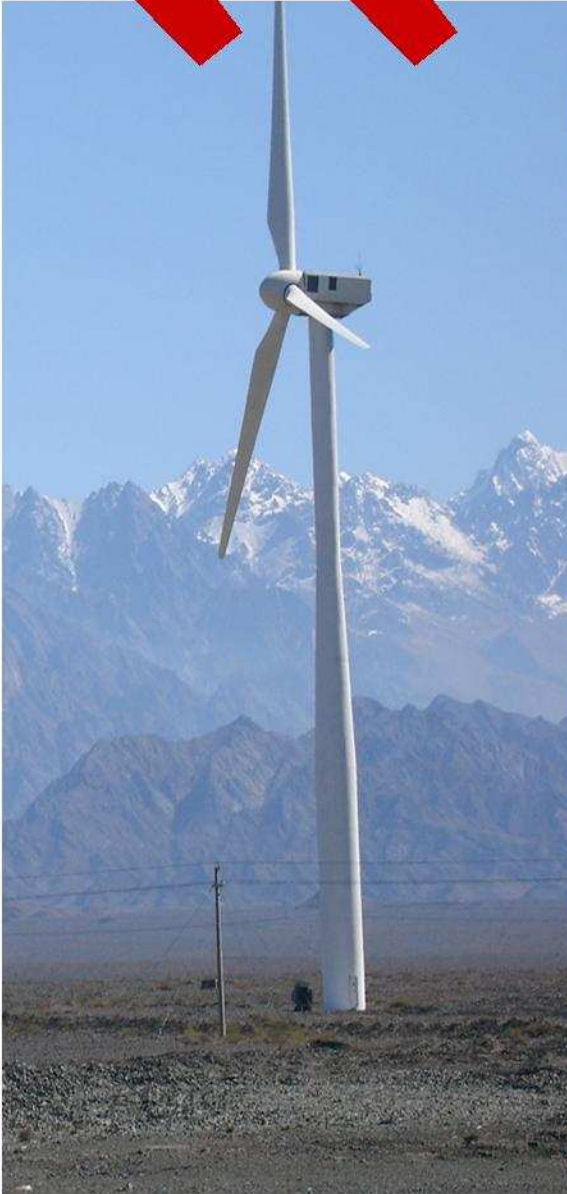


ON THE ROAD TO COP 15

“Birth of a new climate change policy in China”



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China on the way to COP-15: a brief foreword

Extreme weather...

In terms of extreme weather conditions, the world and China are confronting challenging times. During only 10 days of June, battered by hurricanes, some 60 Chinese died in various places around the country. This week (early July) in Fengxian (Jiangsu), four villagers died in a thunderstorm. At the same time, temperatures reached 40° in some areas of Hebei, above the 38°-legal limit where factories and schools alike stop functioning and where people are advised to stay home. In Beijing, temperatures twice reached 39,6° in the last 10 days, which constitutes an historical record.

He Lifu, a top weather forecaster at the China Meteorological administration (CMA) said on the 30th of June, that “*extreme weather will be more frequent in the future, due to the instability of the atmosphere, and global warming might be the indirect cause*”.

Facts seem to corroborate his dire prediction: In 2008 China suffered 310 billion Yuan in damage due to disasters, 88,928 deaths (including those who died in the Sichuan earthquake), and 116 emergencies. All these figures break records dating back to 1949. “Slow” disasters are also hitting: China is now losing 37 million of tons of grain (7% of its whole crop) per year to drought, double the quantity lost 20 years earlier. Summer 1998 saw flooding at unexpected levels on the Yangtze river, breaking its dams and levies: over three days and nights, all local forces – millions of army, militias, voluntaries were fighting, water to the hips, passing over sandbags. Shanghai was narrowly saved. Ten years later, experts are again sounding the alarm: a sizable share of Chinese dams and levies are still unsafe, and could break in case of extreme weather, such as the 313mm shower that fell this week on the county of Hefeng (Hubei), breaking a dam and forcing the evacuation of 10,000 farmers. All told, in early July, the heat and waves battered 22 provinces, destroying numerous dams, tens of thousands of homes, necessitating the temporary relocation of at least 150,000 nationals, at costs of billions of dollars. While meteorological experts are still debating the responsibility share of global warming in these events, and we are well aware of cyclical recurrence of these phenomena throughout global evolution and history, all current data indicate the trend towards the upper extremities since systematic recordings began in the PRC in the fifties. This conveys a feeling of urgency and pertinence to the subject of global warming, and the relevance of a multinational plan to fight it.

Needless to say, identical developments are happening throughout the world. Hurricane Katrina in 2005 has wiped out much of New Orleans, destroying lives and hundreds of billions of dollars of property. The tsunami that crossed the Southern Indian sea, between Malaysia, Thailand on the 26th of December 2006 and struck thousands of kilometers along coastal countries, wiped out 235,000 human lives, poor fishermen and rich tourists alike. While all glaciers and the poles are melting at an accelerating speed, while niños, niñas, tsunamis, earthquakes, drought and other forms of exacerbated meteorological hazards are accumulating, the world has to learn to live in a more dangerous weather environment.

Giant progresses in short times...

Against this background, the COP-15 in December (7th-18th) in Copenhagen promises to be the most important summit of the year, if not of the decade, bringing together ministers, experts and leaders of 5 continents and 183 countries or international bodies. “COP-15”, for “Conference of the Parties”, is the United Nations meeting of all nations under the FCCC (“Framework convention on climate change”). The first was held in Berlin in 1995. The third COP, held in Kyoto, led to the signature of the current protocol in December 1997. Through Kyoto, international working methods have been developed and tested, involving legal, commercial and diplomatic tools. Kyoto was followed by 11 other “COPs”, such as Buenos Aires, Delhi, Marrakech and Bali (the last in 2007), devising more plans and tools to prepare for Copenhagen. The COP-15 hopes to develop a working scheme for all mankind, able to reverse our own actions over the last century as a major, if not the major agent in Earth climate change. Such an enterprise is unprecedented, and will demand enormous efforts by all, in terms of tolerance, humility, firmness and creativity.

Compared with the results of Kyoto’s COP-03, great progress has been witnessed. 183 out of 196 members or observers of the FCCC are now parties to the protocol (having ratified it), of which 37 industrialized countries have committed themselves to GHG compulsory reductions of between 6 and 8% by 2012, under the principle of a “*common but differentiated responsibility*”, restated in the “road map” adopted in Bali, as the basis of the forthcoming negotiations in Copenhagen. Tools like the cap and trade, and the clean development mechanism have been implemented and experimented upon, effectively reducing the GHG emissions of the then 15 European countries signatories by 2,6% in 2004.

In the Bella Center in Copenhagen in December, member and observer delegations will come closer to reality. What we are looking for is a mitigation and adaptation plan to confront global warming, and a new consciousness of solidarity facing the common dangers: the unknown albeit formidable army of glaciers melting, the invisible soldiers of heat – which in the end, is the negative image of our unsustainable activity. What will remain of our permafrost, Arctic and Antarctic circles in 50 years time? And of the 35,000 Chinese glaciers? Our streams? How much will the sea rise and our coastal lines shrink? Under what sun will our grand-children live, on what grain will they feed, surrounded by what fauna and flora species from our now rapidly vanishing biodiversity? Most of all perhaps, what will remain of *us*, after most of (an already overpopulated) Bangladesh, all of the Maldives, many other Pacific Islands and a sizable chunk of shorelines of all continents are submerged? Will we hold wars for water? Will we be able to withstand epidemic or pandemic waves of new, recombined viruses linked with global warming?

The China enigma

The problem rests with heavy polluting countries like China which do not (yet) participate in these reduction efforts: between 1992 and 2007, China has raised its emissions by 150%, becoming the top polluting source on Earth. By lesser margins, other countries such as the United States, Russian Federation, India and Brazil have also raised their capacity of unhampered emissions, bringing the world total to a new record of plus 38% in December 2007.

While trying to assess the chances of a breakthrough at the COP-15 – a global commitment by all parties, which will influence and reshape all economic growth models and prospects - one major (probably THE major) question mark is China’s attitude. So far, even now, Beijing has never deviated from its immutable stance: the main global polluter is not going to volunteer any compulsory reduction of its emissions during the lifetime of the negotiated protocol. As a developing country, China insists on its right to grow, and contends that the responsibility of fighting global warming primarily rests with rich, old industrialized world regions. It seems likely to consider entering the scheme at a later stage, from 2020 onwards, according to the actual progresses made by other industrial giants (Europe, USA, Japan...) towards a low carbon economy. Still, China agrees on the fundamentals, the principle of common but differentiated

responsibilities, and is actively preparing itself to master all clean energy technologies to become a major player in their dissemination. It also shows willingness to share the common burden of compulsory emissions reduction, at a later stage and under negotiable conditions.

This foreword is not the place to study the merits of this position. Nor is it the moment to evaluate the chances (likelihood) for China to change its stance in Copenhagen. This will be done in due course, within the chapters of this study. Suffice it to say that the Chinese position will be hard to accept by those countries which already bear the brunt of the international reduction effort, translating into more expensive, less competitive national industrial economy. It will become positively untenable as soon as the United States has joined the club, and will have ratified its own Climate change bill, under the influence of Barack Obama, the newly elected president. This process is rapidly progressing. The law has already been ratified by the House of Representatives. The Democrats, Obama's Party, recently gained a 60% majority at the Senate, making the voting on the subject much less conflicted. Therefore, the law has a reasonable chance to be adopted before the 7th of December. By then, unless it shows more willingness to compromise, China may become the only world industrial power refusing to actively participate in this agreement. This position will become all the weaker, as China will already have reaped handsome financial benefits from signatory active member states to whom it sells verified carbon credits in order to help them reach their committed reduction target.

Five chapters to level the playing field

We decided to conduct this study because, as analysts of China based in Beijing for 22 years and almost daily studying the field of sustainable economy and environmental protection, we were struck by the lack of cross-discipline, synthesized, systematic approach to the issue, in order to collect and disseminate the rapidly evolving research and achievements on the global warming issue in China. China sells carbon credits to the West (but does not yet authorize their use on Chinese soil – though a change on its policy is inevitable). China negotiates matters concerning global warming and its mitigating tools more and more, with ever larger teams, and ever more frequently, with the UN, with the United States, the European Union other players across the globe – including both developing and semi-developed countries in the Americas, Africa and Asia.

We feel that basically no economic sector, no kind of business will stay immune from the results of the Copenhagen COP-15. A new protocol, whether immediately signed or so at a later stage, will greatly influence global economic practices. Firms and experts, scientists and government civil servants alike, will benefit from this comprehensive look that we are offering to you now.

We have compiled five chapters, touching upon all most relevant sectors, such as the Chinese national mitigation policies, the negotiations with EEC and US, the Chinese evolution towards the UNFCCC. Finally, we have mapped out four distinct international, political scenarios in Copenhagen next December, and tried to determine the Chinese response and attitude to each and the subsequent deal it may look to make under those circumstances. This is not done with any first-hand knowledge of Chinese actual strategies, which are of course highly classified state secrets, but rather is the result of meticulous research and careful analysis.

A discrete partner

The China joining in Copenhagen does not have much in common with the one that was negotiating in Kyoto. It has matured a lot, and gained considerable commercial, technological and political clout. It is definitely a major player now, having since then sent men into space, joined the WTO, successfully hosted the Beijing Olympic Games and sent Blue Helmets, UN-peace corps missions on various continents.

It is also an incredibly discrete player, both at the national and international levels, going to quite uncommon lengths to protect its secrecy and act in ways that nobody expected. There is hardly

one place on Earth, with the exception of North Korea, that maintains such a thick fog between its governing spheres and its people and the foreign observing world. In Beijing, foreign journalists, business leaders and high level diplomats routinely meet to compare their meager notes and exchange their knowledge. This seems to be the only chance for them, to maintain a reading (albeit a weak one) of the CCP, and check its bearings. Not that what China hides from us should be of an ill-willed or threatening nature. Long ago, one unknown diplomat compared Chinese politics with an old game of his country, where children assume and change roles and position under a cloth: the object of the game being to guess who are the players, what actions are going on, and who is together with who.

Enlarging the picture –through the looking glass

Therefore, in order to better follow and understand the way the Chinese higher levels function, I have selected three items, involving China directly or indirectly, from both Chinese and international press, all from within the eight last days. The idea is to highlight some of its ways of thinking, present trends, hopes or worries. I wish to introduce this study from a totally different perspective, which will not be dealt with during the core of our presentation. Finally, I also wish to provide a friendly but fair evaluation of our giant partner, relate to its past, its culture, the aspect it almost invariably shies away from presenting: its feelings and humanity. All these elements could prove crucial for a positive global settlement at the Copenhagen debates.

Understand that these examples have not been chosen from an array of arguments in order to make a predetermined point, but selected, almost at random, from the immediate actuality, in an effort to shed light on the directions China is taking.

First item¹: on the eve of the Party's 88th birthday, speaking to the Central Committee, President HU Jintao stresses the urgency of promoting intraparty democracy, possibly a code word for clamping down on corruption. Under his chairmanship, the same day, the CC announced a reform of “*the appraisal system for party members by focusing more on their achievements in balancing economic and social development, and maintaining social stability*”. What strikes me in this quote is its scaling back from former declarations that made the environment the foremost national priority, and one cornerstone of harmonious society. There is no reference whatsoever to environment protection. This may reflect a certain difficulty for the central government to have its orders obeyed at intermediary levels. This may also tell us about the new state priorities during this recession, where the bulk of the 500 billion dollar stimulus package tends to favor more contracts with steel mills and cement and concrete factories than with environmental projects, and more giant state companies than private or foreign ones – those who are in the best position to equip the country with high green technology. As states GUO Peiyuan of SynTao, a corporate social responsibility advisory firm in Beijing, "At times, it seems as though Beijing is pedaling in the wrong direction. Late last year, China's Environmental Protection Ministry loosened review standards on potentially polluting industrial projects. In an economic crunch, environmental protection is downplayed to second, or third, or even fourth priority”. Here, we see two conflicting readings of the State's current stance – possibly reflecting a conflict within the political house itself. On one hand,

- As long as Party and State are not 100% confident of their capacity to survive this world recession, the green trend will find it hard to convince intermediary cadres, bank managers and business leaders.

But at the same time,

- Green business remains one of the few still able to raise significant funds at the stock-exchange in recession time. A parallel, green stimulus, endowed with billions of Yuan, is up and running. Described further in the core of this study, it subsidizes local activity and creates jobs. Consider the tens of millions of methane tanks or solar boilers offered to rural communities free of charge throughout the territory, and the mega wind-or solar farms planned in Mongolia, Xinjiang, or Jiangsu offshore. Therefore, there are currently no China-watchers to support the

¹ 1st of July, Hong Kong SCMP

view that Beijing might want to stage a full-fledged retreat on its native environment protection commitment: without it, its exports are doomed, its society can't tolerate much more environmental degradation, and according to World Bank estimates, pollution already saps almost 6% of China's gross domestic product each year.

Second item²: in Dongming (Shandong), at least 1400 families have signed a petition to the national authorities, trying to bypass the county bureaucrats, to complain about an alleged major environment pollution case. All of those families claim to have relatives suffering from thyroid-related diseases following the release of effluents since 2003 by four factories producing Cyclohexanone, a toxic chemical. Up to 60,000 locals could be affected, and a local doctor caring for retired cadres testified that 60% of those he has checked were suffering from this condition. Prime Minister WEN Jiabao ordered Shandong authorities to “investigate the issue and offer people a satisfactory answer”. After years of silence, a provisional answer came: 100 health and environment inspectors had checked on 10,000 citizens and found only 8 sick people. The water quality of local streams was deemed safe, even downstream of the source of effluents. Whatever the truth, this case reveals the pattern of local authorities taking risks on the population's health for the sake of local GDP, and the population being more and more able to defend itself, and the vocal intervention of the highest authorities, alarmed by the potential for a major social upheaval. The main political risk here does not appear in the story but is very present in all minds: in the event that the locals' version proves true (and massive cases of thyroid diseases are verified), the unleashing of hundreds of thousands of web-surfers investigating and delivering criticisms and details would be difficult to suppress by conventional censorship. Contradicting our first trend, this incident suggests that the leadership is trying to promote a delicate balance between development and environment.

Third item³: PAN Yue, the estranged vice minister of environmental protection, calls on China to capitalize on its traditional religions in promoting ecological sustainability: “one of the core principles of (our) traditional culture is that of harmony between humans and nature. Different philosophies all emphasize the political wisdom of a balanced environment. Whether it is the Confucian idea of humans and nature becoming one, the Taoist view of the Tao reflecting nature, or the Buddhist belief that all living things are equal, Chinese philosophy has helped our culture to survive for thousands of years. It can be a powerful weapon in preventing an environmental crisis and building a harmonious society”.

Converted into economic planning, this reflects the fact that China has begun to invest in an exhaustive plan of renewable and clean energies, including its own technology of the “supercritical” coal fired power plant, which improves efficiency and limits emissions. As a preliminary result of this, the International Energy Agency revised its estimate of the Chinese increase of GHG emissions from 3,2% to 3%, while maintaining a much higher forecast of its GDP growth rate. This means that China is managing to increase its economic output at a greater rate than its emissions.

The story continues, quoting CAO Peixi, president of Huaneng, the largest electricity utility company in the country. According to CAO, this large influx in clean energies “should not be considered from a purely financial perspective only... It represents the future as well”. The author, James Miller, a specialist in world religions and Chinese culture, sees there the difference between an “Enlightened” West, with its view of the Self as an autonomous, rational individual, and the East which defines itself as “the child of its parents and the father of its children”. The Chinese consider as well the interests of the kinship group as it extends back and forth across the generations. “This”, concludes Miller, “will be a key factor in the way China handles present and future environmental issues”.

At the COP-15, China may find some leeway to advocate for alternative planning systems taking into account the interests of most vulnerable actors, such as environmentally fragile developing countries. In China itself, some Confucian researchers express priorities going far beyond the fight against global warming. Professor JIANG Qing for instance (Tsinghua University, Beijing)

² 20th of June, Hong Kong SCMP

³ 26th of June, Christian Science Monitor

advocates a political model that respects the rights of social groups not represented in Western models, such as foreigners, future generations or ancestors. Definitely, PAN Yue's remark, as a man who has the ear of the head of state⁴, suggests that China, confronted with the COP-15 and the fight against global warming, will in the future look for much more than a simple system of burden-sharing in GHG emission reductions.

Beijing, July 3, 2009
Eric MEYER
China Trade Winds administrator,
Study editor

⁴ According to rumors, Pan Yue, as we shall later see, might be heading for difficulties, accused of corruption and out of business. But this is common practise in Chinese political life, when a powerful faction succeeds to sideline an opponent. And this possible ordeal, does not reduce the pertinence of his testimony, as a main actor of environment protection in China, looking into history for scenarios to help his country win its challenge.

Executive Summary

In recent years, a new and rapidly evolving climate change policy in China is underway. Environmental consciousness is making its appearance in the decision-making process of virtually every actor in both public and private spheres, particularly at intermediary or grassroots levels, even if old habits and tenacious oppositions still prevail. Still, environmental destruction and global warming, as well as greenhouse gas reduction - the only known mitigating action to the problem - have become indisputable parameters of Chinese policy-making at all levels. This evolution has been so fast and dramatic that it has often been labeled a “*societal revolution*”.

The birth of a new climate change policy, the title of this report, refers to our particular perception of the phenomenon: we see the new policy as the attempt by the State to accompany or preempt a climatic shift which was both ineluctable and predictable, and to cast its numerous symptoms into a political framework. Indeed, the country’s fast economic development brings a double challenge:

- The climate change China itself had a hand in inducing threatens to undermine the country’s ability to feed itself and the general health and welfare of its citizens, risking destabilizing the ‘harmonious society’ longed for by the highest spheres of the regime;
- As industrial partners and clients of China’s export-oriented economy, the rest of the world has been following the massive growth of CO₂ and other GHGs closely over the last thirty years. As a responsible partner, Beijing has no other choice than to act, doing its part in the fight against climate change.

Such a new national policy has a duty to confront both challenges. The often-cited fact that the Chinese characters for crisis, 危机, *weiji*, stand for ‘danger’ and ‘opportunity’ is especially relevant in the case of climate change. Creating its own conceptual set of administrations, funds and regulations to cover all realms of Chinese society, will bring the country considerable clout and wealth.

At the heart of our report is the 15th session of the Conference of Parties (COP15) to the United Nations Framework of Climate Change Convention (UNFCCC), to be held in December 2009 in Copenhagen (Denmark). This annual meeting, under the umbrella of the United Nations’ body in charge of action on climate change, has the arduous task of replacing the Kyoto Protocol, which ends in 2012. Mainly because of this deadline, China’s efforts toward a new climate change policy has been accelerated in nearly every aspect.

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Chapter 1. Multilateral negotiations : China and the world - Birth of a 'climate diplomacy'

The Chinese leadership rapidly asserted its position on a new climate treaty and made this stance clear to the international community. Availing itself of its statute as a developing country, China claims more leeway for emissions, under the right to pursue its economic development. Developed countries, who enjoyed this right since their Industrial Revolution, should square their historical responsibility: countries' emissions should be calculated on a cumulative basis, from 1850 onwards. In addition, developed countries should fulfill the commitments defined in Bali in 2007: take the first step, pledge strong emissions cuts, and agree to make commitments from developing countries only voluntary. This intransigent position has been balked at by several Chinese officials involved in the talks, in a pragmatic move aimed at positioning China as a "neutral" and *bona fide* partner. For most foreign parties, the difficulty lies in a perceived lack of transparency on China's real position. In addition to the sense of secrecy with which these matters are traditionally conducted, the Chinese leadership has also undoubtedly initiated a strategic game, with different officials speaking at the same time on the same matter, but with contrary arguments and tone.

With regard to China's current stance, Beijing will obviously try to reject any compulsory emissions reduction in the short-term. However, the door is open to a sequence of "voluntary action first – overall limitation later," but the leadership wants the timeline for this shift to remain firmly at its discretion – in this stance, lays actually one of the toughest obstacles to an agreement at the COP15, as far as China is concerned. A highly publicized proposal by Hu Angang suggests to place China halfway between developing and developed countries: in the course of its economic development, each country could see its status changing and have to commit to binding emissions cuts. Hu sees a decrease in absolute terms after 2020 and a 50% reduction by 2050. However engaging this proposal, and despite Hu's top-level audience, its acceptance by the government is not assured, as most other estimates from government-related sources place the peak a good decade later, between 2030 and 2050.

In the multilateral arena, China has used various strategies to convey its position, according to the platform it was addressing.

In the last talks hosted by the UNFCCC (in Bonn in April and June 2009), China constantly presented itself as a developing country, the status bestowed to it in the Kyoto Protocol. Its negotiators systematically condemned attempts by developed countries to change China's status under a new agreement. However, pressure remains strong from developed countries to convince China – the world's top greenhouse gases emitter – to accept a different status, and therefore different responsibilities.

China has also been using the 'G77 and China-group' to channel its interests and convey the picture of a country with immense needs, unable to manage its transition to a low carbon economy without strong commitments of funds and state-of-the-art technologies by the West. On the other hand, while the G77 has generally welcomed China's involvement to strengthen its voice, there are distinct conflicting interests between Beijing and some of its members, which could diminish the group's weight in the negotiations.

The Major Economies Forum (MEF) is another multilateral initiative, outside the umbrella of the UNFCCC. Initiated by the United States to reinforce the UN Talks, it gathers the world's 17 largest emitters. Its members have only met once in April 2009 but other sessions are planned before the COP15. Through its structural layout (fewer members than the UNFCCC, all of them heavy GHG emitters), the MEF could help to set up a workable agreement.

China is also actively holding bilateral discussions with the most important international actors on climate change.

Even if sometimes overestimated, the relationship between the United States and China and their cooperation on climate change could prove to be a major determining factor for success at the COP15. This is due primarily to the very old exclusive, relationship between the giant nations, and to the election of Barak Obama, perceived as a man (ethnically) of the third world and a climate change reformist. Under his influence, the US is on its way to pass legislation on the matter which includes a cap-and-trade system and objectives to bring by 2020 their GHG

emissions down to a level approaching their 1990 levels. Chinese officials expressed concern over the modesty of the target. However, the sheer readiness of the United States to partake in a binding agreement could help the two major powers reach a deal. Negotiations between these two continue intensively - China seems to give them priority over the UN talks, or over the talks with the EU. An official visit by Obama to China in November, sealing a bilateral trade deal, promising cooperation on energy matters, and the potential passing of the US Climate Bill by Congress, are the two forces most likely to bring the COP15 agreement safely to harbor.

The European Union also has a strong bilateral climate change diplomacy with China, which is fostered by its status of being the most committed among developed countries, due to its pledge to reduce emissions by 30% below 1990 levels by 2020 if there is a strong agreement at COP15. Its proposals for a new protocol contain several points that may satisfy Chinese negotiators, such as the recognition of development level and emissions per capita as determinants of a developing country's obligations, even if Europeans are unwilling to permanently grant China 'developing country' status. However, the EU is deeply divided among its 27 member States and has enormous difficulty successfully engaging China, which limits its influence on the climate negotiations.

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Chapter 2. China's climate change politics : *making Sense out of a secretive system*

This section aims at clarifying the role and political weight of various diplomats and ministry experts representing the Chinese stance on climate change, the power structures and links between their administrations, and research centres. The main institutional body for climate change issues is the National Leading Group on climate change (NLGCC), an interministerial body created in 2007, headed by Premier Wen Jiabao and chaired by the National development Reform Commission (NDRC), which includes more than 20 ministries or organs at the same administrative power level. The newly created (2008) Department of Climate Change within the NDRC serves under the NLGCC. Its main figures are SU Wei, GAO Guangsheng and LI Gao - the officials in charge of the climate change negotiations and China's voice on climate change in the media.

Another member of the NLGCC, Minister ZHANG Ping, NDRC's head, whose profile fits perfectly with Hu Jintao's "harmonious society" concept, has made himself a name for his social and rural policies. He seems more likely to push for welfare and economic growth in the most underdeveloped areas of the country than climate change

Xie Zhenhua, one of NDRC's vice ministers and Hu's official representative for climate change negotiations, passes for a moderate, but is a staunch defender of the environment.

Another vice minister at the NDRC, Zhang Guobao, also head of the National Energy Administration (NEA), is closer to industrial interests, including those of renewable or nuclear energy. The NEA's mission (coordinating energy policies) inevitably gives it considerable weight in Chinese climate change politics, under the supervision of the NDRC. Additionally, the NEA is greatly influenced by giant state companies such as Huaneng (electricity generation), State Grid (distribution) or CNPC (oil), keen to keep their freedom of action and status of "States within the State". In conclusion, it is likely that the NDRC is the most influential body on climate change, CDM market policies and – indirectly – energy issues.

Other ministries are important, for example the Ministry of science and technology, which concerns technology transfers and research and development cooperation aspects. Contrary to what would be expected, the Ministry of Environmental Protection has a relatively little influence. It still lacks the material means to perform its tasks and, above all, to effectively implement its national environmental regulations at a local level: the "roaring mouse", as the MEP is sometimes nicknamed, does not have the lungs to roar for a long time.

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Chapter 3. China's national strategy: Massive investments to fulfil China's aspirations for a low-carbon economy

In recent years, the Chinese leaders have become increasingly aware of the threat climate change represents to their nation (increased floods and droughts, melting of glaciers, drop in harvests, etc.). The political will to act seems to be present and, according to top officials, China is readying a broad plan to tackle the problem, with massive investments and core reforms scheduled. This is mainly a strategy at a national level, but it includes foreign policy objectives as well: the government is keen to show a strong and responsible national action to combat climate change at Copenhagen, in order to strengthen its position during the negotiations. It is also pursuing its goals of world power, hoping that a lead on environment and climate change would give it an industrial and diplomatic leadership among emerging economies.

The government and its researchers are considering several new – yet acceptable - policy measures to reduce greenhouse gases: among the most often cited are a carbon tax; carbon intensity targets; reductions for the most polluting industries; and emissions caps for the country's three industrial deltas. Before reaching a decision on those new targets, the government is already provoking a strong push in the following areas:

Energy efficiency, which was already at the core of the 11th Five-Year Plan, will be pursued with a higher target (i.e. an additional 20% reduction by 2020). Most inefficient sectors are targeted, such as the industry's top 1000 energy consumers; the housing sector (25% of China's total energy use); small obsolete thermal power plants; and so on.

Power generation, given its rapidly increasing in size and importance, is at the core of the national plan: The development of hydropower and renewable energies is strongly encouraged – especially wind and solar – along with nuclear power. In 2020, the target for the share of renewables plus nuclear in the energy mix has recently been revised upward to 20%, while every possible means to make thermal power cleaner is being actively researched (power plant restructuring, “ultrasupercritical” plants, heat-trapping, methane re-use, etc.), while China strives to slightly reduce its proportion in the energy mix.

The automobile sector is receiving increasing attention from the government, which is trying to resolve the dilemma of either refusing this basic commodity to its people or choking on the pollution generated by 400 million cars (the figures estimated for the year 2040). Therefore, it has turned toward all or semi-electric cars as the ideal solution, and it encourages this sector through R&D, consumer subsidies and public procurement. However, given the minor share electric cars are bound to hold in the market, authorities are also seeking to lessen the environmental impact of traditional cars through strict fuel efficiency standards and taxes favouring smaller vehicles.

Lastly, we consider the “greenness” of China's stimulus package: when every major economy issued details of their stimulus plans aimed at restarting a stalling economy, attention was focused on the share dedicated to environmental projects. Several analysts considered - following some official estimates by the NDRC – that China's was the greenest of all, at around 40%. However, removing infrastructure-building - which our study does not consider as being positive for the environment – brings the figure down to 5%. In addition, a further breakdown of the first envelope disbursed (as of March 2009) lowers this figure to 2,6%, when environmental projects that have no relation to emissions reduction are not taken into account.

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Chapter 4. Emission trading: unleashing the CDM potential, discovering other tools like Cap-and-Trade

At the corporate level, carbon trading has been the main tool to implement GHG emission cuts, both compulsory and voluntary. Issuance and trading of CERs (certified emission reduction - carbon credit delivered from clean development mechanism (CDM) projects in developing countries) have surged since the implementation of the scheme. China is host to the greatest number of CDM projects (one third of the world total) and the largest issuer of CER credits (half of the world market). Support from the Chinese government for CDM projects has been strong, even if in its view, it was never a primary tool in tackling climate change.

The COP15 will be decisive for the future of the carbon markets, whose prospects after 2012 depend on the provisions that could be made under a new agreement in December. This section aims to explain the current market environment for carbon credits in China, and the internal and external factors that affect it.

Recently, a majority of projects developed in China have landed in sectors such as renewable energies (a little more than 70%, out of which roughly 50% in hydropower and 20% in wind power), plus a significant share for energy efficiency. The biggest potential seems to lay with industrial energy efficiency projects. However, some specific national regulations still hamper access of the Chinese CDM market by foreign investors. In particular, the project ownership must be Chinese by a majority and the CERs pricing review is nationally controlled (NDRC), though the scheme itself is international. Moreover, recent trends have seen a decrease both in terms of quantity and quality of the projects, generally blamed on the recent economic crisis and ongoing funding difficulties. As for quality, first rejections by the United Nations Executive Board (EB) have occurred in sectors like heat recycling and hydropower, where strong doubts often arise with respect to the additionality requirement. This aspect reveals a common (mis-)conception about CDM in China, particularly at the local level, that their aim would be to maximize return on investment, rather than contribute to improve environment and climate. Still, local CDM centre officials and project developers are enthusiastic about the future of the Chinese market.

The future of carbon market and CDM projects in China is entirely in the hands of the COP15 negotiators market at the Bella Centre in December. So far, a positive signal has been given during the preparatory climate talks, since parties agreed to continue and strengthen the use of emission trading and CDM after 2012, when the Kyoto Protocol expires. Likewise, Chinese CDM experts encourage the prolongation of the system. Mechanisms have been put in place to prevent a drop in the market in the event no agreement is reached in Copenhagen. CDM also needs to be reviewed, at least partially, at both international and national levels. More selective – sector-wise or geographical - criteria could be added in order to tip the balance from China towards less favoured countries.

The main question concerns the future demand of carbon credits – and therefore their price, which will depend on the future emission targets developed countries may agree on for themselves. In this regard, the positions of both the United States and the European Union are of core importance. While China is the biggest producer of CERs, the European Union Exchange Trading Scheme - the only compulsory carbon trading platform so far - is the biggest buyer of such credits (up to 80%). Therefore, demand for CERs in the post-2012 global carbon market will be automatically impacted by Phase III (2013-2020) of the European exchange platform. The Chinese CDM market may be even more impacted if newcomers - particularly from America - become active and start to buy CERs as a means to fulfil a part of their emission reductions. The American Clean Energy and Security Act of 2009 (the US climate bill), which has recently been approved by the House of Representatives, includes provisions for a cap-and-trade system. Finally, carbon trading also exists outside the framework of the Kyoto Protocol, with the voluntary market offering great opportunities which will remain in place, regardless of the signing of a new deal. Smaller, more heterogeneous and volatile than the compliance market, this voluntary market has nonetheless grown substantially in the past year and has a great potential in China.

In addition of CDM, China is also testing local climate exchange trading platforms in Beijing, Shanghai and Tianjin. The latter is the only one nationally approved as the official carbon trading pilot scheme. However, none of the three have been trading carbon yet (a much more technically complex procedure), and currently deal only with sulphur dioxide or environmental technologies.

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Chapter 5. Tentative scenarios for China's contribution at the COP-15

It would be adventurous for the Chinese climate change authorities to land in Copenhagen with one single working hypothesis. It is therefore unlikely that Beijing would take such a chance, and risk finding itself isolated by an untenable stance.

This section tries to define three potential political situations at Copenhagen in December, and four specific scenarios: the US climate change bill is stalled; the US has not passed its climate bill before the 15th Conference of Parties, but assures its prompt passage; the US passes its climate bill before the 15th Conference of Parties. We follow each contingency through and draw consequences on China's possible reaction, as well as the possible COP15 result, and some consequences for industries, trade flows, technology and innovation, and the global balance of power.

Thus, Chapter 5 is the logical conclusion of these 120 pages of comprehensive assessment and analysis, providing a multifaceted understanding of China in the forthcoming climate cooperation.

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