

Research note

Climate Protection Governance and Participation in the People's Republic of China

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Summary

In the last five years China has passed new laws and regulations and has formulated new policies and targets for climate protection. The country's private sector is also making contributions to this new focus, in terms of technology development, green investments, public–private partnerships, and Corporate Social Responsibility (CSR) reporting. Civil society organizations, meanwhile, have built networks and launched campaigns and projects at local and national level. Against this backdrop, this paper examines China's efforts at addressing climate protection from a multilevel governance, collaborative governance, multi-stakeholder, and trisectoral cooperation perspective. It is argued that China is currently implementing a policy mix of command-and-control and market-based mechanisms to address climate change. The case study of Xiamen highlights that local governments in China use low-carbon policies as a marketing tool, but lack strong incentives to actually implement such policies. The case of Xiamen illustrates some policies and potentials of low-carbon reforms and initiatives, but it also discusses the hereto missed opportunities for stakeholder interaction — in particular regarding the involvement of nongovernmental organizations (NGOs) in projects and campaigns.

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Introduction: The growing political relevance of tackling climate change in China

The actions that China has recently taken at both the national and local levels to tackle climate change are of growing political and academic interest in China and worldwide. A growing number of people in multiple Chinese cities are now feeling the effects of air pollution and extreme weather events. Media interest in the subject has also increased (Kuhn and Zhang 2014). Environmental protests by Chinese

* I am grateful for the many fruitful exchanges I have had with: Mr. Xian Hao, Founder and Chief Executive of Green Zhejiang; Ms. Liu Xi Ying, Assistant Professor, Department of Energy Economics, Xiamen University; Ms. Ma Tiannan, Founder and Chief Executive of Xiamen Green Cross Association; Professor Zhang Yangyong, School of Public Affairs, Xiamen University; and, Professor Zhijia Zhou, School of Public Affairs, Xiamen University.

citizens have made international headlines. The country's oil imports have risen. Climate change mitigation and adaptation are on the top of China's agenda when it comes to international cooperation.

While climate governance legislation at the global level is currently in a state of crisis (Brunnengräber 2012), regional, national, and local level policies are meanwhile increasingly gaining more attention. Game theorist Scott Barrett (2006) pointed out that smaller-scale agreements may actually yield better overall success. Miranda Schreurs (2010) argued that cities and provinces may play a more important role in future climate policies and link their climate change action plans to global initiatives. City-level climate partnerships are also now emerging, being supported by different donor agencies worldwide (Wilhelmy 2014).

With climate change now receiving greater political attention, China is consequently witnessing at present the emergence of new actors and a reconfiguration of both governance mechanisms and of interactions between stakeholders. Political Science research is equipped with sophisticated theories of multilevel governance, collaborative governance, and trisectoral collaboration that suggest that policy- and stakeholder mixes are well suited to the addressing of complex environmental policy challenges. However, such claims have not yet been substantiated for the case of climate protection policies in China.

First, climate protection is still a relatively new policy field in the country. Second, the strong role of the party-state in China makes the country not an easy case in which to prove the relevance of theories of collaborative governance, trisectoral cooperation, and stakeholder interaction. Third, hitherto difficult international negotiations have made climate protection a politically sensitive issue in China and transparency there when it comes to the actual implementation of policies and standards is still low — especially at the local level.

China's approach to climate change has been described as a "state signaling approach" (Harrison and Kostka 2014: 458). The state thus takes a leading role, but "the collective action problem presented by climate change means that the state cannot address the problem single handedly" and that its "capacity to deliver on mitigation targets depends on its ability to bring other parties on board" (Harrison and Kostka 2014: 453–454). Research on collaborative governance and stakeholder interaction is now emerging in China as part of the government striving to find new ways to adapt to unprecedented changes. Climate protection is an enormous challenge that requires the making of multiple policy interventions, along with investment in a significant degree of awareness raising among citizens. Jing (forthcoming) defines collaborative governance as "a system of governing that forges and harnesses power sharing and coordination between public and private actors," and refers to prominent cases such as the building of the principal 2008 Summer Olympics Stadium (Bird's Nest), nonprofit activism as part of disaster relief in the context of the Sichuan earthquake, the environmental protest movement against the

construction of the Nu River Dam, and the widespread contracting out of public and social services to private both for profit and nonprofit actors.

This paper first sketches out Chinese climate protection policies and activities at the national level, and then proceeds to take a closer look at the implementation of such policies, and stakeholder interactions, specifically in the coastal city of Xiamen, located in Fujian Province. It reviews the role played in climate protection by the government and the state administration, the private sector, and by civil society organizations. The intention of this paper is to show that the Political Science approaches of collaborative governance, trisectoral cooperation, and stakeholder interaction are of strong relevance to understanding the increasingly complex institutional settings and governance mechanisms present in a policy area newly emerging in mainland China.

The analysis draws on the review of policy documents, participation in conferences and projects, and on many interactions and interviews with experts. More than 30 focused interviews took place with academics with a Political Science, Social Science, and Energy Economics background. Experts interviewed included government officials, NGO leaders and staff, international cooperation actors, and a few “green entrepreneurs.” Most of the meetings were held in the period between March 2012 and November 2013, in particular during the Chinese–German Rio+20 follow up conference that took place in Xiamen in December 2012 — which was attended by more than 100 Chinese and more than 25 German climate protection experts, including many government officials. NGO experts were mainly interviewed during two China charity fairs taking place in Shenzhen in July 2012 and in September 2013, and in the context of workshops and meetings held in Kunming in March 2012, in Beijing in December 2012, in Chengdu in March 2013, and in Shanghai in July 2013 — as well as during a meeting of the China Environmental Advocacy Network in Xiamen, in November 2013.

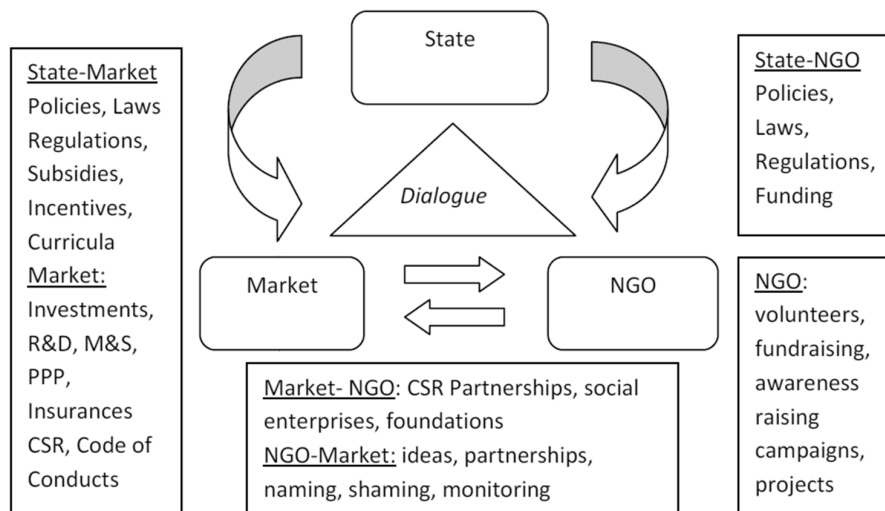
Roles and interactions of stakeholders

Economic development and social transformation in China have led to the recent emergence of many new influential private both for profit and nonprofit actors in the country. The current shift from a quantitative to a more qualitative “green growth” philosophy is beginning to affect both government and non-state actors at all levels of society. Different institutions have their own knowledge and comparative advantages when it comes to addressing environmental problems and supporting related policy reforms. The diagram below serves as an introduction to the subject of collaborative governance and stakeholder interaction, doing so by providing a basic overview of the potentials and the roles of different types of institutions in the process of Chinese environmental policy (re)formulation and implementation.

Climate protection is, as noted, a relatively new area of policy, governance, and stakeholder analysis for China. Michele Betsil (2012) and Miranda Schreurs (2010)

have both drawn attention to a broad array of climate governance initiatives taken at multiple levels of Chinese society, ones driven by non-nation state actors such as corporations, subnational government agencies, cities, and NGOs. Levine (2012), meanwhile, has pioneered research on the role of civil society organizations in Chinese governance arrangements, with a specific focus on the contributions thereto of United States universities. In China, strong government and hierarchical forms of policymaking are dominant across all of the different policy areas. Yet, deliberations to involve non-state stakeholders and citizens in domestic policy design and implementation are now under way (Kostka and Mol 2013: 3). China is exploring the use specifically of command-and-control and market-based mechanisms to address climate change. The multiple possible policy options available — especially the design of market-based mechanisms — have been scrutinized in a select few pioneering research works (Cao 2010). The contributions that civil society organizations can make to climate protection have also already received some initial attention (Schroeder 2011).

Fig. 1: The framework for the roles and interactions of different types of actors



Source: Author's own compilation.

Civil society is an arena wherein discourses, new ideas, ways of life, and innovative practices emerge. One typical strength of NGOs lies in their ability to promote innovative and participatory practices (Kuhn 2005, 2009). They act both locally and globally, and furthermore function as “peddlers of information” (Jakimov 2012: 1) feeding critical information into policy agendas and dialogue processes. Civil society organizations are considered to be vital actors in educating the public and promoting new ways of life.

The role of the Chinese state: High-level commitment but weak coherence in policy implementation

China is perceived as a hardliner in international climate change negotiations (Zhang 2013: 1). This impression contrasts, however, with the domestic perceptions of the Chinese government's commitment's and its policy contributions thereto. China was one of the first nations to sign the United Nations Framework Convention on Climate Change in 1992, and demonstrated continued political commitment to it in the years thereafter. It further established the National Coordination Committee on Climate Change in 1993 and the National Climate Centre in 1995. China became a signatory to the Kyoto Protocol in 1998 and the country's endeavors account for more than 50 percent of all projects existing under the agreement's Clean Development Mechanism (CDM) worldwide. China passed a National Renewable Energy Law in 2006. The National Climate Change Action Plan was approved in 2007. China upgraded its State Environmental Protection Agency (SEPA) to the rank of a full ministry (Ministry of Environmental Protection) in 2008. It designated a number of cities and provinces as low-carbon ones in 2010. The 11th and 12th Five Year Plan include reduction targets for energy intensity, calculated as units of energy per unit of GDP. The 12th Five Year Plan also introduced targets on reduction on carbon intensity, defined as the amount of carbon per weight emitted per unit of energy consumed. Incentives for implementation have been set. Subnational leaders and heads of state-owned enterprises (SOEs) had their opportunities for promotion linked to the achievement of these targets. However, similar types of incentives were not also extended to low-carbon cities.

Carbon Emission Trading Systems (CETS) have been in development in China since 2009. The introduction of seven pilot emission trading schemes — despite most of them currently being only at an embryonic stage — represents a landmark in the context of climate protection because it involves data collection, the monitoring of emissions, and the inclusion of business stakeholders in decision-making processes. China is also analyzing the lessons from the flaws in the designing of the European Emission Trading Scheme (EETS).

China has recently introduced other market-based mechanisms so as to improve its environmental and climate protection. In 2012 it introduced mandatory pollution liability insurance in the coal industry and subsequently extended it to other industries as well. Special guidelines were issued for the petrochemical and heavy metal industries in March 2013. Those enterprises whose operations are not covered by the insurance scheme introduced encounter restrictions and difficulties when it comes to the government's acceptance of their projects' environmental impact assessments.

The rapid growth of China's renewable energy sector has set an encouraging example at international levels (Liu 2013). For example, Jaenicke (2010) included China's climate policy — in particular the promotion of wind energy — in his list of worldwide best practices.

China's 12th Five-Year Plan (2011–2015) describes many new elements for a low-carbon development pathway, and includes pledges to reduce greenhouse (GH) gas emissions. It specifies emission reduction targets at both provincial and sector levels. It aims to reduce the amount of carbon emitted per GDP unit by 2015 by 17 percent as compared to 2010 levels. China is aiming to generate 15 percent of its energy supply from renewable sources by 2020. The State Council published a new edition of a White Paper on China's energy policy in October 2012, therein outlining the efforts to be taken in order to continue moving toward clean energy and climate protection. The revised environmental law will come into force in 2015. At present it contains a per day punishment system for polluting companies, addresses turning Environmental Impact Assessments (EIAs) for plans and policies into law, and formalizes the possibility of public interest environmental litigation being launched by registered NGOs.

Who are the key Chinese state actors in the field of climate protection? The State Council plays the lead role in policy formulation within the framework of the national five-year plans. The National Development and Reform Commission (NDRC), with branches at both province and city level, is the core policy coordinating body. The Ministry of Environmental Protection and the Ministry of Sciences and Technology are the key players at the ministerial level. However, influence at the international level is still exercised by the Ministry of Foreign Affairs. It has a Special Representative for Climate Change Negotiations. Influential actors at the local level are the Environmental Protection Bureaus and various departments in the fields of economic development, construction, transport, sanitation, sciences, education, agriculture, gardens, forestry, and maritime affairs.

Conrad has described China's administrative battles, competing claims, and growing mandates in the arena of climate change policies as a "bureaucratic land rush":

The example of China's climate change policy vividly illustrates how bureaucratic actors venture into new territories of bureaucratic turf, trying to build specific expertise that allows them to take on additional responsibilities and thereby to broaden their sphere of influence (2010: 63).

The political system in China is associated with strong regulatory and governance powers on the part of the state, there are still great variations to be found in the country across different policy areas and industrial sectors.

While China, for example, is able to control most parts of its vast territory, its government lacks the capacity to enforce its own laws, particularly with regard to environmental protection. (Boerzel and Risse 2010: 119, with reference to Thauer 2009).

The position and influence of the various Chinese environmental administration agencies is still relatively weak, and even more so at the provincial and local — level. The implementation and monitoring of policies, especially in the economically backward provinces, is prone to being undermined by corruption and they lack ultimate effectiveness. The overall size of Chinese territory, the economic and cultural

diversity of the country's regions, and the existence of a decentralized economy make both policy implementation and policy evaluation difficult there. Eaton and Kostka (2014) highlight the frequent turnover of personnel at the local level as a major obstacle to the implementation of policies based on long-term thinking, such as those targeting a reduction in GH gas emissions.

The Chinese authorities have used various methods to persuade companies to disclose information, including laws, regulations, indexes, and ratings (Loh 2012: 61). The different provinces of the country, meanwhile, have made green development commitments following the annual sessions of the National People's Congress (NPC) and the Chinese People's Political Consultative Conference (CPPCC) — including promises related to the reduction of carbon emissions, planting more trees, and raising public awareness about the importance of environmental protection.

Urbanization policies will further accelerate the rise to prominence of low-carbon policymaking and related projects in China. Pilot schemes by certain provinces and cities are supposed to set examples for others to follow vis-à-vis processes of modernization that are focused on green technologies and lifestyles. The concept of "environmental model cities" is a now firmly established one (Schroers 2010: 98). The NDRC launched a national low-carbon province and low-carbon city experimental project in 2010 that covered the provinces of Guangdong, Liaoning, Hubei, Shaanxi, and Yunnan plus the eight cities of Baoding, Chongqing, Guiyang, Hangzhou, Nanchang, Shenzhen, Tianjin, and Xiamen.

Activities to be undertaken are supposed to include the crafting of a low-carbon development plan, low-carbon industrial and transport projects, and the promotion of low-carbon lifestyles. However the selection criteria in terms of specific targets for the provinces and cities to meet, and monitoring and evaluation arrangements still remain opaque to date. Additionally, institutional arrangements vary enormously across different provinces and cities.¹

In sum, the series of command-and-control mechanisms formulated (new policies, laws, and regulations), market-based instruments devised (taxes, subsidies, loan policies, procurement regulations, emissions-trading schemes), and the various political campaigns directly and indirectly related to climate protection undertaken demonstrate the growing level of commitment now harbored by central government authorities in China. The path dependence on economic growth, the coal-based energy structure, the lack of coherent implementation for national policies, and the hitherto limited cooperation with NGOs represent the key challenges faced and deficiencies to be overcome on the way to realizing a low-carbon Chinese economy.

¹ Interview with Gong Weila, a Ph.D. candidate at Freie Universität Berlin, about the preliminary findings of her field research on climate protection at the subnational level in China. Meetings were held on September 23/24, 2013 in Xiamen.

The role of the private sector: Green innovations and benchmarking

The role of the private sector in sustaining economic development was highlighted by the Third Plenary Session of the 18th Communist Party of China Central Committee meeting in November 2013. It acknowledged the decisive role of the market in allocating resources for meeting reform targets. The public and private sectors are not easily separable in China. Many major companies in China exhibit a hybrid character. SOEs experience the heavy involvement of the government in their development of environmental protection strategies (ten Brink 2012: 241). Many of the most energy-intensive industries are owned by the state. SOEs have the capacity to take the lead in demonstrating best practices and replicable examples in domains such as energy efficiency. However, many of the country's SOEs have lobbied against the imposition of stricter environmental regulations. A significant proportion of China's vastly expanding private sector — comprised especially of small- and medium-sized industries (SMI) — remains unregulated, partly because of the absence of effective monitoring capacities and partly because of a discreet collaboration between entrepreneurs and local officials.

The traditional view held by the private sector in China is that environmentalism and economic development are contradictory and incompatible dynamics (Ward 2013). Like in other countries, increased regulations and taxes are perceived as being burdens. This traditional view has been challenged, however, by those projects factoring the costs of environmental degradation into their economic growth projections. According to assessments by the World Bank (2012: 29), the costs to China's economy incurred by environmental degradation account for about 9 percent of the country's total GDP — with this impact, moreover, being predicted to continue growing steadily.

Today there is growing evidence that major industries are prepared to address the issue of climate protection, especially companies which need to worry about their image in the eyes of customers. The will to change is also coming from investors, NGOs, and from consumers inquiring about environmental standards and carbon footprints (Loh 2012: 54). The aforementioned CDM has also provided strong incentives for companies to make investments in low-carbon projects. More than 5000 CDM projects have already been approved in China to date (NDRC 2014).

China is extensively involved in global supply chains. Its investments in research and development are high. The country's private sector is under constant pressure to cope with the new regulations introduced by the political leadership, in terms of technological improvement, environmental standards, and insurance schemes. China also faces the challenge of how to avoid conflicts over environmental standards and copyright issues at the international level, and how to deal with fierce market competition from other emerging economies in the East Asian region. At the international level, the country's fossil fuel divestment campaign has made headlines.

China's political leadership has meanwhile adopted a vision of technological upgrading and greener growth. Manufacturers of low-carbon technologies receive significant support from the Chinese government. However, regional policies vary greatly; economically backward provinces still attract environmentally harmful industries, while prosperous regions and the pilot schemes of certain cities showcase the benefits and successes of low-carbon projects.

Multinational companies (MNCs) often take the lead in making technological upgrades, given that they are more exposed both to the general public and to the country's political leadership. Consultancy MNCs have recently worked on the issue of climate change in cooperation with business leaders both in China and worldwide. Chinese consulting companies, like CECEP Consulting, are also venturing into the provision of consulting services in the field of climate protection.

The Sustainability Maturity Curve (SMC) developed by PriceWaterhouseCoopers illustrates the different phases of development that companies go through, moving from compliance, to operational effectiveness, to leverage, and eventually to leadership — and from risk management to managing for value, leading eventually to them having a strategic advantage. Columbia University, Tsinghua University, and McKinsey jointly developed an “Urban Sustainability Index (USI): A New Tool for Measuring China's Cities.” It is designed to measure the relative performance of Chinese cities across a set of different sustainability categories and indicators (www.urbanchinainitiative.org).

Furthermore, among the contributions that the private sector makes to climate protection are technological development, marketing and sales of renewable energy sources, and clean technologies. The Chinese private sector is upgrading infrastructure, introducing new technologies, retrofitting, and weatherizing old buildings. So called Green Building Development Standards have been crafted. Companies operating in China are also expected to henceforth demonstrate greater transparency and accountability. The Ministry of Environment has issued guidelines regarding Environmental Information Disclosure for listed companies, targeting 16 sectors responsible for different types of environmental pollution sectors (Loh 2012: 64).

The Global Reporting Initiative (GRI), a multi-stakeholder venture, developed the framework for the Environmental, Social and Governance Standard (ESG). Indicators for ESG reporting include energy efficiency, carbon emissions, biodiversity targets, water usage, natural resource use, recycling practices, and the waste-to-energy ratio. The first ESG index was launched in China in September 2010.

The Climate Disclosure Standards Board (CDSB), meanwhile, acts as a forum for collaboration on how existing standards and practices can be linked to finance- and climate change-related reporting, and how to best respond to ongoing regulatory developments. The Carbon Disclosure Project (CDP) is another Chinese initiative worth noting. It requires companies operating in the country to disclose information

on their GH gas emissions, water management efficiency, and climate change strategies.

In sum, there are at present many initiatives related to climate protection being upheld by the Chinese government at both the global and national levels. However, it would be too early to say definitively that climate protection has been mainstreamed into the strategic development and operational management thinking of the practices of the majority of Chinese companies. Low-quality reporting, the outsourcing of environmentally hazardous production processes, and even corruption are still widespread practices. SMI in China are currently poorly regulated and evade government control. Bribery remains an effective means by which to reduce or avoid altogether pollution-related payments and the introduction and monitoring of environmental standards, particularly for small and medium-sized industries.

The role of civil society and NGOs: Advocating for new lifestyles

Civil society is comprised of initiatives and organizations that engage in activities of mutual or public benefit, achieved through the delivery of services or advocacy work (Kuhn 2005, 2006; www.civicus.org). Independent private environmental NGOs (ENGOS) emerged in China after the United Nations' World Summit on Environment and Development, held in Rio de Janeiro in 1992. The Rio conference and the development of the internet provided stimuli to the ecological movement in China (Florini et al. 2012: 199). Chen (2009: 45–46) highlights the role herein also of the media and individual journalists, who took a keen interest in the work of ENGOS and became the founders or supporters of their own ones. Friends of Nature, Global Village of Beijing, the Institute of the Environment and Development, and Green Earth Volunteers were among the first registered ENGOS in China. Today, they are all part of the China Civil Climate Action Network (CCAN).

Contributing to their continued growth was the coverage of their activities by national and international media, cooperation with renowned scientists and experts, as well as funding support from abroad. The degree of freedom of independent NGOs to register and cooperate with the government varies across China. Representatives of NGOs interviewed in the context of the second nationwide China Charity Fair in Shenzhen (September 2013) stated that modern cities such as Beijing, Chengdu, Guangzhou, Hangzhou, Shanghai, and Shenzhen in particular, have taken the lead in facilitating NGO development. However, ongoing restrictions on political freedom and national fundraising opportunities have prevented Chinese NGOs from growing to higher levels of influence. Yet, NGO leaders interviewed at the China Environmental Advocacy Network (www.eac-china.org) meeting in Xiamen (November 2013) shared their opinion that government departments at various levels are stepping up their support for and cooperation with NGOs, including in the nascent field of climate protection.

We can observe different kinds of non-state actors being present in the field of climate protection. Francesch-Huidobro and Mao (2012) explored the establishment and networking of three climate advocacy coalitions in the Pearl River Delta, which were registered as “social organization” (*shehui tuanti*) in response to the national government’s call for low-carbon development at the municipal level: The Guangdong Energy Conservation Association, the Guangzhou Source Association (GZES), and the Guangdong Low-Carbon (Development and Promotion) Association (GLCA). They are all embedded and operate within Chinese state structures, but are also part of the country’s scientific communities. Francesch-Huidobro and Mao (2012: 13) also confirmed that the mission of the GZES is to promote further communication between business enterprises and the municipal government in Guangzhou.

Many independent Chinese ENGOs have incorporated climate protection into their agenda and set up joint initiatives so as to address the issue and start networking at the transnational level. Green Zhejiang, based in Hangzhou, is a good example of how an ENGO with a focus on water pollution monitoring has ventured into climate change issues and co-organized the 3rd East Asia Forum on Climate Change in the prestigious building of the low-carbon museum in Hangzhou in June 2013.

CAN-China includes the following renowned NGOs: the Chinese Association for NGO Cooperation (CANGO), Chinese Youth Climate Action Network, Friends of Nature, the Environmental and Development Institute, Global Village Beijing, Green Earth Volunteers, and Xiamen Green Cross Association (XGCA). Chinese NGOs have been involved in projects related to awareness raising and education in the fields of green commuting and sustainable consumption. The Shanghai Oasis Ecological Conservation and Communication Centre (OASIS) has carried out such projects in Shanghai and is an active member of the green commuting alliance. As a member of the Green Commuting Network, it was OASIS that first promoted ideas about green commuting in Shanghai. It thus encourages local residents to choose comparatively environmentally friendly modes of transport to work and back.

Chinese NGO networks seek to influence government policies. The nationwide Zero Waste Alliance (ZWA) is comprised of the country’s leading ENGOs. The alliance aims to promote zero-waste policies for the national circular economy. It seeks to involve different groups of stakeholders therein, including research institutions and universities, and also to mobilize international donors to give financial support to their campaigns.

There are growing signs for the apparent success of advocacy work undertaken by independent NGOs in China. NGOs have played a role in lobbying for the disclosure of air pollution data of companies by Chinese cities and have also targeted MNCs and Chinese companies for violating the country’s environmental laws by discharging polluted waste water (Loh 2012: 40).

The revisions to environmental law that were adopted by the Standing Committee of the National People's Congress on April 24, 2014 is an example of how Chinese NGOs influence the country's lawmaking process in their favor. All social organizations registered with a Civil Affairs Bureau above city level are now allowed to file public interest environmental litigation. Wübbecke (2014: 1) regards this process as "an example for how a vivid debate that is open to the proposals of a wider audience can shape law-making in China."

Some of China's independent NGOs are led by well-known charismatic leaders. Xin Hao and Ma Tiannan, the founder of XGCA, have many followers on social media platforms, in particular WeChat. Through these mediums they have disseminated images of pollution and their ideas about low carbon way of lives beyond the borders of their own cities and provinces. ENGOS' ideas about lifestyles of health and sustainability (LOHAS) resonate best with the emerging educated middle-classes in Hong Kong and modern big cities across the Chinese mainland. Unlike in Europe, and in particular Germany, ideas about low-carbon lifestyles seldom make reference to notions of voluntary simplicity, a concept developed and promoted by Maniates (2002) and the Simplicity Institute (www.simplicityinstitute.org).

Recent NGO history in China demonstrates the pitfalls of successfully aligning with domestic protest movements. A striking example is the case of Yunnan Province, which was once considered to be among the most progressive provinces in China in terms of grassroots environmental advocacy work and the scope for NGO activity there (Kuhn 2006). Many success stories of government-NGO project cooperation developed in the aftermath of the 1996 earthquake in Yunnan Province. Consequently, grassroots NGOs mushroomed in Yunnan. After the (successful) protest movement against the Nu River Dam which has found academic interest (Zheng 2010), however, there was a backlash against NGOs by the Yunnan provincial government. It is unlikely that a more open and consultative policy process will emerge there at any point in the near future. Local officials rather seek to circumvent protest through increasing opacity and by situating dams in locations where opposition to them is less likely to emerge (Johnson 2013).

Climate protection in Xiamen: Political ambitions, but limited stakeholder interaction

Xiamen, situated on China's southeast coast, is a city that has a tradition of pioneering innovative economic development programmes and reform processes. It was one of the first designated special economic zones (SEZs), and is now among the first batch of eight low-carbon cities. The coastal city exhibits strong economic growth and has won a number of awards for being the most livable city in China. It has a strong private sector and an active ENGO; XGCA runs the aforementioned Environmental Advocacy Network China project. Xiamen was selected as a case study for this research note because of the image popularly held among those living

in mainland China of it being innovative and green, and due to its status of being a low-carbon city.

The city of Xiamen has a population of 3.5 million people spread over coastal territory, made up of one large (Xiamen main island) and one tiny island (Gulangyu). It covers an area of 1573 square kilometers (km²). Xiamen is a relatively wealthy city and a major national tourist destination within Fujian Province. It was designated a SEZ in the 1980s. The city's GDP has risen from 740 million RMB to 253.58 billion RMB (2012) since its establishment as a SEZ. Xiamen's sea port ranks 8th among the top ports in China and 30th in the world. The city is home to the renowned Xiamen University. President Xi Jinping, meanwhile, served as vice-mayor of the city in the 1990s.

Xiamen is a tourist destination that attracts visitors harboring images of white beaches, a large botanical garden, mountainous areas, a historical temple, and a beautiful university campus. The city has ambitious plans to further develop the tourism sector. Xiamen is considered a trendy city where biking, hiking, and keeping the environment clean are popular activities, especially among the many young travelers passing by and through. It was an obvious choice for the status of a low-carbon city.

The main environmental problems in Xiamen concern marine and air pollution, pollution from the petrochemical industry, and pollution from small industries (Grunow 2010: 59). Following new policies formulated at the central government level from the mid-1990s onward, the city has passed a series of laws and regulations to curb carbon dioxide emissions. The city government of Xiamen has also set carbon emission reduction targets. The current target is to achieve 40 percent less energy consumption per unit of GDP by 2020 as compared to 2005 and to cut down carbon dioxide emissions by 45.8 million tons against business-as-usual levels. However, GDP growth is likely to continue and keep the total emission level high. According to projections, the GDP of 2020 will be 7.1 times higher than in 2005 while the carbon emissions in 2020 will only be 4.28 times higher than in 2005 (Oberheitmann 2010).

It has also launched projects and campaigns in the field of low-carbon industrial production, low-carbon traffic, and low-carbon construction. Major projects include a low-carbon economy industrial area of 80 km² in Haicang, a seawater source, heat pump power generator in Xiang'an, a low-carbon agricultural zone in Jimei, and a zero-carbon dioxide emission project in Tongan (Oberheitmann 2010).

Grunow (2011) has highlighted the greater capacity of the city in matters of environmental management as compared to other cities in China. Grunow's findings and analysis — partly based on a Ph.D. study by Ran (2009) — reveal that Xiamen has a relatively high administrative capacity to deal with environmental protection. The local Environmental Protection Bureau has eight divisions and six branches, as well as 165 official members of staff.

Xiamen is, as noted, home to the XGCA founded and led by Ma Tiannan. She is a 40 year-old charismatic NGO activist who is well known in Xiamen, China, as well as abroad. She is currently a council member of the Xiamen Environmental Science Association and of the Fujian Lifelong Education Association, a consultant to the Xiamen Society for the Prevention of Cruelty to Animals (SPCA), the Shishi Youth Volunteer Association, and the Green Commuting Network of the Environmental Defense Fund, the coordinator of Friends of Nature in Fujian Province, as well as the founder and a current board member of the China Civil Climate Action Network (CAN-China). She is also a member of the International Union for the Conservation of Nature (IUCN).

XGCA emerged in the context of volunteer work undertaken following the devastating typhoon that hit Xiamen in 1999. The ability of the organization to find volunteers — a demographic made up especially of students — for its campaigns and projects is impressive. However, it seems more difficult for Green Cross Association to recruit and retain permanent staff. This is a common situation in China, where the typical characteristics of independent NGOs — charismatic leadership, highly committed but low-paid staff, close supervision by the Chinese government — are more pronounced than they are in many other countries around the world.

Green Cross has previously launched or participated in a number of different environmental and climate protection campaigns and projects, including: the Island Care Day (2000–2013); Green Commuting and Low Carbon Action (2006–2013); the Energy-Saving Campaign (2008); the Climate Change and Low-Carbon Economy Project; and, the Law-Based Environmental Advocacy Project (2012–2013). It has received awards, grants, and support from a variety of different organizations, including: a Ford Motor Conservation and Environmental Grant (2006); the China Youth Toyota Environmental Protection Award for Excellence (2006); the Ford Motor Conservation Award for Energy Saving and Emission Reduction (2010); and, ongoing project support from the Danish Institute for Human Rights. Additionally, Ma Tiannan was one of the recipients of the Top-Ten People Award of Fujian Province in 2010.

Xiamen quickly inaugurated a series of laws, regulations, and projects in order to meet the obligations established by the National Level Climate Action Plan of 2007. The city was eager to be selected as a model city in the field of climate protection. In August 2010, Xiamen was first identified as a low-carbon city as part of the NDRC's low-carbon pilot project. Xiamen was awarded the status of "China's Indigenous Innovation City" and "China's Low-Carbon City" at China's Indigenous Innovation Annual Meeting, held in Beijing on December 28, 2011 — as reported in *Xiamen Daily* the following day. Press coverage of Xiamen's commitment to low-carbon policies was high in 2010 and 2011, but significantly declined in the years thereafter.

Xiamen set the citywide mandatory carbon intensity target in line with the stipulated national carbon intensity targets and in the context of the 12th Five-Year Plan. It formulated these targets specifically with regard to lowering emissions in the transport, construction, and manufacturing sectors. Cooperation with the private sector, mainly facilitated by Chinese consulting companies, included the demarcation of low-carbon construction areas in the city. The largest such area is in Jimei District. Cooperation with the private sector also occurred in the process of developing a rapid bus system, in the promotion of natural gas and electric vehicles, and in the field of efficiency improvements in energy-intensive sectors. Chinese consulting companies have enlarged their involvement in low-carbon development projects.

Lin et al. (2014) discuss two possible outcomes for Xiamen's reduction of energy intensity by 2015, which are both based on the 2010 baseline level thereof. According to local government experts, Xiamen's carbon reduction efforts are focused more on energy saving than on afforestation or on the promotion of renewable energies. The local forest carbon sink is very low (0.24 percent of total carbon footprint in 2009) and has little impact on the overall carbon reduction target. The General Energy Saving Scenario arrives at a likely 10 percent reduction, while the Special Energy Saving Scenario envisages a 12 percent reduction (Li et al. 2012: 55). Neither scenario is particularly ambitious.

Civil society organizations are not involved in policymaking. According to government officials and experts in Xiamen, climate protection is not a topic mentioned among the city's otherwise vibrant cross-straits cooperation dialogues with Taiwan. Closer observations and interviews with various government officials² and experts provide evidence that climate protection is managed in a top-down fashion, with limited space therein for dialogue and cooperation with academic experts, Green Cross Association, and the public at large. The relevant authorities show reluctance in sharing progress on target achievements with researchers and the public alike. It is presumed that the beautiful, green city of Xiamen was an easy and safe choice to make a low-carbon city. International cooperation experts, researchers, and NGOs are generally all of the opinion that the political commitment to climate protection waned once Xiamen achieved its low-carbon city status in 2010.³

However recent developments suggest that the implementation of climate protection policies in Xiamen are once more picking up momentum, in the context of growing attention being given to climate issues at the level of the 18th CCP Congress and NDRC. In the construction sector, for example, the Xiamen Green Construction Action Plan was issued in March 2014. It introduced Green Building Standards for residential buildings. Construction accounts for about 28 percent of Xiamen's total

2 Interviews were conducted in the context of a pilot research project on "Climate Protection: Networks, Structures, and Activities." For a summary of the findings, see Zhou and Kuhn (2012).

3 Round Table Discussion, held with researchers and practitioners at Xiamen University on September 24, 2013.

carbon emissions. In the context of a promotional plan for new energy vehicles at the provincial level, Xiamen has also stepped up its efforts in the transport sector. Xiamen has been selected as one of the pilot cities for energy-saving experiments and for new energy vehicles. It has consequently put into operation a greater number of new energy vehicles, which run on compressed natural gas (CNG) or electricity. Xiamen now has 416 CNG buses, accounting for 13 percent of all buses in operation there. Waste prevention and recycling are not yet among the priority areas of Xiamen's low-carbon policies. In sum, the city's climate protection policy is more reactive to national and provincial level policy developments than it is driven by its own initiative.

It is difficult to identify the exact drivers of change and of the promotion of low-carbon policies in Xiamen. Responsibilities under the Xiamen branch of the Leadership and Coordination Group for Climate Change (LCGCC), which is led by the mayor and assisted by vice mayors, are spread over many departments. The Economic Development Bureau and Xiamen branch of the Development and Reform Commission (DRC) are among the key actors herein. However, the current organizational structure of the DRC in Xiamen — with its more than 20 departments — sees no one specific department be in charge of climate change mitigation or adaptation. Others agencies in charge include the Construction Office, Garden and Forests, Environment and Sanitation, Science and Technology, Maritime Affairs, and Agriculture. The allocation of specific tasks between the different departments, the overall steering process, and coordination mechanisms all remain opaque. Research indicates that coordination by the LCGG and communication between the various departments with other stakeholders is weak. Several interviews conducted with government officials, NGO experts, and academics in Xiamen in 2013 confirmed the city's reactive rather than proactive policy on climate protection, and also the difficulties faced in gaining access to policy documents on climate protection — in particular, progress reports.

XGCA has sought cooperation with different government departments on various occasions, but with only limited success thus far. The NGOs still face a number of difficulties and obstacles, in particular when receiving foreign funding. The non-profit registration status of Xiamen Green Cross has not been renewed since 2012. It is thus currently functioning as a company instead, and has to pay taxes on its income from grant funds. The Chinese authorities are well aware that for foreign donors this is a scarcely acceptable practice. The good relations of the organizations with many academics — Green Cross is involved in many dialogue events at local, national, and international level — have not, however, helped the organization to improve its relations with government authorities at the local level. The national government has introduced an internal evaluation system for NGOs on the basis of their party and trade union membership. Ma Tiannan is not a party or trade union member, while she has, however, aligned with many international organizations and experts.

Li et al. (2012) presented analytical narratives of three cases of environmental activism in China, including the (successful) protests against the Xiamen paraxylene (PX) chemical plant project in 2007. Public protests against PX plants also occurred in the cities of Dalian in August 2011 and Kunming in May 2013. Those NGO leaders allegedly involved in protest movements continue to find themselves having delicate relations with local government departments and officials. Ma Tiannan stated that it is difficult for Chinese NGOs to strike a balance between upholding the environmental concerns of citizens, advocating for climate protection, and not provoking the local government.

The sensitivity of the issue of climate protection is felt both by Xiamen Green Cross and by Xiamen University, especially in the context of international cooperation. The current keen international focus on the issue makes local authorities cautious about sharing information. The number of leaders with a military background is relatively high in Xiamen because the city directly faces Taiwan. Local experts interviewed were of the opinion that military leaders may be less inclined to care about or address climate protection issues. They may also be more cautious about engaging in international cooperation initiatives. It is worth noting that the Xiamen DRC is currently headed by someone with a military background.

The School of Public Affairs and Public Policy at Xiamen University organized two conferences on climate protection in December 2012, in the course of which the potentials — but also the difficulties — in promoting international exchange and cooperation on the issue came to light. The innovative step taken by the conference was to invite a mixed group of experts from academia, government, the private sector, NGOs, the media, and civil society (including bloggers). The Chinese–German conference received significant media attention, at least in the context of Sino–German cooperation (Kuhn 2013: 48–49). The conference had required the approvals of three different ministries as well as of the NDRC, which was only obtained shortly before the event was due to begin. Follow-up proposals for exchange and cooperation with the participating organizations from Germany have, however, not been met with much enthusiasm by the local authorities in Xiamen.

Xiamen is a city gifted with a beautiful natural environment. It has other sources of income than polluting industries and, thus, was able to economically afford the banning of coal-fired plants and other environmentally harmful industries from its alluring islands. Observations and interviews suggest that the city authorities are of the opinion that they do not need the support of NGOs to align the city's development vision with some of the new green growth ideas and policies being posited by the political leadership in Beijing. In other cities, such as Hangzhou and those around Lake Taihu, the local authorities may have an interest in cooperating more closely with NGOs in order to balance the polluting industries' political influence there. Xiamen, meanwhile, is interested in maintaining its clean, ecofriendly, low-carbon and laid-back image. The low-carbon city label is a convenient marketing

tool. It has facilitated exchange with both private sector and international cooperation projects, but the initiatives ultimately still remain limited in scope. Xiamen was a designated pilot region for a project by the German Chamber of Commerce in the construction sector between December 2009 and March 2011. This project focused specifically on the potentials for use of the CDM by the Ministry of Housing and Urban–Rural Development (MoHURD).

Xiamen's status of low-carbon city explains the designation of it as a pilot area and as the location for projects related to low-carbon development. However, there are as yet no strong incentives for local cadres to make carbon emission reductions and adaptation activities high priorities within plans for the city's development. Their consultation with the private sector and relevant NGOs does not take place on anything like a regular basis. Dialogue and cooperation are instead limited to occasional meetings with business groups, and to day-long campaigns with NGOs.

Conclusion

China is currently demonstrating a growing commitment to the tackling of climate change. The country's political leadership recognizes the limitations of the traditional growth model and has thus started focusing on green growth instead. However, few researchers have so far provided a broader view of policymaking, governance, and stakeholder interaction in the field of climate protection in mainland China. This paper is designed to address this shortcoming, while also drawing attention to how the process of policymaking and implementation at the subnational level in China is not transparent. Climate protection is still considered a sensitive issue.

While we can now observe policy mixes — including command-and-control and market-based mechanisms — being utilized, collaborative governance approaches are yet to receive sufficient attention in China. Low-carbon policies are implemented in a top-down fashion, in the process relying mostly only on showcase projects in specially designated areas. While the number of independent Chinese NGOs addressing climate change issues is growing, the level of interaction that they have with the Chinese government is still limited and varies across regions and cities.

Xiamen's designation as a low-carbon city may suggest that it is proactive in implementing low-carbon policies. However the case study of Xiamen presented here has demonstrated that the city is in fact concerned about marketing its green image, and not about following an extremely ambitious and proactive approach to climate protection. Xiamen's projected achievements in terms of carbon emission reductions are likely to remain modest in the years ahead. Transparency when it comes to implementation records is low. Only recently, and in line with new national and provincial level policies, has the city stepped up its efforts to set more specific and ambitious carbon emission reduction targets in the construction and transport sectors. Ultimately, then, the potential for collaborative governance and multi-

stakeholder approaches still remains largely unexplored in the emerging policy arena of climate protection in mainland China, especially at the local level.

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