

Multi-level governance: Explaining the “climate-focused” behavior of Chinese exporting companies

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Abstract

While being increasingly aware of the importance of adopting climate-friendly business strategies, Chinese exporting companies have been active in taking “climate-related” actions but moderate in taking “climate-focused” actions. This article presents a preliminary attempt to apply multi-level governance theories to explain the behavior of Chinese exporting companies toward climate change mitigation. It argues that the convergence of state-centered climate politics and market-oriented climate governance, which has a multi-level feature, has shaped the “climate-focused” behavior of Chinese exporting companies. Specifically, nation-states, multinational enterprises, and non-governmental organizations have contributed in the following ways: (1) at the global level, nation-states co-established and interpreted international norms, which generally justify the stance of the Chinese government, have been an indirect source of influence; (2) at the national level, the Chinese government has been the most influential actor, which has put emphasis on energy-saving when interpreting and operationalizing international norms; (3) at the industrial level, multinational enterprises and international non-governmental organizations have been influential contributors by playing a proactive role in launching and running low-carbon initiatives; and (4) transnational public–private partnerships launched in China and some developed countries have offered limited momentum.

Keywords

Chinese exporting companies, “climate-focused”, multi-level climate governance, non-state actors, state actors

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Introduction

Emissions embodied in exports account for a large proportion of China's total emissions (Weitzel and Ma, 2014). In recent years, Chinese exporting companies have been involved in the global campaign against climate change. Some Chinese exporting companies have been increasingly aware of the climate challenge and begun to dabble in "climate-friendly" initiatives by improving energy efficiency, taking carbon footprint assessment, etc. Two types of "climate-friendly" activities can be differentiated. One can be termed as "climate-related" activities, which do not put the reduction in greenhouse gases (GHGs) emissions as the major aim, but can generate auxiliary benefits of climate change mitigation. For example, energy-saving and energy-efficiency enhancement directly contributes to saving energy but at the same time helps reduce emissions. The other type is "climate-focused" in the sense of being dedicated to emissions reduction but able to generate other benefits such as energy-saving. Carbon trading, carbon footprint assessment, carbon labeling, etc., are typical "climate-focused" activities.¹

Such a differentiation is necessary for understanding the stance of Chinese exporting companies because Chinese exporters have been moderate in taking "climate-focused" actions. As elaborated later, Chinese exporting companies have been motivated by multinational enterprises (MNEs) and other developed country actors to take carbon-labeling and other "climate-focused" activities. Therefore, the following puzzle arises: how to understand the overall stance of Chinese exporting companies toward taking "climate-focused" actions?

Some might argue that Chinese exporting companies have done the best cost-benefit analysis for themselves (Kolk, Levy and Pinkse, 2008). While such a response points to the micro-basis of this puzzle, from a governance perspective, a more comprehensive answer that takes into account contextual factors are needed. Above all, the global campaign against climate change is in a highly politicized arena, since the allocation of mitigation burden is perceived by nation-states as linked with their economic and other national interests (Brenton, 2013). Particularly, while China has never been required to set mandatory emissions reduction targets, the Chinese government has kept a close eye on the development of climate-related standards, some of which are endorsed by developed country governments. Besides, some major developed countries have proposed to impose climate-related trade measures such as boarder tax adjustments on imported goods from developing countries.

As an initial attempt to explore multi-level climate governance in China, this article would contend that to better understand the "climate-focused" behavior of Chinese exporting companies, the influence of both state and non-state actors, either at the domestic or international level, on Chinese exporting companies need to be explored in a broader context. The purpose is not to develop an ultimate explanation. Instead, it would make efforts to identify and conceptualize the external driving factors through a combination of theoretical and empirical discussions. As noted by Ongaro (2015), the explanatory power of multi-level governance cannot be fully realized unless synthesized with other streams of research and applied in more issue-specific areas. In light of the fact that China has become

the largest emitters of GHGs, how Chinese exporting companies respond to domestic and international pressure provide an applied field for exploring the potential of multi-level governance.

Drawing on a broad range of literature and integrating a case study, this article argues that the convergence of state-centered climate politics and market-oriented climate governance, which has a multi-level feature, has shaped the “climate-focused” behavior of Chinese exporting companies. Specifically, such a composite multi-level system consists of nation-states, MNEs, and non-governmental organizations (NGOs), which have exerted influence on Chinese exporters in the following ways: (1) at the global level, nation-states co-established and interpreted international norms, which provide a general guide for emissions reduction, but are hardly influential at the industrial level; (2) at the national level, China has put emphasis on energy-saving when interpreting and operationalizing international norms; (3) at the industrial level, MNEs and international NGOs have played a proactive role in engaging Chinese exporting companies, though to a moderate extent, by launching and running low-carbon initiatives; and (4) China and some developed countries have offered limited momentum by co-leading transnational public–private partnerships with the private sector.

The puzzle would be explored in the following sections. The next section introduces the overall attitude of Chinese exporting companies toward taking “climate-focused” actions. Then, an analytical framework from a multi-level perspective of transnational environmental governance is developed drawing on a broad range of environmental governance literature. Accordingly, “The roles of state and non-state actors: Status and dynamics” section provides a further discussion of the actions and interactions of relevant nation-states, MNEs, and NGOs. “Conclusion: Through the lens of multi-level climate governance” section concludes by discussing the momentum behind, i.e. the traditional state-centered climate politics and the new trend of market-oriented climate governance.

The attitude of Chinese exporting companies

As far as “climate-focused” activities are concerned, the overall attitude of Chinese exporting companies toward climate change mitigation has been changing. The pattern of their behavioral change can be explored from two aspects. On the one hand, there has been an increasing awareness of the importance of climate change mitigation, which has also been accompanied by a gradually increased number of carbon footprint assessment and carbon-labeling actions. For example, Société Générale de Surveillance China, a leading company in the Chinese market, has provided carbon footprint assessment service to hundreds of Chinese companies, many of which are from exporting companies, such as consumer electronics, pulp and paper, building materials, and textile. In addition, some local governmental agencies and industrial associations have paid close attention to the challenges that Chinese exporters face in overseas markets. Table 1 lists several examples of the responses of local governments and industrial associations.

Table 1. Examples on the responses of local governments and industrial associations to overseas market pressure.

Actor	Stance
Shanghai Stone Trade Association	Identified carbon-labeling requirements as a new barrier to stone exports in 2015
Foshan city, Guangdong province	As a response to major developed countries, initiated a research project on the carbon footprint of the Chinese Light-Emitting Diodes (LED) industry in 2011
Fujian province	Launched the quality inspect platform for stone products in 2011, which substantially benefits exporters through providing carbon footprint assessment, carbon labeling, and other services
China Chemical Fibers Association	In 2011, started to cooperate with Intertek, a leading emissions inspection service provider, encouraged exporter to take carbon footprint assessments, planned to develop its own platforms and rules

On the other hand, however, Chinese exporting companies as a whole have been relatively inactive in terms of taking substantive actions. Considering the total number of Chinese exporters, a very small proportion of them, which by estimate is in the range of several hundreds to thousands, have been involved.² And for those exporters, to respond to market pressure is the reasons for taking carbon footprint assessment and carbon labeling. It can be discerned from Table 1 that local governments and industrial associations were just reacting. A research conducted by Shenzhen Institute of Standards and Technology also confirmed that exporting companies were mainly concerned about following carbon footprint assessment and carbon-labeling requirements in developed country markets.

With regard to carbon trading, neither have Chinese exporters been active buyers. The establishment of local climate exchanges has enabled all Chinese companies to voluntarily offset their emissions since 2008. However, the volume of voluntary carbon trading in China as a whole is negligible compared with the global voluntary carbon market (Peters-Stanley and Yin, 2013). According to the author's interview with Chinese climate exchanges and carbon assets management companies between 2010 and 2013 and publicly accessed information, very few (if any) in the small group of voluntary offset purchasers are from exporting companies.³

Besides, the Chinese aviation, shipping, and steel industries, all of which are exposed to the global market, have adopted a negative attitude toward international sectoral carbon trading. In 2011, the European Union (EU) announced a plan to include international airlines into its emissions trading scheme (ETS).

Chinese airlines have kept resisting the EU's plan. Similarly, the China Shipowners' Association, an NGO that represents the majority of Chinese shipping companies, is also against the EU's plan to cover international shipping in EU emissions trading scheme (EU ETS). Also in 2011, the Chinese steel industry refused to participate in the carbon emissions data disclosure project managed by the World Steel Association.⁴

The analytical framework

Various ideas of “transnational governance,” which involve state and non-state actors, have been conceptualized and used for approaching political and policy issues in the globalization era (Amin and Thrift, 1995; Radcliffe, 2001; Spaargaren and Mol, 2008). Representing state actors, national governments always play a key role in making and implementing trade rules. Meanwhile, non-state actors—namely, MNEs and international NGOs—can have significant impacts (Adamson, 1980; Cox, 1983; Germain and Kenny, 1998). In particular, the importance of ideas and various “norm entrepreneurs,” which could be either state or non-state actors, has been proved in transnational social and political discourses (Checkel, 1998; Hopf, 1998; Wendt, 1999).

Transnational environmental governance

Specifically in the realm of transnational environmental governance, there has been both theoretical and empirical research on the roles of state and non-state actors. For national governments, transnational environmental problems often present security challenges because of the relevance of the use of common resources, burden allocation, and other difficult issues. Frederick (1999) develops a realist definition, and identifies two types of relations between national security and environmental problems:

The first deals with environmental problems as the *main* insecurity factor. The scenarios are based either on confrontations springing from local or regional ecological conflicts (transborder pollution, overexploitation, and such) or a transformation of power relationships within a region—or among several regions—as a result of major environmental disturbances (climate changes, desertification, ecological accidents, and like). The second deals with environmental problems as an *accessory* security factor. In such cases, environmental antagonisms threaten a state's national security indirectly by helping to exacerbate preexisting political, economic, social, or military tensions or conflicts, or by adding a new dimension to them. (p. 98, italic original)

Climate change relates to national interests in two aspects: the negative impacts of climate change on socioecological systems and the distributive effects that burden-sharing and mitigation rules that can have on each economy. Particularly, the long march of United Nations (UN) climate negotiations suggests that major economies

are extremely concerned over the competitiveness impacts of international mitigation agreements.

Despite the importance of ecological and economic concerns, norms can also contribute to shaping state behavior in this realm. For instance, the principle of common but differentiated responsibilities (CBDRs) is a most influential norm that shapes countries' stance on burden allocation in UN climate negotiations (McKenzie, 2008). Meanwhile, non-state actors have stepped in to penetrate national borders through market-based environmental governance (Levy and Newell, 2005). A comprehensive example about the domestic influence of "non-domestic" factors is the evolution of eco-forestry policy in British Columbia, Canada (Bernstein and Cashore, 2000). The four pathways of international influence on British Columbia's forestry policy-making include the world market, international rules, international normative discourse, and infiltration of the domestic policy-making process.

Multi-level governance: Categorizing the actors

With China's integration into the world economy, Chinese companies, especially those in the exporting companies, are exposed to multiple kinds of impacts which are exerted by state and non-state actors separately and/or in collaboration. As traced below, nation-states, MNEs, and NGOs are the major actors, which have functioned through inter-governmental negotiation and bargaining, domestic policy-making, market-oriented activities, etc. In other words, state and non-state players act and interact across multiple levels.

Therefore, the abundant literature on multi-level governance sheds lights on the way to probe and understand the dynamics (Betsill and Bulkeley, 2004; Hooghe and Marks, 2003). Focusing on European integration at the beginning, multi-level governance initially defined

a system of continuous negotiation among nested governments at several territorial tiers—supranational, national, regional and local—as a result of the broad process of institutional creation and decisional reallocation that has pulled some previously centralized functions of the state up to the supranational level and some down to the local/regional level. (Marks, 1993: 392)

However, this term has long been used in a much broader sense. For example, non-state actors could claim a role in multi-level governance in Europe (Schmitter, 1996). And multi-level governance could to some extent deviate from the "more traditional, hierarchical models of government" (Peters and Pierre, 2001: 131). The informal aspect of decision-making in multi-level governance systems has also been noticed (Peterson, 2001). Such progress has echoed in international politics, since the emergence of non-state actors dramatically changes the Westphalian system of nation-states in the sense of redistributing authority (Rosenau, 1997).

As aforementioned, MNEs and NGOs have become important actors but at different levels from traditional state actors.

Drawing on a broad range of multi-level and environmental governance literature, four types of state and non-state actors can be identified. Their roles in shaping the behavior of Chinese exporters can be categorized *ex ante* as follows:

- (1) At the global level, nation-states including both developed and developing countries establish and interpret international norms collectively. The emergence of non-state actors by no means weakens the importance of nation-states in addressing the climate challenge (Intergovernmental Panel on Climate Change (IPCC), 2007). For more than two decades, countries have been obstinately seeking consensus-based solutions to global climate change under the United Nations Framework Convention on Climate Change (UNFCCC) framework. While norms set the general guidelines for allocating burden and coordinating mitigation activities, divergent views exist regarding their operationalization: the setting of norms is one thing; interpretation and implementation at the global level is another.
- (2) At the national level, the influence of the Chinese approach to interpreting and operationalizing international norms is non-negligible. International factors never function alone—as Cortell and Davis (1996) have noticed, the actual domestic influence of international rules and norms depends on two domestic factors: the domestic salience or legitimacy of particular rules and norms and the domestic context during the relevant policy debate. China's perception and implementation of relevant international norms is a key domestic component of the policy environment of Chinese exporters.
- (3) In parallel to the above-mentioned state actors, non-state actors at the industrial level have collaborated to exert influence by launching and running low-carbon initiatives. As elaborated later, some leading MNEs have pressured their Chinese suppliers to take climate-related and/or climate-focused actions through supply chain management (Lai and Wong, 2012). Meanwhile, major international NGOs have played a key role either separately or in cooperation with MNEs (Meixell and Luoma, 2015).
- (4) Furthermore, nation-states and non-state actors are by no means acting in isolation from each other. In fact, unlike in some other issue areas, international environmental NGOs have thrived in China since the adoption of the Reform and Opening-up Policy (Aikawa, 2017). With MNEs and international NGOs collaboratively exerting market pressure on Chinese exporters, the Chinese government has actively sought to take part in and have its voice heard in relevant agendas, which are not dominated by nation-states. Such efforts have crystallized into the emergence of an increasing number of transnational public-private partnerships, which invest in energy-efficiency enhancement, emissions standard setting, etc. (Chan, 2009). Figure 1 illustrates the interactions between various state and non-state actors.

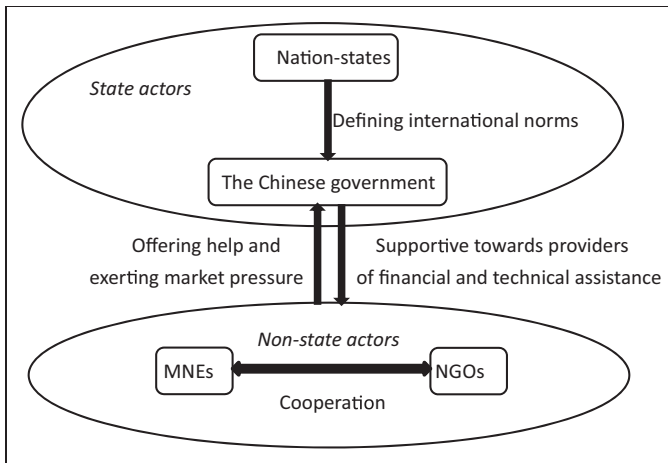


Figure 1. The interactions between actors.

MNE: multinational enterprise; NGO: non-governmental organization.

The roles of state and non-state actors: Status and dynamics

Nation-states: Creating and interpreting international norms

Two norms are central to the current global climate regime. One is the aforementioned CBDR principle. Article 3.1 of UNFCCC stipulates that “(T)he Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capacities.”

While countries agree on the general idea embodied in the principle, how to implement it in burden allocation has proved to be controversial. A major contentious issue between developing and developed countries has been whether large developing countries such as China and India should assume mandatory emissions reduction obligations. “G77 and China”—the major bloc of developing countries in global climate negotiation has kept insisting on the exemption of all developing countries from absolute mitigation targets. Moreover, China has taken a resistant stance on differentiating large developing countries from the rest of the developing world, deeming the differentiation proposal as a “conspiracy” of creating tensions and even conflicts within the South.⁵

However, exemplified by the concept of “advanced developing countries,” in the eyes of major developed countries China’s rapidly increasing economic power together with its future contribution to GHG accumulation should translate into a mandatory target for the post-2012 period and a higher priority of emissions reduction in domestic policy-making. Hurrell and Sengupta have summarized the North’s view on the responsibilities of major developing countries: “(F)or many in the industrialized world, especially in the United States, notions of fairness and

legitimacy in climate change politics has been transformed by the developmental successes of emerging countries and their substantively improved power-political position . . . ” (Hurrell and Sengupta, 2012: 645).

With developing countries exempted from mandatory targets of emissions reduction, a related debate has been whether developed countries can directly impose trade measures on imported goods (Ladly, 2012). The EU considered the use of carbon tariffs.⁶ When expanding the coverage of the EU ETS, the EU attempted to claim the justifiability of its governance over non-EU emissions (Bartels, 2012; Kaufmann and Weber, 2011).⁷ Similarly, in proposed domestic cap-and-trade schemes U.S. legislators claimed legitimacy for unilaterally levying border carbon taxes on third country companies (Holmes et al., 2011; Kho et al., 2008; Pauwelyn, 2007).⁸ Holmes et al. (2011) have noted that “(T)he US wants the option to implement BCAs, in certain circumstances, for example if it judges other countries’ greenhouse gas (GHG) mitigation efforts not to be ‘at least as stringent as that of the United States’ (American Clean Energy and Security Act (ACESA), 2009: sec. 767(c)(1))—even if they are in full compliance of an international agreement” (p. 884).⁹ As the U.S. House of Representatives Committee on Energy and Commerce and its subcommittee on Energy and Air Quality stated,

(L)egislation establishing a domestic program to limit U.S. emissions of greenhouse gases should include incentives for developing nations to curb their emissions, particularly in the absence of an international agreement establishing mandatory emission reduction obligations for all major emitting countries.¹⁰

China’s view has been in contradiction with that of its industrialized counterparts. The Chinese government denies the legitimacy of the unilateral actions that the EU and the U.S. might take to regulate the emissions of Chinese exporters. Instead, China constantly maintains that only UN-based organizations, such as the International Civil Aviation Organisation (ICAO) and International Maritime Organisation (IMO), are legitimate bodies to make decisions on collective emissions reduction.¹¹ In the dispute over the inclusion of non-EU airlines in the EU ETS, the Chinese government lent full support to Chinese airlines. With the authorization from the State Council, the Civil Aviation Administration of China issued an order in February 2012 to ban Chinese airlines from participating in the EU ETS.

Furthermore, as a reaction to the consideration of BCAs in the EU and the U.S., the Chinese government reiterated its opposition that the proposed carbon tariffs can lead to trade wars. In doubt of the intention of major developed countries, China has been inclined to interpret the proposed measures as arising from “green protectionism” and violating World Trade Organisation (WTO) rules.¹² From the view of Chinese decision-makers, Chinese exporters have already been subject to energy taxes for carbon-intensive goods (Voituriez and Wang, 2011; Zhang, 2010).

The principle of sustainable development, which according to the Brundtland Report means “development that meets the needs of the present without

compromising the ability of future generations to meet their own needs,” is also a key norm in global climate governance.¹³ Article 3.4 of the UNFCCC states that “(T)he Parties have a right to, and should, promote sustainable development.” Article 10 of the Kyoto Protocol also requires countries to implement their respective commitments “in order to achieve sustainable development.”¹⁴

While all countries recognize the importance of sustainable development, its interpretation and implementation in the realm of climate change has not been free from debate and controversy (IPCC, 2007). The environmental Kuznets Curve suggests that at the early stages of development, environmental performance is negatively correlated with economic growth: developing countries are usually more carbon-intensive than developed countries. Furthermore, a rapid industrialization process might even lead to a temporary increase of carbon intensity. When addressing the tension between economic development and emissions reduction, countries at different stages of development are likely to set different priorities and/or apply different assessment criteria.

Therefore, while the principles of CBDR and sustainable development set the basis for globally concerted efforts to address climate change, both are obsessed by controversies around interpretation and implementation. As a result, no concrete incentives are provided for industries to take either “climate-related” or “climate-focused” actions—instead, they represent a general consensus and send political signals to nation-states. In other words, although the EU and U.S. have argued for re-categorizing China as an “advanced developing country,” the Chinese government could find reasons to shield Chinese exporters from trade measures, the legitimacy of which is a controversial and politicized issue (Droege, 2012; Epps and Green, 2010; Gehring et al., 2012; Meltzer, 2011).

On the other hand, however, the Chinese government has been in fact fully aware of the necessity of taking ambitious mitigation commitments and encouraging Chinese industries to invest in emissions reduction. As noticed by Zhang (2016), China has demonstrated “great flexibility” in negotiating the Paris Agreement. The case of the textile industry in Guangdong discussed below suggests that the Chinese government has been tightening energy-saving standards for textile manufacturers while helping them cope with carbon-labeling requirements in EU countries.

The Chinese stance on mitigation responsibility

China has interpreted and operationalized the principles of CBDR and sustainable development in light of domestic needs. Retrospectively, the discursive power of the Chinese government has proved to be strong in influencing the behavior of Chinese companies and individuals. A good example is relevant to the tension between economic development and environmental protection. From the 1980s till early 2000s, the idea of gross domestic product-oriented development dominated China’s socioeconomic discourse (Bergsten et al., 2008; Harris, 2004;

Ploberger, 2011; Ren, 2007; Wong, 2012). Logically, it can be construed that the stance of the Chinese government has substantially contributed to shaping Chinese exporters' preference. Without being differentiated from other domestic companies, Chinese exporters received incentives to pay more attention to the management of their energy use rather than "climate-focused" actions.

Since China is one of the major emitting countries, the CBDR principle of course requires substantial efforts to be made for curbing its total emissions. Meanwhile, the CBDR principle offers justification for China's stance that developed countries should take the leading role in emissions reduction and that developing countries could take into account the domestic needs for economic growth and poverty alleviation when formulating mitigation policies.

As stated in the 2008 White Paper *China's Policies and Actions for Addressing Climate Change*: "(D)ue to the difference in historical responsibility ... developed countries should be responsible for their historical accumulated emissions ... " Climate change is perceived as fundamentally a "development issue," to which the solution resides in socioeconomic development.¹⁵ Accordingly, economic considerations have been factored into the formulation and implementation of China's mitigation policies (Heggerlund, 2007; Lewis, 2008).

The principle of sustainable development has also been localized, with domestic circumstances taken into account. Since 1990s, continuous efforts have been made to integrate this principle into China's socioeconomic development as well as environmental policy-making (Ross, 1998; Zhang et al., 2007). Indeed, the first principle stated in the 2007 National Climate Change Programme is to address climate change under a sustainable development framework. Due to heavy reliance on coal and other fossil fuels, energy-saving has been identified as crucial to pursuing sustainable development (Li and Oberheitmann, 2009).

Particularly, climate change mitigation has also been primarily framed as an energy policy issue concerning the reduction of GHG emissions generated in fossil fuel combustion (Zang, 2009). The "re-conceptualization" of emissions reduction and the setting of an "energy-focused" agenda are, of course, accompanied by both direct and indirect incentives, ranging from administrative control, "window guidance" on credit provision, government-led energy-labeling, etc. (Fan et al., 2007; Zhou et al., 2010).¹⁶ While carbon trading, carbon footprint assessment, and other "climate-focused" actions also received governmental support, as listed in Table 2, more emphasis has been put on energy-saving and energy-efficiency enhancement. Furthermore, a recently published literature shows that carbon labeling does not have much weight in the decision-making of Chinese consumers (Zhao et al., 2017).

As major actors in the Chinese financial system, the state-owned banks have also played important roles in facilitating green development. By the end of 2014, the green credits issued by 21 major banks exceeded 6.1 trillion RMB.¹⁷ It continues to increase in recent years. While making contributions to stimulating low-carbon growth, the green loans have mainly targeted at macro-level policy goals, such as restructuring energy-intensive industries, implementing energy-saving projects

Table 2. Examples of energy-saving and emissions reduction policies.

Title	State Council/Ministry
Comprehensive work plan for energy-saving and emissions reduction during the 12th five-year plan period	State Council
Guidelines for promoting Energy Management Contract (EMC) service and accelerating the development of energy-saving service	The National Development and Reform Commission, Ministry of Treasury, People's Bank of China, State Administration of Taxation
Guidelines for promoting energy-saving in mid-size and small enterprises	Ministry of Industry and Information Technology
Comprehensive work plan for energy-saving and emissions reduction	State Council; several ministries formulated sector-specific work plans on its basis

(Liu et al., 2017). Consequently, to fulfill the carbon footprint assessment or labeling requirements in overseas markets was not a priority.

MNEs and international NGOs: Leading low-carbon initiatives

MNEs and international NGOs have paid heed to the “climate-focused” actions of Chinese exporters. MNEs can help improve the environmental performance of their suppliers by using economic leverage. In fact, even before carbon emissions control became a “hot-button” issue, the pressure channeled along the supply chain by MNEs had facilitated the adoption of high environmental standards in Chinese exporting companies (Zhu et al., 2012). As more MNEs, such as Walmart, IKEA, and General Electric (GE), etc., pay heed to managing their climate impacts, their Chinese suppliers have been under a pressure to follow up by taking carbon footprint assessments and/or adopting emissions reduction measures. As a typical example, Walmart initiated in 2010 the Supplier Greenhouse Gas Innovation Program, requiring its suppliers, many of which are in China, to make joint efforts to reduce emission from products and supply chains.

Domestic and international NGOs have adopted different approaches. Domestic NGOs have concentrated on public awareness enhancement through organizing small-scale campaigns to call for energy-saving or voluntary offsetting. As a leading Chinese NGO, the Institute of Public & Environmental Affairs (IPE) co-launched in 2008 with a number of other domestic NGOs the Green Choice Alliance (GCA) Program, which promotes green supply chain management and requires corporate applicants to release their emissions data. However, focusing on pollutants rather than carbon emissions, GCA has achieved very limited success in carbon emissions information disclosure (Lee et al., 2012). After all, to help the Chinese society fight against pollution is deemed by the majority of domestic NGOs as a more urgent challenge.¹⁸

To the contrast of their Chinese counterparts, major international NGOs have been more deeply involved in disseminating the idea of low-carbon production and changing the behavior of Chinese exporters. For example, cooperating with Walmart on the Supplier Greenhouse Gas Innovation Program, the Environmental Defense Fund has been assisting the emissions reduction efforts of 200 largest emitters in Walmart's Chinese supply chain (Plambeck, 2012). Business for Social Responsibility (BSR) has also participated in Walmart's energy-efficiency campaign in China.¹⁹ Besides, the BSR has consecutively launched the Energy Efficiency Partnership project, which has engaged more than 100 Chinese suppliers, and the Supplier Carbon Performance initiative.²⁰ The China Training Institute, one task of which is to promote green supply chain management in China and help improve the energy efficiency of Chinese suppliers, is also managed by the BSR. The China Energy and Climate Registry, launched by the Innovation Center for Energy and Transportation, is aimed at supporting Chinese and multinational industries to monitor their energy use and GHG emissions.

In Guangdong province, World Wildlife Fund (WWF) Hong Kong has initiated the Low Carbon Manufacturing Programme, working with export-oriented companies to improve their energy efficiency. Since 2007, IKEA has cooperated with WWF in China on the Climate Positive Opportunities for Suppliers Programme and the Supplier Energy Efficiency Project. Other examples of international NGOs include the Climate Group and the Natural Resources Defense Council. In cooperation with the Electronic Industry Citizenship Coalition (EICC), the BSR developed the EICC Carbon Trading System to help reduce the emissions of EICC's suppliers, many of which are in China.²¹

Export-oriented Chinese companies tend to be much more responsive to such environmental pressure than other types of Chinese enterprises (Liu, 2012). For example, with the EICC exerting supply chain pressure, the BSR's investment in carbon reporting yielded more substantial returns.²² Nevertheless, the impact of those low-carbon initiatives has been at a very moderate scale. A very small fraction of Chinese exporters have participated in carbon footprint assessment and carbon labeling. And the China Energy and Climate Registry has been unattractive (Hale and Roger, 2012).

Nevertheless, the pressure generated by MNEs and international NGOs has been weak. The development of market-based climate governance has been highly contested in developed countries (Newell and Paterson, 2010). As for-profit entities, MNEs have to assess the economic implications of greening their supply chains. And despite the consensus on low-carbon consumption in developed countries, low-carbon goods have not proved to be significantly preferable to consumers (Vandenbergh and Cohen, 2010). In early 2012, Tesco decided to replace its carbon-labeling plan with other initiatives because of the low take-up by its competitors and the low recognition among its customers.²³ Indeed, it can be discerned from the examples of the low-carbon initiatives that such efforts have been quite scattered and experimental in nature. And for Chinese exporters, there has been no

steady signal that behavioral change toward taking “climate-focused” actions is necessary for gaining market access.

The synergy between state and non-state actors: Public–private partnerships

Public–private partnerships are important components of global climate governance (Bäckstrand, 2008). With the global climate negotiation in deadlock, public–private partnerships, either *formal* or *informal*, enable governments to circumvent the thorny problem of burden allocation between nation-states and put some fizz into “climate-focused” initiatives.

Launching carbon-labeling schemes is a typical approach for some major developed countries to partner with market forces. The French Environment and Energy Management Agency advocated a pilot carbon-labeling scheme that was implemented by the retailer Casino; then in July 2011, France launched a one-year national test of mandatory carbon labeling. In the U.K., the development of the Publicly Available Specification 2050 Standard was assisted by the Department for Environment, Food and Rural Affairs. The Japanese Ministry of Economy, Trade and Industry supports the pilot “Carbon Footprint System.” In Canada, the Quebec government has invested in a pilot carbon-labeling project. There are hints that carbon labeling is also being considered in the U.S.—the ACESA proposed to commission the Environmental Protection Agency to assess the feasibility of launching a national-level carbon-labeling program.

Unlike in the disputes around BCAs, the Chinese government has shown interests in cooperating with developed country actors on carbon-labeling issues. In October 2009, the Chinese Ministry of Environmental Protection (MEP) and the German Organization for Technical Cooperation signed an agreement on co-managing a low-carbon product certification program. The Chinese MEP is also cooperating with the British Standards Institution on the development and implementation of low-carbon standards.

Domestically, the Chinese government has co-launched training initiatives with the Institute for Sustainable Communities and several famous brands such as Walmart and GE.²⁴ In Suzhou, the local-level “energy efficiency star scheme,” which receives support from the U.S. Energy Foundation and the U.K. Foreign and Commonwealth Office’s Global Prosperity Fund, has been designated by the National Energy Conservation Center as the pilot scheme to prepare for establishing a national energy-efficiency certification system. The establishment of the China Energy and Climate Registry has also received support from Chinese government agencies.

From the perspective of the Chinese government, such partnerships could serve to hit two birds with one stone. First, while carbon footprint assessment and labeling were not as prioritized as energy-saving and emissions reduction in domestic agenda, it still made sense to help exporters to prepare for overseas markets. To establish public–private partnerships by no means implied that the Chinese government changed its official stance, while technical collaboration and

communication with developed country actors could still provide guidance to Chinese exporters. Second, the partnerships could also function as channels between the Chinese government and market players like MNEs and NGOs. Standard setting for carbon footprint assessment and labeling involves a variety of technical and methodological issues. As later noted in the case of the textile industry in Guangdong province, communication between players at different levels can benefit Chinese exporters by enhancing mutual understanding.

However, the actual influence of those partnerships has been limited. Above all, the trade implication of government-endorsed carbon-labeling programs is uncertain (Cohen and Vandenberg, 2012). While their legitimacy has not been challenged before the WTO, the ambiguous and controversial status of the pilot projects in developed countries constrains their impact on Chinese exporting companies. The limited contribution of such partnerships can be understood from two aspects. First, China's involvement has been at the development stage, with an eye on exploring the opportunities of coordinating mitigation policies with its trading partners. Second, the trade implication of government-endorsed carbon-labeling programs is uncertain (Cohen and Vandenberg, 2012).

The case of the textile industry in Guangdong Province

The textile industry in Guangdong province could serve as a good example. China is a major exporter of textile products, which are carbon-intensive in production. The guiding norms were not re-interpreted after the 2009 Copenhagen climate conference, despite the mounting international pressure that China faced. As a result, while energy-saving and emissions reduction were further prioritized on governmental agenda, national policies did not emphasize the possibility of "climate-focused" actions taken by developed countries in international trade. Nevertheless, local officials in the provincial and some city governments in Guangdong as well as business leaders in the local textile industry became fully aware of looming challenge that carbon-labeling requirements regarding carbon-intensive products were to be established in developed country markets. More specifically, France adopted the "New Environmental Protection Act" (also known as Grenelle II) in 2011, which requires that textiles imported from China should be accompanied by carbon footprint certificates since August 2011.

As a response, the city governments of Guangzhou and Foshan, textile industry associations in the two cities, together with the local branch of China Quality Certification Centre, co-organized training workshops for textile exporting companies in early and mid-2011. The majority of the participating companies reported that they had strong incentives to comply with carbon-labeling requirements because of the pressure from European importers and leading environmental NGOs like WWF. Meanwhile, however, they also pointed that carbon labeling was burdensome, as they already had to achieve energy-saving and emissions reduction goals set by the government. The public-private partnerships between China and some European countries, as noted by textile business leaders in

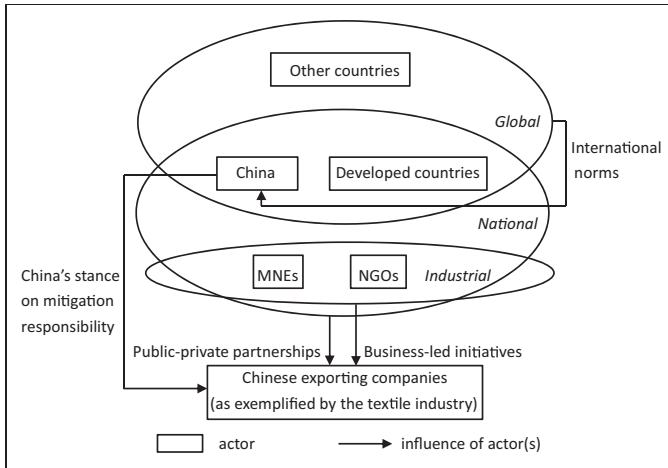


Figure 2. Multilevel climate governance and Chinese exporting industries. MNE: multinational enterprise; NGO: non-governmental organization.

Guangzhou and Foshan, were helpful in the sense of providing communication channels and technical guidance at the national level. Yet, compared with training and service offered by local governmental agencies and NGOs, the contribution of those partnerships was too general and had to be further specified for local textile industry to operationalize. Figure 2 illustrates the direct and indirect influence of relevant state and non-state actors.

Conclusion: Through the lens of multi-level climate governance

The discussion above suggests that nation-states, MNEs, and international NGOs have influenced in various ways the attitude of Chinese exporting companies toward taking “climate-focused” actions. Traditional international politics between nation-states has a role to play. At the global level, the influence of nation-states has been channeled through the norms established under the UNFCCC—namely, the principles of CBDR and sustainable development. The signal is clear that China has to take substantial mitigation actions, yet at the same time, much discretion was granted in domestic industrial policy-making. Moreover, the policy options of developed countries in adopting BCAs are restricted. In other words, international norms, to which China has made contributions, have functioned as an indirect source of influence.

The traditionally strong top-down influence directly links China as a state actor and Chinese exporters. The domestic construction of climate change mitigation policy as primarily an energy issue in China has guided Chinese exporters to focus on exploring “climate-related” opportunities. Lyon et al.’s (2011) research suggests that some impact that the green awards set by governmental agencies have

had on the shareholder value of Chinese companies in the 2008–2011 period may be rooted in the pro-growth policy environment, under which the cost of maintaining environmental leadership is high for business leaders. Similarly, the domestic policy environment, which is in favor of “climate-related” rather than “climate-focused” business activities, has been influential on the choice of Chinese exporters.

The launching of low-carbon initiatives by MNEs and international NGOs represent a new trend in the sense of constitute part of a transnational hegemonic discourse of developing transnational market-based climate governance. In the EU and the U.S., corporate giants have been influential on this discourse for maintaining their leading positions in global supply chains or building up competitive advantages in the changing global business environment (Levy and Egan, 2003; Markussen and Svendsen, 2005; Meckling, 2011). The strategies of powerful businesses have played a crucial part in enhancing the popularity of market-based policies and measures such as carbon footprint assessments:

Business and financial actors have become central in the construction and management of an elaborate and increasingly intermeshed system of climate governance . . . This way of responding to climate change is increasingly hegemonic, gaining a taken-for-granted character. (Newell and Paterson 2010: 77)

Originating in the industrialized world, the hegemony of transnational market-based climate governance has gained momentum from major developed countries to the rest of the world:

(A) hegemonic world polity and ideology based on liberal or free-market environmentalism started mandating how involuntarily interdependent states should deal with ‘common problems’ by devolving power to global market forces and non-state actors . . . (Cabello, 2009: 192)

Meanwhile, the transnational public–private partnerships have supplemented the construction of transnational market-based climate governance by offering auxiliary incentives to Chinese exporters. As the joint efforts between China and non-state actors from the developed world, those partnerships have been at the interface of the market-oriented hegemonic discourse and traditional climate politics, which centered on nation-states. By focusing on technical and methodological issues, both sides have been moderate in taking joint actions.

To conclude, the convergence of traditional international politics and market-oriented hegemonic discourse has shaped the multi-level governance of the “climate-focused” behavior of Chinese exporters. As a specific case of applying multi-level governance to China, it indicates that multi-level governance, when combined with theories of international relations and environmental governance, is promising for explaining the “climate-focused” behavior of Chinese exporting companies. While it obviously goes beyond the original scope delineated decades ago, the key features of multi-level governance have been kept in the synthesis,

which contributes to not only testing the explanatory power but also enhancing the applicability of multi-level governance.

The impact on Chinese exporters is double-faced. On the one hand, Chinese exporters do have more incentives to minimize their climate footprints. On a smaller geographical scale, Shi (2010) has noticed that due to the economic integration between the members of the East Asia Summit, carbon labeling can spill over from more developed to less developed countries and thus promote cross-boundary emissions reduction with the region.²⁵

On the other hand, however, located at the upper stream of global supply chains, many Chinese exporters are in disadvantageous bargaining positions compared with MNEs. The asymmetric distribution of power between Chinese exporters and developed country actors might well lead to concerns over the fairness allocation of burden that is incurred by market-based measures. The different positions of Chinese exporters and developed country actors are crucial to understanding the influence of developed country actors as well as the strategy of the Chinese government in transnational multi-level climate governance, which involves both state and non-state influence.

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Notes

1. Koehn differentiates “climate-focused” activities from “climate-incidental” ones. See Koehn (2010). The vehicle emissions standards in the EU and China provide a good example about the difference between “climate-focused” and “climate incidental” activities. In 2009, the EU set mandatory emissions reduction targets for all new cars, requiring an average of 130 grams per kilometer to be achieved by 2015. The EU Commission: Reducing CO₂ emissions from passenger cars: http://ec.europa.eu/clima/policies/transport/vehicles/cars/index_en.htm. Reuters: EU Commission announces plans for greener cars: <http://uk.reuters.com/article/2012/07/11/us-eu-cars-idUKBRE86A09I20120711>. China’s vehicle emissions standards have targeted pollutants such as NO_x, CO, etc. Fuel regulations in China: www.dieseln.net.com/standards/cn/fuel.php. See also *China Daily*: Stricter car emission rules to fight pollution: www.chinadaily.com.cn/china/2013-01/24/content_16167727.htm.
2. The estimation is based on the author’s interviews and communications with officers in local governments and industrial associations. For reference, see www.haiguan.info/NewData/DataCondition.aspx and http://www.gzwto.gov.cn/info/news/content/2013-10/25/content_22997.htm.

3. All the seven climate exchange in Beijing, Chongqing, Guangdong, Hubei, Tianjin, Shanghai, and Shenzhen, which were in operation during that period, were visited. Besides, 30 private companies that were doing carbon trading business were also interviewed.
4. *Financial Times*: China rebuffs scheme to cut steel emissions: www.ftchinese.com/story/001042480/en.
5. *The Guardian*: China's fears of rich nation "climate conspiracy" at Copenhagen revealed: www.guardian.co.uk/environment/2010/feb/11/chinese-thinktank-copenhagen-document.
6. Reuters: EU considers carbon tariff: www.reuters.com/article/2008/01/06/environment-climate-eu-dc-idUSL0464478420080106.
7. See the discussion in Article 3.
8. *Wall Street Journal*: Energy Chief Says U.S. Is Open to Carbon Tariff: <http://online.wsj.com/article/SB123733297926563315.html>.
9. BCA refers to "border carbon adjustment."
10. Climate Change Legislation Design White Paper—Competitiveness Concerns/Engaging Developing Countries.
11. Xinhua: China welcomes proposed freezing of EU carbon tax on airlines: FM spokesman: http://news.xinhuanet.com/english/china/2012-11/13/c_131971472.htm; *People's Daily*: China protests EU shipping carbon tax: <http://english.peopledaily.com.cn/90883/7745247.html>.
12. Xinhua News Agency: Carbon tax is another name for protectionism: www.china.org.cn/environment/Copenhagen/2009-12/11/content_19048382.htm.
13. Report of the World Commission on Environment and Development: Our Common Future. Available at: www.un-documents.net/wced-ocf.htm.
14. The meaning and implementation of this principle in climate change mitigation have involved much debate. See IPCC (2007).
15. Xinhua: Chinese president calls for int'l efforts to address climate change: http://news.xinhuanet.com/english/2009-09/23/content_12098954.htm.
16. *China Daily*: Green-credit guideline for banks issued: www.chinadaily.com.cn/bizchina/2012-02/25/content_14691629.htm; China Energy Label: www.energylabel.gov.cn/en/.
17. Xinhua: Green finance booming among Chinese banks: http://news.xinhuanet.com/english/2015-08/25/c_134554575.htm.
18. For example, the IPE concentrates on the water, air, and soil pollution of Chinese companies.
19. See "Unlocking Energy Efficiency in China: A Guide to Partnering with Suppliers": www.bsr.org/reports/BSR_Unlocking_Energy_Efficiency_in_China.pdf.
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22. See also BSR press release: EICC and BSR's Carbon Reporting System Promotes GHG Emissions Management in the Electronics Industry: www.bsr.org/en/about/press-release/eicc-and-bsrs-carbon-reporting-system-promotes-ghg-emissions-management-in.
23. *Financial Times*: Tesco steps back on carbon footprint labeling. Available at: <https://www.ft.com/content/96fd9478-4b71-11e1-a325-00144feabd0>.

24. Lee H, Plambeck E and Yatsko P. Incentivizing sustainability in your Chinese supply chain. *The European Business Review*. Available at: www.europeanbusinessreview.com/?p=6453 (accessed 8 March, 2018).
25. The members of the East Asia Summit include the 10 ASEAN countries (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam), Australia, China, India, Japan, New Zealand, and South Korea.

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