

Paper for Second Workshop on Europe-China Relations in Global Politics, Strategic Partnership? EU-China Relations under a New Leadership, 4-5 March 2013, Renmin University of China, Beijing.

Searching for New Dynamics in Climate Change Politics: Impact and Implications of EU-China Partnership in Renewable Energy.

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Introduction

In recent years, the relationship between the European Union (EU) and the People's Republic of China (hereafter China) has come under increasing scrutiny by both academics and policy makers. In large part this reflects the growing importance of both the EU and China as important political and economic global players, but also the growing interconnections between the two. This is perhaps most evident in terms of economic and trade links – China is now the EU's largest trading partner and fastest growing export market, while the EU is China's biggest export destination (Lee, 2012). Our focus in this paper is on one aspect of the developing partnership between the EU and China – that to address climate change. In particular, we are concerned with exploring three aspects of EU-China relations. First, we aim to investigate the 'China threat or opportunity' thesis from the specific perspective of climate change. We are especially interested here in examining the two-way benefits that this may bring, in contrast to most research which has either focused on the economic challenges to the West or on the global environmental consequences from China's recent development.¹ In particular, we are interested in exploring the views and attitudes of *both* EU and Chinese policy makers rather than limit ourselves to Western perceptions. Second, we also seek to identify whether, from both perspectives, this policy is being pursued to establish the EU at the global level as a multi-polar counter-balance to the USA (Scott, 2007). Third, we examine whether the Partnership has served both China's domestic sustainable development agenda, as well as the EU's ambitions for global leadership on climate change. In order to do so, we draw upon secondary data from both EU and Chinese sources, as well as international data on the Clean Development Mechanism programme, together with interviews conducted with key policy makers in the EU and China.

¹ In response to the surge in imports of cheap Chinese products public opinion in some EU countries (Italy and Spain, for example) often portrays China as a major economic threat. See Fox and Codement (2009).

China and Climate Change

This analysis is timely given that the recent rapid rise in China's economic and political importance has been accompanied by an equally rapid growth in greenhouse gas emissions (GHGs) (Konan and Zhang, 2008). For example, China is currently responsible for 24% of global CO₂ emissions, followed closely by the US (22%) and the EU (12%) (Watts, 2009). Any effort to mitigate global climate change will therefore require the active cooperation of the Chinese government (Siddiqi, 2008). Indeed, in June 2000 former President Jiang Zemin claimed "China's participation is a prerequisite for tackling critical issues such as global climate change, control of desertification and protection of biodiversity" (quoted in Xu, 2004). This is echoed by the House of Common's Energy and Climate Change Committee in a recent report:

China's willingness to become a champion of the low-carbon growth model has implications for the progress of the international system. China has great influence over the actions of its near-neighbours and the other member states of the G-77. The deadlock between China and the world's other major emitter—the United States—has been the sticking point in the progress of UN negotiations for two decades. A significant shift in favour of low-carbon development from China could leave the US with little choice but to follow suit (UK Parliament, 2012b, p. 9).

Addressing both GHG reductions and climate change have become a key part of the domestic political agenda in China. This is in part demonstrated by the institutionalisation of climate change policymaking inside the Chinese government. More specifically, this process began with the establishment of the National Coordination Committee for Climate Change (NCCCC), which was initially headed by a State Councillor and attached to the State Council Environmental Protection Committee. The NCCCC was superseded by the National Leading Group for Climate Change (NLGCC) in 2007. This was a significant change as the leader of the NLGCC has been, from this time onward, the serving Premier of the State Council (the Chinese cabinet) and the Secretariat of this policy coordination body has been moved from the National Meteorology Bureau to the National Development and Reform Commission (NDRC), where the Directorate-General Climate Change was set up to provide administrative support. In addition to State Council officials, membership of the NLGCC consists of the heads of 21 central government agencies (including 13 ministries, six state bureaus, the NDRC and the Chinese Academy of Sciences).²

The large number of governmental agencies involved in the NLGCC and the fact that the Premier acts as Group Leader suggests that cross-departmental policy coordination for climate change is often a challenging process. For instance, according to an independent researcher who is familiar with the Chinese climate policy community, the relationship between the National Energy Administration (NEA) and the NDRC is not an easy one – the NEA's primary concern is the ever-growing demand for and shortage of energy supply whilst DG-Climate of the NDRC is more preoccupied with the national climate change agenda (Interview A, 2012).

² For further details about the NLGCC, see <http://qhs.ndrc.gov.cn/ldxz/default.htm>.

In the latest phase of China's climate change policy (post-2007), the government launched a comprehensive climate change policy, *China's National Climate Change Programme*, published by the National Development and Reform Commission (NDRC) in 2007, followed by the release in 2008 of *China's Policy and Actions in Response to Climate Change* by the State Council. The urgent need to tackle both energy shortage and a heavy reliance upon fossil fuels was addressed by the government in *China's Energy Conditions and Policies* (State Council, 2007). A further development from this energy policy was a new legislation on the 'circular economy', which aims to achieve a low carbon economy by improving resource efficiency in industry, commerce and consumption and to engender a shift towards (National People's Congress, 2008). While China does not currently have a comprehensive climate change law, work has begun on a climate change bill with a first formal draft expected in early 2013 (Globe International, 2013).

More recently China's 12th Five Year Plan (FYP), approved in 2011, has been heralded as representing the beginning of a 'green era' in China. The 12th FYP includes: targets to reduce the carbon intensity of GDP by 17% by 2015 (from 2005 levels); increases in the control of pollutants; setting targets for the energy intensity of GDP (a reduction of 16% by 2015; increasing the percentage of non fossil fuel energy (from 8% in 2011 to 11.4% by 2015); an increase in forest coverage; pilot projects for emissions trading in a number of regions or municipalities (Yu and Elsworth, 2012). Responsibilities for achieving these targets by the end of the planning period, according to the head of the NDRC's DG-Climate Change, have all been devolved to local governments (provinces, autonomous regions and municipalities) and China is on course to meet these targets (Su, 2012). Moreover, The 12th FYP strongly advocates a greater engagement with sustainable development and a shift away from a more straightforward focus on economic development:

We will uphold the development of a resource-conserving and environmentally friendly society ...while accelerating the transformation of our pattern of economic development. We will ...implement ...the policy of conserving resources and protecting the environment, conserve energy, reduce greenhouse gas emissions, develop a circular economy, popularise low-carbon technology, actively respond to climate change.³

At the domestic scale, therefore, the Chinese government has increasingly put policies in place to address climate change. It has been argued that this engagement with the climate change agenda means:

China could kill three birds with one stone: it could improve its domestic economic conditions which will allow it to keep the necessary consensus among its people; it could ameliorate its international image and it could increase its energy security, which is considered a major challenge to Chinese economic growth (DeMatteis, 2010: 461).

To some extent, this engagement with the climate change agenda would seem to be at odds with perceptions outside China of an unwillingness to forgo economic development at the

³ CDTD, *Twelfth Five--Year Plan*, Ch.2 ('Guiding Principles'), p. 11 and *Gangyao*, p. 7.

expense of the control of GHGs (Zhang et al., 2007).). Indeed, Chinese commentators who are closely involved in climate policy debate do not hide their view that, in international cooperation, China needs to protect her own national interests by emphasizing on mitigating climate change through economic development, rather than simply promising emissions reduction in absolute terms (Pan, 2008). In contrast, at the international scale, for example, attention has focused upon China's position in negotiating a successor to the Kyoto Treaty and debates as to whether the Chinese government will sign up to binding GHG reduction targets (Ding et al. 2008). However, while the focus has been upon this element of climate change politics involving *confrontation* between the major actors, much less attention has been paid to the parallel process of *bilateral engagement* on climate change issues between China and the EU and the ways in which these may be contributing to both domestic and international efforts to combat climate change (Dai and Diao, 2011). Indeed, in order to deliver its domestic agenda, China needs an international partner with the technology, financial capability and willingness to engage (De Matteis, 2010) and this partnership has increasingly developed with the EU.

EU-China Partnership on Climate Change

Chinese policy on renewable energy and climate change mirrors a similar strategy of the European Union, which is centred on the so-called '20-20-20' targets to be achieved by 2020, including 1) 20% reduction in greenhouse gas emissions from 1990 levels (30% if other developed countries commit to comparable cuts); 2) 20% of energy consumption to be supplied from renewable sources; 3) 20% of improvement of energy efficiency. In this section of the paper we focus upon assessing the impact of the bi-lateral EU-China Partnership on Climate Change upon both policy processes within the EU and China and the global agenda for climate change policy.

For EU policy makers, China is not only a contributor to global warming, but may also be a source of global solutions to climate change problems. Part of the rationale for this is a belief that there may be a win-win outcome for both the EU and China in cooperation – while the EU needs China on board to help achieve a post-Kyoto deal, China recognises that the EU can offer China the latest clean energy technologies, thus helping to deliver its domestic climate change mitigation policies. For example, the Chinese ambassador to the EU has argued that the priorities in the 12th Five Year Plan open up opportunities for the EU's world leading low carbon technology firms as China moves towards becoming the world's largest market for environmental products (Ash et al, 2012). European companies are already heavily involved in supplying modern grid infrastructure for energy supplies (Ng, 2012). In addition to advanced manufacturing technologies, intangible skills and knowledge such as those of UK businesses developed in the North Sea oil exploration are invaluable to emerging off-shore wind energy industry in China (Interview C, 2012). This engagement reflects the EU's broader concern to lead globally on climate change as a key part of its external relations strategy and as a source of global 'soft power' (Lee, 2012), as well as representing a form of 'techno-diplomacy' in the specific Chinese case (Economy, 1998). However, while China's shift to a green economy heralded in the 12th FYP may offer short to medium term economic opportunities for EU companies, in the longer term the development of global Chinese companies in low carbon sectors will represent a challenge for market share and the EU's

current competitive edge (Ng, 2012). To address this challenge it is important that the European business community take a pro-active approach to try and understand the Chinese market environment so that they can establish a strong foothold there – European businesses cannot afford missing the opportunities that the Chinese market offers (Interview B).

Annual EU-China Summits have served as the most important political structure for the development of bilateral relations. In successive EU-China Summits, the issue of climate change has featured high on the political agenda. At the 8th EU-China Summit held in Beijing in September 2005, political leaders from the two sides agreed upon the Joint Declaration on Climate Change. This Joint Declaration heralded the official launch of the EU-China Partnership on Climate Change. At the 9th EU-China Summit in Helsinki in September 2006, political leaders from the EU and China agreed to further strengthen dialogue and cooperation in tackling climate change. They also agreed that an integrated approach to climate change and energy is crucial, and particularly underlined the need to exploit the synergies between the promotion of energy security and reduction of greenhouse gas emissions, in order to ensure meeting the ultimate objectives of the United Nations Framework Convention on Climate Change (UNFCCC) without sacrificing energy policy goals (European Commission, 2006). At the 10th Summit in Beijing in 2007 the European Investment Bank (EIB) and Chinese Minister of Finance (MoF) agreed a loan of €500m to help combat climate change in China. In welcoming this deal, EU and Chinese leaders agreed on ‘the significant potential economic opportunities of China-EU cooperation’ in climate change (European Commission, 2007). Such bilateral dialogue between the EU and China reached a height in April 2008 when the president of the European Commission led nine commissioners to visit Beijing to discuss climate change. In January 2009, the two sides signed an agreement to establish a joint EU-China Clean Energy Centre in Beijing. Subsequent summits have seen the announcement of a partnership on sustainable urbanisation (14th Summit in 2012) and an agreement on an EU-China low carbon, urbanisation and environmental sustainability programme (15th Summit in 2012).

The EU-China Partnership on Climate Change involves two specific joint projects: the Near-Zero Emission Coal (NZEC) technology project⁴ and the Clean Development Mechanism (CDM) facilitation project. First, the NZEC addresses China’s heavy reliance upon coal as a source of power generation - in 2005, coal accounted for 68.9% of China’s energy consumption, compared to 27.8% for world energy consumption (Preston and Findlay, 2008). China is at a key stage in its development, where future energy demand necessitates investment in the energy sector. If this simply replicates existing technologies, then China will be locked into a high GHG emissions path (Wang and Watson, 2008). The NZEC is a joint project to develop and promote the use of (as yet commercially unproven) carbon dioxide capture and storage (CCS) techniques (see UK Parliament, 2012b). Second, while as a developing country China does not have specific quantitative targets as international obligations under the UNFCCC and the Kyoto Protocol, it does need to promote the Clean Development Mechanism in cooperation with western industrialised countries.

⁴ Detailed information about this project is available at <http://www.ifp.com>.

The EU-China Partnership on Climate Change is not intended to be a one-way street; rather, the EU has sought benefits as well. First, by encouraging and helping China to meet its international obligations, the EU has made a significant step forward in defining and realising its global agenda for mitigating climate change. No matter what shape the post-Kyoto deal takes, a higher level of commitment from developing countries (especially China) is expected in any new global regime. The EU considers partnership with China as vital to this preparation. The evidence for success in this area is rather more mixed, with the example of the post-Kyoto Copenhagen meeting in 2009 and the Bonn inter-sessional meeting in 2011 showing that the EU and China have divergent opinions as regards the formal process of climate change negotiations (Lee, 2012). Second, by exerting influence on China through dialogue and cooperation projects, the EU has effectively improved its international standing vis-à-vis other actors, in particular the USA, in climate change politics (Barber, 2009). By respecting the voice of developing countries and working together with them, the EU has emerged to be a very different actor compared to the USA in dealing with the North-South divide (Goldenberg, 2009). The outcomes of this deepening of cooperation between the EU and China, and its impact upon climate change politics at the international level, may be highly significant: ‘If China and the EU aligned their standards for energy efficiency and carbon intensity they would *de facto* become global standards’ (Preston and Findlay, 2008, p. 5), with the economic opportunities this would entail. Some commentators have even gone further to emphasise the EU’s structural leadership: ‘climate change and energy security have become the first issue in the EU-China relationship where the EU has been able to shift the fundamentals of Chinese policy’ (Fox and Godeman, 2009, p. 42). This contradicts other viewpoints that foreign pressure and assistance have had little impact on Chinese environmental policies, which are the product of domestic developments (Mol, 2006). Indeed, some Chinese commentators advocate a higher level of ownership by China and other developing countries in the global agenda setting on the low carbon economy thus ‘avoiding the notion of low carbon economy to become a weapon of industrialised countries against developing countries’ (Zhou and Liu, 2009, p. 19). To be sure, the UK Parliament is looking for a new strategy to ‘enable us [the UK] to punch well above our weight in influencing how China, and other expanding economies in the East react and cooperate in the next few years’ (UK Parliament, 2012, p. 10). The Having been disadvantaged during the first and second industrial revolutions as well as the information technology revolution, it is strategically important that the country does not miss yet another opportunity represented by the coming era of economic growth centred on new energy technologies, in which China can be said on par with western industrialised countries (Zhou and Chen, 2011, p. 87).

The Clean Development Mechanism

The CDM was introduced as part of the Kyoto Protocol and specifically mandate international cooperation between developed and developing countries as a mechanism contributing to achieving the United Nations’ climate change objective as stipulated in the Kyoto Protocol:

The purpose of the clean development mechanism shall be to assist Parties not included in Annex I in achieving sustainable development and in contributing to the ultimate objective of the Convention, and to assist Parties included in Annex I in achieving compliance with their quantified emission limitation and reduction commitments ... (UNFCCC, 2008, Article 12).

Developed countries (or Annex I countries) can implement CDM projects that reduce emissions or absorb carbon by afforestation projects, in return for emission credits to help meet their emission limitation and reduction targets. Meanwhile, projects established through the clean development mechanism must demonstrate additionality and contribute to developing country's sustainable development. We are interested in CDM projects as a means to explore cooperation in practice, rather than focus upon the 'success' or otherwise of CDM more generally (see Olsen, 2007 for example). Indeed, there is widespread recognition that CDM is becoming less significant as a source of emissions reductions and that China will become reluctant, for economic and political reasons, to depend on the CDM mechanism in the future. Nevertheless, for the purposes of this paper CDM projects provide a usual window on EU-China cooperation. The CDM allows developed countries to offset emissions through investment in CO₂ mitigation projects and developing countries to receive payment for voluntary efforts to reduce emissions (Boyd, 2009). Recipient countries benefit from the transfer of foreign investment and advanced technologies to improve efficiency and reduce emissions (Resnier et al., 2007).

At an estimated cost of €2.8 million, the EU-China Clean Development Mechanism (CDM) Facilitation Project⁵ was launched in June 2007 with the aim of developing the CDM market in China. This is not to suggest that the process has been unproblematic – there have been concerns in China that EU investors have been more concerned with profit than carbon reduction in China and by EU firms about maintaining their intellectual property rights in collaborative ventures (Ash et al, 2012).

As far as China's CDM market is concerned, the bilateral CDM Facilitation Project between the EU and China represents a major development in an international context. At the same time, however, a number of EU Member States particularly Finland, Germany, the Netherlands and the UK have also launched bilateral CDM cooperation projects with China (Zhang, 2006). The mushrooming of Member State level projects will certainly contribute to the development of the Chinese CDM market through technologies and investments, thus demonstrating a leadership role for the EU vis-à-vis China as a follower. However, there is also an issue as to whether an over-enthusiastic response at Member State level could hinder supranational level coordination over the EU's climate policy on China. In other areas of EU-China relations, there has also been a concern that individual member state responses may undermine a collective approach (Fox and Godemont, 2009).

Instead of taking a confrontational approach, the EU has sought a bilateral partnership to engage China in an international effort to take on the challenges posed by climate change. Through this partnership, EU funding, technologies and expertise in good governance have

⁵ The EU-China CDM Facilitation Project website is <http://www.euchina-cdm.org>.

begun to flow into China. The CDM market is one example of the increasing amount of policy transfer that has taken place between the EU and China in recent years. Hence:

Purchasing carbon credits from China's Clean Development Mechanism (CDM) projects became an important way to help EU-15 member states to achieve Kyoto compliance and private companies to meet EU-Emissions Trading System (ETS) targets. Joint EU-China CDM work helped confirm to Chinese businesses and stakeholders that climate-related investments could be commercially attractive. It also helped diffuse the concept of carbon trading in China, contributing to the pilot projects currently undertaken in seven provinces and cities in China in 2012 (Lee, 2012: 30-1).

Under the auspices of the CDM Project Approval Board (CDMPAB), which reports directly to the National Leading Group for Climate Change, China has dominated the global CDM market since its inception. The fast development of the CDM proves advantageous to China in the sense that the host country can benefit from technology transfer and capacity building (Zhang, 2006). China has a leading 'credibility' ranking in the CDM market and is the largest supplier of annual Certified Emission Reductions (CER), which can be used to count towards their obligatory compliance targets, in the global CDM market (Zhuang, 2008; Ganapati and Liu, 2009). Overall, the UN's Clean Development Mechanism during the 1st Kyoto Protocol commitment period ending 31 December 2012 is characterised by China's emergence as a dominant host country; European countries are leaders as 'other parties' (non-host countries in CDM projects); energy (including renewables and non-renewables) represents the most popular sector for CDM investment.

China's dominant position. China's dominant position as a host nation for CDM projects can be shown without doubt by the UNFCCC's statistics. By the end of the 1st Kyoto commitment period, 31 December 2012, a total of 5,511 CDM projects had been registered with the UNFCCC's CDM Executive Board, of which 52.9% are hosted in China. In a similar vein, Chinese CDM projects account for 60.9% of all CERs issued by the UNFCCC for the same period. In terms of expected annual emission reductions (measured by metric tonnes CO₂ equivalent), contribution from Chinese CDM projects stands at 65.6% of the total amount achieved by the entire Clean Development Mechanism.

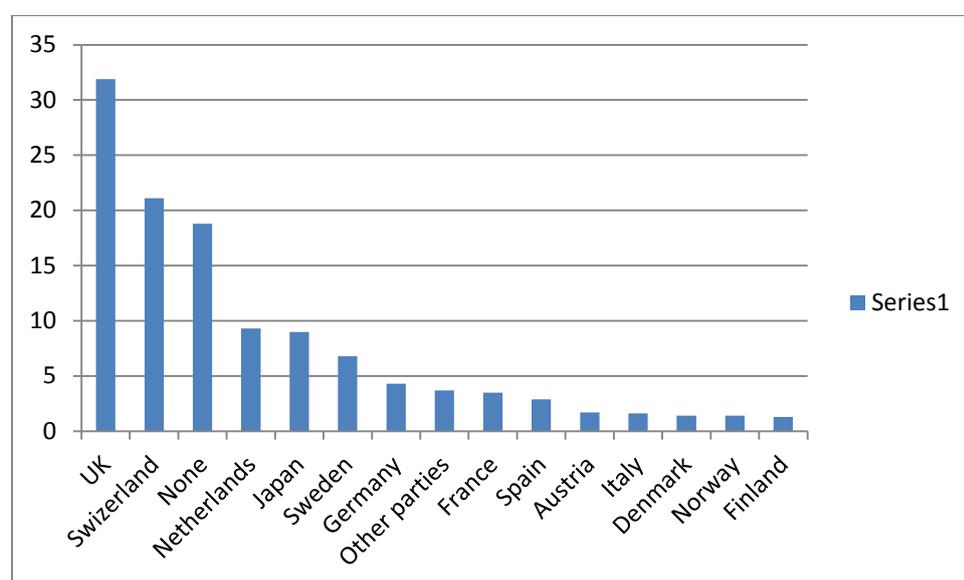
Table 1. China and the Clean Development Mechanism (CDM) (by the end of the 1st Kyoto Protocol Commitment Period, 31 December, 2012)

	World total	China (%)
Number of registered projects	5,511	52.9
CERs issued by the Executive Board of UNFCCC	2,191,882,240	60.9
Expected annual emission reductions (metric tonnes CO ₂ equivalent)	741,705,824	65.6

Source: Based on UNFCCC statistics (<http://cdm.unfccc.int/>)

Europe's leadership role. Figure 1 shows that European countries are leading partners to invest in CDM projects. In the absence of the USA from the Annex I List, Japan is the only non-European country with a significant level of participation in CDM projects (being partner in 9% of all register CDM projects). Whilst the UK and Netherlands, participating in 31.9% and 18.8% CDM projects respectively or 50.7% combined, are leading the EU efforts, Switzerland are involved in 21.1% of CDM projects to make the wider Europe unquestionably a leading region to invest in CDM projects.

Figure 1. Registered CDM Projects by Annex 1 Country (% , as of 31 December 2012)

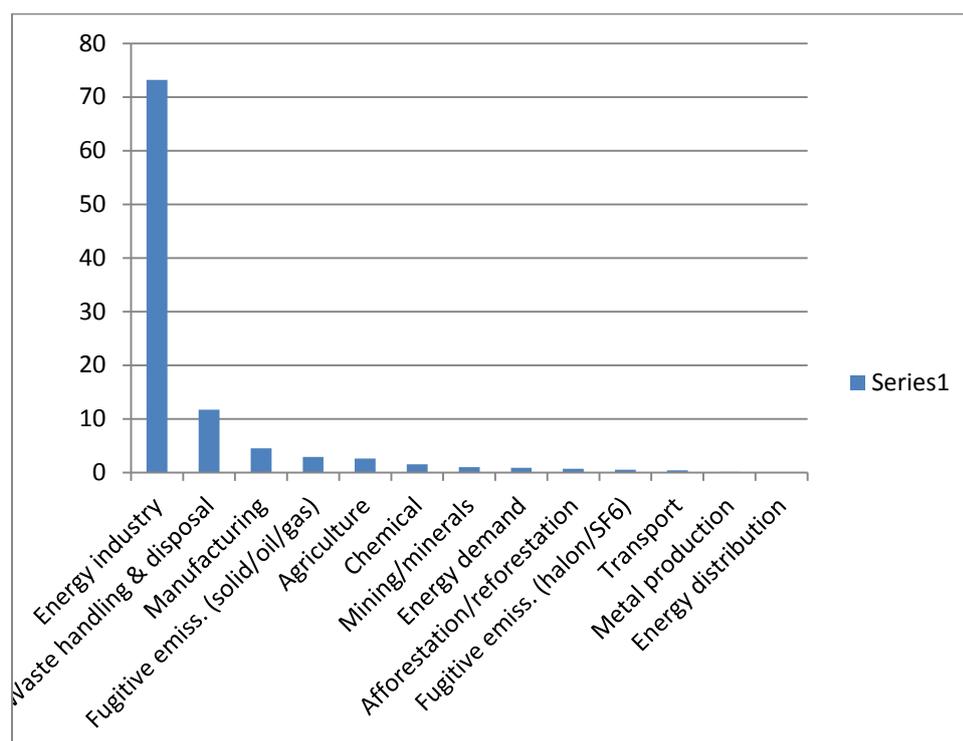


UK	31.9
Switzerland	21.1
None	18.8
Netherlands	9.3
Japan	9
Sweden	6.8
Germany	4.3
Other parties	3.7
France	3.5
Spain	2.9
Austria	1.7
Italy	1.6
Denmark	1.4
Norway	1.4
Finland	1.3

Source: Adapted from UNFCCC (<http://cdm.unfccc.int/>)

Renewable energy as a priority. Given the close relationship between energy and climate change, it is not surprising that, as shown by Figure 2, the vast majority (73.2%) of all registered CDM projects during the 1st Kyoto Protocol commitment period are related to energy, including renewables and non-renewables. It is worth noting that more than 70% of Chinese CDM projects involve renewable energy reflecting the National Development and Reform Commission's (NDRC) priority emphasis on improving energy efficiency, using new and renewable energy and methane recovery and utilisation (Zhuang, 2008; Ganapati and Liu, 2009).

Figure 2. Distribution of CDM Projects by Sector (% , as of 31 December 2012)



Energy industry	73.2
Waste handling & disposal	11.7
Manufacturing	4.5
Fugitive emiss. (solid/oil/gas)	2.9
Agriculture	2.6
Chemical	1.5
Mining/minerals	1
Energy demand	0.9
Afforestation/reforestation	0.7
Fugitive emiss. (halon/SF6)	0.5
Transport	0.4
Metal production	0.1
Energy distribution	0

Source: Adapted from UNFCCC (<http://cdm.unfccc.int/>)

Given that China and EU member states are respectively the dominant CDM host country and international parties respectively, and that a big majority of CDM projects are in the energy sector, especially renewable energy, it is a convincing argument that the UNFCCC's Clean Development Mechanism up until the end of the 1st Kyoto Protocol commitment period is to a large extent an experiment and test of EU-China cooperation in renewable energy. Although the accumulative number of UN registered CDM projects (5,511 in total) is impressive, the answer to the question of whether or not these projects have helped develop bilateral relations between the two sides is by no means a straightforward one.

Challenges to EU-China Cooperation in Climate Change Politics

The CDM has indeed provided a unique opportunity, and new platform, for bilateral cooperation between the European Union and China. However, the impact of the CDM so far remains very limited.

First of all, the contribution of EU-China cooperation through CDM projects to achieve sustainable development as a general goal stipulated in the UN Kyoto Convention, although hard to measure, cannot be said significant. The mushrooming of CDM wind farms tend to concentrate in the remote regions of China such as Inner Mongolia, the northeastern and northwestern provinces, which are thousands of kilometres away from the economic heartland of the eastern and southeastern regions, where the level of demand for energy is higher than the rest of the country. China is endowed geographically in terms of having vast grassland and desert areas that are most suited for developing wind farms and it is also an unfortunate fact that these areas are least developed. This implies a number of drawbacks, according to a Chinese researcher (Interview A, 2012): a) In the absence of an advanced and efficient grid infrastructure, long-distance transport of electricity leads to significant loss of energy; b) Limited by storage technologies, electricity produced by wind farms in remote areas cannot be stored locally and this makes it very difficult for grid operators to cope with the uneven pattern of energy supply; c) Local governments in the wind farm areas resorted to encouraging inward investment in energy-intensive industries so that excessive electricity supply by wind farms can be in part consumed locally and this, in turn, will have a negative environmental and ecological impact upon the remote areas, especially the grassland; d) Grid operators are reluctant to buy electricity from wind farms as it is more expensive than that supplied by coal-fired energy plants, although they are obliged by the central government to support renewable and clean energy. In contrast, China is just beginning to develop offshore wind farms along the coastal areas a new national strategy so that renewable energy supply can be achieved within or near the hot spots of industrial and economic activities (Interview D, 2012).

Second, the poorer than initially anticipated commercial prospect of CDM projects is disappointing to both the policy and business communities. The falling of CER price means that the CDM as market approach towards mitigating climate change does not seem to offer

European investors who are international partners in Chinese CDM projects. Some calculate that, by April 2009 EU involvement in Chinese CDM projects had reached a total of €5bn and the EU is also the main buyer of Chinese CER credits (ENS Europe, 2008; Preston and Findlay, 2008).

In anticipation of a fast development of CDM market based on earning and trading CERs, the Chinese government set up the China CDM Fund, which was jointly launched by the Ministry of Finance and the NDRC in 2007. The main stream of income of for the China CDM Fund is the so-called ‘national revenue’, which is effectively a tax that the Fund collects on behalf of the government from CER trading. The CDM uses its ‘national revenue’, which reached an accumulative sum of RMB10 billion (or £1 billion) by the end of 2011, to 1) provide grants in support of climate change related activities such as awareness raising and capacity building; 2) invest in commercial projects addressing climate change (China CDM Fund, 2012). The creation of the China CDM Fund and its initial success in collecting a significant amount of ‘national revenue’, which was invested back into supporting new activities and businesses to address climate change, were seen as evidence of a positive impact of the UN CDM mechanism upon China (Interview F, 2012). This new organisation also serves as manifestation of the Chinese government’s interest in exploring a new and sustainable structure of governance for the CDM market, although Chinese approach is intrinsically linked with the international trading of CERs, the collapse of which would certainly put the China CDM Fund at great risk (Interview F, 2012). This concern is shared by some commentators:

Nevertheless, these same low prices and safety provisions [for CERs] undermine the possibility for these projects to succeed. Since carbon revenues are difficult to forecast and extremely limited under these circumstances, it is challenging to assert that a project would not have happened without the CDM, thus questioning its additionality (World Bank, 2012, p. 52).

A strong sense of pessimism about the future of the CDM market is also expressed by its most important governing body, the CDM’s Executive Board (EB). In explaining the many challenges that the CDM continues to face the EB identifies the lack of demand for CER reduces incentives for mitigation among existing and potential users of the CDM thus ‘there is an increasing risk of the CDM losing its momentum’ (EB, 2012, p. 7). It is not an exaggeration that the total collapse of the CDM market would dealt a significant blow to the EU-China Partnership on Climate Change as, together, the two sides are the most heavily involved stakeholders of the CDM.

Third, EU politics complicates climate change politics. In his witness’ evidence to the House of Common’s Energy and Climate Change Committee inquiry, the Chief Executive of E3G gave a damning comment:

I think UK engagement and European engagement as a whole have drifted back in the last few years. Due to changes in government and changes on the ground in China there is far less co-ordination, there is far less clarity of purpose, ... As for the whole

issue around impacts and energy and resource security, the Chinese have now opened a door and are willing to talk to Europe about energy security and resource security, and climate change obviously wrapped around that, but again we do not see signs of a joined-up response to engage (UK Parliament, 2012, Evidence p. 8).

Although the EU presents itself internationally as one entity in climate diplomacy, there are many differences among the 27 member states regional block. In term of national energy policy, France relies largely on nuclear power in contrast to the German government's recent decision to shift away from nuclear power and totally rely upon renewables. The UK is somewhat in between with a mixed bag of policies – the government is proud of the UK's international leadership in developing offshore wind power; Carbon Capture and Storage technologies are to be developed; a new generation of nuclear power plants are likely to be built by the private sector with government subsidy.

Participation by EU member states in international CDM projects show a significant level of difference between the UK taking the leading position (being involved in 31.9% of registered CDM projects) and the much less enthusiastic Germany (4.3%) and France (3.5%) lagging far behind.

Whilst bilateral relations between the EU and China in the field of climate change is principally governed by 2005 EU-China Partnership on Climate Change, a major outcome of the bilateral summit in the same year, relations between individual member states and China seem to be developing in their own way. In a press release the European Commission explains that the EU-China partnership 'will strengthen cooperation and dialogue on climate change and energy between the EU and China' with one specific objective being 'the development and demonstration of advanced, "zero emissions" coal technology based on carbon dioxide capture and geological storage [CCS]' (European Commission, 2005). Against this context the UK government, on the one hand, does recognise that 'a key part of the Government's approach to international negotiations is to secure increased ambition from all countries, including through demonstrating the EU's leadership by agreeing 30% cuts in emissions by 2020' (UK Parliament, 2012a, p. 3). On the other hand, the UK government is inclined to follow its own strategy: 'given how new CCS technology is, and that fact that there is not yet a well developed international market (or supply chain) for CCS technology, it seems unlikely that it would qualify to be included in the HVO [High Value Opportunity] programme' (UK Parliament, 2012a, p. 10). Therefore, instead of focusing on CCS technologies as emphasised in the EU-China Partnership on Climate change, the UKTI, on behalf of the UK government and having considered the Chinese government's new energy plan for the period 2011-2020, has identified civil nuclear, offshore wind and smart grids to be priority areas as these represents the best market opportunities for British firms (Interview D, 2012).⁶ This point was fully endorsed by a British Embassy Official, who would like see a timely match between the new opportunities associated with the nascent offshore wind industry in China and the rich pool of knowledge and expertise of UK firms (Interview C, 2012).

⁶ At the time of the interview the UKTI official, the interviewee, was already engaged with the provincial government of Jiangsu Province, which is one of the centrally designated offshore wind energy development areas. The interviewee commented that the emerging offshore wind energy industry represents a huge and exciting opportunity for British firms and the UKTI would like to help establish bi-lateral cooperation between the UK and China.

When asked about the working relationship between the member state level (UK government) and the supranational level (EU) in dealing with China in low carbon growth and climate change, a British Embassy official responded that, with full respect for the work and efforts being made by the EU, there is a team of 30 designated personnel operating at the British Embassy compared to a one-man band at the EU Delegation in Beijing (Interview E,2012).

Finally, changes to EU policy are poised to send the EU-China Partnership on Climate Change into doubt. The concluding year, 2012, of the 1st Kyoto Protocol commitment period proves to be eventful. In parallel with the international debate about, and anticipation of, the future of the CDM, relations between the EU and China shifted from generally cooperating to somewhat confrontational. It is not totally unreasonable to speculate that the unexpected lack of endorsement by the Chinese government of the EU's proposal for a post-Kyoto new deal at the Copenhagen summit in December 2009 indicated the extent to which the EU-China Partnership on Climate Change was backed up by political consensus and trust between the two sides. Later events would only make the political gap in EU-China relations ever wider.

The European Commission's intention to launch an anti-dumping investigation over the alleged dumping of solar panel products from China to the EU was one of a series of sensitive issues to be dealt with by European and Chinese politicians. The fast rise of China a leading manufacturing country within a short space of time has significantly reduced market space and profit margin for European firms. In fact, Europe has become largest export destination for Chinese solar panel products. Before this has escalated into a trade war, politicians from both sides, led by German Chancellor Angela Merkel and Chinese Premier Wen Jiabao, intervened and the European Commission dropped its anti-dumping investigation.

Another fiercely contested issue was the EU's new legislation to impose an aviation tax on any flight flying into and out of European airspace. China, joined by a group of other countries such as the USA, Russia and India, strongly disagreed with the EU. On the ground that the new aviation tax was unilaterally introduced by the EU and that it would add extra cost to Chinese airlines, the Chinese government supported the Chinese companies' non-compliance with EU legislation. Faced with strong and wide spread disagreement from its leading trade partners, the EU eventually gave in and decided to temporarily apply the new legislation to non-European flights.

Trade wars such as those discussed above in relation to renewable energy and climate policy would undoubtedly prompt the Chinese to raise questions about the sincerity and motive of their European partners of promoting low carbon growth and sustainable development through CDM. These high profile events also shows the lack of appreciation on the EU side of the Chinese policy position: addressing climate change in order to achieve clean development rather than climate mitigation at the expense of economic development.

Conclusion

This paper explores the complicated and evolving relations between the European Union and China in the international politics of climate change. With an empirical focus on the UN Clean Development Mechanism, the paper shows that the EU and China have stolen a march over other players, especially the USA, to establish themselves as leading stakeholders in

CDM – China was the dominant host country whilst member states of the EU have collectively become the leading investing parties for CDM projects. By default, CDM projects served as a new opportunity for further developing EU-China relations in which both sides would gain, as initially envisaged.

However, the many uncertainties and problems faced by the CDM, especially the collapse of the CER market, seem to suggest that it is an uphill struggle for objectives of the EU-China Partnership on Climate Change to be achieved. On the one hand, the extent to which the CDM to be used a new market tool contributing to China's sustainable development and low carbon growth by generating additional renewable energy is very limited – this is not to downplay the importance of clean energy though. On the other hand, the initial enthusiasm of the EU of becoming a world leader in climate change in part through the CDM may not prove true in the long run. Moving beyond the 1st commitment period of the Kyoto Protocol, European companies are faced with a new challenge: how to find their exit strategy for their earlier investment in CDM projects.

In their common mission of searching for low carbon growth whilst mitigating climate change, the EU and China will continue to be constrained by their own vested interests, which were responsible for diluting their partnership. China's further rise as an industrial and economic power, which is beyond doubt, will pose new challenges to its already troubled trade relations in the renewable energy market. However, the reality of policy and political disunity within the EU dictates that member states will hesitate to explore the China market in their own way. It is 'partnerships', rather than 'partnership', to prevail so far as EU-China relations are concerned.

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