

The EU-China Partnership on Climate Change: Bilateralism Begetting Multilateralism in Promoting a Climate Change Regime?

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Abstract¹

On 5 September 2005, during the 8th EU-China Summit held in Beijing, the European Union and China signed an agreement to establish a bilateral Partnership on Climate Change. The two parties pledged to strengthen the dialogue on climate change policies, exchange views on key issues in climate change negotiations and develop concrete action to tackle climate change by carrying out specific cooperative projects. By presenting an analysis of the outcomes of this bilateral initiative from the EU and China, this paper tries to assess if the EU-China partnership on climate change can be considered, as intended, an important contribution to a multilateral solution to climate change, or if this bilateral relationship only functions at a rhetorical level without producing concrete results.

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<http://www.mercury-fp7.net/>

ISSN 2079-9225

* Part of Work Package 3, Multilateralism in Practice: Key Regions and Partners

¹ Thanks to Professor Jorgen Delman of the University of Copenhagen for his much-appreciated suggestions and to Dr David Camroux, co-ordinator of Science Po's involvement in the MERCURY project, for his comments and editorial assistance.

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The EU-China Partnership on Climate Change: Bilateralism Begetting Multilateralism in Promoting a Climate Change Regime?

Introduction

On 5 September 2005, during the 8th EU-China Summit held in Beijing, the European Union (EU) and China signed an agreement to establish a bilateral Partnership on Climate Change. The aim of this partnership was to provide a mechanism for both partners to develop a shared strategic view on common climate change objectives and to establish cooperation activities, in order to offer common solutions to the global problem of climate change. The signatories pledged to strengthen the dialogue on climate change policies, exchange views on key issues in climate change negotiations and develop concrete actions to tackle climate change by carrying out specific cooperative projects. Given that their economies are highly interdependent – China is the EU's second largest trading partner while the EU is China's first – as well as high levels of mutual investment and considerable economic complementarities, China and the EU would appear to share great potential for cooperation.

Nevertheless, the nature of this partnership needs to be questioned. Indeed, as its actors do not necessarily share either the same attributes, or have equal power attributes, it might be argued that the EU-China partnership on climate change can be considered as an example of “asymmetrical bilateralism”. This characterisation arises from several factors. First of all, the actors involved are, on the one hand a nation-state, while, on the other hand, a confederation of nation-states with some significant elements of a federation. This disparity clearly puts the two partners in an asymmetrical position, as the EU directly relates to China, but China may prefer to relate to the EU as a whole, or to individual member states according to the specific issue, and to adopt a *divide and rule* approach if it is convenient in achieving its objectives. Of course this approach is deleterious for the EU's external image, as from a third country's point of view it can be seen as lacking policy coherence. This incoherence has been recently become manifest during the Copenhagen summit negotiations of December 2009, where the Member States were not able to speak with one voice, and there was worrying disagreement about the EU's contribution in reducing GHG emissions and about the financial resources to be provided to fund pollution-abating measures in developing countries. At

the Cancun summit a year later there was some greater coherence in the EU position. But once again it did not really have an impact as a unitary actor. Secondly, this difference in their nature consequently leads to different sorts of powers.

While the Chinese government may be seen to be internally torn by competing pressures and constant conflicts of interest among different party factions and between central and local government actors, it maintains the capacity to impose its centralised policies on critical subjects. This control is crucial given the necessity of promoting economic growth and well-being in a country marked by a highly uneven distribution of income. But the EU copes daily with twenty-seven different countries' interests and has a complex decision-making procedure that really slows the capacity of the Brussels' institutions to make important decisions and then to defend them, especially on environmental issues, where there is shared competence with the member states. Moreover, as the EU, arguably, lacks a common economic policy, single Member States' economic interests and positions often diverge from the EU's objectives of sustainable development. This lack of control exacerbates the difficulties for the EU as a whole to translate its political will and preferences into concrete policies, to speak with one voice and, ultimately, to fully implement agreements with third partners.

With these questions in mind, this paper attempts to examine if the EU-China partnership on climate change can be considered, as intended, as an important contribution to a multilateral solution to the climate change issue by undertaking an assessment of current results. Concerning this partnership, in 2007 Kerry Brown (2007:47) asserted that up to this point, the bilateral EU-China dialogue on climate change "had been short of substance". Yet both partners had expressed ambitious goals of creating a common market for low-carbon products and services, and had started "mapping out their common concerns and priorities" by looking for a stable plan for cooperation (their purported partnership). Moreover, both were aware of their necessity to have stable, secure and sustainable energy supplies. Nevertheless Brown demonstrated that the partnership was seen as being too politicised, "with competing agendas not only within separate parties to the dialogue", but also "with third parties", such as the US and India (Brown 2007:47). On the one hand, China clearly expressed its need for funding and for technology to respond to its huge environmental challenges, while the EU asked for a major Chinese "commitment to a long term strategic plan" to abate its emissions, "support clean energies" and, above all, to "offer more transparency" on its policies and on the means it employed to achieve its goals (Brown 2007:48). But as the two partners have left their positions substantially unchanged – as

evidenced in the Copenhagen and Cancun conferences – and have shown a lack of substantial agreement on climate change issues, it is not surprising that this partnership can be mainly seen what can be familiarly described as “a dialogue of the deaf”. With this observation in mind, this paper attempts to provide insight on a bilateral initiative that has sought to play a significant role in global climate change negotiations, but that has, in the end, fallen short of achieving its wider objectives.

The paper is structured as follows. It firstly provides a general description of the objectives of the partnership and of the specific projects of cooperation that the EU has established with China within the framework of the partnership on climate change. Secondly, it seeks to outline the ideological context of this partnership, by placing it within overall European and Chinese efforts to create multilaterally the security conditions required to be able to pursue their own domestic objectives. As climate change, climate security and environmental security have become matters of concern for the international community, the EU-China partnership on climate change can be understood in the light of their strategic commitment to counter non-traditional security threats. Finally, the paper attempts to make an assessment of results to date, in order to identify issues on which the two partners still need to dialogue and where they still need to deepen and improve their commitments.

Why is the EU-China Partnership on Climate Change so Important, at Least Theoretically?

The Objectives of the Partnership and its Extended Meanings

In their Rolling Work Plan issued on 19 October 2006, China and the EU expressed their willingness to develop a Bilateral Consultation Mechanism whose role was to “provide broader political coordination and guidance for the implementation of the partnership” and to “strengthen their dialogue on climate change policies and exchange views on key issues in the climate change negotiations”. Furthermore, they both recognised the importance of climate security (and to a wider extent environmental security) within their larger future security concerns. In order to contribute to the overall goal of controlling anthropogenic interference in the world’s climate, the EU acknowledged the necessity of involving developing countries (especially those experiencing high levels of economic growth with a subsequent high rate of greenhouse gases emissions) in a comprehensive cooperation framework. The aim was to help these countries in tackling their environmental problems and in playing their part in global negotiations and global

efforts. So, while the partnership with China has a bilateral nature, it is backed by (and also is designed to be backed by) multilateral and regional agreements. Indeed, both China and the EU are members of a number of multilateral technology bodies, such as the Carbon Sequestration Leadership Forum, are both present in many multilateral processes and forums dealing with climate change, and both belong to the United Nations Framework Convention for Climate Change. Moreover China and the individual EU member states have signed the Kyoto Protocol. Consequently, by recognising the need for differentiated and multi-speed approaches – as China and other emerging economies are different from developed countries but also from developing ones – the EU decided to embark on this medium-term partnership on climate change, hoping to contribute to multilateral efforts to cope with climate change at the global level. China also hoped to benefit from the ripple effects in other developing countries induced by the prestige which accrues to economies in the eyes of the group of developing countries. Finally, by instrumentalizing this partnership, the EU has tried positively to influence China's position in international climate change negotiations, through supporting technical and financial assistance to develop specific projects capable of offering China valid alternatives to its model of development and also as an incentive to adopt a more constructive approach during international negotiations. For this series of reasons, the EU-China partnership on climate change can be considered as a bilateral tool to engender multilateral results.

At the core of the EU-China Partnership on Climate Change is the Near Zero Emission Coal Project, designed to demonstrate the feasibility of carbon capture and storage technologies in China. Specifically, it is meant to be a first test and an exemplar of technological and financial cooperation between developed countries and emerging ones. In this regard, technology transfers are a frequent demand of developing countries at all international climate change fora. By demonstrating the usefulness of these technologies in China, the EU would like to be able to deepen its experience and then to be able to carry out similar initiatives in other developing countries, as its way of making a bilateral contribution to the global effort against climate change. This ambition is clearly evident in the Communication adopted on 25th June 2009, *Demonstrating Carbon Capture and Geological Storage (CCS) in Emerging Economies and Developing Countries: Financing the EU-China Near Zero Emissions Coal Plant Project*, in which the Commission expressly defined its focus on China “as a case study for cooperation with emerging developing countries”. The activities implemented in China are thus complemented by capacity building projects and feasibility studies in other developing countries such as Brazil, India or South Africa, acknowledging that CCS is a key

technology in the fight against climate change and in the mitigation of its impacts, especially in developing countries. In fact, as emerging economies still mainly rely on fossil-fuels to nourish their growth, the deployment of CCS technologies has the potential to cut their emissions and help these countries to meet their objectives of economic growth driven, however, by forms of sustainable development.

By broadening our perspective to examine the overall climate change strategy of the EU, the multilateral purpose of these bilateral efforts with key developing countries becomes clearer. Indeed, from the European Commission perspective, they should be considered as instruments to explore “concrete contributions to the Copenhagen agreement from both developed and developing countries”. (European Commission, COM 2009:12) In other words, bilateral partnerships, or cooperation between the EU and emerging economies, should push these countries to undertake further commitments to meet reduction targets within the context of international climate change negotiations and to “propose more ambitious low-carbon development strategies” (Ibid.) so that they begin to play their part in global efforts against climate change. This strategy was already apparent in the EU-China Partnership on Climate Change, in which the Joint Declaration between the two partners claimed that through this cooperation they would emphasise their commitment to the objectives and principles of the UN Framework Convention on Climate Change and the Kyoto Protocol. Therefore the two partners agreed to set up this partnership in this specific context, with the aim of strengthening cooperation and dialogue on climate change and including a research partnership to find new solutions to produce clean energy, as well as joint promotion of sustainable development. They also committed themselves to strengthening their bilateral dialogue on climate change policies and to exchange opinions on the most important issues in the climate change negotiations, thus providing an important contribution to the global debate on this issue.

On a more operational level, China and the EU pledged to strengthen their cooperation by developing and deploying low carbon technology, in order to promote enhanced energy efficiency and a low carbon economy. For this reason, they agreed to work in different areas of technical cooperation (extending to energy efficiency, energy conservation and new renewable energy to clean coal, methane recovery and its use, carbon capture and storage, hydrogen and fuel cells, and finally power generation and transmission). Finally, they both committed themselves to “take strong measures to encourage low carbon technology development, deployment and dissemination” and to work together to make these technologies affordable energy options for developing countries, by exploring also all financial options (including the role of the private sector,

joint ventures, public-private partnerships and the potential role of carbon finance and export credits). (European Commission, SEC 2009:34)

A Description of the Concrete Projects

In order to achieve their objectives, the EU and China agreed to carry out three main projects², —the *EU-China Clean Development Mechanism (CDM) Facilitation Project*, the *EU-China Energy and Environment Programme (EEP)* and the *EU-China Cooperation on Carbon Capture and Storage (CCS)*.

The first project, the *EU-China CDM Facilitation Project*, officially started on 28th June 2007 and ended in January 2010. It was conceived of as the core pillar in China's sustainable development process, as its purpose was to analyse the Chinese policy and regulatory regime involved in the development of the required management capacities to implement the Kyoto Protocol Clean Development Mechanism. This flexible mechanism, established in Kyoto Protocol's Article 12, expects developed countries (belonging to Annex I) to cooperate with developing countries (Non-Annex I parties) in their efforts to reduce greenhouse gas emissions and to facilitate the provision of assistance to them in their sustainable development paths, by encouraging developed countries (bound to targets of reduction of their GHG emissions) to invest in developing countries. Specifically, through CDM projects, developed countries help developing countries to reduce their emissions and receive equivalent Carbon Emission Reduction Credits that allow them to meet their own reduction objectives.

As expressed by the Joint Declaration on Climate Change between China and the EU, one of the objectives of the partnership was to “cooperate to strengthen the implementation of the Clean Development Mechanism (CDM), exchange information on CDM projects and encourage European and Chinese companies to engage in CDM projects cooperation”. Both partners thus engaged in a dialogue to improve and further develop CDM in China, by facilitating the exchange of information and experience and by promoting the practical implementation of other market-based instruments such as emission trading.

² But they are not the only projects contributing to the EU-China Partnership on Climate Change. Indeed we can find also other projects, such as the Geocapacity project – *Assessing Capacity for Geological Storage of Carbon Dioxide*, a specific element of the EU project aiming at assessing the storage capacity in one test area of China, and the Provincial Climate Change Strategy on Mitigation and Adaptation, whose purpose is to support the Chinese Government in translating its National Climate Change Programme into specific actions. This involves developing local policies, institutional frameworks, partnerships and implementation capacities. Moreover, the EU-China Biodiversity Programme and the EU-China River Basin Management Programme, even if focusing on different issues, indirectly contribute to European cooperation on climate change issues within China.

Within the overall framework of EU-financed CDM projects, the *EU-China CDM Facilitation Project* was the largest, with a budget of €2.8 million (See <http://www.euchina-cdm.org/>). It involved public and private actors at different levels, and its main activities covered a wide range, from policy research to capacity-building projects and formulating recommendations for decision-makers. Specifically, to reach their objectives, the two parties planned a different range of activities, mainly based on research into technology transfer, the creation of a CDM market before 2012, the assessment of the impact of these projects on Chinese sustainable development and the improvement of CDM policies. All these activities have been complemented by a series of other important measures, such as capacity-building projects, high-level policy tours, and broad stakeholder dialogue through conferences and workshops.

The second project, the *EU-China Energy and Environment Programme*, was officially established with the agreement signed by the European Community and the Chinese Government on 3rd April 2002. It had the specific objective of establishing a concrete action plan to express tangibly the political intentions of the partners further to strengthen their co-operation in the energy sector. It was later absorbed, in 2005, into the EU-China Partnership on Climate Change. The programme, which ended on November 2009 and had a total funding of €43 million (of which €20 million were provided by the Commission), had the overall purpose of promoting “a sustainable use of energy” and to provide Chinese energy users with “a secure energy supply at improved economic, social and environmental conditions”, finally “contributing to improved environmental quality and health conditions” (See www.eep.org.cn).

The third and last project, *EU-China Cooperation on Carbon Capture and Storage (CCS)*, is still ongoing and constitutes the core activity within the framework of the Partnership on Climate Change. As has already been mentioned, this partnership has been developed to strengthen both the political dialogue on climate change, energy and environmental issues, and the cooperation in developing, deploying and transferring clean technologies, improving energy efficiency and achieving a low-carbon economy. *EU-China Cooperation on Carbon Capture and Storage* specifically addresses this second goal, by testing and developing new near-zero emission coal technologies through carbon dioxide capture and storage (CCS). Recently considered by the international community as a useful tool to reduce CO₂ emissions in both developed and

developing countries,³ CCS technologies can enable countries to capture their emissions coming from coal-fired power plants and from energy intensive industries, and to store them in underground basins. Storing in basins, such as exhausted oil or gas basins, saline aquifers or sealed geological strata could thus, in theory, significantly reduce the flow of CO₂ emissions into the atmosphere.

Given the ambitious aims of the project, this cooperation on carbon capture and storage is meant to end in the medium-term, normally in 2020, with the completed construction of a pilot power plant. For this reason, the project was divided into three separate phases, the first one concerning two coordinated feasibility studies, the second one involving deepening the studies and designating a specific site, and the third one involving the construction of a commercial scale demonstration coal-fired power plant supplied with CCS technologies. The choice to cooperate on CCS technologies has been conceived of as a tool both to minimize the environmental impact of a growing production of CO₂ and also to meet one of the main challenges in China today: namely, reconciling its economic growth and its industrial expansion with its need to make its development sustainable. Even if China has already developed alternative energy sources (such as wind energy, in which China seems to be the world leader) (Molinari, 2009:2), it still relies upon coal and other fossil fuels to produce the vast bulk of its energy for domestic needs⁴. CCS technologies therefore potentially offer a valid and remarkable means to keep producing energy from coal combustion without emitting high levels of CO₂. And with this in mind, the EU planned to undertake pilot projects (both in Europe and in China) by 2015, and to make these technologies available by 2020. (European Commission, SEC 2009:5)

Bilateral Cooperation Designed to Engender Multilateral Action?

As the then European Environment Commissioner, Stavros Dimas, declared, the EU-China partnership on climate change was meant to “act as a model for cooperation under the post-2012 global climate change regime” (<http://ec.europa.eu/environment/climate/china.htm>), that should have been agreed upon in Copenhagen in December 2009. It is thus noteworthy that, in its overall design, the partnership was intended to be an important step in the global search for solutions to

³ The IEA recommended that by 2010 20 large-scale CCS demonstration projects need to be launched and the G8 Summit held in June 2008 in Aomori (Japan) supported this recommendation. See the Joint Statement by G8 Energy Ministers, Aomori (Japan), 8 June 2008, available at http://enecho.meti.go.jp/topics/g8/g8sta_eng.pdf

⁴ According to IEA World Energy Outlook 2008, Chinese fuel mix's components are mainly made up of coal that in 2006 covered nearly 90% of domestic power generation.

tackle climate change. The EU and China restated this position at the 10th EU-China Summit (held in Beijing on 28th November 2007), in which the two parties emphasized the great importance they attached to the climate change issue and their willingness to strengthen their cooperation in order to jointly cope with the serious problems it may cause. Both committed themselves to the stabilization of GHG concentrations in the atmosphere by trying to reach a level capable of preventing any dangerous anthropogenic interference inside the global climatic system, taking into account their common but differentiated responsibilities and respective capabilities. (Council of the European Union 2007:9) The two sides also restated their commitment to the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol, and reiterated the need for developed countries to continue leading in abating GHG emissions beyond 2012 and, at the same time, to help developing countries to increase their contribution in the global climate change efforts. (Ibid. p.10)

Two years later, at the 12th EU-China Summit held in Nanjing on 30 November 2009, the two parties re-emphasised the existence of serious challenges faced by the international community, that require international cooperation in order to provide a global response. Among these challenges, climate change was seen as an increasingly prominent issue and the two partners urged deeper international cooperation and more coordinated efforts to play their part in the global efforts. (Council of the European Union 2009:1) More interestingly, both sides recognised that, as the international context was becoming more and more complex and changing rapidly, their relationship increasingly went further than a purely bilateral framework and had acquired a multilateral dimension. In fact they share common position on different international issues, and their quest to “actively meet global challenges and strive for a peaceful, sustainable and prosperous world” cannot be completed without joint efforts and close cooperation. (Ibid. p.2) Hence for some years the language of an ostensible strategic partnership has been used. It is in this wider context that the *Partnership on Climate Change* should be placed, as the two partners share a great potential for cooperation, wide perspectives for bilateral relations, and the possibility of having a significant input in the search for global solutions. But why do both actors focus on this partnership on climate change, and, moreover, why is this partnership seen as being so important, at least at a theoretical and political level?

Both the EU and China stated that they shared the view that “climate change is one of the most important global challenges of our times”, and that it demanded urgent and cooperative action. For this reason, they agreed to further strengthen cooperation in this

area and work together with other international actors to find a comprehensive, fair and ambitious result in Copenhagen, and later Cancun based on the principle of common, but differentiated, responsibilities. (Ibid. p.3) Thus, even if they did not only focus on the attainment of a post-Kyoto agreement, both partners, by endorsing the objectives expressed by the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol, held a common view that their Partnership on Climate Change was essential.

This mutually shared view sees strengthening their dialogue on climate change policies as a means to finding common positions in the international arena. On a rhetorical level, they both committed themselves to facing the common challenge of climate change and making it a keystone of their relationship over the last decade. Indeed, since the end of the 90s, the EU and China have embarked on an important phase of their relations by adding new topics of dialogue and, above all, by introducing more political subjects. This development eventually led to the acknowledgement of the overriding importance of their dialogue on issues of global and regional concern, and to the creation of a strategic partnership in 2003.

In the 12th EU-China Summit Joint Statement, both China and the EU agreed “to stay committed to the strategic nature” of their relationship and “pledged to seek greater development of the comprehensive strategic partnership based on mutual respect, equality, mutual benefit, openness and win-win cooperation.” (Ibid. p.2) This commitment was already clear in the 2001 Communication, *EU Strategy Towards China: Implementation of the 1998 Communication and Future Steps for a More Effective EU Policy*. The document, published on 15 May 2001, highlighted that it was in the clear interest of both China and the EU to work together as “strategic partners” on the global stage as their points of concern converged on many global governance issues. Then, in the 2003 Communication, the Commission affirmed that EU and China had more than ever an interest in collaborating to safeguard and promote sustainable development, peace and global stability. (European Commission, COM 2003:3) The need to create strategic partnerships was furthermore stressed by the emergence, with the end of Cold War and the events of 11th September 2001, of new kinds of threats – like terrorism and the proliferation of weapons of mass destruction – that have undoubtedly pushed the international community to review traditional concepts of security. As these matters have taken on an international and a global dimension, becoming the main points of concern of the world community, they have consequently required action at the multilateral level. Hence, from this perspective, the bilateral framework of an EU-China “strategic

partnership” can be considered as a bilateral commitment leading to finding common global solutions to these problems. It may also enhance their joint contribution at a multilateral level. At the same time, by offering itself as an “example”, the EU hopes to encourage China to increase its contribution to global stability by becoming a more “responsible stakeholder”, namely by increasing its willingness and its capacities to cooperate at the international level to help resolve global problems. As the EU progressively acknowledged China's role as an important world player, through this “strategic partnership”, it was willing to give to its partner an opportunity to become a more responsible stakeholder. But there still remain questions that require answers, the most pronounced of which is what a “strategic partnership” really implies.

Unfortunately, we still lack a wide and comprehensive definition of this term, nor are we able to define what the “strategic partnership” between the EU and China is meant to be. Both sides agree that its construction would be a fundamental step to giving further relevance to cooperation on a purely strategic level. Besides, the EU had directly chosen the instrument of a strategic partnership both to acknowledge China's increased presence on the international stage, as well as positively to influence it and thus to avoid China's re-emergence as a world power engendering serious disruption to the existing international *status quo* (Feng 2007:268). Finally, its purpose was to encourage its partner to make a greater contribution to global governance by insisting that, in a globalized world, security and prosperity depend on an effective multilateral system (Feng 2007:268). Through this strategic partnership the EU was supposed to clarify its definition of the environment it sought for political discussions and dialogue. However, as for the contents of the strategic partnership, if still looked at it from the perspective of traditional security, it can be seen as lacking “strategic” aspects because it does not deal with the traditional cooperation in the hard security area: military cooperation, joint exercises, defence technology transfer, etc. Rather, the partnership focuses on the new global challenges that go beyond classical military security threats and encompass a full range of risks in which we can also include climate change — what Bailes and Wetter (2007:178) call the “softer sides of security”. These aspects can be considered at the core of their political dialogue on international issues, as it can be seen in their last joint declarations. For example, in the first lines of the 12th EU-China Summit Joint Statement, published on 30th November 2009, it is stated that leaders of both sides:

“agree that the international community faces serious challenges which call for a global response. Global issues such as climate change, financial crisis, energy and resource security, food security, the environment and public health security have been increasingly prominent. Non traditional security threats [...] have become global concerns. The instability and uncertainties

in the international landscape have posed challenges to the world peace and development. (Thus) It is becoming increasingly urgent for the international community to deepen cooperation and coordinate efforts in tackling these challenges". (Council on the European Union 2009:1)

This declaration demonstrates the shift in the priorities of international relations that occurred after the end of Cold War, in which non-traditional security concerns have started to be prioritized in the context of international organisations and within the security frameworks of individual countries. Even if military security is still a matter of concern for many states - as can be noticed by the extent of public military expenditure of major countries, such as the USA and China - in the last twenty years security experts have started to focus on, and embrace, other problems that may be at the heart of an increased instability and the spread of conflicts both at the national and international level. Among these issues, those surrounding the environment take a very important place: they have been conceived as current and future factors causing internal and international instability that may spread into other, larger, security concerns. For these reasons, a vast literature on "environmental security" has recently started to emerge.

In the context of this research, the question of "environmental security" and, more particularly, the threat that climate change may constitute for national and international stability, can be considered in some ways as the reason behind the willingness of the two actors to focus their latest environmental cooperation on the possible multilateral strategies to adapt to the impact of climate change. In their first Joint Declaration released on September 2005, EU and China decided to bring about this adaptation through different coordinated actions, namely aiming to produce research and analysis on the adverse effects of climate change, on the vulnerabilities and on the socio-economic impacts and costs of climate change. They also aimed to enhance the scientific, technical and institutional capacity to predict climate change and its impacts, to produce research on technologies and measures to adapt to climate change and promote their development, and to raise awareness of the need to integrate considerations on both reducing vulnerability and on incorporating climate change into sustainable development strategies. (European Commission, SEC 2009:34)

The two partners thus were both cognisant of the risks that climate change may pose for internal and external security. In this regard China has been even more concerned, given that it has experienced tangibly the negative and destabilizing effect of environmental degradation and climate change within its own territory. Today, China's massive consumption of energy and of natural resources, combined with excessive

environmental pollution, constitute the main obstacles to the sustainability of the present Chinese pattern of growth. As Zhang Ruizhang has pointed out, China “has been developing at the expense of its environment”. Its CO₂ emissions for each million dollar of GDP were 12 times higher than that of Japan, 5 times higher than the US, and were ranked 57 out of 60 economies. [...] “The severe air pollution causes up to 750,000 premature deaths each year” (Zhang 2009:223). Moreover, this situation is a harbinger of increased social instability that visibly worries the Chinese government. On this subject, Susan Shirk (2009:211) affirms that “a massive environmental or public health disaster could trigger regime collapse”, and this risk is one of the main reasons behind the worries of the Chinese leadership about the potential of instability wrought by growing social inequalities and by environmental degradation. It is clear then that the widespread effects caused by Chinese environmental pollution will present in the immediate future serious regional and global challenges and “China increasingly will become a focal point for concern and condemnation as the threats from global warming and other environmental stresses intensify” (Paus et al. 2009:20).

This urgent situation can be interpreted as the basis of the willingness of the international community – included the EU – to propose international cooperation with China (both on a bilateral or multilateral level) in order to help the country to tackle these problems and to provide relief for its huge and deep environmental concerns. In this context, after 1985 the EU started cooperating with China on environmental issues, and the Partnership on Climate Change may be considered as the latest development in this cooperation. It represents an attempt to encompass different aspects linked to environmental concerns by including references to security, and thus widening its scope. However, in order to analyse the effectiveness of their cooperation and to see to what extent the EU has been capable of influencing Chinese participation in climate change negotiations (as well as offering, through its example, best practices to China to modify its development model), it is useful to assess the results of this new phase in China-EU cooperation. Unfortunately, the outcomes of the UNFCCC conference in Copenhagen in December 2009 and then, a year later, in Cancun would suggest that this partnership on climate change has not been particularly effective. In both cases the EU and China did not share any common position and did not act together as “strategic partners” during the negotiations. Nevertheless, as the negotiations are still ongoing and both conferences are just first steps in the process of framing a new post-Kyoto agreement, it is still not feasible to make a definitive assessment of this partnership. Moreover, the carbon capture and storage project is still going ahead, and it is too early to measure

any concrete results. But there are already some elements that may indicate where the EU has been successful and where progress still needs to be made.

A Preliminary Assessment of Current Results

By assessing some of the outcomes of the *EU-China CDM Joint Implementation Project* (and studying its different official reports) and of the *EU-China Cooperation on Carbon Capture and Storage (CCS)*, an examination of the concrete results of this cooperation can be attempted. Have these initiatives helped the two partners to find meaningful ways of cooperating on climate change issue? Or is cooperation still purely on a rhetorical level, without any concrete achievement from an operational point of view?

As far as the Clean Development Mechanism (CDM) is concerned, the EU-China CDM Joint Implementation Project seems to have produced some interesting outputs. In fact, in the past few years the EU has become the main investor in CDM projects and the main buyer of CDM Carbon Emission Reduction Credits (CERs). Concomitantly China became the largest CERs producer and, thus, the most important worldwide supplier of emission reduction credits.⁵ This result is due to the fact that since 2006 there has been an increase in the number of CDM projects designed to reduce China's GHG emissions – both those in the pipeline and those registered with the UNFCCC Executive Board. Nevertheless, this increase does not always accord with planned results, especially in attaining some of the general objectives of the jointly funded EU-China project – namely encouraging European and Chinese companies to engage in CDM project cooperation. Indeed the presence of institutional problems and of a lack of a comprehensive framework that could have regulated all of the activities planned by the project can be noted.

In general, the two partners have been globally successful as they have attained a large number of the set objectives, such as generating certified emission reduction credits (CERs), creating a pre-2012 market for CDM in China, and generally improving the domestic Chinese framework for CDM management. But there are some elements that mitigate against these successes, if not outweighing them. Problems remain in two main areas: on the one hand, the impact of CDM on sustainable development and, on the other, the extent of technology transfer within CDM projects. The CDM's core objective

⁵ Its share of the total number of CDM initiatives accounts for the 35% in the whole world, and as its projects are on the average larger than the other countries' ones, its share of world total supply of CERs is about of 42%, followed by India, who lags behind at 22.5%. All these information can be found at the EU-China CDM Facilitation Project, *Final Report*, March 2010, p.7

is to promote sustainable development in developing countries, yet the projects implemented in China do not completely achieve this objective, mainly because their focus was not entirely appropriate. As the EU-China CDM Facilitation Project reports highlight, this outcome is basically due to the fact that there is a lack of general coordination in the mechanism and many project stakeholders and developers have adopted a capital-oriented approach focusing only on maximising their own profits. They had shown almost no interest in cooperation to promote sustainable development and this self-interested priority may itself raise questions about the quality of the CERs produced. Secondly, stakeholders have different; or incomplete, understandings of the concept of sustainable development, often viewing it only as economic development or environmental protection, and thus lacking an integrated vision that may embrace within the concept of economic development environmental protection and social improvement. (EU-China CDM Facilitation Project, *Final Report*, p.16)

Nevertheless, it is on the technology transfer issue that the most serious problems can be noted. Even if EU equipment for CDM projects in China accounts for about 47% of the total and is mainly concentrated on renewable energies – especially wind-power and biomass – there are still some problems in the transfer of technology, namely the presence of institutional barriers and domestic regulations that remain hurdles. First of all, the most debated question is the problem of protecting Intellectual Property Rights (IPRs), which remains of great concern to European technology producers. Without any certain protection, European enterprises are hesitant to transfer the manufacturing of the core elements of environmentally sound technologies to China and only have exported secondary elements, in order to protect their products and their share of the market. Yet, this point is of concern at utmost importance for Chinese stakeholders, who complain that the excessive protection of technology holders from developed countries is preventing them from learning how to use these technologies and making their use widespread. This aspect must be emphasized because it indicates the presence of a strong divergence in approaches between China and the EU. As the Chief Negotiator for the EU in Cancun, Dr. Artur Runge-Metzger, has underlined, within the framework of the UNFCCC, China and the EU do not share the same view of technological cooperation. Indeed, while China encourages a “centrally-planned” approach, including a single fund and a single executive body at the multilateral level capable of directing international technology policy and focusing heavily on IPR, the EU still relies on a “decentralised” approach, namely preferring the market and market-based mechanisms to promote technology transfers. For the EU, “centrally guided efforts should [only] be used to promote joint development and demonstration” and funding “should be done through

existing channels”. (Runge-Metzger 2010:5) Secondly, European partners note that there is a lack of public support to sustain technology transfer. In this case, the EU has not provided subsidies or introduced other policies to encourage technology owners to engage in its transfer. Consequently, the high prices of European technologies have prompted Chinese partners to buy national technology that may have similar features (albeit with some concern about their performance). Moreover, in China sector-specific regulations further hinder the transfer of technology. For example, in wind power projects, project owners cannot import more than 30% of the technology required, thus forcing them to choose Chinese equipment – and in so doing favouring domestic design and production in China. (EU-China CDM Facilitation Project, *Technology Transfer in CDM projects in China*, p.16) The need (or the obligation) to substitute Chinese equipment for that from Europe is directly linked to the first problem, namely the high cost of European equipment. The price differential alone between Chinese equipment and that from Europe pushes Chinese project owners to substitute cheaper Chinese technology for European technology. Thus, although Chinese partners might have been interested in the latest European innovations, their costs prevented project developers from being able to purchase them.

In conclusion, the case of technology transfer shows that with a substantial lack of the right mix of policies and regulations, achieving the desired results has been hampered. Even if this is not a specific objective of CDMs – “CDM is not explicitly driven by facilitating technology transfer, but by cost calculations and revenues from CERs” (Ibid. p.18) – these kinds of initiatives (and indeed others that the EU has with China in the wider context of the Partnership on Climate Change) are inevitably accompanied by technology transfers, as these projects require the provision of the most recent technological innovations. Yet, in order to facilitate technology transfer to China, it would have been useful to agree on policies and a regulatory framework, both at the national and at the bilateral/international level (Ibid.), to sustain this cooperation. As the CDM Facilitation Project report on technology transfer highlights, the EU “needs to recognize” that it has relevant benefits in “supporting technology transfer to China”, not only at the business and trade levels, but also in the wider effort of mitigating the effects of climate change. (Ibid. p.19) The report noted potential for technology transfer to provide trade benefits to European companies and to improve their competitiveness, not only in the Chinese CDM market, but also in the global market for sound environmental technologies. Such a development might help the EU further establish its “status in international negotiations”. (Ibid.) However, for the moment, the EU has not really provided public support for its companies to be competitive in the Chinese market. They

thus are compelled to compete in asymmetrical conditions compared their Chinese counterparts, who are widely supported by their government. As a report from Chatham House and E3G on Low Carbon Zones argues, public support “for closer cooperation with China is limited at best” in the EU and that is what makes European enterprises both scared of Chinese competition as well as feeling excluded from the Chinese market. (Chatham House and E3G 2008:7) These firms at present lack a common European platform that may help them easily to enter the Chinese market, as well as negotiated schemes between China and the EU that can let European companies operate on a level playing field. This case is thus another where the idea of asymmetrical bilateralism can be observed, as the EU and China are not cooperating under the same conditions: namely they do not offer equal conditions to their respective enterprises operating on the Chinese market, which, of course, puts the EU as a whole in a weaker position compared to its Chinese partner.

More generally, while all of these initiatives are individually useful, at the same time they remain “too small and dispersed to have a transformative impact” (Ibid.) on the direction of the Chinese climate change strategy. Therefore, even if the intentions of the Partnership for Climate Change remain noble and helpful in developing more environmental awareness at the local level and for stimulating changes in production and consumption habits, its instruments are inadequate to bring about real progress in climate change negotiations. The whole structure of the partnership between the EU and China indeed lacks a “political understanding of the strategic common interests”, driven by the interdependence of their economies and of climate concerns. There is a lack on both sides of the “political conditions for a step (*sic*) change” in their cooperation. (Ibid.)

On the Carbon Capture and Storage Project

The Chatham House report previously mentioned also insists on the importance of creating low carbon zones in China, by developing a concrete and politically visible demonstration plant “on a scale large enough to catalyse change at the national level and to transform external perceptions of China” (Ibid. p. 8). Indeed, without a reduction of carbon intensity in China, in the future the EU will not be able to provide climate security for its own citizens. And that is the reason why, in the context of the EU-China partnership on climate change, *EU-China Cooperation on Carbon Capture and Storage (CCS)* covers the most important component. As has already been acknowledged, future Chinese patterns of energy consumption inevitably will be characterised by a preponderance of coal combustion. For this reason, recent domestic investment under

the aegis of the 11th Five Year Plan have developed a new generation of coal power plants, capable of significantly reducing CO₂ emissions – and this has put China in the position of being a world leader in the use of cleaner coal power generation technologies. But as the use of coal is widespread in the whole country –on Chinese energy consumption put the share at between 70 and 90% – there is a concomitant need to introduce measures to reduce its impact as the construction of new generation power plants is not sufficient to solve the problem. This is particularly the case as a large number of inefficient, but still operating, coal-fired power plants exist.

In recent years, China has made significant progress in this direction, starting with an acknowledgement of the need to take additional steps to further reduce emissions, including the use of carbon capture and storage (CCS) systems. CCS indeed in theory could play a significant role in abating GHG emissions, both coming from power generation and energy intensive industry, such as steel, cement and aluminium production. They must be considered as an important option in a portfolio of different measures. Further, according to the China-UK Near Zero Emissions Coal Project Report, CCS is the only option available at present to ensure a significant reduction of CO₂ emissions coming from power generation and energy intensive industrial sectors (China-UK NZEC Initiative, Executive Summary). While the possibilities of designing such forms of cooperation are numerous, the conditions for their realisation are still problematical. The difficulties are basically economic in origin, accompanied to a certain degree by political, technical and environmental uncertainty.

By the end of 2009, the first phase of the *EU-China Cooperation on Carbon Capture and Storage* come to its completion. Its objective was to produce two feasibility studies, one financed by the EU – COACH (*Cooperation Action with CCS*) project – and another one by Britain – UK Near Zero Emission Coal Initiative (UK-NZEC) – on CCS perspectives in China. In August 2009 also the STRACO₂ (*Support to Regulatory Activities for Carbon Capture and Storage*) project, whose aim was to identify the important issues linked to CCS-regulation matters and to provide support for Science and Technology Cooperation, had come to an end. In March 2010 the two coordinated initiatives published two reports whose insights, combined with the STRACO₂ report, are revealing of the future possibilities to implement this kind of project.

As previously mentioned, there are a series of problems that are still to be addressed in order to commence building effective carbon capture and storage systems in China and in the EU. Of course, the first phase is just a feasibility study whose task is to clarify

under which conditions the project must be realised and in which areas further research must be undertaken. But some of the questions that have been raised raise doubts about the real possibilities of such technology being concretely deployed in the Chinese context. The first is the cost both of the initiative and of its further implementation. The UK NZEC final report highlights the existence of “several challenges” that need to be further analysed through research and development, and that are particularly related to supplementary costs and the energy penalty of CCS technologies, namely the increased cost of electricity if this kind of technology is deployed in power plants. (Ibid. p.6) Further, the report acknowledges the existence of operational uncertainties linked to the novelty of the technologies and to the lack of methodology and of regulations. Finally, there is a question of the availability of equipment in China, a subject directly linked to the technology transfer problem previously mentioned.

Be that as it may, as EU-China cooperation on CCS technologies has just entered its second phase of realisation, it is impossible to make a general assessment of this project. As it constitutes the core of the EU-China Partnership on Climate Change, it is expected to be able to bring about the desired outcomes. But in order to ensure future fruitful cooperation at a bilateral level, the reports highlight the fact that the EU should focus on future CCS regulation and on agreeing to common standards and regulations with China, as well as helping the country in developing the abilities required to run this kind of project. (Ibid. p.51) For example, in site qualification and certification, the EU can be very helpful in transferring know-how and regulatory experience, thus enhancing the development of CCS regulations in China. More generally, the advanced level of regulation in the EU could effectively be beneficial for China, but for these benefits to become real, the EU would need to involve all Chinese institutions concerned by the implementation of CCS in a deepened dialogue on CCS regulation. In particular the report highlights the need to include Member States in this dialogue, as they are the main developers of specific regulations. This shows another fundamental aspect of their bilateral relationship: as the China-UK NZEC Initiative Report highlights, for the Chinese partner, the member states (and not the EU), are *the most important partners of the dialogue*. (Ibid. p.60) This view may be an important starting point of reflection for understanding how the EU is concretely perceived by its partners, and in this case by China. On the issue of climate change, but also in other aspects of its bilateral relationship with the EU, China always gives a special importance to its relationship with individual EU member states, especially the larger ones. This case is again a useful example to show that the EU and China do not cooperate in a symmetrical way, but rather in an asymmetrical one. The UK-NZEC report highlights a particular aspect of EU-

China relations that seems to confirm what John Fox and François Godement have argued in their study *A Power Audit of EU-China Relations*. They claim that “China perceives the EU as disunited” (Fox and Godement 2009:7), and being aware of these divisions, it has become “a skilful and pragmatic power” able to transform EU pressure on specific issues into formal dialogues that finally end up becoming “inconclusive talking shops” (Fox and Godement 2009:8). Now, no actor would wish that such an important and costly form of cooperation turn out to be, ultimately, an “inconclusive talking shop”. But the lesson that can be learnt from the report, and from Fox and Godement’s study, is that the EU needs a more united approach towards China in order to make its voice heard. More generally, Europe needs to be more assertive in displaying its leadership in the battle against climate change.

Conclusion

Undoubtedly, technology transfer and control are at the core of the EU-China Partnership on Climate Change. They are preponderant among the objectives the two partners set in 2005,⁶ and at the base of each climate change mitigation and adaptation strategy. Thus, if the EU and China have not been capable of setting a clear framework for promoting technology transfer and technology dissemination and deployment, their Partnership on Climate Change cannot be said to be really successful. Technology transfer is the field where the interaction between the two partners can be best observed, because it is where the presence of different approaches can be noticed and where the most sensitive issues lie.

As we have seen, China would prefer a “centrally planned approach” within the framework of the UNFCCC, while the EU has opted for a more market-decentralised approach (Runge-Metzger 2010:5). But in this case, the EU approach can be seen as excessively “market-oriented”, or too attached to free-market principles. This preoccupation is one of the reasons why it does not support European companies engaging in technology transfer, thus placing them in an asymmetrical position compared to their Chinese counterparts. One of the problems pinpointed by European companies in the project reports analysed was precisely the lack of economic incentives

⁶ Five of twelve of these objectives deal with technology, namely strengthening practical cooperation on the development, deployment and transfer of low carbon technology to enhance energy efficiency and promote low carbon economy; encouraging low carbon technology development, deployment and dissemination, and working jointly to ensure the accessibility to these technologies; co-operating to address barriers to development, deployment and transfer of technology; developing and demonstrating in China and the EU advanced, near-zero emissions coal technology through CCS; reducing significantly the cost of key energy technologies and promoting their deployment and dissemination.

and of political support. As Holzer and Zhang argue, “it is essential to give the private sector greater incentives to transfer its technologies”. They suggest that the main solution to this problem is not only cooperation at a political level, but that it is also necessary “to take into strong account the interests” of the private actors by setting different “incentives for companies to engage in research and technology distribution”, in the form of tax incentives, subsidized credits or improved access to new markets for these technologies (Holzer and Zhang 2008:225). So the contribution of the two partners in defining a framework to promote technology transfer and its deployment is crucial for the partnership to be successful.

In the 2009 Communication, the EU pictures itself as holding the “leadership role in the international climate change negotiations”. Europe has an outstanding number of domestic companies with the relevant knowledge and technologies and has started bilateral partnerships to promote technical cooperation. It also is in an opportune position to facilitate the demonstration of these technologies in key developing countries, European Commission, COM 2009:17) and eventually to show its vaunted leadership. The Commission acknowledges that without the assistance of developed countries, the development and deployment of these technologies in emerging countries would be significantly delayed. (Ibid. p.13) Moreover, the Commission claims that this kind of cooperation with new emerging countries “has the potential to underline” its credibility in the international climate change negotiations and could also set as a model for future technical cooperation and funding between developed and developing countries.(Ibid. p.39) But, in practice, it is salient to understand to what extent China considers the EU as an exemplar of environmentally friendly policies and the impact of the EU-China partnership within the context of global climate change negotiations.

Freeman and Holslag (2009) see the notion of a partnership as mainly an illusion, especially from the EU side. First of all, Europe no longer can claim “supremacy” in the field of clean energy technologies, as emerging countries have started taking the lead on some specific technologies. For example, Brazil is the leader in biofuels while China is becoming the most advanced user of wind-power technologies and of solar energy. This new reality makes it difficult for China to perceive the EU as the leader in the global struggle against climate change. Secondly, Chinese observers of Europe also pinpoint an element of weakness in the constant lack of coherence between the EU (more specifically the Brussels institutions) and the member states. They claim that “at the EU level environmental and commercial objectives are quite balanced”, but at the member state level economic interests and concerns still prevail, as European countries prefer to

promote their own economic growth and to protect their domestic companies (Freeman and Holslag 2009:29). Here, we find the reason why, from the Chinese point of view, the European member states still remain the most important partners of the dialogue. Thus China prefers to negotiate with them individually.

This case says a great deal about the position of the EU as a global actor, as revealed in particular by the basic importance of single member states in China-Europe relations. It also requires a return to the concept of “asymmetrical bilateralism”, seen in the twofold aspect of a state versus a confederation of states or “something more”, that makes China prefer to talk directly to the member states. As mentioned above, John Fox and François Godement’s survey of EU-China relations clearly argues that China today clearly knows how to exploit and manage the splits among EU Member States, as it “treats its relationship with the EU as a game of chess, with 27 opponents crowding the other side of the board and squabbling about which piece to move” (Fox and Godement 2009:3). Specifically, they categorize European member states into four groups, each one having different attitudes and preferences towards China, so capable of more or less influencing the EU’s final strategy towards China.⁷ They underline the fact that the divisions between the member states run counter both to the need to manage the Chinese impact on the European economy and, also, to finding ways to engage China politically. Consequently, the EU’s dream of transforming China into a “responsible stakeholder” or making it “want what the EU wants” have been thwarted by Chinese assertiveness in pursuing its own foreign policy’s objectives. For China this involves pursuing its domestic development and defending its sovereignty on internal political matters, and using Chinese capacities to take advantage of EU’s internal division as a way to obtain more negotiating power. As a result current EU’s efforts and its strategy towards China are far from optimal.

More specifically, concerning the EU’s capacity to influence Chinese attitude towards the climate change issue, the Partnership on Climate Change has been previously conceptualized as a “student-pupil relationship”, where the EU was expected to have sufficient “soft power” to persuade China to behave as a more responsible stakeholder in international climate change negotiations. But while Beijing has welcomed the EU’s initiative of cooperation and has been interested by the EU’s strong environmental performance, these factors have not necessarily meant a significant change in China’s position on climate change. As Freeman and Holslag (2009:29) affirm—

⁷ Their proposed categories are Assertive Industrialists (Germany, Poland, Czech Republic), Ideological Free-Traders (Denmark, the Netherlands, Sweden and the UK), European Followers (Austria, Belgium, Estonia, Ireland, Latvia, Lithuania and Luxembourg) and Accommodating Mercantilists (all the others)

“Despite friendly public statements directed toward Europe on their bilateral cooperation, China refuses to recognise the EU’s global leading role on climate change. [...] Beijing is dismissive of the EU’s lack of political courage to accept tougher greenhouse gas targets, scorns its alleged green protectionism, and lambasts its reluctance to transfer its know-how. In the eyes of China, Europe pretends to be a responsible international player, but refuses to live up to this status.”

The Copenhagen Summit of December 2009 confirmed this pessimistic assessment, as the “mini-deal” that was produced at the end of the conference was the fruit of a negotiation in which the EU was not invited. Although more successful, the second summit in Cancun a year later once again saw the absence of any joint EU-China activity on the conference floor. Thus, it is reasonable to deduct that this partnership has not proved fruitful in shaping the Chinese vision of climate change, nor in establishing the EU as the holder of the “leadership role in the international climate change negotiations”. Rather it has given rise to a need for a further review of the EU climate change strategy and, more generally, of its external policies, in order to both be more assertive and also to be able to be perceived as a united actor. A comparison with the other bilateral partnerships established by the EU in this field may prove fruitful to understand better the flaws of the EU approach. If other emerging countries share the same perception of China on the EU, it would be better for Brussels to draw the necessary conclusion that today a climate change agreement can only be negotiated at a multilateral level. This effort would require treating these emerging countries as peers and understanding that their positions may significantly differ from that of the EU. Indeed, despite the EU’s pretension to be the leader in the climate change negotiations, it seems unable to influence the other actors through its leadership by example. Furthermore, it seems incapable of understanding their positions at the multilateral level through the tool of bilateral partnerships. This assessment should at least lead to new thinking on the capacities of the EU to dialogue with its partners and to seek ways to promote reciprocal understanding of concerns and strategies on climate change.

References

Bailes, A.J.K. And A. Wetter (2007), 'EU-China Security Relations: the 'Softer' Side', in D. Kerr and L. Fei (eds.), *The International Politics of EU-China Relations*, Oxford: The British Academy / Oxford University Press

Brown, K. (2007), 'China and the Challenges of Environment', in P. Ludlow (ed.), *The EU and China*, Ponte de Lima, European Strategy Forum

Chatham House and E3G (2008), *Low Carbon Zones. A Transformational Agenda for China and Europe*, 4 December 2008

China-UK NZEC Initiative, *Summary Report*

Council of the European Union (2007), 16070/07 (Presse 279), *10th China-EU Summit-Beijing 28 November 2007 Joint Statement*, Brussels, 28 November 2007

Council of the European Union (2009), 16845/09 (Presse 353), *Joint Statement of the 12th EU-China Summit – Nanjing, China, 30 November 2009*, Brussels, 30 November 2009

European Commission, COM (2003) 533 final, *A Maturing Partnership : Shared Interests and Challenges in EU-China Relations*, Brussels, 10 September 2003

European Commission, COM (2009) 39 final, *Towards a Comprehensive Climate Change Agreement in Copenhagen*, Brussels, 28 January 2009

European Commission, SEC (2009) 814, *Demonstrating Carbon Capture and Geological Storage (CCS) in Emerging Developing Countries: Financing the EU-China Near Zero Emissions Coal Plant Project – Impact Assessment*, Brussels, 25 June 2009

EU-China CDM Facilitation Project: <http://www.euchina-cdm.org/>

EU-China CDM Facilitation Project, *Final Report*

EU-China CDM Facilitation Project, *Technology Transfer in CDM projects in China*

EU-China Energy and Environment Programme : www.eep.org.cn

EU-China Partnership on Climate Change:
<http://ec.europa.eu/environment/climat/china.htm>

Feng, Z. (2007), 'Promoting the Deeper Development of China-EU Relations', in D. Kerr and L. Fei (eds.), *The International Politics of EU-China Relations*, Oxford: The British Academy Occasional Paper / Oxford University Press

Fox, J. and F. Godement (2009), *A Power Audit of EU-China Relations*, London: European Council on Foreign Relations

Freeman. D. and J. Holslag (2009), *Climate for Cooperation. The EU, China and Climate Change*, Brussels Institute of Contemporary Chinese Studies, Vrije Universiteit Brussel, September 2009

G8 Energy Ministers (2008), *Joint Statement*, Aomori, 8 June 2008, available at the site: http://enecho.meti.go.jp/topics/g8/g8sta_eng.pdf

Holzer, C. and H. Zhang (2008), *The Potentials and Limits of China-EU Cooperation on Climate Change and Energy Security*, Berlin: Springer-Verlag

IEA, *World Energy Outlook 2008*

Molinari, M. (2009), "Obama: ci salveremo solo con l'aiuto dell'Asia", *La Stampa*, 23 September 2009

Paus, E., P.B. Prime, and J. Western (2009), 'China Rising: A Global Transformation?', in E. Paus, P.B. Prime, and J. Western (eds.), *Global Giant. Is China Changing the Rules of the Game?*, New York: Palgrave Macmillan

Runge-Metzger, A. (2010), 'The EU-China Partnership on Climate Change', *EU-China Observer*, College of Europe, Bruges, January 2010

Shirk, S. (2009), 'China's Domestic Insecurity and its International Consequences', in E. Paus, P.B. Prime, and J. Western (eds.), *Global Giant. Is China Changing the Rules of the Game?*, New York: Palgrave Macmillan

Zhang, R. (2009), 'Would There Be Two Tigers Living in the Same Mountain? The Geostrategic Implications of China's Rise for U.S.-China Relations', in E. Paus, P.B. Prime, and J. Western (eds.), *Global Giant. Is China Changing the Rules of the Game?*, New York: Palgrave Macmillan