EU-CHINA
CIVIL SOCIETY FORUM

ANG Chin By, Klaus Heidel, WONG Staphany (Eds.)

„I could feel climate change." Climate change and China: Civil Society Perspectives

Imprint

"I could feel climate change."
Climate change and China: Civil Society Perspectives"

Edited by ANG Chin By, Klaus Heidel, WONG Staphany
Published by Werkstatt Ökonomie e.V. in cooperation wit "EU-China Civil Society Forum"

The "EU-China: Civil society partnership for social and ecological justice" project is sponsered by the European Union. The positions represented by the project cannot in any way be seen as standpoints of the European Union.

Title: LUI Jianqiang
ANG Chin By: p. 5, 26, 40
Nathalie Behring / laif: p. 22 (Beijing: air pollution)
Du Bin / laif: p. 13 (Beijing, rush hour)
Sean Gallagher / laif: p. 19 (Dunhuang, Gansu province: struggle against desertification)
jhphoto / laif: p. 30 (Shanghai, Hongqiao Railway Station)
Richard Jones / laif: p. 1 (Guangzhou)
Köln Agenda: p. 35 (European-Chinese meeting and exchange programme June 2010,
Chinese participants and members of the Climate Coalition Cologne)
LI Li: p. 10, 16 (China Youth Climate Action Network demonstration),
24 (China Youth Climate Action Network demonstration in Washington),
27 (China Youth Climate Action Network demonstration for climate friendly mobility9
LUI Jianqiang: title and p. 3, 7, 38
Jan The / laif: p. 33 (Linfen, Shanxi province)
YANG Fangyi: p. 36, 37 (European-Chinese meeting and exchange programme June 2010,
international conference Bonn)

Conception and layout: Hantke & Partner Heidelberg

© Dezember 2010
Werkstatt Ökonomie e.V.
Obere Seegasse 18
69124 Heidelberg
Phone: ++49 – 62 21 – 433 36 13
klaus.heidel@woek.de
www.woek.de
www.eu-china.net

Foreword

In 2007 Chinese civil society organisations started to advocate for climate change mitigation and adaptation. They promote green technologies as well as sustainable lifestyle. They form networks. Their number is growing. They closely work together with US-American NGOs. European-Chinese civil society cooperation, however, is still in its infancy.

The European network "EU-China Civil Society Forum" sees the need to strengthen the mutual cooperation on climate change. Therefore the Forum organised a European-Chinese civil society exchange programme on climate change in June 2010 which took place in Germany. This exchange programme encouraged the Forum to offer some background information on Chinese civil society activities in the field of climate change with the help of this brochure. In addition, the brochure presents some information on the impacts of climate change in China, on Chinese climate change policies and on European-Chinese civil society cooperation.

Chinese and European civil society organisations have very different historical, cultural, social, economic and political backgrounds, contexts and conditions. They have different perspectives, perceptions and interests. At the same time they share the concern for the world in the time of climate change. They should and could strengthen their cooperation. One condition is that both sides improve their knowledge about each other.

The brochure "'I could feel climate change'. Climate change and China: Civil Society Perspectives" provides an insight into the work of Chinese civil society organisations. Doing so it implicitly describes how China is changing in these days.

Many thanks to all German and Chinese authors who contributed to this brochure. Many thanks to Stephanie Feistner and Karen Netzel (both Heidelberg) who did the proofreading.

Klaus Heidel

Table of Contents

Climate Change and China's "Right to Development"

LIU Jianqiang

"If China would have to take a proactive attitude towards climate change, it would affect its right to development as a developing country" is a common belief of many Chinese. The author here argues that for China to develop, it must face climate change proactively and there is no contradiction between the right to development and climate change.

In China, climate change comes not simply as climate change, but as a general word to describe a series of problems, such as water pollution, air pollution, food contamination, traffic congestion. Chinese people learned the term "climate change" much later than others in the world. When I first reported about climate change in 2005, there were not many journalists paying attention to this issue.

When climate change was first reported Chinese people quickly linked it to the pollution problems they are facing everyday. At the Lunar New Year two years ago, the southern part of China was hit by the worst snowstorm in five decades, hundreds of thousands people were stuck at airports and railway stations, spending their new years day without their loved ones. My then 72-old mother said, "Isn't it what people called 'climate change'? Climate change doesn't mean only getting warmer, it might mean strange weather."

Her words then reminded me of a BBC survey released in September 2007. It interviewed 1,000 people as a standard sample size for most of the countries, but 1,800 for China. The results showed that Chinese have a good understanding of climate change. 87 per cent of the Chinese interviewees believe that human activities (such as industrialization and transportation) are the main cause of climate change, while only 71 per cent Americans, 78 per cent British and 47 per cent Indians share the same view. 70 per cent of the Chinese interviewees said measures must be taken to reduce the human activities which are causing climate change; only 59 per cent Americans, 70 per cent British and 37 per cent Indians agreed on this.

"I could feel climate change."

In other words, the Chinese are the pioneers in understanding climate change, globally.

I asked my mother, "have you heard of climate change?", as her comment interested me. "I don't need to hear it. I could feel it. It used to be very cold in the winter; we needed padded jacket, trousers, shoes and hats. Now nobody wears padded shoes, some don't even wear the hats." "When did you feel the change?" "30 years ago. When you were small, the lowest temperature was minus 18 degree Celsius and now it is minus 10, a big difference." she said.

My mother only heard of the terms "global warming" and "climate change" from the television in the past four, five years. She has her own observations and conclusions about the cause, "I think there are more people, more cars and factories, fewer trees and less water than the past."

She believes that the growing number of factories is the main cause of global warming. "As soon as we step out of a car in summer it feels as if we are going into an oven, why is that? The heat came from the car, like factories - many of them are using coal - they release heat and carbon dioxide."

In our neighborhood, there are buildings of the biggest paper producer of the country, one large-scale chemical factory, two brewers and countless number of small and medium-size factories. Our county's annual income is rated 30th, among the some 2,000 counties of China.

"Are climate change and pollution the same issue?" I asked.

"It is the same. Factories rely on coal for energy, and they release waste. When I was small, the sky was so blue, the sunshine came through the clouds and we could feel the heat on our skin. Now, where is the blue sky? Where is the sun? Whenever we go out, it is grey everywhere. Even the sun is dimmer, if you still call it Sun." my mum said.

The disappearance of rivers and forests, the growing numbers of factories and their chimneys, releasing dark smoke and discharging waste water, to secure China's ever-growing Gross Domestic Product (GDP). My mother witnesses this massive change. For many ordinary Chinese, such as my mother, climate change is closely linked with environmental pollution and they know this from their observations of the past decades, instead of reading it from scientific reports.

Therefore, my mother - an old lady from the rural area, also acknowledges the harm of climate change and supports mitigation efforts, as much as the scientists and environmentalists do, "we can't shut down the factories, otherwise how can the workers survive? But we should ma-

nage the factories better: they should release white smoke, not dark smoke." she said.

Has the Chinese Government taken climate change seriously?

What is the position of the Chinese Government regarding climate change then? In an interview some academics recommended that the Chinese Government - indeed echoing the official position, i.e. to negotiate for the state's interest - insist on no concrete emission cut imposed on developing countries and bargain space for China's economic growth. Their core argument is that in terms of CO_2 emission per capita, China is not yet that high. According to the World Bank's report, the current global average emission per capita is at 4.3 tons, while an average Chinese is at 4.1 tons and an American is at 19 tons. China, at the moment, should treat its own emission as for "survival and development", which is fundamentally different from the "luxury and enjoyment" type of emission from the developed countries. In this sense, China has the right to ask developed countries to bear more responsibilities in terms of emission cut.

Yet the academics also agree that China should acknowledge CO_2 cuts sooner or later, it should not let the western countries take the lead anymore and it should avoid topics such as "low carbon economy". Becoming a reasonable player at the international level and contributing in strategies against climate change is recommended for the long-run for China. The British Stern Report has pointed out that, economically speaking, earlier mitigation pays off. Therefore, China should take climate change into its development policy to shift to low carbon economy earlier, instead of falling into the vicious circle of low-end production.

If so, has the Chinese Government taken climate change seriously? My answer is yes, certainly.

Let's look at some statistics: by the end of the 11th Five-year Plan (2006-2010), China is achieving its goal of 20 per cent energy intensity reduction, which means it has cut 1.5 billion tons of CO_2, five times the EU's emission cut as agreed at the Kyoto Protocol. It also announces that by 2020, to reduce the emission intensity of its economy (tons of CO_2 per yuan) by 40-45 per cent, as compared with 2005.

China's current political system means it is highly efficient and once it has decided to follow the low carbon path, with the correct direction, it will have a fruitful achievement.

So what is the motivation for China to combat climate change and shift to low carbon economy? Does it come from the international pressure? Hu Angang, a Chinese economist points out four factors contributing to China's motivation:

1. *Huge loss of natural resources due to the traditional development path*
   The World Bank has evaluated the loss of various natural resources of different countries since 1970. China's booming economy came from 20 years of continuous exploitation of the natural resources and irreversible pollution. Minerals, forests, water bodies are all affected. In 1986 China surpassed the USA, to become the worst victim of loss of natural resources globally, and it peaked at 38.2 per cent in 1993, and eventually slowed down to one quarter of the world's natural resources. In 2003, America's average purchasing power parity is barely two times of China's, but China's loss on natural resources exceeds two times of America's.
2. *Green development is an inevitable path for China's rise*
   For industrial countries, the traditional development path, i.e. by exploiting resources (especially non-renewable resources) and by promoting mass consumption to maintain the economic growth, should not be applied for China's modernization. China's resources per capita is only a tenth or some-tenth of America and European countries, such a reality would not allow high exploitation of resources and mass consumption to keep up with the growth. China should seek production methods with low exploitation of natural resources and advocate for reasonable consumption, to keep its economy steadily growing and enhance its efficiency, and to provide social justice.
3. *China as the worst victim of climate change*
   The sea level rise would affect the three major deltas of China, where are highly populated and economically well-developed. These three developed areas would be most severely and directly hit by climate change. Among the impacts of climate change, the rise of sea-level is the most dangerous one for China. The so-called "once in a century" or "once in a millennium" disasters are indeed happening every few years.
4. *China is capable of investing in climate change mitigation*
   The Intergovernmental Panel on Climate Change (IPCC) says that it would only cost each country 0.12 per cent of its GDP, to stabilize the impact of global warming from 2015 onwards. The United Nations Development Programme (UNDP) says that by 2030, 1.6 per cent of the global GDP should be contributed to prevent the emission reaching a dangerous level. Developed countries have the capacity to invest on emission cut technology and to launch immediate measures. China is financially capable of investing in climate change mitigation in the long run.

As an adviser to the state, Professor Hu recommended that China should take emission cut seriously. China should first set a target and then look for a way as the official target would indicate the development path. He says that the current leaders would not stay in power more than ten years, while the emission cut target would take much longer than a generation. Therefore the current leaders have to start with the promise, and guide the country to become a pioneer, an innovator and an advocate for the future green revolution, to lead it together with the USA, EU and Japan.

However, Hu's voice is not the mainstream among the officials. Soon after his recommendations were reported by Chinadialogue, an anonymous delegate of China's negotiating team in Bonn criticized Hu for providing "irresponsible Utopian views", "Hu has not acknowledged the basic facts of China when talking about climate change, he talked about international fairness and justice, without in-depth knowledge of the cause of climate change, and no idea

about the basic history and reality of international politics."

Hu finds more sympathy from civil society. A Chinese NGO representative in Bonn sent a letter to Chinadialogue, supporting Hu, "with only a few months to the Copenhagen Conference, if China keeps repeating the word 'justice' without further elaboration of a concrete viewpoint on justice, its own responsibility and feasible recommendation, it would only keep weakening its position in this international event under the spotlight. I do think Professor Hu made a very good start by presenting his viewpoints and initiating discussions, the earlier the better."

This NGO representative is indeed right. At the Copenhagen Conference China does not take up Hu's recommendations and is widely blamed for failing to give concrete and binding targets. Although it has the capacity and will to cut emissions, China did not want to set out a binding target to be monitored by the international community. The reason behind this is probably the "you first game" China and the USA are playing.

I believe that although Chinese Government takes "justice" and "right to development" as handy jargons to delay China's responsibility at the international negotiations, it cannot do it for much longer. The pollution problem in China and its "deforming" economic development have made climate change an unavoidable issue and that would be the motivation behind for the Chinese Government to take energy saving and emission cuts seriously. The question is, when will it be confident enough to give a clear and transparent commitment, a binding target to be monitored, to prove the world its capacity and sincerity?

China hit by Climate Change

Challenges in various forms

WONG Staphany

Global warming might be popular jargon from the past ten years, but scientific research has shown that it has landed much earlier than that. In recent research to study climate change's impacts on China, scientists point out "a strong warming of China over the past five decades is firmly supported by continuous measurements from 412 meteorological stations. The temperature has increased by 1.2 °C since 1960. The seven warmest years all occurred during the last decade […]. Moreover, northern China is warming faster than southern China".[1] The following article tries to decode what impacts, in terms of glaciers, water and agriculture, climate change will cause and cost in China.

Disappearing glaciers

What does stronger and quicker warming in northern China mean – apart from people sweating more in the North?

The Qinghai-Tibetan Plateau is the area most affected by melting glaciers. "Mado County in Qinghai Province (where the Yellow River originates) used to have more than 1,000 lakes; now there are less than 300 […]. The disappearance of high-land wetlands and the degradation of grassland have already cost the livelihood of many nomadic herders. In Mado County, it is estimated that around one fourth of the herders have become ecological refugees — they have been relocated and are totally dependent on government welfare now".[2] The cause of the lakes' disappearance are rising temperatures, increasing evaporation

1 Shilong Piao et al (2010): The impacts of climate change on water resources and agriculture in China, in: Nature 467, p. 43-51.

2 Climate Change and China: Technology, Market and Beyond, at http://focusweb.org/pdf/occasionalpaper6.pdf: Accessed on 10th October 2010.

"Problems that cannot wait": Dalai Lama on climate change

The US embassy cables reported on August 10th, 2009:
"In a August 8 introductory meeting, the Ambassador sought the Dalai Lama's views on his upcoming October visit to the U.S. The Dalai Lama argued that the political agenda should be sidelined for five to ten years and the international community should shift its focus to climate change on the Tibetan plateau. Melting glaciers, deforestation, and increasingly polluted water from mining projects were problems that 'cannot wait'."

Quoted in: The Guardian, 16th December 2010 (http://www.guardian.co.uk/world/us-embassy-cables-documents/220120: Accessed on 16th December 2010).

and the disappearance of glaciers, which are interrelated. The highlands also face a higher risk of floods, as melting of glaciers causes an increase of lake level and floods, for example, in Tarim Basin of Xinjiang Province, from 0.4 floods per year in the 1950s up to one flood a year in the 1990s.[3]

The problem doesn't affect Qinghai-Tibetan Plateau or Xinjiang Province, a relatively less-populated area in China, alone. The glaciers also are the sources of China's major rivers, such as Yangtze and Yellow rivers, and the Chinese authority has acknowledged this, "glaciers that serve as water sources on the Qinghai-Tibet plateau are melting at a 'worrisome speed', having receded 196 square km over the past nearly 40 years".[4] The melting means more flooding in the short run and droughts, as the glaciers which provide water for these rivers finally disappear in the future. "Several studies converge on the conclusion that glacier melt runoff may peak during 2030–2050, and could gradually decline afterwards. Even though the exact timing and magnitude of the 'tipping point' of each glacier is still uncertain, the projected long-term exhaustion of glacial water supply should have a considerable impact on the availability of water for both agricultural and human consumption".[5]

In fact, different statistics have confirmed that the major rivers are showing signs of drying up, even though rainfall over the past decades has increased. The wetland of Qinghai-Tibetan Plateau, where Yangtze and Yellow River start, has "shrunk more than 10 per cent over the past four decades".[6]

Troubled waters

Yet, the growing population with a rising income level are inevitably leading to a higher demand for water. However, in terms of quantity and quality, China is facing a severe water crisis. China's water availability is estimated at 2,156 cubic meter/year per capita in 2007, i.e. is only one-fourth of the world average of 8,549 cubic meter/year and among the lowest for a major country. The distribution of water resources is also very uneven, the South, with average rainfall of over 2,000 mm/year, is more water abundant than the North, where rainfall only averages about 200–400 mm/year and its per capita water availability in northern China is only at 757 cubic meter/year, less than one-fourth that in southern China, one-eleventh of the world average, and scientifically, less than the threshold level of 1,000 cubic meter/year commonly defined as "water scarcity", by the World Bank.[7] In the case of water, climate change has increased the scale of scarcity and imbalance of water distribution, as "inter-regional differences in precipitation have increased, with rainfall gradually declining in North China at rates of 20–40 mm/decade, and rising in South China at rates of 20–60 mm/decade".[8] Moreover, the China's National Climate Change Programme also estimates that average nationwide temperatures will increase by 1.3 to 2.1 °C by 2020, 1.5 to 2.8 °C by 2030, and 2.3 to 3.3 °C, by 2050, as compared to 2000.[9] This would lead to higher evaporation and worsen the water scarcity situation. The water shortage also causes the over-exploitation of underground water, leading to subsidence and land cracks.

Human activities, triggered by climate change or economic interests, contribute largely to the water crisis in China. Ma Jun, an environmentalist, bluntly pointed out: "China is facing a water crisis that includes water shortages, water pollution and deterioration in water quality."[10] The major pollution comes from untreated industrial waste. Another concern is the efficiency of water use in China. The price of water is considered to be low in China, therefore, factories and households have low incentives in saving water.

Food security for one-fifth of the world

Food security is a very difficult topic, as it is a result of interaction of climate change, human activities, water availability, technological advancement and other factors. Currently, the staple food supply of most Chinese people is supported by its own agriculture, and China produces approximately 30, 15, and 17 per cent of the global production of rice, wheat and maize, respectively.[11] Therefore, securing staple food supply for this 20 per cent of the global population is not only a major concern for the Chinese, but also a global concern. According to research done by a UK-funded project Impacts of Climate Change on Chinese Agriculture (ICCCA), assuming China continues to get warmer and the effect of CO_2 on crop yields, the modelling till 2080

3 Shilong Piao et al (2010), p. 43-51.
4 Plateau glaciers melting ,worrisome' in SW China, at http://www.chinadaily.com.cn/china/2009-02/04/content_7446399.htm: Accessed on 10th October 2010.
5 Shilong Piao et al (2010), p. 43-51.
6 Climate Change Sucks Water from China's Two Longest Rivers, Xinhua 27th July 2007.
7 World Bank (2009): Addressing China's Water Scarcity: Recommendations for Selected Water Resource Management Issues.
8 World Bank (2009).
9 China's National Climate Change Programme: at http://www.ccchina.gov.cn/WebSite/CCChina/UpFile/File188.pdf: Accessed on 10th October 2010
10 Tackling China's water crisis online: at http://www.chinadialogue.net/article/show/single/en/392: Accessed on 11th October 2010.
11 National Level Study: The Impacts of Climate Change on Cereal Production in China: at http://www.china-climate-adapt.org/en/document/NationalReport_English_Issue_2.pdf: Accessed on 11th October 2010.

shows that "Climate change alone reduces yields for all crops, but CO_2 fertilisation reduces the rate of decline and significantly increases yields of wheat. The effect of CO_2 fertilisation in a real farming situation is, however, uncertain [...] in nearly all scenarios, production per capita falls due to strong future growth in population size".[12]

Other research also shows that whilst some crops, such as rice, would increase in harvest as the temperature rises, it should not be a reason to celebrate, as "the magnitude of the CO_2 fertilization effect on crop yields is still debated and is therefore a source of uncertainty. Without this mechanism, crop models that have been used so far to assess future production changes in China suggest a yield drop of up to 20 per cent in response to climate change scenarios from a single climate model (the model stretches to 2050s)".[13]

The two pieces of research mentioned above only provide models on temperature change. If we would add the problem of droughts, floods and water pollution, the future for China's agriculture might look even more worrisome.

12 National Level Study: The Impacts of Climate Change on Cereal Production in China.

13 Piao, Shilong et al (2010). p. 43-51.

Climate Change and Desertification in China: The most under-reported environmental crisis

ANG Chin By

In launching the Decade for Deserts and the Fight against Desertification (UNDDD) in 2010, the United Nations has, once again, highlighted the great need to combat desertification.[1] The UN defines desertification as "the land degradation in arid, semi-arid and sub-humid areas resulting from various factors, including climatic variations and human activities. When land degradation happens in the world's drylands, it often creates desert-like conditions".[2] The UN and its international partners are preoccupied by the cramping desertification around the world, which impacts are and will be more and more dramatic if nothing is done to arrest them. It is claimed that drylands are house to approximately two billion people, representing 33 per cent of the world's population.[3]

Desertification in China – it's most pressing environmental problem

"The desertification of north and western China is arguably the most under-reported environmental crisis facing China today and is little understood outside the circles of NGOs and groups of scientists who are desperately fighting against it"[4] states Greenpeace.

1 It will run from January 2010 to December 2020. For more information, see: http://unddd.unccd.int/.

2 http://unddd.unccd.int/docs/awareness_marterials/Broschure.pdf: Accessed on 11th October 2010.
This definition and concept of desertification was accepted by the UN in 1992. The definition of desertification was a source of dispute between scientists during the 20th century. The 1990 definition defines desertification as "resulting from adverse human impact", whereas the 1991 definition introduces a slight difference, i.e. desertification results "mainly from adverse human impact".

3 Sivakumar Mannava V.K. (2007): Interactions between Climate and Desertification, in: Agricultural and Forest Meteorology N°142, p. 143.

4 http://www.greenpeace.org/china/en/news/china-desertification: Accessed on 8th October 2010.

Desertification in China is not a local environmental problem since it also affects other surrounding countries (including Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, Turkmenistan, Mongolia, South Korea) and Japan. Due to the significant impacts of desertification, these countries' governments have decided to fight jointly against it. For instance, Japan sends volunteers to China every year to participate in projects to combat it.[5]

Approximately one third (34.4 per cent) of the world's drylands are in Asia.[6] Today, China is one of the countries most severely jeopardized by dust-sand storms and desertification. The total area of desertified land in China is 2.67 million km^2, which is 27.9 per cent of the country's landmass including deserts.[7] Desertified land is mainly distributed across 498 counties in 18 provinces and autonomous regions in the Northwest, North and Northeast regions, including the Xinjiang, Inner Mongolia, Ningxia and Tibet autonomous regions, and the Gansu, Hebei, Shanxi and Shaanxi provinces.

The annual expansion rate of desertification in China amounted to:[8]

- 1,560 km^2 in the 1970s,
- 2,100 km^2 in the 1980s,
- 2,460 km^2 in the mid-1990s and
- 3,436 km^2 in the late 1990s.

To what extend does climate change impact desertification?

Today, it is commonly acknowledged by the scientific circle that land degradation results from human activities and climatic variations. This is because climate change and human activities are related to one another. Human activities modify the characteristics of the surfaces and atmospheric compositions of drylands, which may influence local and regional climates. Conversely, dryland climates have an impact on soils, ecosystems, water balance and human land use in those regions.[9]

Scientists have divergent interpretations on the extent to which climatic variations and human activities affect desertification in China. A 2010 study shows that "[...] the relative roles of climate change and human activities in desertification at the macro level are still not clear due to a lack of consistent quantitative assessment methods and multi-scale studies".[10] Some researchers assert that, desertification originates mainly from over-grazing, over-reclamation of land, over-cutting of forest, population growth, and unsustainable use of water resources.[11] Others believe that desertification in China is more likely to be resulting from climate change and geomorphological processes.[12]

According to Qi Lu and Sen Wan from the National Research and Development Center for Combating Desertification,"[t]he principal agents of desertification include wind, water, alkalization/salinization, and freezing and melting processes, and these agents account for 1.88 million square kilometers, 0.27 million square kilometers, 0.36 million square kilometers and 0.17 million square kilometers, respectively".[13] However, according to some scientists, "[d]ominant factors causing desertification vary with different areas and periods".[14]

Alarming impacts of desertification in China

The consequences of desertification and sand storms are of different natures. They cause unstable political situations and social upheaval, environmental degradation, and health-related problems such as serious illness and damage to the respiratory system, irritation of the eyes and inflammation of the lungs.

According to Tang Yuan, general director of the Research Department for Industry, Transportation and Trade of the State Council Research Development, desertification causes 54 billion yuan of direct economic losses annually and affects nearly 400 million people.[15]

Land degradation has also forced millions of people to leave their homes and seek better places as they could not make a living out of their crops, and their cattle were dying or getting sick. Others were forced by the authorities to move temporarily or permanently to resettlement camps, in towns or cities. For some of them, their living situation has improved but for others, it has worsened. Resettlement programmes have emerged in many provinces such as Qinghai province, or in Inner Mongolia Autonomous Region in order to give grasslands some respite, says the government.[16] However, the effectiveness of this kind of program is highly controversial. Indeed, many of the moved herders have seen it rather positively as their living conditions have improved, whereas others have expressed their high concerns and disappointment, saying that "many [of the

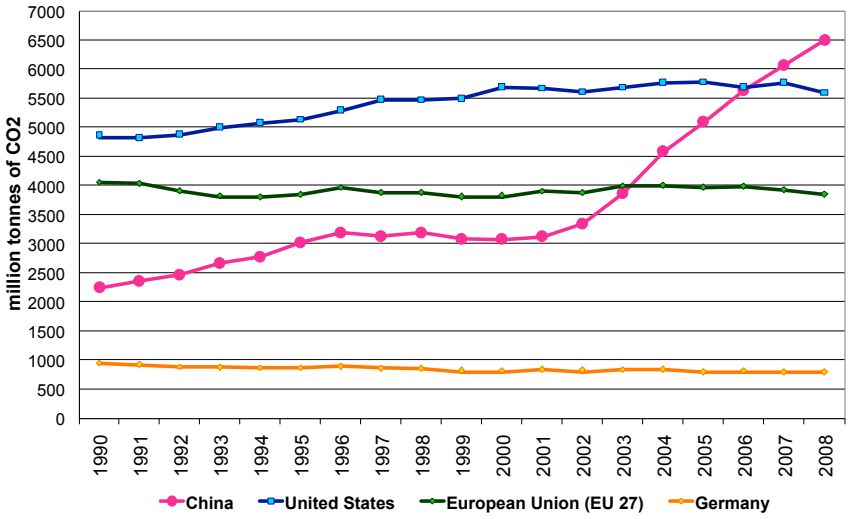
5 http://www.greenpeace.org/china/zh/news/24563?mode=send: Accessed on 20th October 2010.
6 Sivakumar Mannava V.K. (2007), p. 144.
7 http://www.fao.org/DOCREP/ARTICLE/WFC/XII/0859-B5.HTM: Accessed on 12th October 2010
8 Ibid.
9 Sivakumar Mannava V.K. (2007), p. 144. Indeed, Sivakumar Mannava V.K. explains the effects of desertification on climate, which appear in different ways. The major processes involved include changes in land cover and land use leading to land degradation, climatic consequences associated with land use/land cover changes, overgrazing, biomass burning and atmospheric emissions, agriculture's contributions to air pollution, forest and woodland clearing and accelerated erosion, anthropogenic land disturbances and wind erosion and the impact of irrigated agriculture on surface conditions in drylands.
10 Xu Duanyang, Kang Xiangwu, Zhuang Dafang, Pan Jianjun (2010): Multi-scale Quantitative Assessment of the Relative Roles of Climate Change and Human Activities in Desertification - A Case Study of the Ordos Plateau, China, in: Journal of Arid Environments N° 74, p. 498.
11 Wang Xunming, Chen Fahu, Hasi Eerdun, Li Jinchang (2008): Desertification in China: An assessment, in: Earth Science Reviews N° 88 p. 198.
12 Ibid, p. 714. Despite all the scientific studies existing on how climate change affects desertification, some researchers increasingly suggest that "dust could [actually] be mitigating climate change, both by reflecting sunlight in the atmosphere and fertilizing the oceans with nutrients" reported the U.K. newspaper The Guardian. To read more about it, please visit: http://www.guardian.co.uk/world/2009/sep/27/dust-storms-diseases-sydney.
13 http://www.fao.org/DOCREP/ARTICLE/WFC/XII/0859-B5.HTM: Accessed on 12th October 2010.
14 Chen Yufu, Tang Haiping (2005): Desertification in North China: Background, Anthropogenic Impacts and Failures in Combating it, in: Land Degradation & Development N° 16, p. 374.
15 http://english.people.com.cn/90001/90776/6541192.html: Accessed on 11th November 2010. No details on how these figures have been obtained are provided; however, they have been widely used by the media. Moreover, it is not clear whether these figures include the number of resettled rural residents and herders.
16 http://www.unpo.org/article/11315: Accessed on 11th November 2010.

resettlement centers are] on the way to becoming ghettos".[17] Moreover, some cases of herders being detained, assaulted or arrested have been reported by the US-based Southern Mongolian Human Rights Information Centre group. In addition, some must rely on the money provided by the government. For example, some nomads are paid 3,000 yuan to 8,000 yuan per household per year. Many of them face difficulties finding a job and end up either recycling rubbish, collecting dung or they remain unemployed.[18] It is said that "more than 150 million people will have to be moved".[19]

In April 2010, the U.S. magazine Newsweek disclosed that China's capital Beijing may well disappear due to global warming and the threat of rapid desertification.[20] Indeed, Beijing is blasted every year by severe sandstorms that transport tons of sand, covering the whole city in dust. Sandstorms also contribute to the dramatic increase of air pollution in the city and elsewhere, as was the case in Taiwan and Hong Kong in March 2010.[21]

China: the world biggest CO_2 emitter

CO_2 emissions from fuel combustion in million tonnes



The Chinese CO_2 emissions from fuel combustion doubled from 2003 to 2008.

Source: International Energy Agency
© Werkstatt Ökonomie e.V.

Chinese government's response to mitigate impact

Chinese authorities are aware of these disastrous impacts of desertification and have made it their top priority. The fight against desertification relies on three major strategies: the promotion of science and technology in combating desertification, the adoption of programmatic approaches, and policy and legislation support.[22]

Despite the billions of yuan invested by China to protect the land and stop desertification, opponents to the government's initiatives, including scientists[23], NGO representatives and victims of desertification, question the real effectiveness and efficiency of some of the activities and methods that have been carried out. For instance, Wang Yongchen from the Green Earth Volunteers NGO said that "[o]vergrazing was considered a possible cause of the grassland degradation, but things haven't improved since the herds were enclosed and the nomads moved. [He] think[s] [that] climate change and mining have had a bigger impact" when talking about Tibet's Loess Plateau.[24]

The UN has acknowledged that China has made obvious efforts to diminish the disastrous impacts of desertification the past five decades. Despite the billions of Yuan invested by the Chinese government to implement programmes in order to fight the desertification of its land, the results are mixed. There is obviously a gap between the existence of regulations and laws and their implementation at a local level, which is a recurrent problem in China. Moreover, it seems that some of the implemented projects were misestimated and thus failed to reach their goals. However, some governmental initiatives have been supported by different groups of interest from Chinese civil society.

Some scientists have pointed out the necessity to carry out further research in order to better understand the influence of climate change on desertification due to a lack of reliable data. Others question the real effect of some of the major rehabilitation programmes and programmes that combat desertification and advocate an objective assessment of them, mostly because of the implication for future policy decisions.

Lastly, to date, only very few NGOs are specialized in the field of desertification in China, which is far from being enough considering the millions of people affected and all the other problems related to desertification, such as air pollution, poverty, and food safety.

17 http://www.chinadialogue.net/article/show/single/en/3828-Tibet-s-disappearing-grasslands: Accessed on 10th November 2010.
18 Ibid.
19 http://desertification.wordpress.com/2009/05/22/chinese-plan-to-relocate-150-million-eco-refugees-google-thruthout/: Accessed on 11th November 2010.
20 http://english.peopledaily.com.cn/90001/90782/90872/6952147.html: Accessed on 8th November 2010.
21 http://www.businessweek.com/news/2010-03-22/hong-kong-taiwan-pollution-at-record-levels-after-china-storm.html: Accessed on 10th November 2010.
22 http://www.fao.org/DOCREP/ARTICLE/WFC/XII/0859-B5.HTM: Accessed on 12th November 2010.
23 Wang Xunming, Zhang Caixia, Hasi Eerdun, Dong Zhibao (2010): Has the Three North Forest Shelterbelt Program Solved the Desertification and Dust Storm Problems in Arid and Semiarid China? in: Journal of Arid Environments N°74, p. 21.
24 http://www.chinadialogue.net/article/show/single/en/3828-Tibet-s-disappearing-grasslands: Accessed on 10th November 2010.

China's Way to a Low Carbon Society

Renewable Energy Development and Low Carbon Future from an official perspective

JIANG Kejun

Professor JIANG Kejun works with the Chinese government Energy Research Institute. According to its Website, "the Energy Research Institute of the National Development and Reform Commission was established in 1980. It is a national research organization conducting comprehensive studies on China's energy issues".[1] The National Development and Reform Commission (NDRC) under the Chinese State Council inter alia has "to formulate and implement strategies of national economic and social development, annual plans, medium and long-term development plans" and "to coordinate economic and social development".[2]

China's energy and emission scenario

Climate change is a global issue that draws international concern. It has become an important factor in the sustainable development of future economy and society for all countries. International communities, including developing countries, have all demonstrated great efforts to combat climate change. People have learnt more and more about climate change recently; intensive discussions about climate change have increased. China – a country which is expected to have a rapid economy growth in the future – has realized that low-carbon development has become a significant social and economic development path in the future.

Based on the modeling studies in the Energy Research Institute, several scenarios of energy and emission were developed, considering different assumptions of Gross Domestic Product (GDP), population, consumption style, technology improvement, environment demand, emission reduction path under global greenhouse gas (GHG) stabilization target up to 2050. We designed different emission reduction demands from China and describe China's emission scenarios to reach these stabilization targets.

In the low-carbon scenario, we would need to implement policies to support the economy and social development with lower energy consumption growth rate. The energy-intensive sectors' scales will be limited. They will mainly serve for the domestic demand, sometimes may even need import. The energy fiscal policies will also be implemented to enhance energy saving. Renewable energy and nuclear energy will develop rapidly with support from national planning and fiscal policies (NDRC, 2006). By 2030, energy efficiency in major energy-intensive sectors will reach the international advanced level, or even more advanced level; as a whole, the industry will realize high-efficiency and clean production; newly-built buildings will gradually reach the energy saving criteria; and household consumption will be mainly based on low-energy goods. Therefore, the overall CO_2 emissions are lower. Achieving stricter emission reduction policies aiming at CO_2 mitigation are also considered.

Recently the International Energy Agency (IEA) also published its Energy Technology Perspectives, with a technology roadmap, for a mitigation scenario (IEA, 2008). This presents quite clear future for the GHG mitigation in long term.

Renewable energy development

In the low carbon scenario, large amount of renewable energy development is required. Renewable energy and the use of nuclear power would be the answer to GHG emission cuts. The current statistics forecast that by 2015, wind energy would reach 400 million kilowatts, nuclear power at 400-500 million kilowatts, hydro-energy at 400-500 million kilowatts and solar energy at 200-300 million kilowatts,

1 http://www.eri.org.cn/Era.asp?columnid=33&title=Briefs: Accessed on 24th November 2010.

2 http://en.ndrc.gov.cn/mfndrc/default.htm: Accessed on 24th November 2010.

which is 55 per cent or above the power generation capacity. Compared to the baseline, by 2030, China can reduce emission of 200-300 million tonnes of CO_2 and by 2050, 300-800 million tonnes.

The recent technological development of China's renewable energy, such as the price decrease on installing wind and solar power generators in the past year, has made renewable energy attractive in the market. China's technology level is rather competitive in the world. The Chinese Government also came up with concrete policies to support this sector, such as market access and price subsidy. These offer a strong incentive for investors and make the low carbon scenario, in term of the renewable energy market, highly feasible. A rapid cost reduction is expected in most of the key energy supply technologies.

Green China?

- In 2009, China became the world's largest market for wind energy, the world's largest producer of wind turbines and overtook Germany to become the world's second largest wind power producer, behind the USA.
- Today, China is the world's largest manufacturer of solar panels (it makes 40 per cent of all panels in the world).
- China has the highest hydroelectric capacity in the world.
- In 2009, private households and companies invested nearly 35 billion US dollars into Chinese renewable energy projects – in the USA the respective investments amounted to 19 billion US dollars.
- But: between 2010 and 2020, China is expected to account for a majority of the world's new nuclear power plant construction.

Source: Ying Ma (2010): China's View of Climate Change

Technology leading

As mentioned before, climate change means both challenges and opportunities for China. As the biggest emitter in the world, it is going to encounter enormous pressure at the future international negotiations. Within China, the official emission cut target and for its own sustainable development, both require China to develop in the low-carbon scenario, as it would help the industries in China to upgrade and transform, for a cleaner, more energy-efficient and more sustainable economy.

Low-carbon economy can be interpreted in China as – with our limited natural resources – as trying our best to reduce GHG emission. At the moment, China's capacity and economy does not allow immediate cut on GHG emissions. It needs a transitional period to develop a low-carbon economy, to reduce the growth of emission as much as it can. This is simply the reality.

During this transitional period, one of the major tasks would be, to make low carbon technology accessible. Our research has shown that certain key technology is crucial for the realization of low carbon economy. Both at the energy production and energy consumption, technology plays an important role. It is more crucial at the consumption side before 2030 and after 2030, more on the production side.

Energy saving technology has the highest market potential and economic returns, among the other types of GHG reduction technology. With the favourable polices from the government, business entities should adopt them at their infrastructure, to try to get China's industrial energy efficiency ranking among the highest in the world between 2020 and 2030. In the construction industry, energy saving buildings should be promoted in the cities and in the rural areas (at a lower cost), to reach the national target of increasing 30 per cent to 50 per cent of energy-saving efficiency at buildings. For the transportation sector, by 2030, public transport should be the main mean of mobility at large-scale cities. Hybrid-cars should become the standard, and electric-cars should be developed.

More support, including policies and market mechanism, should be given on clean energy technology. China's offshore wind turbines are rather competitive globally and should have a high market potential. If better support is given, it should have good impact in the near future. For technology which is well developed in other industrial countries, such as hybrid-cars, efficient diesel cars, it should be introduced into China and expand their usage. For technology which could be used at households, such as household solar cells, photovoltaic and household wind turbines, it should be further encouraged and hope that by 2030, it is commonly adopted in China.

Considered that in the future, fossil energy, especially coals, would still be the main energy source of China (China is the biggest coal-user in the world), there should be more attention given to clean coal technology. Clean coal power generation technology and carbon capture and storage technology (known as CCS), especially the latter one, is very crucial to lower the GHG emission. Therefore, China should make enhancement of its clean coal technology as its national policy and to increase international cooperation in this area.

Low carbon future

The call for low carbon development has been intensified over the past few years. Though the progress of international climate conferences has been disappointing, each country's effort should not be ignored. Many countries have taken low carbon technology, industrial advancement into account, in designing their long term development goal, to make sure they are competitive enough.

The research on low carbon society, low carbon economy has been going on. Here, I would like to point out, that low carbon development refers to a socio-economic system which can realize low carbon emission. Low carbon emission has different definitions; one of them is a target of emission cut which can lower temperature growth for the world. At the moment, the discussion is mainly at limiting the temperature growth to under 2 degrees Celsius by 2100 and how different countries or regions can contribute in lowering their GHG emissions to achieve that. Though political conflicts are existing among the countries, I believe a common goal would be reached soon, as most the countries realize the economic benefits of emission cut and urgency of temperature control. They are tailor-making their own

emission cut plans. We could see medium- and long-term goals of emission cut coming up soon.

Internationally, the low carbon concept refers to lowering GHG emission within a certain period of time. The Japanese Government announced in July 2008, that it would reach 80 per cent GHG emission cut by 2050. Cities such as London, Paris, Chicago, Copenhagen and others also have clear targets. At the national policy-making level, we see more and more climate change related polices, such as the USA and the UK, and the Scandinavian countries are imposing a carbon tax, national development planning, standardization, subsidy, investment on new technology, energy-saving and renewable energy development policies. China has implemented several energy-saving and GHG emission cut polices and it is trying to walk the same lines as others.

Though the global goal is to control the temperature growth of lower than 2 degree Celsius by 2050, developing countries should take into account their own sustainable development path to set their own goal. In the long run, development countries' goal is to support the global goal of reaching the 2 degree Celsius limit by 2100.

In China, topics such as low carbon society, low carbon economy and China's development path, as well as low carbon policies, such as carbon tax, have been widely discussed. Our research shows that to reach low carbon economy, the following criteria need to be met.

- To re-tone the economy into low energy consuming and high efficiency.
- To improve the energy technology, by policies, research and development means.
- To develop renewable energy and nuclear power, to transform them as the main power source.
- To encourage participation from the people, adjust their lifestyle towards the low carbon consumption style.
- To develop low carbon agriculture, to increase and better manage the forest coverage.

The low carbon economy has become the trend for world's major economies and will have impacts on international trade conditions, market and technological development. The EU has clearly planed to go for low carbon economy. As pointed out in UN Climate Change Conference in Copenhagen in late 2009, we should start the transition towards low carbon economy and lead low carbon lifestyle. Based on Kyoto Protocol, each country has its own responsibilities in combating climate change and the developed countries have them more, such as reaching their own targets and helping the developing countries to reach theirs. China receives support but also encounters challenges from its counterparts.

Previously, there were some technological defects and through experiments, we see clearer answers now. For example, the usage of CCS technology, turns out to produce more pollutants (up to 8-30 per cent increase of pollutants per unit of energy produced) and waste more energy. After some modifications in controlling the pollutants, we can keep the pollution low. The integrated gasification combined cycle (IGCC) is another example to reduce pollutants and CO_2 emissions.

As predicted, before 2030, even with the least energy consumption scenario, it is difficult for Chinese industries to reach the emission cut target. China needs a lot more policies to encourage development of new technology and its application, polices and technology must walk in two legs, to reach the goal.

With the principles of safeguarding economic growth and sustainable development in China, to draw a national development plan on low carbon economy.

- To develop polices in favour of low carbon economy, such industrial polices, carbon tax, better market access for low carbon products, introducing new technology and standardization, raising the standards on energy efficiency and low carbon products, in order to boost low carbon industries.
- To invest more on low carbon technology, to reduce the GHG emissions from the traditional power plants, to promote energy saving at industries, also on transportation and construction.
- To promote international cooperation in the area of climate change. To explain the world about China's low carbon path and to gain international support, to exchange with institutes, to launch multi-literal cooperation on climate change issues, in order to innovate our low carbon industries.
- To raise the awareness of climate change among the public. To educate the people to switch to a low emission consumption lifestyle and promote environmental protectionism.

Climate change and the Chinese market

New infrastructure, plans and ways of investment

WONG Staphany

Climate change is not only a reserved for scientists, officials and civil society players. Businesses are among the pioneers using climate change to sell its new line of products. They range from hybrid cars to solar cells, and many companies start to see being (or being called) a low emission company means better business as well. Yet the question remains: just how green are they really?

Mobility without more cars?

With an expanding middle class and many of whom tempted to buy their own cars to increase their mobility, China is experiencing a rapid growth in the automobile market. "According to China's State Statistical Bureau, the country had merely 5.54 million vehicles on the road in 1990, but the number exploded to 62 million last year (including 26.05 million privately-owned sedans), and will exceed 70 million this year [...]. China's Ministry of Industry and Information Technology recently estimates that there will be over 200 million registered vehicles in the country in 2020".[1]

Trying to cut emissions, the Chinese Government has increased automobile tax by 20 per cent to 40 per cent on vehicles with engines above four litres, and by 15 per cent to 25 per cent on engines between three litres and four litres. For cars with engines under one litre, taxes were reduced to one per cent from three per cent in 2009. It also wants to increase hybrid, all-electric cars and buses to 500,000 by the end of 2011, aiming to increase sales of such new-energy cars so that they account for about five per cent of China's passenger vehicle sales. Yet the purchasing power and the demand for new energy cars remain concerns.

CO_2 emissions, as well as traffic congestion, have become a concern for many cities. Different means of mobility are currently being introduced into China. For example, Guangzhou's Bus Rapid Transit (BRT, a model popularly used in Latin America's mega-cities) may save as much as 200,000 tons of CO_2 a year.[2] "China is embarking on the largest railway expansion in history and plans to spend almost $300 billion expanding its railway network from 78,000 km today to 120,000 km in 2020. Of this, 13,000 km will be comprides of high-speed railways. The 1,300 kilometres Beijing-Shanghai line is under construction and it will reduce travel time between those destinations from 14 hours to five hours when it opens in 2013. This will attract an estimated 220,000 daily passengers and should dramatically reduce air travel between the metropolises".[3]

Ambitious plan to reform the industries

Pollution has become a real concern for many Chinese people and has even become a factor causing social unrest. Agricultural pollution is named as the biggest polluter, according to Wen Tiejun, head of the School of Agricultural Economics and Rural Development, Renmin University of China. "Particularly in northern China, using 40 per cent more fertilizers than crops needed, resulting in about 10 million tons of fertilizer every year being discharged into water, polluting China's rivers and lakes".[4] Yet the western media tends to attack China's self-labelling more as "the factory of the world", especially its highly-polluting and inefficient factories, as a contributor to the GHG (Green House Gas) emissions. However, China argues that rich nations buying Chinese goods bear responsibility for the estimated 15-25 per cent of China's carbon emissions that are created by its production of exports. It proposes that the share of emissions should be taken by the consumers in the West but not the producers in China.[5]

1 How many cars are there in China?: at http://chinaautoweb.com/2010/09/how-many-cars-are-there-in-china: Accessed on 2nd November 2010.

2 Transportation: Chinese cities find bus-only lanes an alternative to cars and subways: at http://www.eenews.net/public/climatewire/2010/07/16/1: Accessed on 2nd November 2010.

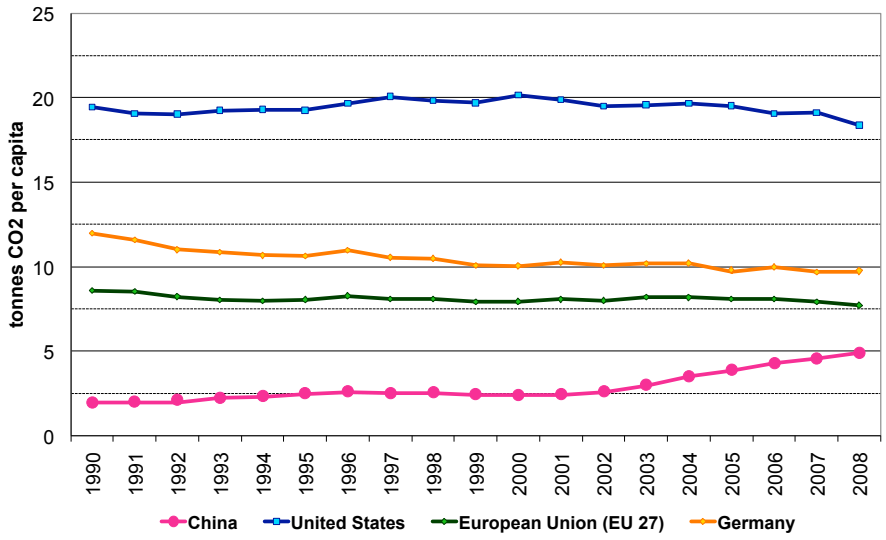
3 China begins its transition to a clean-energy economy: at http://www.americanprogress.org/issues/2009/06/china_energy_numbers.html: Accessed on 2nd November 2010.

4 China needs to cut use of chemical fertilizers: research: at http://www.reuters.com/article/idUSTRE60D20T20100114: Accessed on 3rd November 2010.

5 China seeks export carbon relief: at http://news.bbc.co.uk/2/hi/7947438.stm: Accessed on 3rd November 2010.

CO_2 emissions per capita in the USA nearly four times as high as in China

CO_2 emissions from fuel combustion in tonnes per capita



The Chinese CO_2 emissions from fuel combustion per capita converge to theEU average

Source: International Energy Agency, © Werkstatt Ökonomie e.V.

As a part of the 11th Five-year-plan, the Top-1,000 Energy-Consuming Enterprises programme was launched in 2006. These heavy-industry enterprises accounted for 33 per cent of national and 47 per cent of industrial energy usage in 2004. Under the programme 2010 energy consumption targets were determined for each enterprise, mainly based on the nature of its business. According to a report in June 2008, the programme, "depending upon the GDP growth rate – it could contribute to somewhere between approximately 10 per cent and 25 per cent of the savings required to support China's efforts to meet a 20 per cent reduction in energy use per unit of GDP by 2010".[6]

The Chinese business sector "seems" also to acknowledge the climate change issues and some started to seek international exchange, but mostly in terms of business opportunity and the result remains doubtful.[7] Some companies have also set their own emission cut targets. China Vanko for example, the largest residential estate developer in China, said it would contribute 0.12 per cent of the national emission cut (to reduce carbon dioxide emissions per unit of GDP in 2020 by 40 to 45 per cent compared with the level of 2005) in 2014.[8] Since the Chinese Government issued "Measures for the Disclosure of Environmental Information" in 2009, the civil society's observation of its outcome is that "the almost total lack of action from business", a criticism from Ma Jun, director of the Institute of Public and Environmental Affairs. In short, the business sector is only enthusiastic in green marketing but is reluctant to be transparent.[9]

The government is not taking a particularly firm stand towards the big companies either. For example, the Ministry of Environmental Protection is preparing "Guidelines on environmental information sharing from Listed companies" and it offered a public consultation. However, it only lasted for 12 days (14-25 Sept 2010), which is not enough time for serious consultation, especially towards how to monitor the listed companies.

Yet it may be more likely to take heavier-handed measures towards the smaller enterprises. In August 2010, Beijing city ordered 2,087 firms producing steel, coal, cement, aluminium, glass and other materials to close their old and obsolete plants by the end of September, or risk having bank loans frozen and power cut off.[10]

For foreign investors, China's ambition to cut CO_2 emissions and its urgent demand for renewable energy might mean good business for some companies. There are two examples of German companies arriving in China with correct expertise: 1) Siemens AG: Its industry division in China provides solutions on energy consumption including automated buildings, energy conservations and enhancing turbine efficiency, while its energy division develops products for primary power generation, supplying the five major Chinese energy companies. In China, Siemens' wind power product portfolio is currently comprised of plants generating between 2.3MW and 3.6MW. Its solar power for Chinese projects are generating at around 200GW. Its present annual growth in China's generating capacity is equivalent to Germany's entire annual energy requirement.[11] 2) Nordex SE: Since its entry into China in 1998, it has installed wind

6 China's Top-1000 Energy-Consuming Enterprises Program: reducing energy consumption of the 1000 largest industrial enterprises in China: at http://ies.lbl.gov/iespubs/LBNL-519E.pdf: Accessed on 4th November 2010.

7 A disappointing business: at http://www.chinadialogue.net/article/show/single/en/3499-A-disappointing-business: Accessed on 3rd November 2010/

8 In Chinese, at http://www.cdb.org.cn/newsview.php?id=2483: Accessed on 3rd November 2010.

9 China's green wash-out: at http://www.chinadialogue.net/article/show/single/en/3708-China-s-green-washout: Accessed on 3rd November 2010.

10 China closes factories as green deadline looms: at http://www.google.com/hostednews/afp/article/ALeqM5iSiBWKx4u5r8v2uRdK8Mxr_7Krog: Accessed on 4th November 2010.

11 Renewable energy: strategies adopted by three German companies: at http://www.pwc.de/fileserver/RepositoryItem/china_compass_summer2010.pdf?itemId=37430238: Accessed on 2nd November 2010.

power stations in more than 400 plants with a total output of over 400MV per year. New installations are expected to exceed 8GW per year in the long term.[12]

With rising wages and labour standards low-end production could finally pull out of China, providing hope that Chineses factories will get cleaner. However, moving dirty factories to other countries could just prove to be a vicious circle.

Foreign direct investment and environment

Chinese foreign direct investment has increased enormously over the past years, from USD 2.9 billion in 2003 to 55.9 billion in 2008.[13] Though the Chinese FDI has created jobs and exporting opportunities for many developing countries, Chinese companies' labour standards have been long criticized[14] and their pollution and resource-exploitation overseas also attract attention.[15]

A recently released book from Global Environmental Institute, a Chinese NGO, the Chinese Ministry of Environmental Protection's Chinese Academy for Environmental Planning and the University of International Business and Economics, studying the environmental behaviour of Chinese companies overseas and on banks' environmental policies in overseas lending, says that only a few Chinese companies have developed environmental-protection policies in their foreign investment deals. However, these policies are merely suggestions for the companies to follow the environmental legislation in their hosting countries. Only a few policies from the Ministry of Commerce recommend that Chinese investors follow international protocol and local environmental laws, while domestic environmental laws and enforcement in the hosting countries, often developing countries, might not be well placed and implemented.[16] Chinese banks have some guidelines and a few follow the international protocol, such as the Equator Principles, but the green benchmark is still being developed. [17]

12 Renewable energy: strategies adopted by three German companies. Ibid.
13 In Chinese: Environmental Policies on China's investment overseas (2010): *China* Environmental Science Press (Beijing): June 2010. Appendix 8.
14 One of the examples of labour conflicts: Zambia police to charge Chinese mine managers with attempted murder: at http://world.globaltimes.cn/africa/2010-10/583149.html: Accessed on 4th November 2010.
15 Higher standards for Chinese companies – and a risk for Africa?: at http://www.internationalrivers.org/blog/peter-bosshard/higher-standards-chinese-companies-and-risk-africa: Accessed on 4th November 2010.
16 Environmental Policies on China's investment overseas (2010).
17 China to bring in green loan benchmark". China Daily: 25th January 2008.

China's green washout

Chinadialogue's remarks on Chinese "Green Companies"

HUO Weiya

The environmental non-governmental organisation chinadialogue took a closer look into the behaviour of Chinese companies which claim to be ecologically committed. The article was written by HUO Weiya, the former associate editor in chinadialogue's Beijing office and published on 7th July 2010 on www.chiadialogue.net. The following text is an excerpt of the article.

China's firms may be unwilling to reveal environmental data, but when it comes to green marketing, there is no shortage of enthusiasm. In public, top executives never doubt the importance of environmental protection, nor do they deny their social responsibilities.

The Annual Summit of China Green Companies is a discussion forum established by such "environmentally aware" firms. Since the first meeting in 2008, the member companies have ceaselessly flagged up their concern for the environment with their choice of conference topics, ranging from "green competitiveness" to "green transformation" to this year's "green evolution" [...].

Such open expressions of environmental concern and participation in environmental events have improved the public image of these businessmen. But this does not mean the companies themselves are environmentally friendly. There is plenty of evidence that the greening of Chinese firms has gone no further than the mouths of their figureheads.

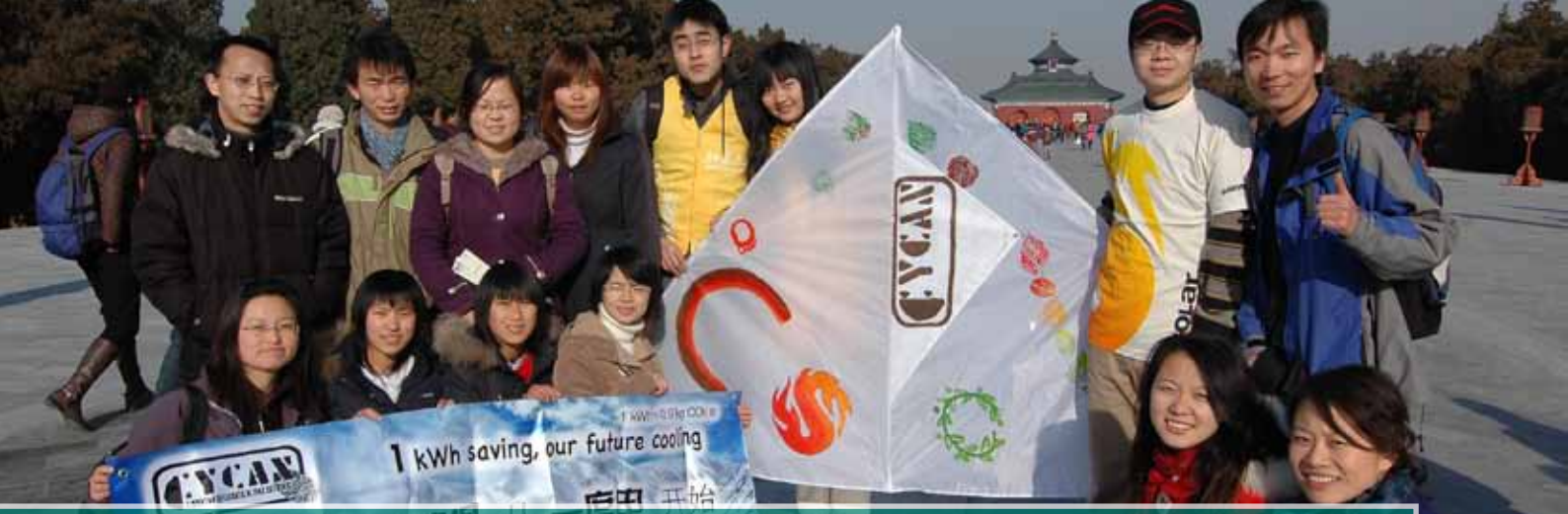
In 2009, a report on China by United Kingdom-based charity the Carbon Disclosure Project (CDP) concluded that the gathering and management of data on carbon emissions would be one of the main obstacles for Chinese companies taking a low-carbon route [...].

Chinese firms are greening only their image – their actual businesses remain unchanged. The reason is clear: going genuinely green costs, while a change of image is much cheaper. As economist Zhang Weiying said at the annual meeting, "If there's no green business model, it's all just slogans."

One way to change this would be to ensure that firms can make money at the same time as being green. China's government and many academics view green development as the key to maintaining both economic growth and sustainability, and so the state is currently offering various methods of support. This is the carrot [...].

In his article, "A paper victory", chinadialogue's Beijing-branch deputy editor Liu Jianqiang explains that certain government departments are sending out false signals that the environment is improving, thus providing cover for the polluters. This is bound to slow down the greening of China's businesses [...].

The London, Beijing and San Francisco based NGO chinadialogue publishes articles on environmental issues in Chinese and English on www.chinadialogue.net. This website was launched on 3rd July 2006.



Chinese Civil Society on Climate Change Policies

Problem-fixers versus trouble-makers

ANG Chin By and WONG Staphany

There is increasing scope for Chinese civil society to have a say in the debate between the policy makers and leaders in the field of climate in a way which was "unthinkable a few years ago".[1] *The purpose of this article is to present the different actors in Chinese civil society who are taking initiatives and positions in the field of climate policy and to discuss their influence in the decision-making process.*

Public opinion: Its influence and comments on climate policy

Several governmental institutions and agencies are involved in making and implementing energy and climate policies in China. Among them, the most influential actors are the National Development and Reform Commission (NDRC) for policy making and the Ministry of Foreign Affairs (MFA) for international negotiations.

In recent years, one can observe the emergence of individual and collective actions and programmes in the field of climate change and environmental protection across the country initiated by different interest groups within Chinese civil society. These include the public, environmental scholars and experts, the media and environmental NGOs. Their actions are, directly or indirectly, with more or less success, influencing China's climate policy.

China Development Brief presents the results of a 2009 survey on how the Chinese public views climate change mitigation. The results show that 72.3 per cent of the total number of persons interviewed (3,785) believe that the government should be the most important actor in combating climate change and 74.1 per cent of them think that the government is actually the main contributor in the fight against climate change. NGOs were listed second with 9.7 per cent and 10.9 per cent respectively and common people third with 6.2 per cent and 6.5 per cent respectively. This survey reveals the high level of trust that the Chinese have in their government, trust which is actually mainly constructed by the government through the use of traditional media, such as the television and newspapers.[2]

Another aspect of the survey points out that Chinese people are more concerned with environmental issues related to their everyday life, that is air pollution, waste management and polluted water management, rather than the climate change problem. Climate change emerged in position four out of ten, which is relatively high. Despite this, they do not believe that it is their chief responsibility to take part in climate change mitigation, rather that of the government.

However, other sources show the growing importance of public opinion in environmental and climate issues, via public protests and marches, which are mostly motivated by the public's discontent with the implementation of environmental standards and regulations by the local authorities. Indeed, newspapers are currently reporting cases of polluting industries causing high health and ecological damage not being shut down because local civil servants are being bribed or are acquainted with the owner of the factory. According to estimates from China›s State Environmental Protection Administration, 51,000 environmental protests occurred in 2005.[3] Meanwhile, another kind of individual initiative has emerged from Chinese citizens around China. For instance, the Climate Institute, a U.S. Climate NGO, tells the story of a doctor in the city of Dalian, Northeast China, who was concerned about the poison which could be released by batteries thrown in local dumps

1 Dirk Romenney (2008): Climate & Energy Policy in the People's Republic of China: An Overview concerning Chinese Domestic Laws, and the Instruments and Measures of Climate Change Mitigation, Heinrich Böll Foundation. p. 18.

2 http://www.cdb.org.cn/newsview.php?id=1433: Accessed on 16th November 2010.

3 Dirk Romenney (2008), p. 18

and convinced local stores to take batteries back for recycling.[4] This is not an isolated example.

According to a 2010 study released by the Stockholm International Peace Institute, citizens have found a new way to express their support or disapproval of foreign policy to central and local authorities, through the use of Internet forums or blogs. More than 384 million Chinese used the Internet in 2009, making them by far the largest virtual community in the world.[5] Indeed, ordinary citizens as well as many Communist Party of China intellectuals and active foreign policy officials make comments on their blogs, point out the authors of the study.[6] The influence "netizens" have on the central government's policy is mixed. The authors report cases in which Chinese leaders took foreign policy decisions with disregard for public opinion and, on the other hand, in which they appeared to be more cautious. "[I]f an overwhelming majority of views on chat sites and in newspaper columns reflect a unified view on an issue, officials feel the need to act cautiously because they do not want dissatisfaction to escalate and lead to street protests" said a Chinese MFA official.[7]

Academics: Their influence and comments on climate policy

Although the decision-making process is kept opaque by the central government, one can see that Chinese researchers and experts are more and more solicited to aid policy makers and leaders with their expertise and analysis in "esoteric fields such as arms control, international trade, climate change and intellectual property".[8] The impact of their assessment and recommendations depend largely on the sources seeking to influence policy and on the ways they use to reach policy makers and leaders. "A mid-career MFA official said that while he regularly consults and reads the reports of four or five of the country's top foreign policy specialists, most researchers are too far removed from day-to-day policy making to be useful. Senior foreign policy officials are overwhelmed with documents that analyze foreign policy and read only a fraction of them."[9]

Chinese academics also use other ways to affect policy decisions on climate. The Climate Institute reported, for instance, that in 2007, students and professors of Xiamen University sent more than one million text messages to citizens in order to mobilize them against the construction of a local petrochemical plant. This was followed by a march through the city for which between 7,000 and 20,000 people gathered. The march was filmed and put on the Web site, YouTube.[10]

More recently, an open letter to the U.S. Special Envoy on Climate Change, *A Challenge for the U.S. To Match China's Efforts to Address Climate Change,*[11] was addressed in 2010 by several professors from eminent Chinese and foreign universities such as Qinghua University, Chinese Academy of Social Science, Beijing University, Huazhong University of Science and Technology, London School of Economics and so on. The purpose of this letter was to express Chinese civil society groups' feelings towards the United States. "It is time for the United States to stop using China as an excuse for inaction, and to move forward with whatever honest efforts it can come up with."[12]

NGOs: Their influence and comments on climate policy

Given their nature, the climate change and environmental NGOs in China are perceived by the authorities as less sensitive, when compared with civil rights, labour rights and human rights organizations or political parties, and in some areas, the authorities are willing to cooperate with them. They are seen more as problem-fixers, rather than trouble-makers. In some successful cases, environmental NGOs started a campaign that was later adopted by national policies. In 2004, for example, six organizations lobbied companies and the public to set their air-conditioning to no lower than 26 degrees Celsius and by 2007, the government required all public buildings to follow the no lower than 26°C rule.

However, until recently, the work of environmental NGOs focused more on raising public awareness, especially in the area of environmental protection, such as waste recycling, saving resources and a hygienic lifestyle.

In 2007, eight NGOs, including Friends of Nature, Oxfam Hong Kong, Greenpeace, Actionaid China (AAC), Global Village Beijing, World Wide Fund for Nature China (WWF), Green Earth Volunteers and the Institute of Public and Environmental Affairs, came together to initiate the "Chinese Civil Society's Response to Climate Change: Consensus and Strategies" project. The aim of the project is to raise the level of awareness and concern about climate change within Chinese civil society, to seek common positions and strategies based on Chinese realities, and to call for common actions to combat climate change. The programme started in 2007. It is seen as the NGOs' first move to address climate change issues directly and, with its focus on national policies and international negotiations, as a preparation for the upcoming climate change negotiations.

4 http://www.climate.org/topics/international-action/chinese-environmental-action.html: Accessed on 18th November 2010.

5 Linda Jakobson, Dean Knox (2010): New Foreign Policy Actors in China, SIPRI Policy Paper n°26, pp. 41-46.

6 However, "[t]his explosion of new outlets for expression, along with the lively discussions about foreign policy in a handful of newspapers and on the Internet, does not mean that Chinese people enjoy freedom of expression. The Chinese authorities retain considerable powers to limit expression and make enormous efforts to control online discussions using a mix of technological and political tools", Ibid, p. 52.

7 Ibid, p. 54.

8 Bonnie S. Glaser, Philipp C. Saunders (2002): Chinese Civilian Foreign policy Research Institutes: Evolving Roles and Increasing Influence, in: The China Quarterly, vol. 171, pp. 597-616. To find an abstract, please visit: http://www.irchina.org/en/xueke/inchina/gaikuang/view.asp?id=38

"Four types of influence are important: positional influence based on where an analyst works in the bureaucracy; expertise influence based on the analyst's expert knowledge; personal influence based on the analyst's personal connections with policy makers; and experiential influence based on the analyst's career history and personal experience."

9 Linda Jakobson, Dean Knox (2010), p. 50.

10 http://www.climate.org/topics/international-action/chinese-environmental-action.html: Accessed on 25th November 2010.

11 http://www.eu-china.net/english/Resources/WANG-Hui-et-al._2010_.html: Accessed on 25th November 2010.

12 Linda Jakobson, Dean Knox (2010), p. 3.

In 2009, before the Copenhagen climate change conference, some 40 NGOs published a position paper[13], a seldom and encouraging move for Chinese civil society to be more vocal at an international conference. The position paper came with very similar demands to the Chinese government, such as calling for developed countries to follow the principle of "common but differentiated responsibility" and provide some recommendations on domestic policies, such as on energy efficiency, low carbon economy.

In October 2010, more than 60 of them took part in the Tianjin climate change conference. A position paper was also published by 52 NGOs.[14] Again, their position echoed the Chinese government's demands.

The chief Chinese official negotiator at international conferences on climate change recently made a positive comment about the participation of NGOs: "NGOs perform like a bridge connecting ordinary people and the government for that goal," said Xie Zhenhua, deputy director of the National Development and Reform Commission. He also met with Chinese and foreign NGO representatives and said "I would like to communicate more with NGOs on climate change issues. And I welcome your suggestions and advices for the government."[15]

Apart from international negotiations on climate change, some civil society organizations also play an active role in lobbying at domestic level or in legislation. In recent years, ministries in China have begun to include public consultation as part of the law-making process and some NGOs seize this as a chance to do lobbying. For example, Green Earth Volunteers managed to draft recommendations and revisions for the *Guidelines on environmental information sharing from listed companies,* even though the Ministry of Environmental Protection only provided two weeks for public consultation.[16]

Another similar case is cited by China Green News. The NGO decided to add some suggestions to a draft released by the Ministry of Environmental Protection concerning *Guidelines for public companies' environmental information disclosure*.[17] The organization calls for the release of more environmental information, further environmental legislation and promotes greater public participation. It is not clear whether their proposals were taken into consideration by the ministry. It might be too early to know since the proposals were only formulated in September 2010. Actually, there is no information to confirm whether or not the proposals were submitted to the ministry.

Another example is that the Global Environmental Institute published a book in July 2010 o*n Environmental Policies on China's Investment Overseas*, which on the one hand acknowledges China's contribution to developing countries by securing them foreign investment, but on the other hand points out that its environmental policies are not yet well developed and implemented.

Although the concept of climate change was introduced in China only recently, in 2007, the public soon became aware of the impacts of climate change and is increasingly active, launching individual and collective actions to mitigate it. Although the central government promotes public participation, the authorities' response is ambiguous. They either suppress public action or take them into account. The real influence of Chinese public participation is consequently mixed. On the other hand, as Chinese officials have to deal with more complex issues, notably climate change, Chinese researchers are becoming more and more involved in the policy-making process. However, academics have to overcome various obstacles in order to have their voices heard, including competition between one other and the possibility to reach decision makers. Media has played an important role in educating people and raising their awareness. The Internet has today become a space for the Chinese to express themselves on environmental issues, but it remains in the control of and is censured by the Chinese government.

Last but not least, with a good working relationship with the Chinese government, the environmental NGOs are in good position to do more lobbying work with the government. However, they are also in danger of becoming "NGOs with Chinese characteristics", an expression used to describe NGOs that act in line with the Chinese government and become less critical, in order to survive in China.

13 http://www.eu-china.net/english/Resources/Chinese-Civil-Society-Coalition-on-Climate-Change_2009_Chinese-Civil-Society-on-Climate-Ch.html: Accessed on 28th October 2010.

14 http://www.eu-china.net/english/Resources/EU-China-Civil-Society-Forum_2010_Green-China-Race-to-the-Future.-Chinese-NGO-Posi.html: Accessed on 28th October 2010.

15 NGOs play 'a constructive role' in climate change. China Daily: 8th October 2010.

16 The feedback (in Chinese), http://www.greensos.cn/ljy/html/gnxw/view/85374.html: Accessed on 28th October 2010.

17 http://eng.greensos.cn/showArticle.aspx?articleId=600: Accessed on 18th November 2010.

Civil Society Organizations as Actors in Climate Politics

Roman Serdar Mendle

In autumn 2010 I went to China for a research project on the role of civil society in China's climate politics. When I told a Chinese journalist and good friend about my project at the beginning of my stay in Beijing, his reaction was: „Civil society's role in Chinese climate politics? None at all. Research done." On closer inspection, this statement is exaggerated as there are some examples of civil society action that successfully led to or influenced government decisions. Yet there are in fact many factors supporting this statement to an extent so that it may seem to be correct.

Unlike many other environmental problems addressed by Chinese NGOs very successfully in the last decade, climate issues are mostly linked to crucial political interests on the national level, which leaves only very little political space for NGOs to tackle them. Oppositional action like exercising serious public pressure on the government regarding climate policy is not impossible for China's NGOs, but it is a strategy that has to be handled with care and saved for times of great necessity. Climate issues are mostly interwoven with vital interests of the government of a great scale, like energy, transportation or industry. Opposing government decisions in these fields will most likely provoke strong resistance. Even if such political action were successful, it would severely damage the currently still fragile relationship between the government and China's emerging civil society.

NGOs as policy advisors

This leaves Chinese NGOs with one other possible kind of political action: the persuasive kind. In order to be active long term in climate politics, Chinese NGOs have to address the government in the right tone – which is suggesting instead of demanding and talking about possibilities for policy improvement instead of criticizing wrong decisions.

The much praised "26° Campaign" in 2004 was a best practice example of persuasive and successful civil society action regarding climate politics. The aim of the campaign was to raise public and governmental awareness of unnecessary carbon emissions caused by air-conditioned buildings in China. Some of the best established environmental NGOs in China like Friends of Nature, Global Village Beijing, the Institute of Environment and Development and some 40 other organizations adjusted their air conditioners to no less than 26° Celsius in summer, some ten degree higher than the indoor temperature of many other buildings in China. This was to reduce consumption of power – that in China mostly comes from carbon-intensive coal fired power plants. The public impact of this campaign was great enough to inspire the state council to pass a law that air conditioners in all public buildings in China should be set to no less than 26° Celsius in summer and no higher than 18° Celsius in winter.

This provides a nice show case for successful civil society influence on climate politics in China. However, most climate policy issues are far too controversial and complicated to allow simple suggestions all sides can agree to and that can easily be translated into climate friendly regulations.

The best practice way for Chinese NGOs to influence more challenging climate policy issues is to act as policy advisors for the government. For NGOs, this transforms climate politics to something like a political market for ideas and solutions. This is true in the sense that NGOs have to adapt their fields of work and policy suggestions to the demand of the government and create a trustworthy and professional image of themselves, in order to be taken seriously. The difference between a real market and the relationship between NGOs and the government is that NGOs have a hard time finding governmental "customers" for their suggestions, even as they give it away for free.

Between closed and half-open doors

In particular government agencies dealing with the foreign affairs side of climate politics are very reluctant to discuss their decisions with civil society actors. Zhao Qizheng, head of the foreign affairs sub-committee of the Chinese People's Political Consultative Conference (CPPCC), said in a conference at Renmin University that civil society should support the government in its public diplomacy effort –

meaning that the purpose of civil society concerning foreign policy should be to support the government to produce a positive image of China on the international stage.

During the 15th Conference of Parties in Copenhagen, Chinese non-governmental actors had more opportunities to talk to government officials than ever before, including those dealing with the foreign affairs side of climate change. However, hope of sustainably intensifying dialogue between the government and civil society was disappointed by "shut doors" of government offices after the summit, when everyone went back to daily business.

There are some government institutions that are less reluctant to talk to non-government actors about climate issues than the ones dealing with foreign affairs. The Ministry of Environment (MOE), that gained its ministerial status only recently in 2008, has a long tradition of cooperating with civil society actors and takes their advice much more seriously than its foreign affairs counterpart. Even though the MOE officially has limited say in climate politics, it still provides an opportunity for NGOs to access the intra-governmental guanxi wang, the network of personal relations, which is traditionally strong and important in China.

Also, the National Development and Reform Commission (NDRC) is willing to hear non-governmental voices. Like no other government body the NDRC is aware of the complexity of the climate issue and welcomes views from different angles and advice on many unresolved detailed questions. On the UN preparation conference in Tianjin in October 2010, Xie Zhenhua, China's chief climate negotiator and vice minister of the NDRC, stressed how important NGOs were in climate politics as a link and communicator between the government and the people. Dealing with both of the often contrary sides of the climate politics coin – climate change and development – the NDRC undoubtedly feels a stronger need for such links to society than those mainly concerned with China's international image.

In addition to those examples, there are lots of governmental bodies that might not seem to have much to do with climate politics but actually make decisions within their field of responsibility that influence China's climate policy significantly.

Only few successful examples

One successful example of an NGO influencing China's climate politics through advisory work is the Innovation Center for Energy and Transportation (iCET), a Chinese NGO with a strong focus on scientific research on climate relevant issues. The iCET managed to convince the Standardization Administration of the People's Republic of China to cooperatively work on the design of national fuel standards for the transport sector and the automobile industry to increase their energy efficiency, some of which have already been in effect for the last few years.

Another example was the "China-US Track II Dialogue"-Programme of the Global Environmental Institute (GEI). GEI is another NGO with a strong research focus and one of the very few Chinese civil society organizations working on climate policy. For their Track II Dialogue they provided a platform for Chinese and US government officials to bilaterally talk about climate change. Those talks led to a Memorandum of Understanding, signed by both sides, stressing opportunities to intensify cooperation between the two countries. Besides providing this platform, GEI worked a lot on the detailed wording of the Memorandum and subtly influenced its content. To name a concrete example, there is a strong emphasis on possibilities for cooperation on the sub-national level between single provinces and states, which reflects a suggestion of GEI.

However, such examples of civil society influence on climate politics in China are still rare. One reason for that is the attribution gap between NGO work and actual political decisions. Mostly, it is difficult or impossible to tell whether policy advice really did or did not result in a certain law or regulation. But even in the best case, assuming maximum impact of civil society action on climate politics, the role of NGOs in China's climate politics would still be weak.

NGOs have to be professional

For one, even civil society friendly government institutions only cooperate with NGOs that work very professionally and have something to offer that no other governmental institution can provide – like detailed research on a very specific issue, for example. NGOs therefore have to identify niche topics on which the government has only insufficient knowledge or expertise whilst still being interesting enough for the government to work on.

For example, the government has been focusing on key industries and energy issues when dealing with climate change, but has cared little on the linkage of carbon emissions and rural development. Urbanization and development in rural areas has great impact on China's annual carbon emissions, and sustainable development of rural areas in China must be a crucial part of the national climate policy if anything worth of being called a developed low-carbon economy is to be realized in the future. At present, the government is starting to look at these issues more closely and some NGOs which have been working on rural energy and rural development issues for a few years already, like GEI, now have the chance to offer their expertise to decision makers.

But to be able to identify such issues as crucial some time before the government itself does, it takes a lot of political sensitivity and insight into intra-governmental dynamics in China's climate politics, something most NGOs in China do not have.

In addition, the young Chinese civil society lacks the professional and financial capacity to come up with scientifically sound research to support their suggestions and in many cases such lack of capacity prevents NGOs from fully understanding the often complicated climate change issues in the first place.

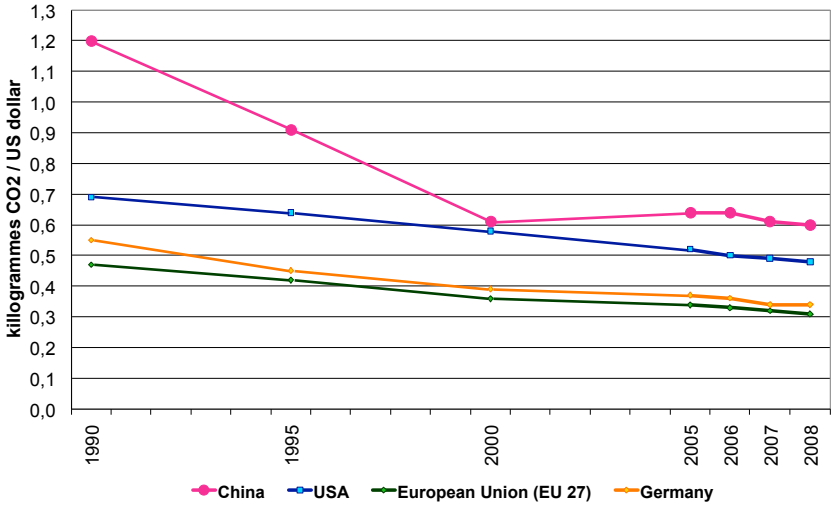
Financial restraints

There is no legal regulation on how NGOs in China can acquire necessary funding. NGOs are not allowed to publicly call for donations. There are too few Chinese Foundations to support them and the ones that can often attach very restraining conditions to their financial support concerning how the money is spent. Foreign foundations usually provide more money to Chinese NGOs with fewer hooks, but it is harder for Chinese NGOs to receive foreign funding due to bureaucratic hurdles. The originally Beijing based iCET for example opened two offices in the US, solely for the purpose of facilitating fundraising and money transfers from American foundations.

The lack of financial capacity also leads to a severe brain drain in the Chinese NGO-community. Working for Chinese NGOs is unattractive for experienced and skillful professionals, as there are many international NGOs, governmental institutions or companies that provide higher salaries and better working conditions. This means that the Chinese NGO community lacks skilled and well-trained staff members and even has difficulties keeping the few they have.

China: CO_2 emissions per unit GDP decrease no longer

CO_2 emissions from fuel combustion in kilogramme per unit GDP in US-dollars (Purchasing Power Parities and 2000 prices)



The Chinese government emphasizes that China reduced its carbon intensity since 1990 (carbon intensity: the amount of CO_2 emitted for each unit of the Gross Domestic Product). But there was nor significant reduction in the last decade. In 2000 China emitted 0.64 kilogramme CO_2 per one US-dollar GDP by combusting fossil fuels and in 2008 only little less (0.60 kilogramme CO_2). Therefore, economic growth leads to higher emissions in China.

Source: International Energy Agency
© Werkstatt Ökonomie e.V.

High staff fluctuation

This makes challenging topics like climate policy too difficult to work on for most environmental NGOs in China and leaves only a hand full of organizations that actually can meet the requirements needed to interact with the Chinese government. Additionally, this negatively influences the longevity and institutional memory of organizations. How so? Because Chinese NGOs often are just a stepping stone for the more skilled employees on their way to other institutions with better working conditions, in many cases only the founders and leaders of the organization remain relatively stable. Thus, NGOs run the risk of depending on those single individuals so much, that when they lose their leader, they get thrown back years in their institutional development or do not function anymore in the worst case. To some extent, the oldest of China's environmental NGOs, Friends of Nature, experienced such a problem. The NGO had strongly depended on its founder, Liang Congjie, the grandson of famous Liang Qichao. He had made all the important decisions of the organization and provided it with his own, personal network. When Liang left the organization some years ago, Friends of Nature was left without this important network and with a lack of understanding about the organization and its work. Today, Friends of Nature is still in a process of reorientation.

Many environmental NGOs in China still run the risk of falling into an existential crisis in case they lose their leadership. But dealing with Chinese climate politics and working with the government requires perfect functioning. Therefore, Chinese NGOs have to find a more sustainable path of structuring themselves internally. If they are to increase civil society's role in China's climate politics, they have to grow up to be established institutions in which leadership accounts for just one gearwheel and not the whole engine. Otherwise, the NGO landscape will remain too unstable for the government to rely on in the long run.

To summarise, China's NGOs still play a weak role in Chinese climate politics and it is hard to say how much they did actually accomplish. The positive examples of some successful organizations and projects suggest that they do have some influence on the government and that they are not excluded from climate politics in general. However, China's civil society still has to do a lot of capacity building before it will be capable of establishing itself as an actor in China's climate politics that is taken seriously by the government. But all in all, rather than confirming the statement that civil society does not play any role in China's climate politics, I like to optimistically describe it as promising and developing.

Turning point in Tianjin

Interview with the Chinese activist LU Sicheng

Dozens of Chinese civil-society groups came together to host events at the United Nations climate-change conference in China's Eastern seaport Tianjin in October 2010[1]. Programme coordinator Lu Sicheng told Meng Si (associate editor in chinadialogue's Beijing office) it was a historic milestone.

Lu Sicheng was the coordinator of "Green China, Race to the Future", a series events organised by Chinese NGOs at the UN-led climate talks in Tianjin, sponsored by Global Climate Change Alliance. Lu was formerly director of Greenpeace China and secretary of Alashan Society of Entrepreneurs and Ecology. This month, he was named as one of Hong Kong's Ten Outstanding Young Persons, an annual award from Junior Chamber International.

The following interview was first published by chinadialogue on 25th October 2010.

Meng Si: *How would you judge the NGO activities in Tianjin overall? What were the highlights and the problems?*

Lu Sicheng: This was the first United Nations climate-change conference to be held in China. Sixty Chinese NGOs participated, and one of the highlights was the scale, the diversity, the closeness of coordination and the pace of events that we saw.

We only learned the talks were to be held in Tianjin in early August. In less than eight weeks, Chinese NGOs organised 20 events and published a position paper on the civil society response to climate change [...].

MS: *What challenges were exposed during the coordination process?*

LS: There were many. The biggest difficulty was a lack of knowledge and experience about climate change, so although the NGOs did their best to show what they can do, there wasn't enough genuine participation, and not enough was done to bridge the gap between public participation and policy advocacy.

The first thing to become clear was that the NGOs day-to-day activities are not sufficiently solid. Chinese NGOs have successfully persuaded the public and government to make changes [...]. Many NGOs advocate the use of energy-saving light bulbs, solar-water heaters and solar or wind-powered streetlights – but there are no figures on the effect, the take-up. Does China have experience or technology that can be applied elsewhere? I think the work of the NGOs could be more concrete.

Although there are successful cases, the scope and sustainability of civil-society work, and depth of public participation, are inadequate. There's also a lack of communication when it comes to south-south [developing world] cooperation. You can say that the results have been mixed.

We also found that local NGOs have done a lot of good work in remote areas. A forestry project from Shanshui Conservation Center and a waste-to-energy scheme run by the Wuhu Ecology Center are examples. But there is still nowhere near enough good practice.

MS: *Climate-change negotiations are very complex. How good are Chinese NGOs at following the process? How many are working on this?*

LS: The ability of domestic NGOs to participate in negotiations is still very weak. In total, Chinese NGOs have no more than five members capable of following the negotiations, and nobody does this full time. These organisations need to study the negotiation process. There's a lot of learning to do and they can't expect to have any influence without putting in the time.

This also relates to climate activists' view of their own work. It's all too easy for environmentalists in China to regard the practical stuff they do among communities as the "real" work, compared with the more abstract tasks of fol-

1 Two UN climate policy Ad Hoc Working Groups met in the 12 million metropolis from 4th to 9th October 2010 preparing the UN climate conference in Mexico's Cancun in December 2010. (The Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol discusses further commitments for industrialised countries under the Kyoto protocol. The Ad Hoc Working Group on Long-term Cooperative Action under the United Nations Framework Convention on Climate Change (UNFCC) prepares measures for the implementation of the convention.)

lowing and analysing negotiations. But in reality these are connected. Problems you meet at a local level might be the result of government policy, and if policy doesn't change, the root causes can't be tackled. And sometimes government policy is linked to the international negotiations.

An example is public opposition to waste incinerators. On the surface, this is a local problem, but there are global factors there. Why is China building so many incinerators? It's connected to the increase of global consumerism and production of waste, and the fact that incinerator manufacturers in developed countries need to find new markets. And aren't the flood victims in Hainan also the victims of the failure of earlier climate talks to reach agreement?

So, local issues are linked up with national policy and international talks. But Chinese NGOs separate these out – they haven't made the link.

MS: *Is the lack of Chinese NGO work on macro-policy and international negotiations due to a lack of confidence in their ability to have influence from the bottom-up?*

LS: I don't think so. Cases like the 26 degree air-conditioning limit and no-car days show that Chinese NGO activity can change national policy. In recent years, we've seen more opportunities for civil-society groups to work with government to promote resource conservation and environmental protection.

Talking to NGOs in Tianjin, vice chairman of the National Development and Reform Commission Xie Zhenhua said that the efforts of the whole of society would be needed if China is to build a resource-conserving and environmentally-friendly society, and that he hopes NGOs will play an important role. He said he hoped to discuss responses to climate change with domestic NGOs frequently and to hear their opinions on government work.

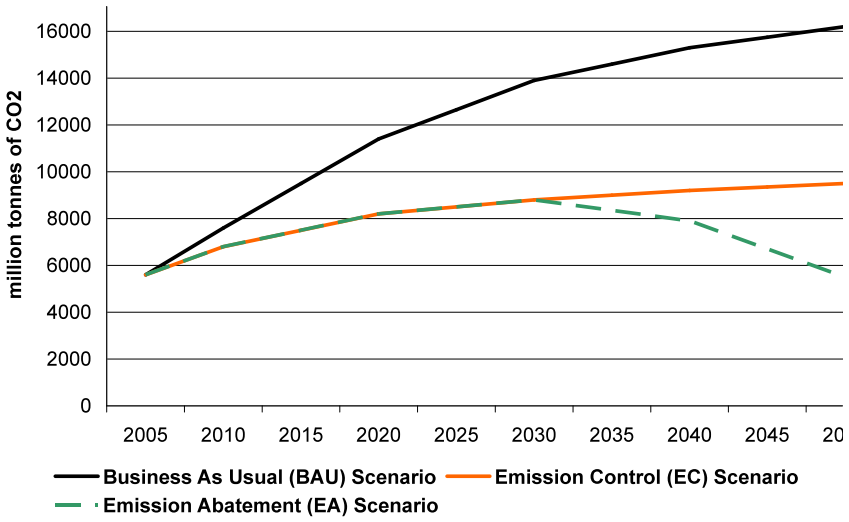
A lot of cases show this is true. For example, Ma Jun's Institute of Public and Environmental Affairs produces a water pollution map based on the principle of open information, and this allows the public to get more involved.

MS: *When it comes to climate negotiations, one of the roles of NGOs is to act as a link between the public and the leaders – for example using public demands to push the talks in a certain direction. But even the numerous events at Copenhagen last year failed to impact on the summit.*

LS: The effects of that sort of pressure aren't necessarily seen at the time – sometimes it just plants the seeds. Copenhagen was a failure in terms of reaching agreement, but it was an unprecedented success in public education. A lot of media outlets now have special editions or sections [devoted to climate change] and the public is watching the issues closely.

China: Three official future CO_2 emissions scenarios

CO_2 emissions from fuel combustion in million tonnes



Business As Usual Scenario: The Chinese government prioritize economic growth and limits itself to a few climate protection measures. The consequence would be that CO_2 emissions increased to over 16 billion tonnes in 2050.
Emission Control Scenario: The Chinese government adopts advanced climate change mitigation measures such as the development of renewable energies. Nev-ertheless, the CO_2 emissions would increase till 2050.
Emission Abatement Scenario: The Chinese applies the most advanced green technologies and rises electricity generation from nuclear power plants.

Source: International Energy Agency
© Werkstatt Ökonomie e.V.

Some critics have said that Chinese NGOs only went to Copenhagen for the sake of appearances and that there was no actual participation. This may be partly true. But if that first step is not made, further steps cannot be taken. It's like a snowball. Without Copenhagen, we wouldn't have had this "Green China, Race to the Future" series of events in Tianjin.

MS: *What drove you to accept this role, as coordinator of these events?*

LS: I was motivated by two concerns. The first was that this was the first UN climate conference to be held in China, and if Chinese NGOs did not overcome their differences and participate in a meaningful manner, many opportunities for participation in future events would be lost. And second, there is a lack of understanding about China's circumstances in the international community – and when they [the NGOs] express their opinions, it is not always done appropriately or effectively. If that led to extreme reactions, it could also damage future participation.

MS: *Did coordinating the NGO activities require a lot of communication with government?*

LS: This was the biggest UN meeting to be held in China since the Fourth World Conference on Women in 1995, and at that time there were virtually no NGOs in China. This time around, we had 60 organisations active at the venue, along with two or three hundred foreign NGOs. This was historic – a milestone for civil society.

So I did communicate a lot with the authorities. To a large degree, I was relying on a personal level of trust built up with those authorities in my previous work.

China should take a lead in the race to a green future: civil society position papers for UN climate change conferences

Klaus Heidel

Within one year Chinese nongovernmental organisations (NGOs) and China offices of international environmental organisations presented three position papers on the eve of United Nations climate change conferences: the paper endorsed before the December 2009 Copenhagen conference[1] was signed by 38 organisations. The statement published before the October 2010 conference in Tianjin[2] was supported by 52 organisations. And 60 civil society organisations called on the participants of the December 2010 Cancun conference "to meet the challenges of climate change and negotiate as soon as possible a fair, ambitious and legally binding treaty".[3] All three position papers did not significantly differ from each other and from positions taken by the Chinese governments though the 2010 statements were more precise and brought forward some demands on the Chinese government which could be read as slight criticism.

Chinese NGO underline: "China is taking action"

Firstly it is noticeable that the length and content of the introductory paragraphs considerably differ. Whereas the Copenhagen statement gets on with only a few general sentences ("Climate change affects everyone") the two 2010 position papers emphasize the positive role of China. Under the subheading "China is taking action" the Tianjin paper not only refers to climate protection activities undertaken by the Chinese government but also mentions respective NGO activities. The section "China is taking action" in the Cancun statement is even longer. It outlines the efforts by the government, by Chinese enterprises and by Chinese civil society organisations to mitigate climate change and to strengthen the adaptation capacity in no less than five paragraphs. Thus the main message of this introduction is that China is on the right track. The earlier Tianjin statement, however, paints a different picture because it combines the encouraging view on a committed China with remarks on the urgency of climate protection activities. It starts with the strong sentence "Climate change is the biggest challenge humanity has ever faced". It underlines that "climate change is threatening China's economic and social development". Not least it confesses that China is "the world's largest greenhouse gas emitter".

Belief in economic growth and in market mechanism

Despite this sense of urgency the Chinese NGOs believe in economic growth. They are far away from European debates on the limits of economic growth or on "prosperity without growth" (Tim Jackson). On the contrary, they see prosperity and growth as two sides of the same coin. The Tianjin statement underlined: "Being *one of the world's fastest-growing economies* and the world's largest greenhouse gas emitter, in order to *maintain its competitiveness* and to provide real long-term benefits for its citizens, China will need to develop a green, sustainable, and low-carbon *growth model*" (emphasis by the author). Consequently, the Chinese NGOs partially confide in market mechanism, they speak about the need to "create" and "utilize" market incentives for energy efficiency and emission reduction.

1 Chinese Civil Society on Climate Change (2009): Consensus and Strategies. Chinese Civil Society on Climate Change, 17 November 2009; cf. EU-China Civil Society Forum (2009): Hintergrundinformationen 14/2009, 19 November 2009, http://www.eu-china.net/german/Materialien/Chinese-Civil-Society-Coalition-on-Climate-Change_2009_Chinese-Civil-Society-on-Climate-Ch.html.

2 N.N. (2010): Green China - Race to the Future. Chinese NGOs' Position Paper for 2010 United Nations Climate Change Conference in Tianjin; cf EU-China Civil Society Forum (2010): Hintergrundinformationen 12/2010, 21 October 2010; http://www.eu-china.net/german/Materialien/EU-China-Civil-Society-Forum_2010_Green-China---Race-to-the-Future.-Chineswe-NGOs-Posi.html.

3 N.N. (2010): Green China – Racing to the Future. Chinese NGOs' Position Paper for the 2010 United Nations Framework Convention on Climate Change in Cancun [accurate would have been to say: United Nations Climate Change Conference], http://www.eu-china.net/web/cms/upload/pdf/materialien/2010-25-11Cancun_climate_chnage_%20position_of_%20Chinese_NGOs_english.pdf_10-12-04.pdf.

Against this background it is not surprising that all three statements rely to a great extent on technical solutions such as the improvement of energy structures, energy efficiency or renewable energy. It is noticeable that they didn't make a single remark with regard to nuclear power which the Chinese government considers to be renewable energy. Not surprisingly, the NGOs called on "governments from all countries" to take measures in order to encourage low-carbon lifestyles such as "awareness raising, creating economic incentives, legislation, and technical innovation" (Tianjin statement).

However, Chinese NGOs seem to be aware of conflicts inherent in low carbon transformations: "Prevent and lessen negative secondary social and environmental impacts caused by climate policies, market incentives, and technology development" (Tianjin statement and – nearly with the same wording – Cancun position paper). Therefore the Chinese NGOs state in their Cancun position paper: "We would like the government to show more consideration and concern for the most vulnerable people in climate policy making."

"Common but differentiated responsibilities"

Not surprisingly, the Chinese NGOs refer to the principle of "common but differentiated responsibilities" (Kyoto Protocol) and call on developed countries to "offer financial support, technology transfers, capacity building, etc. to help developing countries to better mitigate and adapt to global climate change" (Tianjin statement, similarly the Copenhagen and Cancun statements). The two 2010 statements elaborate a bit more on this: the "new finance mechanism" should "mainly consists of public funds" in addition to already existing resources for Official Development Assistance (ODA). In addition, "financial pledges should be delivered as soon as possible". Such demands conform with globally agreed language and coincide with the official position of China. More interesting is the proposal that developing countries should "through international cooperation […] gradually increase the transparency of their actions to address climate change". This could be read as a slightly hidden call on the Chinese government to provide more transparency, amongst other things.

Chinese NGOs call for civil society participation

The Copenhagen position paper calls on the Chinese government to "encourage the public and NGOs to participate in policy-making processes and to monitor implementation processes". The two 2010 statements present this call on the Chinese government as call on all governments in the world – with stronger wording: "Guarantee and encourage the involvement of the public and civil society in the making and implementation of climate policies; to empower the public, NGOs and youth to raise awareness, to educate, to build capacity, to innovate, and to participate in the political process." And the Cancun statement goes even further and says that the Chinese government should "ensure the role of the public and civil organisations" in monitoring the implementation of climate policies.

In such a way self-confident, Chinese NGOs slightly criticize their government: "Chinese NGOs are calling on the Chinese government to play an active role as negotiator in pushing for a fair, ambitious, and binding climate deal. Chinese NGOs would like to see China strengthening its climate related legislation and strategic research on mitigation and adaptation plans" (Tianjin statement).

And Chinese NGOs are persuaded of the historical mission of China: "History has provided China with a unique and valuable opportunity to play a leading role and leapfrog towards a low carbon growth model in the race to a green future" (Tianjin and Cancun statements).

> "Climate change is threatening China's economic and social development. China's mean temperature in the past five decades rose by 1.1 degrees Celsius, the fastest globally. In China's western regions, more than 80 per cent of the glaciers are melting and retreating. The yields of China's main crops are projected to drop by about 37 per cent in the second half of the 21st Century and water resources are becoming scarcer. This year alone, China has been hit by nationwide droughts, followed by floods."
>
> *Green China – Race to the Future. Chinese NGOs' Position Paper for the 2010 United Nations Climate Change Conference in Tianjin*

China Needs Green Consumption, But Also Less Consumption

HUO Weiya

In March 2007, 21 Chinese environmental NGOs organized the "Green Choice Alliance", to provide information to consumers on companies' environmental practices. It encourages consumers to consider a company's behavior when shopping and to boycott when necessary.

More than 35 NGOs have joined the Green Choice Alliance to date, and in the past three years, these 35 NGOs, through the "China Water Pollution Map" and "China Air Pollution Map", have collected 70,000 entries of records showing enterprises breaking environmental legislation.

The two maps can be accessed by the public via the Internet, which places enormous pressure on enterprises. Many supplier companies lose orders, as buyers find that they are performing poorly on these two maps.

Using public pressure to transform companies is the first successful - and very rare - case of Chinese environmental NGOs mobilizing consumer power to persuade companies to change.

In fact, before this campaign, China had introduced the concept of green consumerism.

As far back as the 1970s, the Chinese Government realized that China was facing an environmental problem and introduced the slogan "protecting the environment starts with me". It has the hidden meaning of "as consumers, we can change our way of shopping to help the environment".

Prior to 2007, when climate change was not yet heard of in China, changing one's consumer habits often meant green consumption and a sustainable lifestyle. After 2007, it became more low carbon consumption.

Regardless of the change in terminology, the message is still the same. Government, enterprises and the public should either opt for green products, such that reduce pollution at the production line, choose energy-saving and low-carbon products, or reduce one's consumption of material goods.

The government wants economic growth

Yet these are superficial concepts and their success remains doubtful, especially when it comes to the government and companies.

The Chinese Government wants economic growth and companies want to expand their sales. Therefore it is impossible for them to lobby for less consumption. In fact, their biggest worry is that the demand for consumer products will decrease. That is why consumerism is now at its peak in China.

How do we deal with the tension between consumerism and environmental protection then? Green consumption seems to be the middle way. It is not as difficult as trying to change the public's usual consumer behavior, i.e. to eliminate their urge to shop, and also does not oppose the goals of the companies. The "Green Choice Alliance" is a good example of how green consumption can work.

However, in a vast country like China, this campaign can only reach a limited number of people and it would take years to promote green consumption throughout the whole of China. So it is not enough!

Moreover, many so-called green products are simply not green. There is no standardized mechanism in China for monitoring and labeling green products.

New campaigns, to lobby the Chinese to shop less, to combat the ever-growing consumerism, are urgently needed.

We still have to preach "heterodoxy"

No matter whether it is the government, enterprises or the public, they all embrace consumerism with enormous enthusiasm and to lobby against consumerism would be considered as spreading "heterodoxy".

Take "transportation" as an example: 16 years ago, a professor of the Sociology Department of Peking University wrote, "the influx of automobiles would not speed up our transportation system, but will pollute, congest and poison our cities". Since then, this professor has been involved in a debate with many economists. Automobiles keep arriving in China; in Beijing people even have to put their names on a waiting list to buy cars. Economic growth is there and many citizens own cars, but they also "own" the problems of pollution and traffic jams.

This year, I was in Kunming, Hangzhou, Chengdu, Chongqing and Taiyuan, among other cities, for work. From what I observed, none of these cities are exempt from traffic congestion. As I was heading to Taiyuan Train Station, a girl anxiously stopped the taxi I was riding in and it turned out she was also going to the train station, but we were

stuck in a traffic jam, and she arrived an hour too late for her train.

High carbon dioxide emissions, overcrowding and pollution, lead environmental NGOs to advocate "Green Commuting", and the Chinese Government puts a great deal of effort into developing alternative energy cars. The general policy, whether the government's or civil society's, is to reduce pollution from transportation, but not to challenge the ever-growing automobile consumerism.

To not challenge consumerism is not because the government would be against it, but more a choice of the people.

At the moment, Chinese people are thinking more about, "how can we improve our quality of life?", instead of "how can we live a sustainable life?". The means to improvement is often considered to be consumerism. As far as transportation, housing and dining are concerned, comfort, luxury and grandness are people's consideration, but definitely not sustainability.

Leading a simple life and reducing consumption is not something Chinese people are concerned with. Consumerism will, unfortunately, continue to prevail in China and we will still have to preach "heterodoxy" for a long time.

The 26 Degree Campaign (2004-2007)

Global Village Beijing, World Wide Fund for Nature, Friends of Nature, Institute for Environment and Development, China Association for NGO Cooperation (CANGO) and the Green Earth Volunteers started the 26 Degree Campaign in 2004. The purpose of the campaign was to promote energy conservation through raising the temperature of our air-conditioners to 26 degrees or above in the summer. The campaign targeted hotels, shopping malls, office buildings, other public areas and private homes, calling upon them to set their air conditioners at 26°C or higher.

In 2007, the State Council imposed the limit that all central and local government bodies should be kept at no lower than 26 degrees centigrade, and set the temperature ceiling in winter at 20 degrees centigrade. It also bans air-conditioners with low energy efficiency from entering the market and encourages users to make technical changes to make air-conditioners more energy-saving.

The 26 Degree Campaign is considered, until today, the landmark case of NGOs' actions to make a difference on the national policy.

WONG Staphany

From Copenhagen to Cancun, Via Tianjin

WEN Bo

When Wen Jiabao, the Chinese Premier, was absent from a Copenhagen climate summit session where other heads of state presented themselves, Wen was not aware that this, politically, led to a huge loss of face. Wen did not deliberately want to shy away from such a discussion and be noted in the eyes of world leaders and in the media for his absence. It was more of a logistic mistake because Wen was just not properly informed and the meeting not well arranged by his Chinese officials. Though Wen tried to explain his absence from this important climate session later after returning to China and meeting with international visiting guests, the impact and image of a Chinese leader who was upset and might not have been interested in engaging to look for a climate solution had already been put forward for Western media.

Partly as an effort to repair such an image of a Chinese leader who seemed not to care about the international community's efforts to save the climate, Premier Wen Jiabao extended his invitation to host another round of climate talks in Tianjin, the city where he originally came from. It was both an effort to save face for himself and for China as a country. And certainly a sideline agenda was that an international conference like this, with thousands of international visitors flocking to Tianjin, simply helped to boost the local economy and improve the city's infrastructure.

Does Prime Minister Wen really care about climate change? Who knows. With China facing so many more basic problems, he is probably more concerned with how to reduce energy consumption, safeguard energy security, and, to some extent, cares about how to reduce pollutions. But it

is not necessarily greenhouse gas emission reduction which is on the top of his agenda. As a Prime Minister challenged by the complexity of a changing society, he simply has too much on his plate.

The Chinese government certainly wants to be a responsible international player and also wants to lead developing countries in international negotiations. But the Chinese government tries to gain certain room for more emissions and also room for future economic growth. The government's position, however, may not be the position of the Chinese people, rather mostly that of the industrial sector.

People in China suffer quite a lot from industrial pollutions. They are obsessed with other, more immediate environmental problems, such as water pollution, air pollution and food-safety issues. Therefore climate change doesn't seem to be so immediate a concern within China. But it doesn't mean people do not really care about or notice China's role in global environmental problems.

Climate change: Crisis in the making

Climate change is certainly a crisis in the making, and it's so evident. China is already suffering from the impacts of climate change. Every year, in Northwest China, hundreds of thou-sands of ecological refugees are being driven from place to place simply because of droughts and the encroaching desert. And earlier in 2008, a snowstorm in Southern China paralyzed the power supply and transportation system. This happened at Chinese New Year, which is a peak travel season; there were a lot of passengers who were trapped in the trains and buses for as long as five days and five nights. And there are also floods each summer. The Chinese government has to mobilize a large number of military personnel to combat the floods each summer. And in Northern China, the severe drought and lack of water supply have posed serious threats to China's ecological security.

Besides this, global warming has increased the occurrence of infectious diseases in China. And together with a lot of other environmental problems, there are few countries like China facing such serious impacts from ecological threats.

Many people would blame China because China has surpassed the United States in becoming the largest emitter of greenhouse gases. China is certainly a big contributor, but we also have to recognize that greenhouse gas emissions are also partially driven by China's role as the "World's Factory". China produces many goods for international markets and a lot of Western corporations outsource their manufacturing to Chinese factories. By buying products made in China, Western consumers contribute to the greenhouse gas emissions of China. The "World's Factory" China is more like a World's Kitchen. China is able to produce all these nice dishes and serve its cuisine, but as a kitchen it has all the rubbish and the people of China have all the pollution left in China. Research shows that if sea levels rise 1.5 meters by the end of the century, there'll be over 72 million people in coastal China who will be displaced and become ecological refugees.

The indicator "Per capita emission" tells a wrong story

At international conferences, the Chinese government has often argued that, on the basis of emission per capita, China is still rather a low emitter of greenhouse gases; when everything is divided by 1.3 billion people, the resulting figure is small. But when you look at the huge gap between different provinces in China, there are certain provinces whose emissions could be as large as the worst offenders in Western countries. For example, in the community I live in, there are still a lot of people riding bicycles, but there's also a guy who owns a large-sized Hummer, which he parks in front of his apartment. If we take per capita emission, that guy can probably say that the per capita emission of his community is low. Should a person who owns a large Hummer take advantage of other people and say he has the right to own a Hummer?

Even if the per capita emission is not as high as it is in many developed countries, this should not be an excuse for China to ignore its obligation and need to tackle climate change. Per capita emissions can be a good argument at international negotiations; holding industrialized countries responsible for historic emissions, it might be an understandable argument for inter-governmental debates, but within national boundaries – for example, within China – it's not really a fair argument. It's not fair to deal with emissions on a per capita basis within national boundaries because that means that a large number of poor people will continue to emit low carbon emissions, which will allow a small number of people to far exceed these emissions and emit even more than those in many other industrialized countries. But it is every citizen's responsibility to reduce its impact on climate. Continuing to argue on the basis of per capita emission would lead to climate injustice thriving within a country like China. Within its boundary, there are people who will face extreme poverty, while a few rich people and big polluters are free to have a larger carbon footprint.

An active civil society is needed

There are efforts in China by local environmental groups to fight these big polluters. The groups are not only pushing for their own environmental rights, but they are working to protect the Earth's climate. China has come up with a national plan for reducing greenhouse gas emissions, but it can not be fulfilled without a mature, active civil society. Without an active civil society which holds the government accountable, which holds officials accountable for their environmental and economic performance, it's hard to transform these plans into real actions. And like anywhere else, most of the time, people know better than their respective governments.

China is blamed for being the largest contributor to greenhouse gas emissions, but the people of China want to reduce the Chinese ecological footprint on the planet. It's not in the people's interest to gain leeway for more carbon emissions. If we were to give more room to these emitting factories, they would produce more problems for the pla-

net; they are already producing immediate threats; they are producing environmental and health risks. In China, in a lot of villages dotted along the rivers, more cases of cancer have been observed, simply because of these industries. They have the freedom to pollute and to produce all these problems. This is why the people in China do not want to have an even bigger leeway for more emissions.

So it's the government, trying to fight for more rights and leeway to emit greenhouse gases from a nationalistic point of view. However, are more carbon emissions the only path for human development? Now that's a question!

Fossil-consumption-based economy, the wrong way to development

And why does China take the road we see it taking? Because it's easier to follow the model of other countries. Because China has seen the economic success of industrialized countries and wants to follow it. China has been trying to promote the car industry as a pillar industry to support its economy, but is a car culture really part of the Chinese culture? Why should the car be a symbol of success? Because people in China see the images of Tokyo, they see the images of Houston and New York and Los Angeles; they see there are more highways, bigger buildings and more cars, which seem to mean economic prosperity.

So, when we look at this reality, we have to realize that the Western world has taken the wrong path. China is quite a good mirror that reflects and reminds the Western world that it has taken the wrong path. And now China is jumping on the wagon and the rest of the world will say, "China is so heavy, we're going to be crushed." Because we are living on a finite planet and we do not have the technology to send astronauts from here to take resources from other planets for use on Earth, the problem is our economic model.

A news story many years ago said that someone in Germany came up with idea of burning a cat's body as fuel to drive a car. A cat's body? That's strange. How about a fish's body? And how about the fossil of a fish's body? But when we look at oil, oil is the only fossil of marine lives and coal is the fossil of trees. Why are we interested in burning fossils?! The current development model based on a fossil fuel economy is fundamentally flawed and problematic. But the world is largely dominated by energy companies using fossil fuels, which dominates our behaviour in certain ways. The world needs to find an alternative development path.

The responsibility of Western countries

Western countries need to be more flexible and open in transferring environmentally-friendly technologies and making the technology affordable for developing countries like China. China demands that industrialized countries live up to their responsibility, because the historical responsibility for the current global environmental problems rests mostly with Western countries. However, now that China is the biggest contributor of greenhouse gas emissions, the government in China should shoulder its current responsibility rather than continue to be buried in the past and claim historical responsibilities as its excuse. China needs to look beyond that and start to face the future, in partnership with all other nations.

In addition, addressing climate change needs a lot of other issues to be addressed, such as reducing poverty, improving education, eradicating diseases, upholding women's rights and helping developing countries to have a better standard of sanitation and the environment. All these means of development show an alternative path.

The change has to come from inside China

However, the Chinese government is very unlikely to bow to international pressure. The change would have to come from within China, and here the emergence of environmental organizations in China matters. Hope of saving the planet will grow in China. Only when there is a more democratic society, the rule of law, when people have more room to voice their concerns and the media has more freedom, will there be a fundamentally changed social, economic and political landscape in China. And that would definitely benefit the planet's environmental health.

The Chinese government should listen to the voice of the people. If civil society groups in China were better supported, the government would probably show more responsibility in presenting their position in international negotiations and on the world stage.

No country is bigger than the Earth

From Copenhagen to Tianjin and then Cancun, climate talks should not be an issue that divides North and South. World leaders should take a lead in working with other countries to address climate change, instead of delaying much needed action to curb future environmental degradation in the name of national interests. No country on this planet is bigger than our planet Earth. Similarly, the United States and China should not talk in terms of their own national economic interest and think that their own countries are bigger than our planet.

We are losing our planet fast. We don't have the luxury to wait and waste time until something wonderful takes place to save this planet. Without immediate action, without prioritizing counter-measures to environmental problems and climate change, without taking personal responsibility in addressing these issues, we may just be presenting our last show on Earth.

EU-China relations and climate change
So far so smooth?

Klaus Heidel and WONG Staphany

Climate change is a key topic for the relationship between China and the European Union. While technical and financial cooperation with regard to climate-friendly technologies seems to be a success story, cooperation in international climate negotiations is much more conflictual.

China as partner, taker or competitor?

The cooperation between China and the EU on climate protection has deep roots and build on the European-Chinese clean energy cooperation which goes back to 1996 when the first joint Energy Conference took place. In 2003, the Environment Dialogue at vice-minister level was started and the Energy and Environment Program (EEP) approved. The program was co-financed by China and the EU. This technical and financial cooperation was steadily extended in the course of time.

The next big step forward came in 2005: In May the European Commission's Directorate General for Transport and Energy and the Chinese Ministry of Science and Technology agreed two action plans on clean coal technologies and energy reduction. At their bilateral summit some months later the EU and China agreed a partnership on climate change[1] with the development and deployment of clean energy technology as focus. This partnership pursues four goals:

- Joint development of an advanced "zero-emissions" coal technology which allows for the capture of CO_2 emissions from coal-fired power plants and its storage underground,
- Reduction of the costs of renewable energy technologies,
- Reduction of the energy intensity of the European and Chinese economies and
- Reinforcement of the EU-China cooperation on the Clean Development Mechanism (CDM) which was introduced by the Kyoto protocol (1997) under the United Nations Framework Convention (UNFCCC)[2].

It is noticeable that the EU-China partnership agreement on climate change is not related to international climate negotiations but solely aims at financial and technical cooperation. Even the Communication from the EU Commission to the European Council and to the European Parliament "EU – China: Closer partners, growing responsibilities" from 24th October 2006 limits the EU-China cooperation on climate change to the development and promotion of technological solutions. The section "International and regional cooperation" names common goals for the cooperation in the framework of the UN (peace, security, solutions of emerging crises and regional cooperation) but says nothing about climate change.

Economic cooperation and climate protection

In 2007, the European Commission published the EU-China Country Strategy Paper (2007-2013). The paper set out three main areas for cooperation and allocated 128 million Euro for this program. One area was "global concerns over climate change, the environment, and energy" (EU website). The strategy paper reaffirmed the goals set by the 2005 climate change partnership agreement and announced: "The flagship project [...] is an agreement to develop a NZCE [=Near Zero Emissions Coal] demonstration plant with carbon capture and storage in China by 2020".[3] In 2009, the European Commission adopted a Communication respectively on "financing the EU-China Near Zero Emissions Coal Plant project" and expressed its intention

1 The full joint declaration "EU and China Partnership on Climate Change" from 2nd September 2005 could be found: at http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/05/298; Accessed on 25th October 2010.

2 The Clean Development Mechanism rules investment of companies from developed countries in emission reduction projects in developing countries. Thus they get greenhouse gas emission credits (Certified Emission Reductions, CER) which they can offset against their emissions in developed countries.

3 N.N. [=European Commission, EuropeAid] (2007): China. Strategy paper 2007-2013, p. 7+8, at http://www.eeas.europa.eu/china/csp/07_13_en.pdf; Accessed on 7th December 2010.

"to develop a public-private partnership (PPP)" "in order to bring together sufficient public and private funds". The Commission could assume the interest of European companies: "Several European companies are already present in China's clean technology markets" the Communication stated. The European Commission put the costs over a lifetime of 25 years at around 730 million Euro or 980 million Euro depending on the technology employed (Integrated Gasification in Combined Cycle coal power plant or pulverized coal plant) whereof 300 million Euro or 550 million Euro should come from public financing.[4]

In 2007, and in line with the EU-China climate change partnership, the European Investment Bank (EIB) granted a 500 million Euro loan to China for climate protection projects, such as the development of renewable energy and fostering the efficient use of energy (for comparison: in 2009 China granted credits of 110 billion US-$). This Climate Change Framework Loan supported the National Climate Change Programme of the Chinese National Development and Reform Commission (NDRC). In addition, the European Union allocated 133 million Euro to fund clean energy projects in China and the EU member states spent 238 million Euro on energy-related projects in the period between 2000 and 2008. This kind of cooperation was helpful for European companies too: From 2002 to 2008, European exports to China of goods in the field of clean technology amounted to nearly one billion Euro (solar technologies: 424 million Euro, wind technologies: 283 million Euro and hydro technology: 273 million Euro).[5] However, European exports of clean energy technologies represent only a small fraction of the total EU exports to China – in 2008 they accounted for 0.2 per cent of all European exports.

Inter alia, it's about trade

In a seminar on trade and development directly after the 2010 EU-China Civil Society Roundtable in Chongqing, participants underlined "the EU and China should increase their cooperation to fight against climate change, whilst trade can be a useful instrument to promote green growth. It is important to promote the trade of environmental goods and services, in particular wind and hydroelectric turbines, solar-powered boilers, solar panels, seawater desalination plants and wastewater reuse and treatment. With reference to the WTO negotiations, the EU and China should cooperate to find an agreement to lower tariff barriers, concentrating on reducing obstacles to investment and non tariff barriers which continue to seriously hamper the spread of environmentally friendly products".[6]

Both the EU and China are willing to continue this success story: In December 2010, the Climate Change Framework Loan II followed with 500 million Euro, again aiming at helping "to achieve the ambitious targets set by the Chinese government in the context of both the 11th and 12th five-year-plans".[7] The European Investment Bank's press release from December 3rd, 2010 referred to the Clean Development Mechanism (CDM) projects: "Some schemes may have the possibility of generating carbon credits". Obviously, economic interests matter too when it comes to climate protection.

Indeed, China is by far the world biggest market for CDM projects. More than one third of the total number of CDM projects worldwide comes from China or over 40 per cent of the worldwide supply of Certified Emission Reductions (CERs). Though the Clean Development Mechanism can help to mitigate climate change inter alia, through technology transfer it is highly controversial. Not all CDM projects meet the required criteria. For instance, the EU supported new coal-fired power plants which did not meet the criteria of additionality (CDM projects should not replace projects which would have been planned anyway). Even the EU-China CDM Facilitation Project which helped to develop CDM projects between February 2007 and March 2010 admitted in its Final Report from 2010: "Although CDM projects have had some success in promoting sustainable development in China the CDM has not reached the objective of promoting sustainable development in developing countries as defined in the Kyoto Protocol".[8]

International climate change negotiations: conflicting interests

The EU-China cooperation in international climate negotiations was and is by far more conflictual than the financial and technical cooperation with regard to climate friendly technologies. The main points of contention have been the introduction of binding emission reduction targets for developing countries and the international control of China's greenhouse gas emissions by a UN compliance mechanism. On the one hand, the EU hoped to secure China as a partner in climate negotiations. In this sense the rapporteur of the European Parliament's Temporary Committee on Climate Change declared after the Committee's visit to Beijing in November 2007: "We were happy to learn that for China, like the EU, the UN Climate Change Convention is the only appropriate forum for the international negotiations on climate change. The Chinese authorities also share the EU view that the negotiations for such a new agreement should be concluded by 2009 at the latest, thus avoiding any gap between the current commitment period under the Kyoto Protocol and the future international framework". On the other hand, it was obvious that China did not accept any introduction of binding emission reduc-

4 Communication from the Commission to the European Parliament and the Council: Demonstrating Carbon Capture and Geological Storage (CCS) in emerging developing countries: financing the EU-China Near Zero Emissions Coal Plant project, June 25th, 2009, COM(2009) 284 final, at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0284:FIN:EN:PDF; Accessed on 7th December 2010.

5 Cf. Duncan Freeman and Jonathan Holslag (2009): Climate for Cooperation. The EU, China and Climate Change, Brussels (Brussels Institute of Contemporary Chinese Studies), p. 28, at http://www.vub.ac.be/biccs/site/assets/files/apapers/Policy%20papers/Freeman_Holslag_EU_China_Climate.pdf; Accessed on 7th December 2010.

6 EU China should increase cooperation to fight climate change: at http://europa.eu/rapid/pressReleasesAction.do?reference=CES/10/94&format=HTML&aged=0&language=EN&guiLanguage=en; Accessed on 27th October 2010.

7 Cf. European Investment Bank, Press release December 3rd, 2010, at http://www.eib.org/projects/press/2010/2010-218-china-eur-500-million-loan-for-climate-change-mitigation-projects.htm; Accessed on 7th December 2010.

8 EU-China CDM Facilitation Project (2010): Final Report, p. 16; cf. http://www.eu-china-cdm.org/media/docs/Final%20report_EN.pdf; Accessed on 7th December 2010.

China and the EU benefit from CDM

"The EU firmly believes that a global carbon market, through a cap and trade system, is the most cost-effective approach. China and the EU have both benefited from the Clean Development Mechanism (CDM). China is already now the largest beneficiary of the Clean Development Mechanisms (CDM) which provided nearly half of all credits. Transfers between the EU and China alone in this context will amount to billions of Euros up until 2012. Indeed, the EU and China have been the two most important protagonists of this mechanism since the Kyoto Protocol entered into force, and the selling of emission rights by China has allowed a great number of investments to take place in China in energy saving and diversification."

Artur Runge-Metzger, Director of DG Climate Action, European Commission
Artur Runge-Metzger (2010): The EU-China partnership on climate change, in: EU-China Observer 1/2010, p. 4.

tion targets for developing countries as stated by the Chairman of the EP Temporary Committee on Climate Change after the 2007 China trip: "One critical issue remains: the fact that, at this stage, China still considers that the current structure of the Kyoto Protocol should be maintained and developing countries, including emerging economies, should have no quantitative commitments."[9]

The year 2009 saw the culmination of this conflict. In January 2009, the European Commission demanded that "developing countries as a group should limit the growth of their emissions to 15 to 30 per cent below business as usual".[10] Beijing was upset, the Chinese media spoke about protectionism against developing countries and characterized this demand as greed. China argued the EU should compensate for its contribution to climate change by giving unlimited access to climate protection technologies and by financing climate protection activities.

EU-China relations regarding climate change were at an all time low at the Copenhagen Climate Change Conference in 2009. It came to a sharp dispute between the Chinese negotiator He Yafei, the French President Nicolas Sarkozy and the German Chancellor Angela Merkel. The distrust grew between both parties. Some of the EU member states criticized Chinese officials for blocking the discussions, European and American media posed the questions on the need to transfer technology and funds for China, when China might return as a competitor, and the Chinese media and officials argued that developed countries should bear most of the responsibility.[11]

Consequently, the European Parliament declared in its resolution of 10th February 2010 on the outcome of the Copenhagen Conference on Climate Change that the Parliament "regrets that the USA and China were not prepared to accept a more ambitious agreement for internal policy reasons; believes that the European Union, the USA and China are key to ensuring a binding international agreement; urges the United States and China, as well as other international partners, therefore, to come up with further commitments to an international system of climate protection, in order to resume discussions and achieve an ambitious and legally binding international agreement in line with the latest developments in science and consistent with the 2°C objective."[12]

The EU and China seemed to stand before a pile of broken glass. But in 2010, both sides tried to limit the damage. The Vice-Chairman of China's National Development and Reform Commission and the European Commissioner for Climate Action met in Beijing on April 29th, 2010 and agreed to establish a regular dialogue on climate change "to deepen mutual understanding, strengthen coordination, enhance practical cooperation and exchange of views. We also agreed to establish a Climate Change Hotline, at our level, to facilitate an expedited exchange of views and sharing of information on new developments related to climate change."[13]

9 European Parliament: Article: Climate change: why China matters, 9th November 2007, at http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+IM-PRESS+20071107STO12743+0+DOC+XML+V0//EN; Accessed on 10th December 2010.

10 European Commission (2009): Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and thec Committee of the Regions: Towards a comprehensive climate change agreement in Copenhagen, Brussels, (COM) 2009, 39 final, p. 2, at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0039:FIN:EN:PDF; Accessed on 8th December 2010.

11 Staphany Wong (2010): Copenhagen in Chinese: What did the Official Version say and how did the Civil Society and Media act?: at EU-China Civil Society Forum: 22 Jan 2010. http://www.eu-china.net/english/Resources/Wong-Staphany_2010_Copenhagen-in-Chinese-What-did-the-Official-Version-say-and-how-did-t.html; Accessed on 26th October 2010.

12 http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P7-TA-2010-0019+0+DOC+XML+V0//EN; Accessed on 9th December 2010.

13 Delegation of the European Union: Joint Statement on Dialogue and Cooperation on Climate Change, April 30th, 2010, at: http://ec.europa.eu/delegations/china/press_corner/all_news/news/2010/20100430_01_en.htm; Accessed on 10th December 2010.

European-Chinese Civil Society Cooperation on Climate Change: Differences and Similarities

Klaus Heidel

Cooperation between European and Chinese civil society organisations is in its early stages and has much potential. This applies in general and even more for activities in the field of climate change. Nevertheless there is a strong will on both sides to improve the cooperation. First steps have been taken. They show conditions, possibilities and limitations for further European-Chinese civil society cooperation with regard to climate change.

The year 2010 saw at least four European-Chinese civil society meetings on climate change. In June Germanwatch and China Climate Action Network (CCAN) organised a Europe-China Climate Change Expert Roundtable as a side event to the Climate Change Negotiations in Bonn. Participants from China underlined that climate change is threatening human security in China. Climate change is, therefore, a key issue for Chinese NGO. They promote green energy and a sustainable lifestyle. They look for practical climate protection activities. The European perspective seems to be somewhat different. Of course, European NGOs are interested in technical climate protection measures too but they are also interested in a broad political approach as expressed by Klaus Milke, CEO of Germanwatch: "After Copenhagen the need for simultaneously negotiating and implementing concrete action has become central for global climate protection. Europe and China together could give a strong signal through enhanced cooperation on climate protection."

A second China-Europe NGO Climate Change Roundtable was held in Tianjin on 6th October 2010 as side event to the Tianjin climate change negotiations organised again by Germanwatch and CCAN. This roundtable focused on climate scepticism. Whereas the debate in Europe and in the USA focusses on the question whether or not climate change is manmade and whether or not experts and politicians are exaggerating the problem the discussion in China focuses on a conspiracy theory which insinuates that Western countries have started the debate on climate change in order to undermine China's economic growth.

China Association for NGO Cooperation (CANGO) and Germanwatch organised a third roundtable during the United Nations Climate Conference in Cancun in December 2010 (see the interview with YANG Fangyi on page 37). This meeting also revealed that European and Chinese NGOs have very different historical, cultural and political backgrounds as well as very different working conditions.

Chinese NGOs mostly interested in technological and practical solutions

The broad meeting and exchange programme "After the Failure of Copenhagen. Ways to sustainability and Low Carbon Economies in Europe and China. Civil Society Perspectives" made these differences between European and Chinese NGOs even clearer. In the second half of June 2010 this programme brought together staff members of European and Chinese civil society organisations and consisted of a ten-day exposure and field visit programme in Germany and a two-and-a-half-day international conference in Bonn. The programme was organised by Werkstatt Ökonomie and further "EU-China Civil Society Forum" partner organisations[1] in close cooperation with other nongovernmental organisations in EU member states[2].

Chinese participants were most interested in technological solutions such as passive house technologies or renewable energies and in aspects of a sustainable lifestyle – whether with regard to mobility, energy saving or consumer awareness programmes. Obviously, they were quite familiar with these issues. In contrast, they were less used to political discussions about the limits of economic growth or even prosperity without growth and other macroeconomic

1 Cf. www.eu-china.net. The German NGO Forum on Environment and Development is one of the "EU-China: Civil Society Forum" partners.

2 Brot für die Welt (Bread for the World), European Climate Foundation, Evangelischer Entwicklungsdienst (EED, Protestant Development Organisation), Germanwatch and Heinrich Böll Foundation have been co-organisers of the international conference.

issues. The meeting and exchange programme showed the interest of all European and Chinese participants to strengthen the cooperation on climate change challenges but it remained unclear what this could mean in very practical terms. At the same time, it was noticeable that German participants had only very limited knowledge about structures and the work of Chinese NGOs and vice versa.

Lessons learned

The 2010 meetings between European and Chinese NGOs provided some lessons.

- Climate change is a key challenge to both European and Chinese civil societies. It is indispensable to build up a stable cooperation between European and Chinese NGOs on climate change challenges given the importance of the EU and China for international climate change policies as well as for domestic measures in order to mitigate climate change.
- Any cooperation between European and Chinese NGOs in the field of climate change has to deal with a contradiction: on the one hand, Chinese NGOs are mostly interested in very practical cooperation (joint projects for the promotion and introduction of green technologies and consumer awareness programmes on sustainable lifestyle, amongst other things). Here the advanced cooperation between US-American and Chinese NGOs serves as a model. On the other hand, European and Chinese NGOs have very different backgrounds, contexts and working conditions. They have only limited knowledge about each other. Therefore exchange programmes are necessary which provide a learning environment for general exchange open to very fundamental questions and focused communication about experiences with concrete projects and targeted activities.
- European and Chinese NGOs have different guiding concepts which stand for different visions. In Europe, many NGOs strive for "climate justice" as a comprehensive ecological, social, economic and political concept. This perspective leads to fundamental macroeconomic topics such as the limits of economic growth or prosperity without growth. Chinese NGOs prefer more practical concepts such as low carbon economy which focus on technological solutions (renewable energy, green technologies etc.). In this perspective, green growth as guarantee for social development is much more attractive than a post-growth economy. Both perspectives are not fundamental contradictions but they require an enlightened dialogue which is aware of these differences.
- Different historical backgrounds lead to different political positions. Whereas European NGOs strictly oppose nuclear power stations Chinese NGOs don't have a common position on nuclear power.
- Different social and political contexts lead to different key activities. In Europe, political campaigns (against coal-fire power stations or campaigns in the context of regional or national elections) are central. In China, consumer education is key given the large absence of consumer organisations and food safety problems.
- In some areas civil society expertise is insufficient. For example, research on social and ecological impacts of Clean Development Mechanism projects is still somewhat lacking.
- One common starting point for political cooperation could be to look into the interconnection of situations in Europe and China. For instance, Chinese sweatshops producing very cheap consumer goods for the European market very often pollute the atmosphere. In addition, the ecological footprint of these products is highly problematic let alone social aspects.
- It is necessary to initiate political dialogue on international climate change negotiations as a basis for common advocacy and lobby activities. Here the European-Chinese civil society cooperation breaks new ground.
- The European-Chinese civil society cooperation on climate change has to take into account all these differences including different perspectives, perceptions and interests.
- Last but not least: regardless of all difficulties there is a wide range of proposals for concrete cooperation to start with – from school and city partnerships on climate change to internship programmes for young European and Chinese people working with NGOs.

"Combating climate change is also an attitude"

ZHOU Jiuxuan

In a world full of information, "climate change" seems to be a topic everywhere, from traditional media such as newspapers, magazines and televisions, to the new mode of information exchange such as emailing, micro-blogging and news websites. "Climate change" gets to be the most fashionable term for environmentalists and a trend to be closely observed. Yet, "climate change" is neither a fashion, nor a simple term. To deal with it, we need to develop a lifestyle, to take it as a task and to face it with a new attitude.

Handling "climate change" from daily life: the German produced Mercedes-Benz, BMW and Audi are popular all over the world, yet cars are contributors to climate change. While having a car is one of the common dreams for the Chinese people, NGOs in Germany have been advocating the public to use bicycles instead, such as the Traffic Club for Germany (Verkehrsclub für Deutschland). It is perfectly a pleasant scene, to see an office worker in his suit and ties, riding his bike with a helmet to work in Germany. Cycling to work is simple and saving time from being trapped in the traffic jam, and very healthy for office workers who could not find time for exercises. If one lives too far from work, public transport is recommended, instead of wasting energy in driving a long way alone.

Efficient-use of electricity, leaving the lid on while cooking, reducing the consumption of chemical detergents and pesticide, cleaning the household with physical methods, etc., are all minor but helpful moves to deal with "climate change". Everyone is capable to develop a lifestyle to combat "climate change".

Practicality should be considered: We don't link up our activities with "climate change" simply because it is a trendy term. It shouldn't be just a term to talk about, but should have an impact on our daily life. In Germany, some NGOs carry it out with their own characteristics, for example, the Consumer Association North Rhine-Westphalia (Verbraucherzentrale Nordrhein-Westfalen), whose objective is to protect consumers' rights. Currently, it provides energy saving consultation in house-building for its users, as a part of their work regarding "climate change". In China, some organizations have launched projects related to climate change, such as the China Youth Climate Action Network (CYCAN), which brings in the youth's participation in the course of combating "climate change" and lobbies for energy-saving facilities at schools. In the field of environmental protection, such as water pollution, waste management, resources prioritizing in rural areas and research on agriculture, we should stick to our own principle. We should take the impact of "climate change" into account of our work and combine them in a sensible manner, instead of trying to include the issue of "climate change", without a clear evaluation of how it would jeopardize our original work plan. As an example, agriculture and "climate change" are directly influencing each other. Climate plays a crucial role on agriculture, and any change of it would inevitably affect agriculture and harvesting. On the other hand, agriculture can act as a contributor to "climate change", e.g. the use of chemical pesticide. Therefore, combating "climate change" is not only an independent task, but also interdependent in many areas. To implement and enforce measures against "climate change", would need first a full evaluation, not only with jargons, but efficiency and result-oriented.

Combating climate change is also an attitude. Climate change can be interpreted as, the nature's response towards the human activities. To combat "climate change", it means that human beings should respect and protect the environment, it is an attitude, responsibility we all should share, to be responsible for what we did and for our future.

Norman Vincent Peale once wrote, "Attitude is everything". In terms of encountering "climate change", we should act strictly responsibly, to start from minor issues, with practical methods.

Chinese Climate Protection NGOs wish to have more cooperation with Europeans

The following report was sent by Deutsche Welle Chinese Channel on 1st July 2010[1].

"How should Europe and China head for sustainability and low-carbon economies, after the Copenhagen Climate Conference has failed to give any concrete guidelines?" This is the theme of a recent conference in Bonn, namely "After the Failure of Copenhagen: Ways to Sustainability and Low Carbon Economies in Europe and in China. Civil Society Perspectives", with 13 NGO representatives from China, coming all the way to discuss this issue with their European counterparts.

Global Environmental Institute (GEI), established in Beijing in 2004, is one of the NGOs focusing on climate change. Since 2009, it has been working on a Sino-American joint project on "energy efficiency and climate change", which promotes cooperation between American states and Chinese provinces, informal bilateral dialogues. It also runs projects such as generating power by using the cement waste heat, promoting renewable energy in rural areas and marsh gas energy.

Ms JIN Jiaman, executive director of GEI said, "we received quite some support from the American side in the Sino-American projects. After this visit in Europe, I would like to discuss with the EU office in Beijing, to see if there would be any cooperation between China and Europe. In 2006, we ran one project under the EU, to provide training on Clean Development Mechanism (CDM) to 42 companies. We do believe that EU is concerned about China."

Jin is one of the 13 Chinese representatives, working on climate and environmental protection issues, to come to Germany for a programme run by the "EU-China Climate Society Forum". According to the conference organizer, Mr Klaus Heidel, the programme's funding comes mainly from the European Union. In this nearly two-week exchange and conference trip, the Chinese NGOs visited their German counterparts in Berlin and the Ruhr Region, for discussions and building up contacts [...].

Mr LI Li is 25 years old. Back in 2007, he organized some 300 higher education institutes to join the China Youth Climate Action Network (CYCAN) in Beijing. His comment of this exchange experience is "I find it to be a very good learning process. In the past, our connection with Europe was only a few contacts made in international conferences; while this time, we do see the rooms for cooperation. For CYCAN, we could help with EU-Chinese youth internship programmes, to deepen the dialogue and exchange between the youth from the two sides."

Ms ZHOU Jiuxuan, from Pesticide Eco-Alternatives Center (PEAC) said PEAC is very concerned about the relation between agriculture and climate protection. PEAC has been supported by two German foundations.

Climate protection NGOs are relatively new in China. Mr YAO Yao, an environmentalist commented: "NGOs (in China) work mostly in the areas of publicity and education, such as campaign of "setting air-conditioning at 26-degree". However, for high technology and the enormous amount of funding needed for climate protection, international cooperation is only limited at the official national level. It has been not much room for NGOs' participation."

Mr Yao pointed out that climate protection NGOs could play another important role, i.e. to be a player, engaging in dialogues at international climate conferences. "For example, we find many NGOs protesting outside the conference hall in Copenhagen to tell the participating countries about people's concerns. We have to admit that during the Copenhagen conference, Chinese NGOs were not participating at all. At the moment, Chinese NGOs cannot act as independent players, to represent the people's voice in the international discussions on climate change" Mr Yao commented.

1 At: http://www.dw-world.de/dw/article/0,,5751861,00.html; translation from Chinese to English: WONG Staphany.

Still a long way to go

Remarks on the European-Chinese Civil Society Organizations' Roundtable during the COP 16 in Cancun

ANG Chin By and YANG Fangyi

The Chinese network China Association for NGO Cooperation (CANGO) and Germanwatch organized a Chinese-European civil society side event as part of the United Nations Climate Change Conference in Cancun on December 7, 2010. Nearly 20 Chinese and European civil society organizations took part, including several members of the China Climate Action Network (CCAN), such as the Shan Shui Conservation Center, CYCAN, Friends of Nature, Green Earth Volunteers and Green River. On the European side, the Wuppertal Institute for Climate, Environment and Energy, Germanwatch and CDM Watch were present. The dialog aimed to achieve two goals: firstly, find a common statement for the Conference of the Parties 16 (COP 16); secondly, establish a regular communication between Chinese and European civil society organizations. Chin By Ang (Werkstatt Ökonomie e.v.) spoke to Yang Fangyi from the Shan Shui Conservation Center after the conference.

Chin By Ang (CBA): *The Chinese-European civil society side event to the COP 16 was the 3rd Chinese-European NGO Climate Change Roundtable in 2010. Was this roundtable in Cancun a promising continuation of the previous meetings in Bonn in June and in Tianjin in October 2010?*

Yang Fangyi (YFY): The meeting in Cancun was very short – and we had not had enough time. It only lasted about one hour and there was no in-depth discussion about common interests and positions. No main results came out of our dialog. Of course, lots of ideas were presented, for instance on low carbon transportation or water, but no conclusion was reached. A second point is that we simply don't have the resources to put ideas into common actions. It's not enough just to sit together and discuss problems.

CBA: *Does this mean that it was not possible to formulate common positions regarding expectations of the COP 16?*

YFY: Yes, it seems to be too early for a common Chinese-European civil society statement. CCAN submitted a common statement of Chinese NGOs to the Chinese governmental delegation before the Cancun conference. It is quite similar to the position paper produced before the conference in Tianjin in October 2010. It was updated and some parts are different but mostly only the details. About 60 organizations signed this common statement – but only Chinese NGOs. It was planned to have a common statement from both Chinese and European NGOs but unfortunately this was not concluded in Cancun. Maybe we will be able to finalize a common European-Chinese NGO statement next year in South Africa when the COP 17 meets in Durban. At the moment we only have a draft of the common statement because there were some communication problems before Cancun which prevented us to work further on it.

CBA: *Which role can Chinese civil society organizations play in international conferences such as this one? Which influence can they have in the process of negotiating climate policies?*

YFY: I do not think Chinese NGOs can play an important role in the negotiation process. Most of our Chinese colleagues believe our goal at the COPs is monitoring the process of negotiation and bringing a good case for solutions to climate change to the international community. Chinese NGOs are joining the conferences – but they are not, of course, taking part in the negotiations. They are not entirely familiar with the United Nations negotiation process and they don't have the enough capacity to analyze what's going on as international NGOs such as Greenpeace or WWF do. Chinese NGOs need time to get familiar and to improve their understanding of the negotiations process. Right now, they only get information on the negotiations that they communicate to each other. But on the last day of the COP 16, we – the Chinese NGO people – tried to do something else and had a meeting to discuss the results of the conference. Afterwards, we published our ideas in Chinese media. This was the first time that we as Chinese NGOs did something like this.

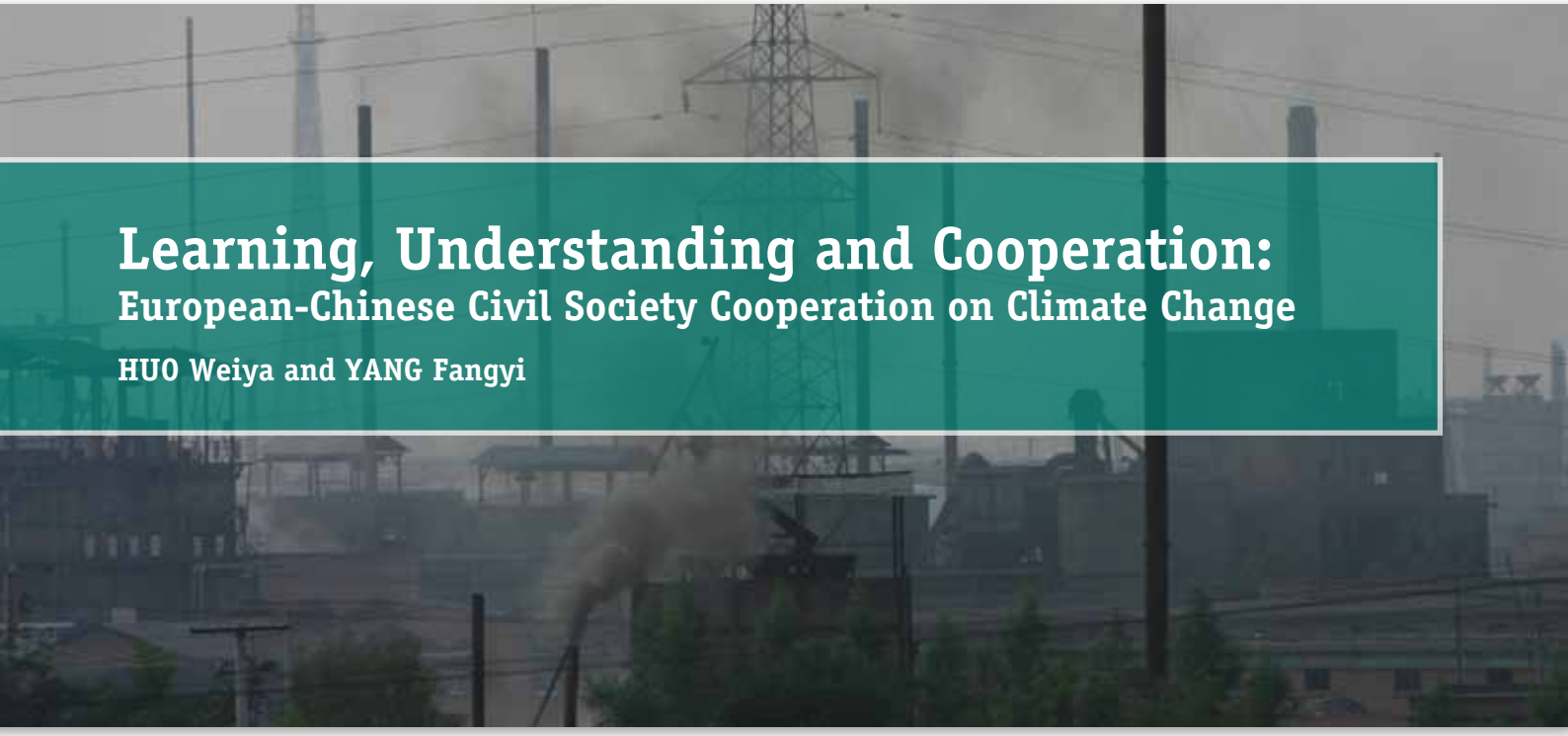
CBA: *Are you satisfied with the results of the negotiations during the COP 16 in Cancun? Do you have any comments?*

YFY: Not very. As other delegates, I think COP 16 put all the hard stuff on the agenda for 2011, which will make 2011 much harder. As was commented later, the "Cancun Agreement saved the United Nations but did not save the climate." They should have at least sealed a legally binding agreement. Regarding the adaptation framework, it is good but it is just a framework. There are no details regarding the objectives and the resources. I am afraid that the COP 17 may be like Copenhagen in 2009.

CBA: *US-American and Chinese NGOs are increasing their cooperation in the field of climate change. Why does it seem to be so difficult for European and Chinese civil society organizations to take their cooperation a step further?*

YFY: Yes, Chinese NGOs and NGOs from the US have some common interest and experience in cooperation. Both sides organized a side event as part of the COP 16 and a media briefing in a very short time. The cooperation between US-American and Chinese NGOs not only focuses on global climate negotiations but also includes very practical climate protection activities. Take the example of the Chinese Global Environmental Institute (GEI): we expect to be able to share experiences and exchange on very specific topics and not only take part in conferences or study tours. Our target is broader than just influencing negotiations; we rather prefer concrete projects. For instance, GEI invites experts from the US and elsewhere to give them "courses" on energy policy and then they try to implement pilot projects. The idea is that after working together on a common project, they may have some common ideas that they can submit. The outcome is very exciting.

Of course, Chinese NGOs are willing to organize the same talks with European NGOs and NGOs from BASIC and other developing countries. The NGO cooperation between Europe and China is focusing much more on capacity building, experience sharing and so on. But the in-depth cooperation for specific topics is very urgent. I feel that there is no need to have general exchange programmes between European and Chinese NGOs at the moment because the past exchange programmes have shown that there is no follow up, unless it is on very specific topics. I suggest that these programs involve people from diverse backgrounds and sectors with different and very practical expertise. For example we could involve the media and learn how to influence policies and the public. We could also learn how to manage private foundations. We need therefore to define common objectives and interests.



Learning, Understanding and Cooperation:
European-Chinese Civil Society Cooperation on Climate Change

HUO Weiya and YANG Fangyi

Civil society organizations in both the European Union and China promote low carbon economies and have common concerns. The cooperation between European and Chinese civil society organizations addressing climate change challenges is necessary for both sides but this cooperation needs to be strengthened and improved.

A growing civil society for climate change issues in China

Climate change is a new topic for European and Chinese societies, including civil society groups. Insufficient knowledge about climate change has hindered civil society's engagement in climate change campaigns. In China, prior to 2007, for common citizens, even for the NGOs, "climate change" was just a scientific term. Only a few international NGOs and Chinese academics engaged in a climate change campaign. Some grassroots NGOs run environmental campaigns without any direct reference to climate change. For example, a coalition of Chinese NGOs launched the "26 degrees campaign" to persuade the public to keep the temperature of air conditioning higher than 26 degrees in the summer with the aim of reducing energy consumption in 2004. At that time, even the organizer did not link their work with climate change, however. Since 2007, knowledge of climate change issues has increased and it is now much more common for Chinese civil society to become engaged in climate change campaigns. Thanks to knowledge sha-

ring, the strategy for future work by China's civil society is now clear: To promote a low carbon economy and a low carbon lifestyle. Chinese civil society groups will be very active in the future.

The capacity of China's civil society groups is also growing. The work of China's civil society groups is not as superficial as it used to be. Their work now focuses much more on specific topics, for example Friends of Nature is promoting cycling in cities and the Global Environmental Institute is working with rural communities in order to promote low rural energy consumption. More and more civil society groups are starting to work to mitigate climate change and some coalitions have already been formed.

Mutual cooperation between European and Chinese civil society is lagging

Compared with cooperation in other fields, cooperation between European and Chinese civil society organizations on climate change is lagging. This is due to the gap in the level of knowledge, a lack of capacity and a lack of communication.

Chinese civil society organizations have long experience in cooperating with European civil society groups on environmental protection and community development. A form of project-based cooperation is very common. Some Chinese NGOs are invited to participate in bilateral projects or to work with European organizations as grantees. Due to a change in policy for European international development aid, this kind of support is decreasing.

Technical cooperation and capacity building are the other areas of mutual interest of both Chinese and European NGOs. A series of training workshops and study tours were offered to Chinese NGOs by European NGOs. Whilst the training and study tours helped to improve the capacity of Chinese civil society organizations, they were only really able to touch the surface so that technical cooperation and capacity building remains weak.

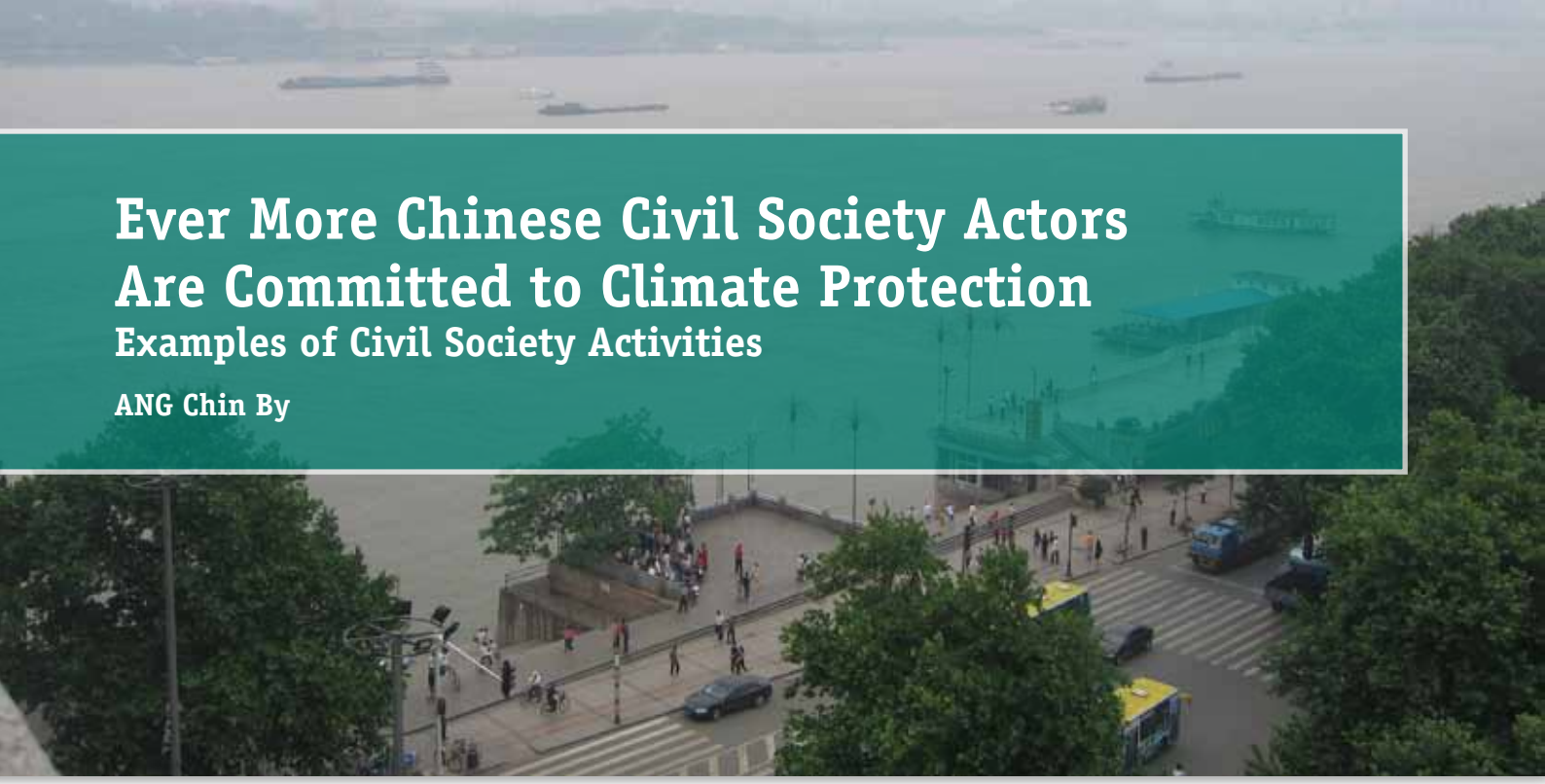
Given the rapid development of a bilateral relationship between China and Europe, the absence of civil society is much more obvious. There is no voice from civil society on some important topics.

That there is misunderstanding between Chinese and European civil society groups is much more evident since both sides have undergone a period of rapid change. Economic and political conflicts especially are more evident, more frequent, and deeper than before, as climate change challenges and the requirements of local carbon economies are taken into account. Misunderstandings hinder the cooperation between Chinese civil society and European civil society.

Future cooperation is promising but needed to be improved

As leading players in the fight against climate change, China and Europe will play a much more important role in the future. Their cooperation and understanding is crucial. The presence of civil society is also a matter of urgency. The following steps are suggested for improving further cooperation:

- Promote in-depth cooperation at different levels. Organize some working groups to promote cooperation on some specific topics, for example, working groups on low carbon transportation and low carbon building could be formed in the future. Chinese NGOs can learn from European NGOs' work on low carbon transportation and low carbon building. European NGOs can learn about low carbon lifestyle from China.
- Promote information sharing, to monitor climate policies and the climate footprints of transnational corporations. Increase the capacity of civil society through a "learning by doing" model.
- Promote mutual understanding by engaging different civil society groups. Civil society could organize an exchange of knowledge between the media and academic society, for example. A detailed understanding of each side's situation and strategy could help further cooperation.
- Financial cooperation should be enhanced on the level of civil society. Since NGOs in China still lack financial support, financial support from external sources is still needed. A long-term financial model should be set up.
- Set up a regular communication mechanism for European and Chinese civil society groups. Coordination teams should be set up on both sides.



Ever More Chinese Civil Society Actors Are Committed to Climate Protection

Examples of Civil Society Activities

ANG Chin By

The foundation of Friends of Nature (FON) in 1994, a Chinese environmental NGO, is often considered the grass roots of the Chinese environmental movement by Chinese people. The first Chinese environmental NGOs were mainly focusing on three topics: tree planting, bird watching and waste recycling. In 2010, sixteen years later, the number of NGOs working in the environmental field has dramatically increased, although those involved in global warming and climate change are rare. Even fewer deal exclusively with these two topics. Climate change is a relatively new topic for many Chinese people, including environmental NGOs. The concept of climate change was introduced to China in 2007.

This list presents the main networks and NGOs related to global warming and climate change. Its purpose is to show examples of programmes and activities implemented in these areas, although it does not fully cover all of them. Through our research, we have realized that despite the efforts made by these organizations, many of them are considerably lacking in resources, qualifications and organization. To date, only very few of them have the expertise and carry enough weight to make recommendations to the Chinese authorities. However, this does not mean that the actions taken by the majority of them are insignificant. On the contrary, some of them have carried out quite influential projects and contributed to raising awareness of global warming and climate change, as well as informing public opinion.

I. Civil Society Networks

China Climate Action Network (CCAN) (中国民间气候变化行动网络), Beijing

http://www.c-can.cn/ (Chinese and English)
Founded in 2007
Membership:
Network of 13 climate change-related NGOs from China, including Friends of Nature, Global Village Beijing, China Association for NGO Cooperation, DAO Institute for Environment and Development, Centre for Nature and Society, Energy Foundation, Xiamen Green Cross.
Main goals:
Address climate change
Strengthen the ability of civil society actors to work in the field of climate change science, climate policy and participate in international climate change discussion
Support communication and cooperation with the international NGOs community
Activities:

- Consist of capacity building, overseas study tours, negotiation tracking, joint actions, international NGO climate dialogs, policy research and surveys, and information sharing
- Publication: Low-carbon lifestyle handbook - your home (03/2009)
- Examples of actions: Capacity building workshop (08/2009) with Climate Action Network's Southern Capacity Building Program and Indian colleagues to share experience of working on climate change issues; Training for grassroots NGOs on climate change (from 28/09/2010 to 01/10/2010) with the Institute for Environment and Development (IED) in order to provide information and discuss the influence of climate change, climate change and development, ways to adapt to climate change and ecosystem and climate change; Participation in the UNFCCC climate change conference in Bali (12/2007), Poznan (12/2008) and Copenhagen (12/2009).

China Youth Climate Action Network (CYCAN) (中国青年气候变化行动网络), Beijing

http://www.cycan.org (Chinese and English)
Founded in 2007
Membership:
Seven youth environmental organizations: CDM Club 6E Plus, CEF, Green Student Forum (GSF), Taking IT Global-China, NEAYEN-C, Solar Generation, China's Green Beat; Number of participants in their programmes: 50,000 to 60,000.
Main goals:
Address global warming and promote actions taken by young people. Seek a new mode for the Chinese youth to carry out programmes on global warming and promote climate change programmes Aim for a 20 per cent reduction in greenhouse gas emissions in pilot higher education institutions (HEIs) in China before 2012, thus facilitating the construction of resource-saving campuses and meeting the national objective of energy saving and emission reduction

Activities:

- Research project for awareness: Uses surveys on climate change to understand the youth's view of it
- Initiatives on climate change in order to raise public awareness about saving energy, emission reduction and climate change
- News brief on climate change, CYCAN Daily News Brief of Global Climate, study salon and research methods
- CYCAN guidance handbook (started 02/2008): Reports successful cases of youth climate actions both at home and abroad, and offers practical guidelines for China youth climate actions.Energy consumption database of HEIs (started 05/2008): Based on the Green Campus energy consumption data survey, the database will be released on the Internet to keep the public, especially college students, well-informed about the energy consumption situation on their campuses.
- International exchange programmes:
  "1st International Youth Summit on Energy and Climate Change" (07/2009) with Qinghua University Green Association and Beijing University CDM Club. It was the first international youth conference in the field of climate change and energy organized by youth students in China. Its theme was "China Focus, Global Dialogue, Low-Carbon Future, Youth Opportunity"; "International Youth Summit on Energy and Climate Change 2010" in Shanghai (07/2010).
- "Green Campus Program" in 5 stages (started 10/2007; second phase from 04/2008; ends 2012), carried out in Beijing, Chengdu, Nanjing, Xi'an and Guangzhou. The programme seeks to identify the best energy-saving solutions on campus, based on investigation and research, and data surveys, and aims to influence decision-makers.

Chinese Civil Society on Climate Change (中国公民社会应对气候变化小组 or 公民社会小组), Beijing

Founded in 2007

Membership:

Network of 7 core Chinese NGOs: Friends of Nature, Global Village - Beijing, Green Earth Volunteers, Institute of Public Environmental Affairs, Greenpeace, Oxfam, Action Aid

Main goals:

To reach a consensus on future actions regarding climate change

Activities:

Publications:

- 2007:
  A Warming China: Thoughts and Actions for the Chinese Society (《变暖的中国：公民社会的思与行》);
  "Chinese Civil Society on Climate Change" (1st edition) (《中国公民社会应对气候变化立场》) during the UNFCCC in Bali;
- 2009:
  "Chinese Civil Society on Climate Change (2009)" (《2009中国公民社会应对气候变化立场》); it sets out their views and stance on climate change as well as their expectations for the COP 15 in Copenhagen

II. Civil Society Organizations

ActionAid China (AA China) (行动援助); Beijing, Xi'an, Nanning

http://www.actionaid.org.cn/ (Chinese and English)

Activities began: 1998; Official registration: 2009

Main goals:

Work with poor and excluded people and other players to generate knowledge and experiences in overcoming poverty for an equal and just society in China and the world at large

Activities:

- Activities in 215 villages in 45 townships in Hebei, Shaanxi, Gansu, Guizhou and Guangxi provinces
- Focus on livelihood, women's rights, environment, and governance
- Member of the "Chinese Civil Society on Climate Change" network, conducts policy research and policy advocacy in areas such as access to natural resources for livelihood, organic farming, protection of traditional knowledge, climate change and impact of globalization, as well as community development programmes and youth leadership programmes
- Example of an action on climate change: "Chinese Civil Society on Climate Change" project (started 03/2007)

Alxa SEE Society of Entrepreneurs & Ecology (SEE) (阿拉善SEE生态协会), Beijing

http://www.see.org.cn (Chinese and English)

Founded in 2004

Membership:

Chinese entrepreneurs

Main goals:

Promote the sustainable development of nature and humanity

Activities:

- Conduct projects on Ulanbuh forest protection, community-based sustainable development, public education and international cooperation
- Provide the "SEE Ecological Fund" to support different types of environmental protection organization
- Organize the "SEE Ecological Award" to reward environmental projects

Friends of Nature (FON) (自然之友), Beijing

http://www.fon.org.cn (Chinese and English)

Founded in 1994

Main goals:

Promote environmental awareness and protection in Beijing and throughout China amongst students, citizens and government officials

Activities:

- Focus on endangered species, recycling, energy conservation
- Promote green culture among China's emerging urban middle-class
- Raise awareness among the youth on environmentally sustainable development through workshops, field trips and teacher trainings
- Provide help to grassroots environmental NGOs and university student groups
- Examples of campaigns on climate change: "Car-free day" (2005) with Global Village of Beijing and China Environmental Culture Promotion Association; Publication of the Beijing Biking Map (2010) to guide citizens and tourists for easier bike riding and renting; "Low-carbon family" (2009): energy consumption research was conducted with 200 volunteer families in Beijing. Based on its findings, plans were made to save energy and electricity costs for those families.

Global Environmental Institute (GEI) (全球环境研究所); Beijing

http://www.geichina.org/ (Chinese and English)

Founded in 2004

Main goals:

Design and implement market-based models for solving environmental problems in order to achieve development that is economically, ecologically, and socially sustainable.

Activities:

- Conduct a sustainable rural development programme, a biodiversity conservation programme, environmental governance programme, partnership programme and energy and climate change programme
- Examples of projects on energy and climate change: "US-China Track II Dialogue on Climate Change" (from 01/2008 to 12/2010): Designed to encourage high-level policy makers in China and the United States to conduct effective dialog and communication, promote mutual understanding, and seek out areas for cooperation; "Cooperative Procurement and Market Transformation for Urban Energy Efficiency in China" (from 02/2009 to 03/2010): The project explored one operable cooperation model to help improve energy efficiency in urban areas, including fulfilling urban energy demand and reducing carbon dioxide emission. "Reduced Emissions from Deforestation and Forest Degradation": To increase carbon stock, improve hydrology and protect biodiversity in the region.

Global Village of Beijing (GVB) (北京地球村环境教育中心 or 北京地球村); Beijing

http://www.gvbchina.org.cn/ (Chinese; English page currently not available)

Founded in 1996

Main goals:

Help China achieve sustainable development by advancing the public environment movement.

Activities:

- Promote green lifestyle based on green communities, develop ecological villages and promote green constructions in rural and urban areas
- Promote green media, provide media with environmental training and services, and produce environmental film and television

- Examples of projects on climate change: "Keep Your AC [air conditioner] at 26 Degrees" (2004): Involved 5 other NGOs, including WWF, Friends of Nature, Green SOS. More than 40 NGOs joined the project; "Let's Save 20 per cent Energy" (07/2007) with WWF, the Energy Foundation and Friends of Nature: This is a NGO network to mobilize the public to conserve 20 per cent of energy consumption. All 40 NGOs partners from 17 provinces and cities in China shared resources, platforms, and ideas to spread the importance and practices of family energy saving.

Green Earth Volunteers (绿家园志愿者), Beijing

http://www.greensos.cn/ (Chinese and English)
Founded in 1996
Main goals:
Expand Chinese citizens' active understanding of environmental issues
Activities:

- Organize educational trips and activities in order to show the challenges China faces as pollution, environmental degradation and climate change impacts on water, air and land
- Organize "Journalist Salons": a monthly meeting involving journalists and specialists, taking place in 10 cities in China. A transcript of lectures and discussion amongst the participants, covering different topics such as climate change, pollution and health, enforcement and justice, is provided. Foster a nationwide network of journalists: Green Journalist Salon Network has been established in 15 cities nationwide (from 2007).

Greenpeace China (绿色和平), Hong Kong, Beijing, Guangzhou

http://www.greenpeace.org/china (Chinese and English)
Founded in 1997 (Hong Kong)
Membership:
Members in 2009: 25,161
Main goals:
Defend the natural world and promote peace
Seek and build a green growth pattern
Activities:

- Conduct projects on toxics, food and agriculture, forests, climate and energy
- "Climate and Energy Campaign" launched on a nationwide level in Beijing (2009), Inner Mongolia (2008), Shanxi (2008), Qinghai (2005), Tibet (2006,2007) and Guangzhou (2005). Aims: 1) to ensure that China takes a leading role in international climate negotiations; 2) to lobby China to move away from coal and to invest heavily in renewable energy and energy efficiency; 3) to get the Chinese public to take personal action and support government action on climate change.

Innovation Center for Energy and Transportation (iCET) (能源与交通创新中心), Beijing, Los Angeles, New York

http://www.icet.org.cn/ (Chinese and English)
Founded in 2006
Main goals:
Mitigate climate change through the promotion of low-carbon transportation, clean energy, energy efficiency and carbon registration practices and policies in China
Activities:

- Carry out projects with different stakeholders, both inside China and around the world; Main work: 1) identifying and introducing international best practices 2) providing expert advice 3) planning and coordination 4) media outreach.
- "Low Carbon Transportation Program": This programme consists of monitoring and reporting on the implementation of fuel economy standards, development of fuel economy standards for commercial vehicles. It also deals with updating and the promotion of environmentally-friendly vehicles, and groundbreaking research and policy development in low carbon transportation fuel standards and policies. Climate Change Program": Develop and implement Energy and Climate Registry (ECR) in order to have reliable, consistent and verifiable information on energy consumption and carbon emissions on corporation and local municipality levels. This helps companies to measure energy use and greenhouse gas (GHG) emissions. ECR can be found on: www.ChinaClimateRegistry.org"Clean Energy and Energy Efficiency Program": Identify and promote clean energy and energy efficiency policies and practices, as well as technology and business solutions, in order to provide valuable information to policy makers, energy providers and other key stakeholders. This programme currently works on two aspects: LED National Policies and standards in China, and US-China Clean Energy Partnership
- "Capacity Building for SEPA to Join Global Efforts to Combat Climate Change" (06/2007 to 01/2008)
- "Climate Change Mitigation Strategies for the Transportation Sector in China" (05/2006 to 06/2006)

Institute for Environment and Development (IED) (道和环境与发展研究所), Beijing

http://www.ied.cn/ (Chinese)
Founded in 1994
Main goals:
Aim to promote sustainable development in China
Activities:

- Publish a range of reports and others publications on the environment
- Focus on: 1) Economy of sustainable development: promote the development of green companies in order to provide Chinese companies with a good sustainable development environment; 2) Ecological community and education: promote ecological community building and provide environmental education to children in schools; 3) Climate policy: influence China's actions through policy analysis. Example of a project on climate change: "Climate Concern Program" (started 08/2009): Aims 1) to help local NGOs find their specialty in the field of climate change, 2) to train local NGOs experts in the field of climate change, 3) to include issues and comments encountered by local NGOs in their work to mitigate climate change in international and national negotiations.

Institute for Sustainable Communities (ISC) (可持续发展社区协会), Guangzhou, Beijing, Shanghai

http://www.iscchina.org (Chinese and English)
Founded in 1991; headquarters in USA
Main goals:
Aim to bring cleaner, healthier and more sustainable environmental programmes and practices to two of China's most industrial provinces: Guangdong and Jiangsu.
Activities (examples):

- "Guangdong Environmental Partnership" (GEP) (started 2007): Aims to reduce GHG emissions, improve public health, and increase environmental accountability in the province; it works at 4 levels (business, government, communities and schools).
- "US-China Partnership for Climate Action" (PCA) (started 2009): Addresses the growing need of both countries to reduce GHG emissions and to address climate change at provincial and national levels; it focuses on three components (industrial energy efficiency and GHG accounting, industrial and power plant energy efficiency and financing, low carbon city development).

Institute of Public Environmental Affairs (IPE) (公众环境研究中心); Beijing

http://www.ipe.org.cn/ (Chinese and English)
Founded in 2006
Main goals:
Disseminate environmental information and increase public participation
Activities:

- Provide information on the environment and health
- Examples of actions: "China water pollution map"; "China air pollution map"; "China waste pollution map": Their purpose is to monitor corporate environmental performance and to facilitate public participation in environmental governance; "Green Choice Alliance (GCA) for Responsible Supply Chain Management Program": Aims to curb environmental pollution in China's manufacturing hubs by integrating transparency and stakeholder participation into existing supply chain management systems. In a new era of globalized manufacturing, the GCA Program joins ongoing efforts to establish a new mode of globalized supply chain governance.

Lanzhou University Center for Western Environment and Social Development (LUCWESD) (兰州大学西部环境与社会发展中心), Lanzhou, Gansu Province

http://www.lucwesd.org/ (Chinese and English)
Founded in 2008
Main goals:
Aims to research, explore, and practice possible effective approaches in semi-arid regions of western China through the implementation of integrated rural community-based development programmes.
Activities:

- Promote understanding of the impact of climate change: 1) Promote recognition of the impact of climate change amongst the public and communities, thus allowing action against climate change; 2) Timely extension of updated technology for the mitigation of and adaptation to climate change in vulnerable communities; 3) Increase both the public's and communities' capacity for acclimatization to climate change through capacity building and community-based development programmes; 4) Improve environmental and climate change policy through research of current environmental policy; 5) Assess social and environmental impact. Conduct research and development projects at the domestic and international levels on desertification control, social impact assessment, capacity building, disaster preparedness, disaster response, community based livelihood improvement and ecological rehabilitation, international exchange and cooperation, women's health education. Examples of actions on climate change: "China Youth Climate Action Day" (10/24/2009): Its topic was the protection of the source of the Yellow River and Beautiful Homeland. Its purpose was to educate the public on climate change, and how it negatively affects livelihoods; "A Research and Demonstration Forestry Carbon Sequestration Project in Arid Regions of Gansu Province" (started: 04/2009; duration: 10 years): Its purpose is to observe and test potential changes of soil organic matter and carbon sequestration.

Oxfam Hong Kong - China (乐施会中国), Hong Kong and Beijing

http://www.oxfam.org.cn/ (Chinese)
Founded in 1976 in Hong Kong and in 2004 in Beijing
Main goals:
Alleviate poverty and combat unequal situations related to poverty
Activities:

- Activities in Yunnan, Guizhou, Guangxi, Guangdong, Gansu, Shaanxi, Sichuan and Beijing
- Conduct projects in the development of countryside and management of catastrophes, urban livelihood, relief and reconstruction in Sichuan after the earthquake, basic education, development of education, development of civil society organizations, gender, prevention of AIDS and climate change. Examples of actions on climate change: "Righting two wrongs: Making a new Global Climate Fund work for poor people" (10/2010): Calls for a new Global Climate Fund (GEF); Side event with IED during the UNFCCC in Tianjin (10/2010): Its purpose was to report the actions taken by the NGOs to adapt to climate change, to speak out about the problems encountered, and to appeal to people to help those most affected by climate change.

Shanshui Conservation Center (山水自然保护中心 or 山水), Beijing

http://www.shanshui.org (Chinese)
Founded in 2007
Main goals:
Show that development and protection can be achieved together, and promote the further protection of Chinese biodiversity and China's positive role in the world's environmental protection
Engage local communities in conservation, devise innovative solutions to conservation problems, raise awareness and gain support from all walks of life to help preserve China's natural treasures
Activities:

- Work mostly in eastern China on saving endangered species, protecting key ecological areas, setting the path for China to achieve environmental leadership and climate change mitigation
- Developed 4 forest carbon sequestration projects for forest restoration on degraded land: restored more than 5000 ha of mixed forest and generated more than 1.5 million (estimates) of carbon credits for international carbon trading. Examples of climate change actions: "Carbon calculator"; Publication of "Priority Area selection and evaluation of A/ R Carbon Sequestration under CDM in China": Technical report issued with the cooperation of the Carbon Sequestration Office of State Forestry Administration to facilitate the development of a forest carbon project in China; "Gold medal forest" project1 (2008): Its purpose was to provide the companies, working staffs, individuals, sports people and representative groups of the 2008 Olympic Games with their carbon emissions and draw a scheme to compensate their carbon footprint through tree planting in Southeastern China.

51 Sim (Sustainable Innovation Movement for A Better World) (可持续创新行动让世界更加美好), Beijing

http://www.51sim.org (Chinese and English)
Founded in 2008
Main goals:
Alleviate poverty in developing economies with a group of partners such as NGOs and academics, leading private sector companies and media groups with strong commitments to promoting innovative, sustainable projects.
Activities:
Encourage Chinese youth and, more generally, public participation in social, sustainable development projects focusing on environmental protection
Encourage companies to take long-term initiatives to solve sustainability and environmental problems
"Sustainable Innovation Student Competition" (started: 06/2009): Designed to encourage students in China to develop imaginative proposals for sustainable solutions to alleviate climate change.
"Green Car Rating System": A system designed to evaluate the "greenness" of cars, providing information on the fuel efficiency and carbon emissions of different makes and models.

Xiamen Green Cross Association (XMGCA) registered as Xiamen Green Cross environmental protection volunteers Centre (厦门绿拾字环保服务社), Xiamen, Fujian Province

1999: Activities began; 2007: official registration
Main goals:
Help organizations, individuals and the society to pay more attention to the importance of environmental protection, and to promote sustainable growth for the environment, economy and human beings.
Activities:

- Advocate ecologically-friendly lifestyles
- Promote education on sustainable development
- Build an interaction platform
- Impel public participation for a harmonious, jointly-built society

1 Translation provided by the author. The Chinese name of the project is: „金牌森林"项目.

Authors

ANG Chin By works with Werkstatt Ökonomie. She holds a Master of Chinese Studies from the Denis Diderot University Paris VII and a Master of Political Science, International Relations, Defense and Security from the Jean Moulin University Lyon III.

LIU Jianqiang is the Beijing-based deputy editor of chinadialogue. He is an experienced journalist, having reported extensively about China's environmental movement and Tibet. He is author of Heavenly Beads: a Tibetan Journey.

Klaus Heidel is a historian. In 1983, he founded, together with friends, the NGO Werkstatt Ökonomie in Heidelberg. He works on social and economic rights under the condition of globalisation. Inter alia, he is one of the two coordinators of the European network EU-China Civil Society Forum.

HUO Weiya is the chief editor of the Youth Environment Commentary quarterly. He was the Associate Editor of China Dialogue's Beijing Office.

JIANG Kejun got his Ph.D in Tokyo Institute of Technology in 1999. In 1993, Kejun Jiang began the research on climate change relative to energy policy analysis. He is mainly working on policy assessment for energy and environment policy assessment by leading Integrated Policy Assessment Model for China(IPAC) team. Since 1997 he worked with IPCC. Professor Jiang works with the Chinese government Energy Research Institute.

Roman Sedlar Mendle studied in Hangzhou (Chinese Language and Culture), Beijing and Bochum (Energy Economics). His graduation thesis is titled: "Cvil Society in China? – The Role of Chinese NGOs in Climate Politics of the PR China". He is translator and editor of the bridge-blog "Stimmen aus China" of the German Asia Foundation.

WEN Bo is China Advisor for Global Greengrants Fund. Wen Bo served as China Coordinator for Global Greengrants Fund between 2000-2010 and also was China Program Director for Pacific Environment. He is now a PEW fellow on marine conservation, World Economic Forum Young Global Leader honouree and Asia Society Asia 21 Fellow. He received a master degree in international relations and two bachelor degrees in China.

WONG Staphany has been a researcher of Werkstatt Ökonomie since October 2008, for its project of EU-China Civil Society Forum. Between 2005 and 2008, she was a researcher at the International Trade Union Confederation's Hong Kong office, monitoring labour movements in China. Her research interests cover business and human / labour rights, Sino-EU trade policies, socio-economic issues and media. She currently lives in Germany.

YANG Fangyi works with Shan Shui Conservation Center, Beijing. Inter ilia, he studied in Göttingen.

ZHOU Jiuxuan is the executive director of PEAC. She is also a Ph.D candidate at Yunnan University of China (Zoology). She works on agricultural pest control, natural enemies' conservation, agricultural biodiversity and plant protection.

EU-CHINA
CIVIL SOCIETY FORUM

EU – China Civil Society Forum

The purpose of the „EU – China Civil Society Forum“ is to foster the development of relations between the EU, its members and China and to ensure that their relations promote social justice, contribute to the protection of the environment and strengthen human rights.
The forum was initiated by the „EU – China: civil society partnership for social and ecological justice“ project. The forum:

- Provides information on developments in China, the China policy of the EU and its members and China's policy on the EU.
- Develops proposals on how relations between the EU, its members and China can promote social and ecological justice.
- Initiates expert discussions with parliamentarians and representatives of governments and the European Commission.
- Offers events and materials for multipliers from the development, environmental and peace education sectors.
- Hosts international symposia in Europe and China.
- Organizes exchange programmes for Chinese and European civil society actors.

The forum invites civil society organizations from Europe and China to form an open network.

The website www.eu-china.net

Offers background information, analyses, studies and position papers by civil society organizations on developments in Europe-China relations.

- Publicizes important civil society contributions from China in the „Voices from China“ blog.
- Provides access to key documents on relations between the EU, its members and China.
- Presents data on the development of Europe-China economic relations.
- Compiles educational materials for use in both the formal and informal education sectors.
- Provides information on civil society organization events.
- Announces important new publications.

EU-CHINA CIVIL SOCIETY FORUM

In 2007 Chinese civil society organisations started to advocate for climate change mitigation and adaptation. They promote green technologies as well as sustainable lifestyle. They form networks. Their number is growing. They closely work together with US-American NGOs. European-Chinese civil society cooperation, however, is still in its infancy.

The brochure "'I could feel climate change'. Climate change and China: Civil Society Perspectives" provides an insight into the work of Chinese civil society organisations. Doing so it implicitly describes how China is changing in these days.

EU-China Civil Society Forum members:

Asienstiftung Asienhaus, Essen

Développement et Civilisations - Lebret-Irfed, Paris

Forum Umwelt und Entwicklung

Industriegewerkschaft Metall, Frankfurt/Main

Informationsstelle Lateinamerika e.V., Bonn

INKOTA-netzwerk e.V., Berlin

Koepel van de Vlaamse Noord-Zuid-Beweging –11.11.11, Brüssel

Stichting Transnational Institute, Amsterdam

Südasien-Informationsnetz e.V., Berlin

Südostasien Informationsstelle, Essen

Südwind Agentur, Wien

weltumspannend arbeiten, Linz

Werkstatt Ökonomie e.V., Heidelberg