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Authors

Guttman, Dan
Young, Oran
Jing, Yijia
et al.

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Research article

Environmental governance in China: Interactions between the state and “nonstate actors”[☆]

Dan Guttman^{a, *}, Oran Young^b, Yijia Jing^c, Barbara Bramble^d, Maoliang Bu^e, Carmen Chen^c, Kathinka Furst^f, Tao Hu^g, Yifei Li^a, Kate Logan^h, Lingxuan Liuⁱ, Lydia Price^j, Michael Spencer^p, Sangwon Suh^b, Xiaopu Sun^k, Bowen Tan^h, Harold Wang^c, Xin Wang^l, Juan Zhang^m, Xinxin Zhangⁿ, Rodrigo Zeidan^{a, o}

^a New York University Shanghai, Shanghai, China^b Bren School of Environmental Science and Management, University of California Santa Barbara, CA, USA^c School of International Relations and Public Affairs, Fudan University, Shanghai, China^d National Wildlife Federation, Washington, D.C., USA^e School of Business, Nanjing University, Nanjing, China^f Duke Kunshan University, Kunshan, China^g WWF, Washington, D.C., USA^h Institute of Public and Environmental Affairs, Beijing, Chinaⁱ Management School, Lancaster University, Lancaster, UK^j China Europe International Business School, Shanghai, China^k Institute for Governance and Sustainable Development, Washington, D.C., USA^l SynTao, Beijing, China^m China National Textile and Apparel Council, Beijing, Chinaⁿ Rainforest Alliance, Beijing, China^o Fundacao Dom Cabral, Brazil^p Monash University, Australia

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ABSTRACT

In the West, limited government capacity to solve environmental problems has triggered the rise of a variety of “nonstate actors” to supplement government efforts or provide alternative mechanisms for addressing environmental issues. How does this development - along with our efforts to understand it - map onto environmental governance processes in China? China's efforts to address environmental issues reflect institutionalized governance processes that differ from parallel western processes in ways that have major consequences for domestic environmental governance practices and the governance of China “going abroad.” China's governance processes blur the distinction between the state and other actors; the “shadow of the state” is a major factor in all efforts to address environmental issues. The space occupied by nonstate actors in western systems is occupied by *shiye danwei* (“public service units”), *she hui tuanti* (“social associations”) and e-platforms, all of which have close links to the state. Meanwhile, international NGOs and multinational corporations are also significant players in China. As a result, the mechanisms of influence that produce effects in China differ in important ways from mechanisms familiar from the western experience. This conclusion has far-reaching implications for those seeking to address global environmental concerns, given the importance of China's growing economy and burgeoning network of trade relationships.

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[☆] This article stems from workshop discussion among university-based scholars and nonstate actor practitioners. Co-authors include individuals affiliated with some organizations discussed in the text. The university-based lead authors (Guttman, Young, Jing) are not affiliated with nonstate actors discussed in the article.

* Corresponding author. New York University Shanghai, 1555 Century Avenue, Pudong District, Shanghai, 200122, China.

E-mail addresses: djguttman@aol.com, dg109@nyu.edu (D. Guttman).

1. Introduction

In the west, limited government capacity to make and enforce environmental standards has led to increased efforts of “nonstate

actors” to supplement or provide alternatives to governmental actions to address environmental problems. Such actors include both environmental nongovernmental or nonprofit organizations (ENGOs) and for-profit corporations that, individually or in association, take an interest in the systematic modification of enterprise behavior to embrace sustainability. In many cases, the focus is on global supply chains, and nonstate actors include groups that reach across state borders.

In this article, we ask how developing western literature on nonstate actors in environmental governance applies to the China experience. Are key findings and frameworks generalizable from western systems to the setting evolving in China during the four decades since People's Republic of China (PRC) reform and opening up began? Do we need to make significant adjustments to explain China developments? Equally important, will lessons from the Chinese experience broaden and deepen understanding of the roles nonstate actors play in environmental protection? We aim both to advance understanding of environmental governance and to contribute to the thinking of those engaged in applied efforts to address environmental problems (Young et al., 2015).¹

There is growing literature on domestic and cross-border activities of nonstate actors addressing environmental issues in western democracies and many developing countries (Bartley et al., 2015; Auld, 2014; Buthe and Mattli, 2011; Cashore et al., 2004). This literature encompasses two broad streams, one dealing with the role of ENGOs and business associations in creating and implementing standards, certification schemes, and codes of conduct, and the other dealing with the role of corporations and focusing on what is often called corporate social responsibility or CSR (Baron, 2009; Vogel, 2006). However, there is little literature on whether and how global nonstate actor networks operate in or with China or on the landscape of a China native counterpart community.

For the most part, western literature does not deal with the experience of China, despite the fact that China accounts for ~18% of the Earth's human population, has the world's second largest economy, and is central to a burgeoning network of global trade relationships. Equally important, China has a distinctive system of governance with central planning remaining a key mechanism for setting priorities and allocating society's resources.

Our central argument is that the current western vernacular is not robust enough to capture the realities of what is happening in China, where government is the central player in all realms and western distinctions among public sector, private sector, and civil society are not clearly applicable. China has its own institutionalized governance processes (Young et al., 2015). Dealing with environmental protection in this setting involves a set of practices that cannot be understood through a lens that features a sharp distinction between the state and nonstate actors. Any effort to shed light on roles that various types of actors play in addressing issues of environmental protection in China must take differences between Chinese institutionalized governance processes and familiar western processes as a point of departure.

We hope our work contributes to the development of an improved vocabulary for comparative analysis.² For the moment, however, we retain the term nonstate actor because alternatives like NGO or CSO (civil society organization) and more culturally specific terms like Quango do not encompass core actors in our

story, particularly “private” profitmaking enterprises and other actors (notably *shiye danwei*) that have received little attention in the west and may have no western analogs.

The line separating “state” and “nonstate” is both blurry and subject to change, with variations from society to society. To a Chinese audience, for example, “nonstate” may seem hard to apply to a U.S., Brazilian, Canadian or European “NGO” that relies heavily on government funds. Similarly, a Chinese analyst might question whether a company like Lockheed Martin that relies almost entirely on government contracts is a private enterprise (Guttman, 2000). Although we use the English term nonstate actor in this article, we emphasize that western usage does not map onto the Chinese experience precisely.

We proceed in several steps. Following an initial account of important differences between western systems and contemporary China realities, we ask what Chinese actors are important to our story (Guttman, 2015)?

Having identified the relevant actors, we examine their main streams of activities, with agendas emanating from the state, from organizations independent of enterprises, and from enterprises themselves, either individually or through associations. This sets the stage for an analysis of principal mechanisms used to influence the behavior of major players. An initial exploration of the effectiveness of nonstate actor efforts to influence environmental governance in China together with a preliminary account of key determinants of success follows.

The final section assesses insights from the Chinese experience that may enrich analysis of nonstate actor roles in environmental governance in other systems. We include reflections on next steps in analysis of the role of nonstate actors in environmental governance.

2. Setting the stage: the landscape of environmental governance in China

We begin with a brief characterization of China's environmental governance landscape. Though China's remarkable economic development features private enterprises and markets, China, in Constitutional terms is a “socialist” system, and one in which the Communist Party of China (CPC) is key in directing the economy and related environmental policies. Despite marketizing trends, state planning - from the central Five Year Plan (FYP) to myriad further central and local plans - continues to set core goals for society and resource allocation. The concept of ecological civilization (*shengtai wenming*), introduced at the 2007 17th Party Congress, is accompanied by the greening of the Five Year Plan (Koleski, 2017; Young et al., 2015; Li, nd.; 13th Five Year Plan for Economic and Social Development of the People's Republic of China, 2016).

Pollution, treated as an “externality” in western analyses of environmental governance, is internalized in China's planning process. Core enterprises, including energy companies that are key sources of pollution, are state-owned enterprises or SOEs (*guoyou qiye*). The government also owns much land and resources at issue in sustainability.

China's governments have been civilizational leaders in standard setting. Despite its short reign, the Qin dynasty (221–206 BCE) is considered seminal in part because of its standardization of weights, measures, coins, written script language, and administrative structures (Lewis, 2007). Government agencies for standard setting and supervision emerged as enterprises and markets developed during the “opening up and reform period.” These included, at the ministerial level, the General Administration of Quality Supervision, Inspection & Quarantine (AQSIQ) and, under AQSIQ, the Standards Administration of the People's Republic of China (SAC) and the Certification and Accreditation Administration

¹ This article reflects discussion during a two day 2016 workshop at Fudan University that brought together representatives of nonstate actors and environmental studies, law, public policy/public management scholars from China, US, EU, Brazil, and Australia.

² While the term nonstate actor is standard in international relations discourse, many practitioners and scholars also use it in relation to domestic governance (e.g., WHO, 2006; Canuto, 2012; Steer et al., 2015).

of the People's Republic of China (CNCA).³ Standards in China fall into multiple categories: national standards, industry standards, local or regional standards, group standards, and enterprise standards for individual companies. National standards can be either mandatory (*guojia biao zhun* or “GB”) or voluntary (*ITA website*).

Beginning with late 1970's “opening up and reform,” China's party and government system spawned numerous private enterprises and hundreds of thousands of organizations conventionally referred to by the government (in English) as “NGOs” or “social organizations” (*China Daily, 2012*). Their employees are not “civil servants” (as provided for by the *billeting* or *bianzhi* system for civil service positions), and the organizations lack formal status of “government” organizations. But they retain strong formal and informal ties to government.

In this context, standard setting has devolved significantly to actors that often have no clear western analog. As enterprises and universities developed, the 1988 *Standardization Law of the People's Republic of China* provided (Article 12) that “[t]he roles of trade associations, scientific research institutions and academic organizations shall be brought into play in the formulation of standards.” As a 2016 paper by experts affiliated with Tsinghua University and the China National Institute of Standardization (both *shiyi danwei*) put it: “[A]fter the [1980's] reform and opening up, all levels of government have promoted the establishment of many standardization associations....These associations are generally not really independent social organizations and have a very close relation with the government” (*Ping and Zheng, 2016*).

China standard setting reform continues to draw on government “delegation” to such institutions. This includes group or community standards developed by business associations, increasing in number and import (*National Group Standard Information Platform, 2016*). Article 6 of the Draft Amendment to the National Standardization Law provides that “[t]he government encourages enterprises, social groups, and educational and research organizations to conduct or participate in the standardization work” (*Draft Amendment to Standardization Law*). In addition, reforms call for cooperation with “foreign” standard setting institutions, toward development of standards with Chinese characteristics (*Circular of the State Council, 2015*).

For our purposes, the essential point is that China's government plays a key role in all sectors of society, a fact making it misleading to draw sharp distinctions among public sector, private sector, and civil society. Though we employ the English expression nonstate actor, we recognize such actors are not entirely autonomous in China in the sense of being free to adopt strategies without reference to government preferences.

3. Identifying the players: the evolving community of China's environmental nonstate actors

The landscape of environmental nonstate actors in China encompasses many distinct types of organizations.

3.1. “NGOs” - domestic and foreign

China has many entities referred to in English (e.g. in the *China Daily*) as “NGOs” (*China Daily, 2012*). These include organizations created by Chinese citizens and China operations of “foreign NGOs.”

3.1.1. Domestic NGOs

The Ministry of Civil Affairs (MCA) reports, at year-end 2016,

³ We note China government reorganization announced in March 2018 may alter some titles and relationships (*NPC Observer, 2018*).

695,000 registered social organizations in China (*China Development brief, 2017; China social organization website*). The vast bulk are *minban feiqiye danwei* (“nonprofit enterprises”) and *shehui tuanti* (social groups including, as relevant here, business or professional associations). They also include *she hui fu wu ji gou* (“social service organizations”) under the new Charity Law and “*jijinhui*” (foundations).

In China, the appellation “NGO” is often used for these social organizations, although their relation to government is far from independent. The social organization registration and supervision system (SORSS) requires, as a precondition for registration, that a social organization must have a business supervisory agency (*yewu zhuguan danwei*), usually a party or governmental agency (*Simon, 2013; Jing, 2015; Fürst, 2016*).

Of the near 700,000 registered “NGOs,” about 7000 are said to be “environmental NGOs.” Most are small, with limited staff and resources. Only a few (e.g. Friends of Nature and All China Environmental Federation) have national reach. The Institute of Public and Environmental Affairs (IPE), a *minban feiqiye* established by Ma Jun in 2006, is a leading example of a registered “NGO” focused on promoting environmental standards (IPE website). In 2014, China amended its environmental law to provide (at Article 58) that qualified environmental NGOs (e.g. by charter mission, years of operation and good standing) can represent the public interest in court (*Environmental Protection Law; Supreme Court Judicial Interpretation*).

3.1.2. “Foreign” NGOs

Since WWF's early 1980s entry, many ENGOs chartered abroad have come to China. In addition to WWF, as relevant to our story of nonstate actor environmental protection efforts, these include the Forest Stewardship Council, *ISEAL Alliance*, the Rainforest Alliance, Alliance for Water Stewardship, Marine Stewardship Council, Better Cotton Initiative, Roundtable for Sustainable Palm Oil, and Programme for the Endorsement of Forest Certification. Relevant to our story as well are organizations like Greenpeace and Amnesty International, whose investigatory work provides entrée for other nonstate actor efforts.

Historically, however, few “foreign” NGOs have been granted legal status under China's NGO law. Accordingly, they have sought other status, including registration as business enterprises (*gongsi*) (*Simon, 2013*). Therefore, the 2016 Law of the People's Republic of China on Administration of Activities of Overseas Nongovernmental Organizations (discussed below) is fundamentally altering the “foreign” NGO presence in China.

3.2. Enterprises: CSR

CSR is another term in the global vernacular with varying definitions even within countries. In one common definition, the concept refers to activities beyond those required by corporate law or government regulations (*Baron, 2009; Vogel, 2006*). In China, following government direction, CSR is now a mainstream corporate activity, particularly among state-owned and publically traded enterprises with core environmental challenges (e.g. China's state-owned oil companies) (*CNOOC; Sinopec CSR websites*). In export industries, such as apparel and electronics, multinational supply chain codes as we will discuss, may become reinforcements of CSR.

In 2008, the State Council issued CSR guidelines for SOEs (*SASAC*). The Shanghai, Shenzhen, and Hong Kong stock exchanges have issued guidelines and requirements on CSR reporting (including environment) (*BSD*), and the Standardization Administration (SAC) issued guidelines for voluntary “social responsibility reporting” (*Chinese standards net*). Of particular note, the Environmental, Social and Governance Guidelines issued by the Hong

Kong exchange appear to be having impact on smaller Hong Kong registered mainland enterprises that are not SOEs governed by SASAC guidelines (Fudan workshop discussion; [Hong Kong ESG guidelines](#)).

3.3. Business associations

PRC “opening up and reform” brought the development of business associations with distinct legal personalities ([Hsueh, R., 2011](#)). Typically registered legally as *shehui tuanti* (social groups), but also referred to as *hangye xiehui* (business/industrial associations) or (*hangye zuzhi*) (business/industrial organizations), they are playing an increasing role in the promotion of “social responsibility,” including environmental standard setting.

Social groups include standard implementers as well as standard setters. The China Certification and Accreditation Association (CCAA) was established in 2005 under AQSIQ ([CNCA website](#)). Its work includes implementing national certification and accreditation policies (Article 6)(Id.).

The difficulty of fitting these institutions into the nonstate actor frame is reflected in a 2016 English language presentation by an association's staff characterizing them as “public institutions” (Fudan workshop Ppt):

“CNTAC [textile industry association] was transformed from the former Ministry of the Textile Industry, and is now a public institution of the State-owned Assets Supervision and Administration Commission of the State Council; CCCMC [mining] is a public institution of the Ministry of Commerce; CESA [electronics] is a public institution of MIIT; the Ministry of Commerce and MIIT are the authorities of CHINCA [contractors] and CACE [communications] respectively.”

3.4. *Shiye danwei* (“public service units”)

Shiye danwei constitute a further relevant organization type that, from a foreign perspective, may look like either a “governmental” or “nongovernmental” body but is not properly understood as either. *Shiye danwei* (often translated as “public service unit”) include China's universities, hospitals, research institutes (e.g., the China Academy of Sciences), and organizations, like the China Academy of Environmental Planning, that serve as staff for government agencies. Staff members are not “civil servants” (*gongwuyuan*). However, given the role of government in their direction (e.g., sponsorship, selection of leadership, assignments), they are not fully nonstate actors ([Guttman et al., 2013](#); [Tang and Lo, 2009](#)). In recent years, *shiye danwei* have experienced a general reform or reclassification. On review of their functions, the status of some has been/is being changed to governmental agency, enterprise, or social organization (Id.).

As examples relevant to our story, the China National Institutes of Standardization is a *shiye danwei* research institution under the AQSIQ. Its English language website describes it as a “public interest institution at national level” ([CNIS website](#)). The Chinese Academy of Sciences has issued CSR reporting guidelines ([Global Reporting Initiative, 2014](#)) and the Chinese Academy of Forestry (a *shiye danwei*) plays a continuing role in developing China's forest certification standards. The China National Accreditation Service for Conformity Assessment (CNAS) (a *shiye danwei*) is responsible for accreditation of certification, laboratory and inspection bodies, established under the Certification and Accreditation Administration of the People's Republic of China (CNCA) ([CNAS website](#)).

3.5. Emerging E-platforms

In their explosive growth, China's major web platforms - Ali Baba, Baidu, Tencent - have become virtual storehouses for services and products within China and globally. A core question is how they may emerge as sources for environmental standards for goods and services. While it is premature to answer this question here, the potential role for consumer review and/or product standards provided on websites or by the web platforms is enormous.

4. Making a difference: streams of activities and mechanisms of influence

Observers have chronicled a range of strategies nonstate actors pursuing environmental protection have developed, with variations among them. (e.g., [Fürst, 2016](#); [Auld, 2014](#); [Cashore et al., 2004](#)). To understand use of these strategies in China, we speak of “streams of activities” and “mechanisms of influence.”

Regarding streams of activities, we ask whether the stream source is: (1) government rules with nonstate actors aiding in implementation; (2) organizations operating outside the government and independent of enterprises, or (3) enterprises acting individually or through associations to set and implement standards going beyond those established by the state.

By mechanisms of influence, we refer to tools or levers nonstate actors employ to alter conduct and the theories of change they reflect. Why should enterprises pay attention to regulators who are not government and lack government penal power? If they do pay attention, why is it likely to be more than for public relations purposes (“greenwashing”)?

4.1. Streams of activities and institutional arrangements that illustrate their workings in China

Stream One: Governments adopt regulatory measures and related standards; nonstate actors play prominent roles in administering or implementing them, ensuring compliance, or monitoring progress toward achieving goals.

The Institute of Public and Environmental Affairs (IPE), founded by Ma Jun, a China environmental pioneer, draws on government required information disclosure and develops its own indices and rankings to stimulate compliance with disclosure requirements.

Ma Jun's approach reflects time spent in the U.S. and study of American ENGOs' use of government mandated information disclosure, such as the Toxic Release Inventory. In cooperation with the China program of the U.S. Natural Resources Defense Council, IPE developed and operates an annual survey of China local government information disclosure (the pollution information transparency index or PITI).

In 2011, Ma Jun brought global attention to the poisoning of 137 Apple supply chain workers polishing products with N Hexane ([Barboza, 2011](#)). The PITI index is now accompanied by a corporate information transparency index (CITI), which ranks multinational brands on information disclosure, measuring the “greening of the supply chain” ([IPE website](#)).

In addition to IPE, ENGOs seeking to supplement governmental enforcement include those authorized by 2014 China environmental law amendments to go to court to represent the public interest. While hundreds of NGOs may technically qualify, the number of NGOs serving as plaintiffs is small. In 2015, ~50 lawsuits were brought primarily by Beijing-based Friends of Nature and the Center for Biodiversity Conservation and Green Development Foundation ([Li, 2016](#)).

Further, government environmental enforcement is supplemented by an array of accreditation and inspection institutions and *shiye danwei* that serve government in day-to-day monitoring and inspection.

Stream two: NGOs take initiatives in developing and implementing standards, introducing certification procedures, identifying best practices, or devising codes of conduct, sometimes in partnership with businesses or governments.

Here, primary actors appear to be foreign nonstate actors. Through training, consultation or other forms of cooperation, they assist China counterparts and promote their own standards.

The [ISEAL Alliance](#) and its members exemplify the first approach ([ISEAL website](#)). China business associations, such as CCCMC (outbound mining guidance), use ISEAL's work as a reference in developing their own standards ([CCCMC website](#)).

The second approach is illustrated by the evolution of China forestry standards in a process that might be called a nesting of global nonstate actor standards into the China community.

The Forest Stewardship Council ([FSC](#)), founded in 1993, is a Germany based international multistakeholder membership NGO ([FSC website](#)). It develops standards and provides for voluntary forest management and chain of custody certification. FSC issued its first chain of custody certificate in China in 1999. In 2007, WWF set up an FSC China working group with representatives from government, universities, enterprises and NGOs ([WWF website FSC](#)).

The China Forestry Certification Council (PEFC), a business association, also has developed standards. The Council, established in 2010, is a member of the Program for Endorsement of Forest Certification Schemes, another global forestry nonstate regulator. In 2014, the Council's China Forest Certification Scheme (CFCS) was endorsed by PEFC and embraced by the China government ([PEFC, 2014; 2015](#)).

Stream Three: Enterprises take the lead in developing and implementing the rules. This can involve enterprises acting individually in the form of CSR, trade associations or alliances to promote good practices, or enterprises (including banks and investment consortia) joining forces in support of codes of conduct (e.g. the Equator Principles). Often, the focus is greening supply chains.

Stream Three initiatives include those with global connections and those domestically rooted. In addition, Chinese business associations play prominent roles in developing social responsibility, including environmental guidelines and standards, doing so in consultation or cooperation with global nonstate networks.

In 2005, the China National Textile and Apparel Council ([CNTAC](#)) established an office of social responsibility. CNTAC launched a voluntary Corporate Sustainability Compact 9000 for Textile and Apparel Industry (CSC9000T). CNTAC terms the standard "China's first real attempt to address the concerns of western-based retailers and brands about how their products were being produced" and the beginning of China efforts to become a "seller" of sustainability standards to the globe (Fudan workshop Ppt).

Other associations producing social responsibility documents include the China International Contractors Association ([CHINCA](#)) ([CHINCA website](#)) and the China Chamber of Commerce of Metals, Minerals & Chemicals Importers & Exporters ([CCCMC](#)) ([CCCMC website](#)).

China business associations are developing standards for China enterprises going abroad. For example, CCCMC, in cooperation with OECD, developed the "Chinese due diligence guidelines for

responsible mineral supply in China" ([CCCMC website](#)). The aim, according to the Project brief, is ([OECD website](#)):

"for Chinese mining companies undertaking outbound mining investment, cooperation and trade to strictly 'observe the UN Guiding Principles on Business and Human Rights during the entire life-cycle of the mining project' and to strengthen 'responsibility throughout the extractive industries value chain.'"

The 2014 CCCMC Chinese Guidelines for Social Responsibility in Outbound Mining Investment ([CCCMC website](#)) call on members to "conduct risk-based supply chain due diligence in order to prevent engagement with materials that may have funded or fuelled conflict." They address human rights related risks (Type 1) and "risks associated with serious misconduct in environmental, social and ethical issues" (Type 2). Companies are to develop codes to meet guidelines requirements, with provisions for third party audit and certification.

Following Amnesty International's reporting on exploitation of child labor in Congo cobalt mining, CCCMC has been credited with a lead role in developing "[T]he Responsible Cobalt Initiative," working with OECD and joined by Apple, Samsung and other multinational electronics suppliers ([Whoriskey and Frankel, 2016](#)).

Foreign corporate rooted initiatives also are active in China. Walmart led in creating The Sustainability Consortium ([TSC](#)) to "green the supply chain." TSC members and partners include manufacturers, retailers, suppliers, service providers, NGOs, civil society organizations, governmental agencies and academics. TSC "convenes these diverse stakeholders to work collaboratively to build science-based decision tools that address sustainability issues that are materially important throughout a product supply chain and lifecycle." In entering China, TSC's U.S. university partners entered into cooperation with Nanjing University's School of the Environment.

Finally, environment is a prominent China CSR focus. A 2013 Swedish government survey found environment (47%) ranked second only to economic issues (62%) among CSR priorities ([CSR-Asia website](#)). For example, Sinopec, the largest China state-owned oil company, reports ([Sinopec website](#)):

In 2011, we signed responsibility documents of major pollutants discharge reduction target with the government and delegated the target among our subsidiaries. We also developed the 12th Five-Year Plan for Sinopec environmental protection work, which deploys key environment-related tasks in the future.

4.2. Mechanisms of influence or levers nonstate actors use to induce enterprises to contribute to environmental protection and sustainability

Nonstate actors lack the authority and power of states to compel change in conduct. The global repertoire available to nonstate actors to affect these pressure points includes core mechanisms of influence (e.g. [Fürst, 2016; Bartley et al., 2015; Auld, 2014](#)). Here we review core mechanisms of influence at work in China.

First, in China today, the "shadow of the state" occupies a prime role. This is both by virtue of the role of government in affecting enterprise conduct and in relation to NGOs and associations whose licenses to operate are government dependent.

For example, SynTao, a China CSR advisory firm whose clients include Chinese and foreign multinationals (e.g. Volkswagen and

Coca Cola) advises that in China today (Fudan workshop Ppt):

- Government has dominant influence
- Less influence from Investors
- Less influence from Consumers
- NGOs are limited in capacity and resources
- Lack of Trust

Similarly, the 2013 report by [CSR/Asia and the Swedish Embassy](#) summarizes: “A majority of the respondents view the government as the key driver of CSR development in the country” ([CSR-Asia website](#)).

As exemplified by IPE's indices, nonstate strategies that combine the shadow of the state and “carrots” constitute a useful approach. The PITI index focuses on making local/local government competition transparent. In “borrowing” government authority, IPE collects and reposts information published by government with productive effects on localities and enterprises. IPE's work includes inquiries to enterprises to see if they have addressed unlawful conduct.

Second, crisis is a driver in generating and focusing attention motivating government and thereby enterprises to act.

China leaders' attention to environment is stimulated by public crises. Examples include the 2005 Songhua river water spill, followed by elevation of the environmental agency to ministry status, and 2008 baby milk powder poisoning, leading to food safety law. Rising public open information-based awareness of PM 2.5 air pollution and early 2013 Beijing “airpocalypse” led to a September 2013 air pollution “action plan” ([Young et al., 2015](#)).

Crises similarly provide opportunities for nonstate regulation. As noted above, a report on child labor in cobalt mining led to the China mining association's entrance into the issue, and IPE's success in focusing on supply chains followed on IPE's work in bringing global attention to Apple supply chain worker poisoning. As a Fudan workshop nonstate actor participant put it, Greenpeace investigations provide openings for organizations that do not play such an adversarial role (Fudan workshop discussion).

Third, there is provision of resources essential to enterprise activity,

China's government experiments with resource incentives for green performance. These include “green credit” (favorable bank treatment for environmental performance) and green government procurement ([Qiao and Wang, 2011](#)). Currently, “green finance” is a government focus ([UNEP/PSI website](#)), and there is study of “sustainable insurance” ([Bacani, 2015](#)).

From the vantage of the first stream, IPE engages major China realtors who commit to buy from suppliers who comply with environmental laws, as shown by government data. From the vantage of multinational purchasers (the third stream), The Sustainability Consortium's “toolkits” provide key performance indicators (KPIs) for best practices, products and services. In principle, suppliers and multinational purchasers will use toolkits and KPIs in selecting suppliers ([The Sustainability Consortium website](#)).

Fourth, there is the provision of expertise that companies value.

Global second stream nonstate actors, such as [ISEAL Alliance](#) and its members, provide expert services to China business associations, government agencies, and NGOs in developing standards. They also provide expertise directly to enterprises.

For example, the Better Cotton Initiative (BCI) works with China farmers in “learning groups” that are then organized into “producing units.” The 2014 Harvest Report indicates that BCI's Implementing Partners worked with 7028 farmers organized into 10 Producer Units and 9 large farms; 6458 China farmers earned a Better Cotton license ([Better Cotton Initiative, 2014](#)).

The Alliance for Water Stewardship (AWS) acts as an expertise purveyor helping identify available technologies and practices. AWS works across industries (e.g. fashion and micro-electronics) providing understanding of the role of water in the supply chain and supply chain “risks and resilience.” AWS' working hypothesis is that adoption of best technologies or practices by a critical mass of leaders will provide a “tipping point” for an industry sector (AWS Fudan workshop presentation).

Fifth, there is the push and pull of going abroad.

In addition to roles in multinational supply chains, Chinese enterprises have growing investments and interests in doing business abroad. As in the CCCMC mining standards and Forestry association cooperation with FSC and PEFC, companies are interested in being perceived as good global citizens. Global Environmental Institute is a China domestic NGO whose project focus includes Myanmar, Sri Lanka, Pakistan and Africa. Countries ([GEI Website](#)). This China going abroad focus is likely to become more important as China's leaders pursue the Belt and Road Initiative ([Economist Intelligence Unit, 2017](#)).

Sixth, there is what might be called cross border cultural arbitrage.

Cultural differences can provide both constraints and synergies for nonstate actor efforts to work across borders.

For example, AWS has a substantial presence in Australia, where green awareness surrounds fashion purchases. AWS's Australian Fashion Brand Initiative encompasses supply chain links from cotton production to processing to retail sales. The Australian focus provides leverage with China portions of fashion supply chains. In China, AWS works with WWF in cooperation with H & M (AFWS Fudan workshop presentation).

In sum, China based or related nonstate actors are developing and testing a repertoire of mechanisms of influence.

5. Evaluating performance: the effectiveness of nonstate actors

How effective are efforts of nonstate actors in China and what are the determinants of success or failure in this realm? We explore two distinct questions: (i) do activities of specific nonstate actors succeed in solving problems or achieving goals motivating their efforts? (ii) do activities of nonstate actors taken together lead to improvements in China environmental governance? While it is too early to offer clearcut conclusions, we can begin to address these questions.

5.1. Problem solving/goal fulfillment

Nonstate actors generally address specific problems. For example, they may seek to clean up polluted water bodies, reduce emissions of greenhouse gases, limit forest destruction, or improve the sustainability of industrial production processes. Assessing effectiveness requires evaluating progress toward fulfillment of these goals and determining the extent to which a given nonstate actor has played a role in progress.

The evaluation literature differentiates among outputs, outcomes, and impacts. Outputs are the first step; they may take the form of establishing standards, making decisions about awarding certificates, or setting up collaborative arrangements. In our context, the issuance of FSC certificates and the creation of the TSC are prominent examples. Outcomes have to do with measureable changes in behavior. Do corporations that hold FSC certificates make significant changes in their behavior or practices as a result of certification? Impacts bring us to the most important stage in the causal chain. Are the problems that lead to action on the part of nonstate actors solved? Are there, for example, measurable improvements in water quality in targeted lakes and rivers? Can we demonstrate that nonstate actors play significant roles in achieving these results?

In the final analysis, we are interested in problem solving. Outputs and outcomes are important as steps to solve problems, not as ends in themselves. Nevertheless, it is typically easier to document outcomes and especially outputs in contrast to impacts. If the FSC issues a certificate, there is no question about the causal connection. Moving to outcomes already presents problems of demonstrating causality.

At this stage, we lack systematic evidence to make solid, data-based assessments of the roles that nonstate actors play in China environmental protection. This is a major challenge for research going forward. What we can do is provide some prominent illustrations from each stream of activities that will help concretize issues and offer initial insights regarding determinants of success.

For the first stream, the work of IPE and environmental NGOs representing the public interest in court illustrate successes and also, no less useful, highlight distances to go and steps to get there. IPE pioneers in using public information to push compliance with open information laws and rectification of illegal or harmful conduct they reveal. IPE's annual PITI and CITI reports indicate year-on-year improvements or declines in locality and corporate information reporting. For example, IPE reports that the "top seven" cities score over 70 points on the PITI index, showing that advanced regions have improved information disclosure. This suggests IPE's work has an effect. At the same time, however, IPE reports that scores in some regions remain low, with insufficient leverage of IPE reported data (Fudan workshop Presentation).

In 2015, the first year of ENGO "public interest" lawsuits under the 2014 amendment, about fifty lawsuits were initiated. Not surprisingly, there were varying degrees of success with regard to outcomes. In some cases, court orders for relief were granted. In others, relief was denied or courts did not accept the cases (Li, 2016). Perhaps of greatest value, the initial efforts highlight challenges.

While an estimated 300–700 NGOs may qualify to bring cases (UNDP, 2015), most cases were brought by a small number of Beijing-based ENGOs: the China Biodiversity Conservation and Green Development Foundation (CBCGDF), Friends of Nature, and the All China Environment Federation. These organizations are critical, but compared with US and EU counterparts Chinese ENGOs have limited in-house legal and technical staff. The pressure on resources was highlighted by court orders, under review, that unsuccessful ENGO plaintiffs may be burdened with court costs (CBCGDF, 2017; Zhang and Tang, 2017). Given limited resources and complexity and scale of China's environmental problems, there is a premium on development of economies of scale. Going forward, the test is whether limited resources are devoted to highest priorities and whether success in one case in one locale is replicated elsewhere.

The efforts of ISEAL Alliance and its members illustrate stream two. First, ISEAL, by attestation of China trade associations and ISEAL members, plays a role as capacity builder and point of

reference in development of China native standards. We can measure success by the numbers of Chinese organizations drawing on ISEAL's work, and how it is embodied in their standards and implementation. Second, ISEAL Alliance's effect arises from how ISEAL members adopt and effectuate Alliance principles in their China activities. Here, the story is a work in progress.

ISEAL Alliance members publish evaluations according to Alliance standards. For example, the 2015 Sustainable Agricultural Network/Rainforest Alliance Impacts Report "Evaluating the Effects of the SAN/Rainforest Alliance Certification System on Farms, People, and the Environment" describes the monitoring and evaluation system and provides analyses by crop (bananas, coffee, tea, cocoa) and issue (livelihoods, water, conservation, biodiversity, smart agriculture and climate change).

While reports provide data and success stories for work done outside China, however, China analyses are more limited. For example, the 2015 SAN/Rainforest Alliance Impacts Report shows that RA work is focused on tea, notes that tea originated in China, and that China, Kenya and India are prime producers today. But the report notes Kenya and India provide over 60% of Rainforest Alliance certified tea production, with China included among 3.5% in the "other country" category. The report reviews evaluations of Kenya and India and spotlights a Kenya farmer. There is no similar in-depth China reporting.

ISEAL Alliance members do report publicly on a variety of China output measures. These include "softer" measures, such as Memoranda of understanding, and numbers of members, workshops, conferences, trainings or other awareness raising activities. For example, the Marine Stewardship Council reports, in cooperation with the China Chain Store and Franchise Association, WWF and UNEP, on a "sustainable seafood week" (Marine Stewardship Council website).

The measures also include indicators on standard application through certification. In 2016, for example, FSC reports 4000 chain-of-custody certificates in China, mostly for export and hectares of forest under certification (FSC website). Similarly, in 2016, the Rainforest Alliance reporting on China activities included: (i) 36 farms and forest management units under sustainable management, (ii) engaging 8 international buyers and hundreds of suppliers on responsible sourcing, and (iii) 15,000 individuals trained in sustainable land management (Rainforest Alliance, Fudan Workshop Ppt).

In some cases, reports go further toward outcomes and impacts. For example, the Better Cotton Initiative (BCI) reports its China activities as a component of annual harvest reports. BCI reports continued year-on-year improvements. The 2014 data include numbers of farmers, areas under cultivation, and yields. The reports compare BCI farmers with "comparison" farmers on indicators including yield, synthetic and organic fertilizer use, pesticide and water use as well as profits (BCI, 2014). The 2014 Harvest Report documents that in all cases the BCI licensees did better than the comparison group.

Next are corporate-driven activities of stream three. Here, China offers three models: activities driven by multinationals such as The Sustainability Consortium (TSC), activities driven by Chinese business associations, and CSR.

TSC's 2016 Impact Report provides aggregate data (and "scores") by product group and lifecycle stage, but does not contain country specific data (TSC website).

Chinese companies increasingly provide CSR reports with "environment" or "sustainability" components. The Sino-Swedish China CSR website includes an environmental best practices page with summary case studies identifying practices and achievements (Sino-Sweden CSR, website).

5.2. Systemic effects

Whatever conclusions we reach about the success of individual nonstate actors in addressing particular environmental issues in China, we also ask whether their collective efforts are bringing about significant changes in China's institutionalized environmental governance processes. Specific initiatives may fall short or fail altogether; many actors may end up with disappointing records on solutions to environmental problems. Even so, it is possible that the environmental movement spearheaded by an array of nonstate actors is playing a role in bringing about systemic changes in China's environmental governance.

It is helpful to distinguish two types of changes in thinking about these systemic effects: (i) changes in governmental structures and processes relevant to environmental issues and (ii) changes in the scope of opportunities for nonstate actors to play effective roles in environmental governance going forward.

As in the case of problem solving, we cannot now produce data-based conclusions about these matters. That will require a sustained effort to collect and evaluate data over a period of time. But we can offer some initial observations about the systemic effects of the efforts of nonstate actors.

It appears the "space" (or *kongjian*) for the nonstate activities is growing, but that the shadow of the state is expanding simultaneously. Numerous business associations (*she hui tuanti*) and "NGOs" have emerged in recent decades as distinct legal entities. Many *shiyi danwei*, previously wholly dependent on state funding and service, now seek outside clients and revenue. Yet CSR, elsewhere undertaken following social pressure (or corporate self-initiative), is borne aloft in China by government direction. Similarly, while the 2014 law permits ENGOs to bring "public interest litigation," a 2016 law confirms that the procuratorate, with far greater resources, will also pursue "environmental public interest" litigation with exclusive authority to bring suits against government (Library of Congress, 2017). Actions taken in March 2018 by the National People's Congress, including the creation of a new Ministry of Ecology and Environment, continue to reaffirm the strength of the state in environmental, as well as other, affairs.

In this context of simultaneous nonstate actor and state (or party) strengthening, nonstate actor changes to watch include: (1) the developing role of trade associations in setting standards both for domestic and "going abroad" enterprises and related development of CSR, (2) the role of IPE in developing "NGO driven" information-based regulation and environmental NGOs in public interest court cases, and (3) the iterative effect, if any, between China "outbound" and domestic standard setting and implementation.

In comparison to western nonstate arrangements, structural developments in China feature core roles for public service units (*shiyi danwei*) and business associations with close government connections, and limited roles for independent NGOs, whether measured in number or capacity of NGOs like IPE or GEI or environmental law NGOs making use of environmental law.

Given the scale and complexity of China's environmental challenges, the evolving structure has advantages and disadvantages. With a small central government civil service environmental workforce (500 or fewer civil servants in the Ministry of Environmental Protection, which through 2018 reform will be part of a new Ministry of Ecology and Environment), China's business associations provide nationwide reach into Chinese enterprises supplementing the influence of government. In developing "voluntary" standards, the associations may provide testing grounds for "policy learning" toward mandatory standards.

Nevertheless, public service units may generate routinized products, and business associations may provide lowest common

denominator standards and oversight. In China, the question may be who will play the role NGOs (independent of business associations and enterprises) play elsewhere in providing stimulus and oversight?

Interactions among elements of the evolving institutional structure may be key. China's government mandates CSR and supports trade associations. How will CSR efforts of individual enterprises, and related efforts at green product/service innovation, presumably motivated at least in part by desire to portray themselves as leaders distinct from competitors, relate to associational standard setting? Will CSR leaders stimulate "races to the top" that NGOs lead elsewhere? As a corollary, in China's remarkable development, local governments play key roles stimulating "races to the top" for GDP growth. In relation to performance indicators developed by IPE and potential NGO litigation, will local governments promote green races to the top?

Finally, there is the role of "foreign NGOs" in supporting and stimulating development. Foreign NGOs have played multiple roles: (1) providing expertise, capacity building and financial support for Chinese counterparts; (2) providing cross-border leverage, as in the case of AWS's capacity to bring Australian fashion interests to bear on China's fashion supply chain; and (3) providing investigative reports and campaigns, as with Greenpeace and Amnesty International, providing space for foreign and domestic actors. How will implementation of the new Foreign NGO law affect these interactions?

6. Insights from the Chinese experience

What are the implications of China developments for our general understanding of nonstate actor roles in addressing environmental issues, especially in non-western settings?

We reemphasize initially our view that study of Chinese governance processes indicates that the concept of nonstate actor (or terms like NGO/CSO) is not robust enough to capture the reality of China's emerging approach to environmental issues. This challenge of vocabulary is a matter of substance, not simply form. Government plays a different role in China today than it does in places like the US, EU, and Commonwealth countries, where the notion of nonstate actor evolved. While Chinese and western actors use similar tools (e.g. information disclosure, certification and accreditation), they operate differently in different systems.

For scholars and practitioners alike, there is value to vocabulary that encompasses western nonstate actors and China counterparts. Further analysis should help researchers clarify the meaning(s) and value of the nonstate actor concept – not only in China but also in the West – and practitioners' understanding of how cross-border arrangements need to be adjusted for application to local conditions.

With appropriate vocabulary in hand, there are multiple opportunities for comparisons that may lead to scholarly insights and practical learning.

First, the ultimate question is how the effectiveness of governance processes developing in China, emphasizing government-related public service units and business associations, compares with western models, emphasizing more autonomous nonstate actors? Can the Chinese system provide a model for societies where NGOs, in the sense of entities more substantially independent from government and business, may not commonly play major roles?

Next, how will Chinese processes play out given China's dual role as one of the world's largest economies and as a developing economy? Here, the relation between global and China trade association standards in China's Belt and Road Initiative may provide a good point of entry for study. China and its enterprises have interests in striving to meet global standards and cooperate with

global nonstate actor environmental standard setters. Thus, Chinese business associations work with ISEAL Alliance and its members. As exemplified by CCCMC, China's minerals trade association works with the OECD and global suppliers on global responsibility guidelines and child labor in cobalt production.

As a corollary, how will China address environmental standards in its role as leading consumer of multinational products as well as leading supply chain source? For example, China is not a significant palm oil producer but (with India) it is the world's largest importer (IISD, 2014). In May 2013, the Roundtable for Sustainable Palm Oil (RSPO) signed an MOU with the China Chamber of Commerce for Import & Export of Foodstuffs, Native Produce & Animal By-Products (CFNA). At the 2016 third China palm oil summit, RSPO announced over 50 Chinese members, including Sinograin, a large state-owned enterprise, and the China National Cereals Oils and Foodstuff Corporation, China's largest palm oil importer, with two palm facilities certified. (Kingdom of Netherlands website). As China's leaders seek to use increased citizen purchasing power to transform the economy, it is a common complaint that citizens prefer foreign products or to purchase abroad. How will Chinese enterprises on the consuming end of global supply chains drive global standards? Will evolving Chinese practices provide pushes or drags on global environmental protection?

Third, is the relationship between environmental and other standards. Global nonstate actors often integrate environmental standards with labor, community, or human rights standards. The difficulties of efforts to link labor and environmental standard setting in China are often reported. The SAN/Rainforest Alliance Report, for example, focuses on worker conditions as an issue, using India as a case. China is not discussed. But, as noted, CCCMC includes human rights and environment in its "going abroad" mineral industry guidelines. The implementation of such guidelines will be a subject for continued attention.

Fourth, a core factor in nonstate actor efforts is opening the "corporate suite black box," developing corporate suite awareness of and receptivity to environmental standards. Again, the Chinese system provides a basis for comparison. Elsewhere, inter-industry competition itself (including competition for consumers or financial sources) might be key. In China, the "shadow of the state" is key.

Finally, the 2016 Foreign NGO law puts in doubt the continued role that "foreign NGOs" have played in the development of the China community. From the "foreign NGO" perspective, there are risks associated with required reporting to the Public Security Ministry as well as to local (and foreign) staff and organizations regarding non-adherence to rules. How will this affect advocacy NGOs, such as Greenpeace, that are keystone species in the non-state actor landscape through research and reports that help catalyze opportunities for others?

China's environmental challenges are well known. Now, as China assumes a leading role in global environmental affairs, it is essential for scholars and practitioners to improve understanding of how the roles pioneered by western nonstate actors are being translated into a China context in which Chinese counterpart institutions are not only important domestically but also may assume global leadership roles.

China is developing an alternative model of the role of nonstate actors in environmental governance. We have provided a frame for deepening understanding. This understanding should be of value to those engaged in global environmental governance. It should also prove useful to those from countries with well-developed nonstate sectors and those from developing countries with limited sectors both as a basis for comparison and as a source of ideas for potential adoption.

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