodation and alleviation of climate change and sustainable development. Thus, it is wise that China urges developed countries to implement substantive emission reductive measures in all international fora. At the same time, in the new round of negotiations on emission reductions, it is necessary for China to unite with other developing countries to argue for honouring the respective commitments and responsibilities of developing and developed countries under the principle of CBDR.

China, according to the principle of CBDR, has no specific reduction obligation. However, China undertakes several general commitments which include: to take climate change considerations into account in their relevant social, economic and environmental policies and actions; to develop, periodically update and publish the national inventories of GHGs; to formulate, implement, publish and regularly update national programmes; to conserve and enhance sinks and reservoirs of all GHGs; and to promote and cooperate in scientific research, information exchange, education, training and public awareness related to climate change. Obviously, the core of China's commitments is that it has no legally binding obligation to reduce it emission of GHGs. Correspondingly, China persists all the time in the position that it will not commit to reduce emission until it becomes a medium sized developed country, in about 2050, and after that China will study seriously the issue.²²

It is not difficult to understand why China is not being obliged to limit and reduce GHG emissions became an excuse for the US to withdraw from the Protocol. And, moreover, appears to validate a commonly held myth among critics of the Kyoto Protocol that developing countries, like China, are not taking meaningful action to reduce greenhouse gases. On the contrary, China's unilateral efforts in the past years have shown that when facing such a serious situation caused by global climate change, China has never satidly by and watched. Rather, it has unilaterally taken many meaningful actions to reduce domestic GHGs. According to the World Resources Institute, China reduced its emissions, in absolute terms, by 19 percent from 1997 to 1999.²³ Perhaps a new report released in the COP 12 in Nairobi in December 2006 by the Center for Clean Air Policy, which is based in the US, has more authority. According to the report titled 'Greenhouse Gas Mitigation in Brazil, China and India: Scenarios and Opportunities Through 2025', China has adopted 'unilateral actions' since 2000 that have already reduced emissions and are expected to reduce emissions through 2020 in those nations below projected levels. Reductions in China and Brazil and India alone in 2010, if fully implemented, are projected to be greater than those to be achieved by the United States' voluntary carbon intensity reduction goal.²⁴ Notably, most of these reductions in China have been financed domestically, that is independently of the Kyoto Protocol's Clean Development Mechanism (CDM)

²² Information Office of the State Council of the People's Republic of China, The Environmental Protection in China (1995-2005) 12 (Beijing:Information Office of the State Council of the People's Republic of China, 2006), available at http://unpan1.un.org/intradoc/groups/public/documents/APCITY/UNPAN024855.pdf.

²³ Kevin A. Baumert and Nancy Kete, United States, Developing Countries, and Climate Protection: Leadership or Stalemate? (Washington: World Resources Institute, 2001).

²⁴ For example, China's Renewable Energy Law and the Tenth Five-Year Plan are expected to reduce electricity sector emissions by five percent below BAU levels-a reduction equivalent to shutting down more than 20 large coal-fired Chinese power plants-in 2020; China's Medium and Long-Term Energy Conservation Plan is estimated to reduce cement sector emissions by 15 percent below business as usual (BAU) levels in 2020—a reduction equivalent to shutting down half of the shaft kiln cement facilities that existed in China in 2000. This Plan is also estimated to reduce iron and steel sector emissions by nine percent below BAU levels in 2020 a reduction equivalent to shutting down approximately 750 existing iron and steel facilities; China's fuel efficiency standards for passenger cars, SUVs, and multi-purpose vans are estimated to reduce transportation sector emissions by five percent below BAU levels in 2020. See further Center for Clean Air Policy, Greenhouse Gas Mitigation in Brazil, China and India: Scenarios and Opportunities Through 2025 72 (Washington: Center for Clean Air Policy, 2006).

under which China can sell emission reductions achieved from approved projects to developed nations.²⁵

We can say that under international climate change law China has made, and can still make, a major contribution to the ultimate objective of the Convention to stabilise greenhouse gas concentrations in the atmosphere at a level that will prevent dangerous anthropogenic interference with the climate system. Therefore, in the coming post-Kyoto protocol negotiations, China will adhere to its basic position that it will not undertake emission reduction obligations which are disproportionate with its economic and technical situation.

On the other hand, China's GHG emissions are increasing rapidly and it is forecasted that China's emissions of nitrogen dioxide will probably exceed that of the US sometime between 2025 and 2030. Therefore, China, as a responsible and large country, should adjust its position and will be in a better position if it prepares to voluntarily assume emission reducing obligations that are proportionate with its economic strength.

4.1.4 Specific Measures-Take the Initiative in International Cooperation in Respect of CDM

One of the three flexible mechanisms established in the Kyoto Protocol, CDM is mainly designed to facilitate the implementation of commitments made by countries included in Annex I (developed countries and countries undergoing economic transition) to reduce emissions. This is to be done flexibly and with cost-efficiency in mind, and to assist developing countries with their sustainable development efforts and to alleviate the effects of climate change. Parties to CDM are developed countries already with responsibilities for reducing emissions and developing countries currently exempt from such commitments. Developed countries can carry out their commitments to reduce emissions through CDM programs in developing countries with lower marginal costs. CDM is a new theoretical choice. For developed countries, CDM brings about more costefficient ways for reducing emissions, as well as greater market for technical transfer. For developing countries, CDM provides more opportunities for sustainable development, including (1) reduction of adverse effects of climate change; (2) diversification of fund raising

25 See Center for Clean Air Policy, note 24 above at 72.

channels in order to purchase advanced techniques; (3) promotion of capacity building; and (4) reduced production of pollutants with a regional impact. The total cost of CDM, even if shouldered by developed countries alone, would be lower than that for the local implementation of their commitments, which is the very attraction of CDM.

Currently CDM concentrates on improvements to the ecological environment, such as enhancing effective energy use, developing recyclable energy and large scale forestation. These measures conform with the shift in China's economic growth from crude outputs to more intensive and efficient methods. This will facilitate wider and quicker dissemination of energy-efficient and energy-saving products worldwide, and will be conducive to the optimisation of energy use in China and improvements to the environment. So, China ought to take a realistic attitude and maximise the 'advantages of late-comers' to fight for victory in climate change prevention and economic growth.²⁶ With this in mind, the Chinese government rightly attaches great importance to CDM, as it represents the integration of developing countries' concerns for sustainable development and developed countries' implementation of commitments to reduce emissions. This should be reflected in China's actions to enhance policy, laws and regimes in respect of CDM and promote international cooperation thereof.

4.2 Policy and Legal Responses at the National Level

4.2.1 Adherence and Implementation of the Scientific Outlook on Development

The scientific outlook on development calls for comprehensive, harmonious and sustainable development and has been proposed in a new historic state at a time when huge achievements have been recorded in reform, opening up and socioeconomic growth and comprehensive development of national strengths. It is the correct outlook for the development of an affluent society. The 'scientific outlook on development' requires that drafts and the implementation of socioeconomic development plans utilise scientific knowledge, systematic methods and

²⁶ Zhuang Guiyang, 'Prospect for Sino-Japanese Cooperation in CDM: China's Perspective', 2 World Economy 70 (2002).

realistic attitudes in order to realise comprehensive, harmonious and sustainable development. The proposal for 'scientific outlook on development' signals a major breakthrough in China's development.

The scientific outlook on development calls for conservation of energy and resources, protection of the environment, stress on infrastructure, increase of economic performance and identification of potential development. Attention has to be paid to the carrying capacity of resources and the environment while undertaking production. And it requires accelerated development and use of science and techniques, increased use of recyclable resources and enhanced and more effective use of resources. In sum, it will eradicate the mode of economic growth which involves large consumption, heavy pollution, and will embed new methods with high scientific element, low resource consumption and high economic performance. Thus, comprehensive, harmonious and sustainable development is available. So the scientific outlook on development is not only for resolving environmental issues during economic development at home, it is also relevant for critical issues in foreign relations in respect of the environment. It is reasonable to say that persistence in the scientific outlook on development is the strategic baseline for alleviating international environmental frictions, in place or potential, during China's peaceful development. It will endure as a source of motivation, and serve as a warranty, for China's peaceful development.

4.2.2 To Establish a Legal System in Favour of a Recycling Economy and Its Development

Implementation of the scientific outlook on development presupposes corresponding regimes and organisational structures, socioeconomic mechanisms and formulas consistent with a technical economy. In other words, implementation of the scientific outlook on development needs basic infrastructures and effective channels.

China's huge population determines its low per capita resources. The diverse ecological environment is fragile on the whole. The economy in the near future will be characterised by mass consumption, which in turn will lead to a rapid increase in demand for material products. The economic development mode for us to follow must be resource efficient and with low emissions of pollutants. China has to reduce its consumption of

resources per unit output, maximise cyclical use of resources and minimise emissions of pollutants. A mode of recycling economy must be innovatively forged to create new regimes and combine legal and administrative means as supported by the pricing mechanism of the market. This mode of development requires greater effort to enhance technical innovation, accelerate the development of cost-efficient manufacturing equipment which use recycled resources, accelerate cost-efficient pollution treatment techniques and accelerate the development of ecological protection and recovery techniques. In other words, the recycling economy model is essential for sustained development and is, therefore, the principal formula for carrying out the scientific outlook on development. It is a reflection of the scientific outlook on development in the field of economic development.²⁷

In July 2005, the Environment and Resources Committee of the National People's Congress initiated the draft of the Law of Promoting Recycling Economy. The Suggestion on the 11th Five-Year Plan for National Economy Growth and Social Development of the Central CPC committee proposed to make a great effort to develop the recycling economy and improve relevant laws. Promotion of the recycling economy through legal channels has become an established policy of the Chinese government. Efforts shall be made to integrate existing laws on full use of resources, clean production and environmental protection, as guided by the scientific outlook on development and based on the situation in China and its experiences

4.2.3 Improvement of Policies and Laws on Energy and Resources and Promotion of a Conservation-Minded Society

Another theme relevant to a legal system favouring a recycling economy is the need to improve policies and laws on energy and resources. Energy and resources are of significance for a country's long and sustained development. China is the largest developing country, with per capita energy and resources much lower than the average worldwide, and the energy and resources restraints the country suffers will become more

²⁷ Xie Zhenhua, 'Adherence to Seeking Truth and Taking Actions to Consolidate the Scientific Outlook on Development and Promote Development of Recycling Economy', *Guangming Daily*, 23 June 2004.

prominent as socioeconomic development continues to speed up. How to guarantee conservation and efficient use of energy and resources through legal channels in the process of building a conservation-minded society will be a real and urgent problem.

Firstly, a complete and uniform legal system on energy and resources needs to be established as a strategy. A uniform basic law on energy is absent in China despite the adoption of the Energy Conservation Law in 1997. The long term national strategy on energy and relevant policies are not systematically and comprehensively expressed in law, which discounts their effect. Single laws on resources are not lacking, but contradiction, overlaps and gaps are prevalent due to the absence of a basic law on resources, which hinders protection and the effective use of resources. Secondly, pragmatism would be enhanced in new legislations on energy and resources by expressing rights and responsibilities, administration, financial measures, objectives and the liabilities of concerned parties (competent administrations included). Finally, under the market economy, legislation on energy and resources shall signify the complementary roles played by government guidance and operation of the market and the combination of administrative measures and financial impetuses. Property, pricing and trading regimes needs to be expressed in legislation in order to give full play to the allocation of resources under market mechanisms and conditions of macro control.

In conclusion, urgent revision, enactment and improvement of laws, regulations and technical norms relating to energy and resources which are relevant to the recycling economy need to be carried out in China. Specifically, it is suggested that legislative efforts should take priority in the following areas:²⁸ revision of the Energy Conservation Law by establishing a strict conservation regime, expressing impetus measures, standardising conduct of enforcement agencies and supporting penalties; draft water saving regulations and measures for implementing the license system for water use; draft laws on raw material conservation; enact laws that facilitate optimum use of resources; formulate administrative regulations for worn-out household electronics collectors; improve the collection system and

CONCLUDING REMARKS

In the past decade, China has witnessed serious environmental problems, such as climate change, which has hindered its peaceful development. Some kind of obligation to reduce GHG emissions are likely to be imposed on China as part of the post-Kvoto framework after 2012. Under such circumstances China should 'in fair weather prepare for foul' and take the initiative by participating in international events and climate change negotiations. It should adhere to the new principle of state sovereignty; stress the integration of state interests and the common interest of humankind; argue for the responsibility allocation principle of common but differentiated responsibility of developed and developing countries; and undertake international cooperation with regards to CDM. It is also advisable that China persists in creating a legal system which favours a recycling economy by improving its laws and policies on energy and resources with a view to developing a conservation-minded society.

extension of producer liabilities; formulate laws on petrol conservation; formulate laws on building energy efficiency; enact laws facilitating innovation in wall body material; and formulate laws for resource conservation and full use of collection of packages and old tyres.

²⁸ Sun Youhai, Essential Issues to be Resolved in the Legislation on Recycling Economy, *China Environmental News*, 31 October 2005, p. 3.

