

Article

The Changing Role of China in Global Environmental Governance

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Abstract

As the largest emitter of greenhouse gases and the largest consumer of various commodities in the world, China has been often seen as a major problem for global transition to cleaner energy and more sustainable use of natural resources. Nonetheless, with its significant investment in clean energy and support to the Paris Agreement, China seems to become increasingly active in leading actions to protect the environment. Will be China a new leader in global environmental governance? The essay reviews China's proactive environmental policy in three fronts – climate mitigation, green finance, and pollution control. It further argues that a transition to green economy in China requires that private actors be empowered and actively engage in governance, the fragmented governance structure be unified, and public awareness on sustainable development be raised.

Keywords

China, Environmental Governance, Climate Change, Green Finance, Private Actors, Public Awareness

China as a problem or solution?

The economic growth of China over the last three decades is unprecedentedly rapid – the country is now the world's second largest economy and is expected to surpass the US as the largest one in the coming decade. As a result of such growth, China is very often considered as a major rising power continually increasing its impact on global governance. Such growing impact lies not only in the economic and political realms, but also the environmental one. With the world's largest population, China's industrialization is associated with considerable energy consumption and severe pollution. Having burned around the half of the coal consumed in the world, China is the largest greenhouse gas emitter since 2007, and responsible for 27% of the global emissions in 2014 - more than the US and the

EU combined¹. Meanwhile, the rising standard of living makes China the largest importer of many raw materials and thereby lead to some damaging consequences for the global environment (Economy & Levi 2014).

Does China's growth make a threat for our world's sustainable development? On the one hand, China presents considerable challenges to global environmental governance as the biggest polluter. In respect to environmental diplomacy, China has been blamed for wrecking the climate negotiation in Copenhagen (Dimintrov 2010; Lynas 2009). Moreover, some scholars have also expressed their concern on China's growing consumption which leads to a race to the bottom of environmental standards for the production in other developing countries (Kaplinsky et al. 2011).

On the other hand, the world's worst polluter has already begun to take ambitious actions and made nontrivial progress in the past. From 2004, the country has multiplied its investment in renewable energy 13-fold by 2010 and another two and half times by 2015 to US\$102.9 billion – by far the world's largest investor (Frankfurt School-UNEP Centre 2016). To tackle its air pollution, the state also introduced a comprehensive action plan in 2013, pledging an investment of 1,700 billion yuan (US\$277 billion) from the central government (China Daily 2013). With various efforts by its government, China reduced its energy intensity by 18.2% and carbon intensity by 20% in the 2010-2015 period. Hence, one may think China as not a threat to the planet, but rather the model for how to clean it up (The Economist 2013).

What is the role of China in today's global environmental governance? Is the country emerging as a new leader of green economy? This essay attempts to answer these questions by reviewing China's recent efforts in environmental policy and analyzing major challenges that remain in making its development model truly sustainable. It argues that to achieve its ambitious plans on environmental governance the Chinese government needs to enhance the participation of private actors in governance, restructure its fragmented governance structure and raise public awareness on sustainable development.

China's remarkable efforts in environmental governance

As a developing country, China is a latecomer in global environmental governance and for a long period was keeping reluctant to make any commitment. In 1972, China did not sign the final agreement at the UN Conference on the Human Environment; at the UN Conference on Environment and Development in 2009, the then Chinese premier minister emphasized economic development and

¹ Data provided by the Global Carbon Atlas, downloadable at <http://www.globalcarbonatlas.org/?q=en/emissions>.

national sovereignty as the country's main concern. More recently, as mentioned earlier, it prevented with India and Brazil a global agreement of climate change in 2009 (Dimitrov 2009). Accordingly, some scholars even comment that "China is extremely skeptical towards externally enforced measures that would undermine the potential for social and economic development for the sake of climate change" (Lo 2016, p. 38). However, China's environmental diplomacy seems to change rapidly over the last few years – with its ambitious actions and plans at the domestic level, China is increasingly active in global environmental governance.

Proactive actions on climate mitigation

Combating climate change seems the most prominent component of China's new environmental policy. Starting from its 11th Five-Year-Plan (FYP) set in 2005, the Chinese government spares no effort to decrease national energy intensity and build up a set of strategic low-carbon industries (Lewis 2013). Specifically, since 2007 the state has shut down thousands of inefficient power and industrial facilities so that its energy consumption per unit of GDP continues to decrease over the last decade – 19.1% from 2005 to 2010 and 18.2% from 2010 to 2015, and a target of further 15% decrease by 2020 has been set in its 13th FYP. More importantly, because of a strong policy for energy reforms including the Renewable Energy Law launched in 2006 and massive state-led investment, the proportion of non-fossil fuels in China's energy mix has reached to 12% by 2015 and the carbon emissions per unit of GDP has been reduced by 20% between 2010 and 2015². In addition, China has also initiated domestic carbon trading to combat climate change: it has started seven pilot markets at the city- or provincial level in 2014 and the goal is to make a national cap-and-trade system full in operation between 2017 and 2020 (Lo 2016).

Such progress helps China make ambitious pledges in the international arena. In its "intended nationally determined contribution" submitted to the UN Framework Convention of Climate Change in June 2015, China puts forward several concrete and challenging goals of its climate actions by 2030, including: peaking its CO₂ emissions around 2030 and strive to peak early; lowering CO₂ emissions per unit of GDP by 60% to 65% from the 2005 level; increasing the share of non-fossil fuels in primary energy consumption to around 20%; and increasing the forest stock volume by around 4.5 billion cubic meters on the 2005 level (NRDC 2015).

In fact, since 2014, China began to play a key role in facilitating the conclusion of the Paris agreement by reaching a Joint Announcement on Climate Change with the US where China for the first time indicate a goal on emissions peak. In

² Data from China's 13th FYP, see the full Chinese text http://news.xinhuanet.com/politics/2016lh/2016-03/17/c_1118366322.htm.

September 2015, the Chinese and American leaders made a Joint Presidential Statement on Climate Change to coordinate their position for the Paris conference. During the negotiations in last December, China is no longer an obstructive player, but rather called for a strong legally binding character for general obligations (Dimitrov 2016). Finally, just a few weeks ago, China ratified the Paris Agreement together with the US and the two countries also announced their plan to address another important greenhouse gas - Hydrofluorocarbons (HFCs) – in an amendment of the Montreal Protocol and their backing for action on aviation emissions under the International Civil Aviation Organization (UNFCCC 2016).

An emerging leader of green finance

Another area where China shows its willingness to take leadership role concerns green finance. Since 2013, the Chinese government launched a range of initiatives in order to establish a green financial system. Following the plan to grow a corporate green bond market to assist China's transition to a low-carbon economy announced by the State Council, the People's Bank of China (PBoC) – China's central bank – and the UNEP initiated a Green Finance Task Force in 2014, which comprises more than 40 Chinese and foreign experts from regulatory institutions, think tanks, academia and the private sector. This task force proposed in April 2015 fourteen specific recommendations for building China's green finance system and in December, the PBoC published the Green Bond Guidelines with the Green Bond Endorsed Project Catalogue. The green bond market grows incredibly fast in China – just in January 2016 two commercial banks issued more than US\$ 4.5 billion bonds, and two months ago the Bank of China launched the largest multi-denominated issue of green bonds so far on international markets, worth US\$3 billion (Xu & Wang 2016).

Indeed, China's move towards green finance constitutes a key element of a reform on green economy identified by the country's 13th FYP for the period of 2016-2020, which aims to build a green financial system, develop green credits, green bonds, and establish green development funds. More recently, China's leadership shows its determination on the issue by approving on August 31, 2016 the "Guidelines on Establishing the Green Financial System" jointly issued by seven government agencies. In putting forward a wide range of financial instruments, these guidelines can be seen as the world's first attempt at an integrated policy package to promote an ambitious shift towards green economy (Ma & Zadek 2016).

On the international stage, China also show its intention to lead a global reform. With its presidency in this year, China puts green finance high on the G20's agenda; and the PBoC co-chaired with the Bank of England the G20 Green

Finance Study Group to promote cooperation on a green financial system and develop the attractiveness of green finance. As a result, one remarkable outcome of the G20 summit in Hangzhou is to recognize the importance of scaling up green financing and identify a range of efforts needed. Furthermore, China's efforts on green finance extends to its oversea investment including the multilateral development banks under its leadership – the Asian Infrastructure Investment Bank (AIIB) and the New Development Bank ('BRICS Bank'). Through these multilateral banks, China can vitalize green finance on a global scale, taking the world to a tipping point (PBoC & UNEP 2016).

War on pollution

Last but not least, the Chinese government puts a lot of emphasis on pollution control as response to the increasing public concern on the country's environmental degradation. With the media coverage of hundreds of incidents, pollution has already become a top concern for the Chinese public in recent years (Wike & Parker 2015). China's top leaders realized this legitimacy crisis caused by their insufficient control of pollution and therefore give priority to the issue. In 2012, the Chinese Communist Party revised its constitution by adding in the Party's overall plan "the establishment of an ecological civilization", identifying resources conservation and environmental protection as basic policies. Meanwhile, from 2011 to 2014, China's legislative body has amended its Environmental Protection Law (EPL). This new law, taking effect since 2015, sets forth a stringent legal framework for China's sustainable development with critical revisions in several aspects including toughening penalties for environmental offenses, establishing a public environmental litigation system which largely increases the number of groups eligible to bring lawsuits, requiring the local environmental protection bureaus to disclose environmental information, and building unified pollution control and coordination mechanism for some key areas across administrative units (Zhang et al. 2016).

Furthermore, over the last three years, the State Council has released three specific action plans of prevention and control respectively for air (in 2013), water (in 2015), and soil (in 2016) pollution. Many ambitious targets have been set in these plans. On air pollution control, by 2017 China aims to reduce the consumption of coal to below 65% in terms of total energy consumption and cut the level of fine particulate matter (PM_{2.5}) in Beijing-Tianjin-Hebei Province, the Yangtze River Delta, and the Pearl River Delta by 25%, 20% and 15% respectively. In the plan on water, the targets by 2020 are to lift the share of good quality water (ranked at national standard three or above) in seven major river basins to more than 70% and to ensure at least 93% of urban drinking water supply to be at least 'level three' (i.e. a drinkable standard). With respect to soil, the relevant plan aims to decontaminate 90% of the nation's polluted farmland and industrial sites by 2020.

Obstacles to overcome in the journey towards a green future

The various ambitious plans highlighted above embody the determination of China's leadership in improving the country's environment and also contributing to global sustainability. Despite this, China's ultimate impacts on the global environment will depend on the implementation of such plans to which the current governance model in China poses considerable obstacles. This section points out three key areas for future reforms if China's leaders really wants to build an ecological civilization for the wellbeing of people in China but also around the world.

Changing the relative power dynamic between the state and society

To begin with, private actors have to be truly empowered and engaged in governance. Similar to its path of economic takeoff, China's achievement in environmental policy can be attributed to the state's strong presence, namely a top-down approach through command-and-control mechanisms led by Beijing. However, this approach has shown its limits as private actors – business, NGOs, and the public – have few opportunities for formal participation in the political process (Economy 2014).

As local governments often prioritize economic growth over environmental protection, the frequency and scale of environmental protests are quickly increasing across all China, in both urban and rural areas (Albert & Xu 2016). Internet further helps more Chinese citizens express their outrage for the government's inaction against pollution, and call for their right to know. Hence, for having a sustainable future, China can no longer rely on its previous mode of governance led by the state, with little support from business and civil society. Instead, the government needs private capital to finance its pollution control and energy transition, expertise of private actors to develop relevant technology, and supervision of civil society for further transparency. While most plans mentioned above include an element of enhancing public participation, so far the reforms in this respect seem insufficient.

First, the revised EPL fails to pronounce and acknowledge environmental rights, and it does not allow many private actors, such as individuals, to bring lawsuits (Zhang et al. 2016). This flaw will bring huge barriers for private actors participating in governance, especially when they want to challenge the government's misconduct. Second, civil society is tightly controlled by the government so that environmentalism as a mass movement is still in its infancy in China (The Economist 2013). Although the Chinese government is increasingly responsive to public pressure on environmental issues, it remains concerned that environmental activism could lead to a broader push for political reform (Economy 2014). Thus, the lack of a vibrant civil society inevitably hamper the public to put pressure to the government or polluters. Lastly, on green finance, China has not established

a credible third-party verification system to evaluate whether or not projects are eligible as “green” (Xu & Wang 2016). Such a system is necessary for a successful green financial system and the engagement of private actors including auditors, standard-setting institutions, and rating agencies are indispensable.

Reforming the fragmented governance structure

Moreover, the Chinese government must structure both horizontally and vertically its fragmented governance system to carry out unified policy management. On the one hand, the poor track record of China’s environmental performance is often caused by overlapping authority across different government agencies (Economy 2014; Wang et al. 2016). Taking the example of water pollution, the relevant regulatory responsibility is shared by various ministries, including Ministry of Environmental Protection responsible for pollution prevention and control, Ministry of Water Resources in charge of protection of land-based water resources, State Oceanic Administration if the pollution concerns seawater, Ministry of Housing and Urban-Rural Development taking care sewage treatment plants, and Ministry of Agriculture overseeing water pollution from farmland. As pollutants can come from different sources and move, in many cases these agencies are unclear about their responsibility and the actions they need to take. It is therefore of paramount importance to formally set a unified governance system led by one leading agency to coordinate the actions and prevent slackness.

On the other hand, unified management across subnational units is also critical to the effectiveness of governance. In this respect, China’s decentralized authoritarian system which lacks enforcement by the central government seems “highly damaging” to the environment (Economy 2014). Indeed, pollution often affects different administrative units at the same time, so the government needs a unified approach to ensure the adoption of control measures in the whole polluting area while prevent free-riding. Following this logic, the action plan on air pollution proposes unified governance of some key areas comprising different provinces. Looking ahead, the government should introduce such initiatives to other environmental issues and deepen the reforms in this direction by creating the regulatory entity and establishing the monitoring system for each area.

Raising public awareness on the broader issue of sustainable development

Finally, an efficient governance system should be based on public awareness about environmental protection and more broadly sustainable development. While the Chinese leadership has put sustainable development high on the government’s agenda, many Chinese citizens still lack a thorough understanding on environmental impacts of their behavior. Indeed, most participants in environmental protests only care about their local situation, instead of the overall environment, implying a strong feature of Nimbyism (not-in-my-backyard) in today’s public

participation. Hence, a big question mark remains over the behavioral changes of the Chinese public to support the government's policy.

Indeed, a growing public environmental awareness has the potential to accelerate China's green reforms by leading consumers to choose environmentally-friendly or energy-efficient products over conventional ones. Such changes in people's daily life can provide further impetus through supply chains to the transformation of China's development model. More broadly, market pressure as well as environmental awareness of business leaders can push companies to be more socially responsible. In recent years, some initiatives have been launched such as the Sustainable Consumption Week co-organized by UNEP, WWF, and China Chain Store & Franchise Association, but more campaigns and activities will be needed in order for more Chinese changing their behavior in line with sustainable development.

Another critical issue lacking attention in China is the impact of China's development on natural resources beyond its borders. The continuous expansion of its domestic market has made China the world's largest importer and consumer of many commodities and thereby negatively affects the environment in other developing countries. For instance, by accounting for half of all trade in illegal wood-based products, China's growth indirectly exacerbates deforestation in Africa and Southeast Asia (Hoare 2015). Similarly, China's growing meat consumption is causing increasing land clearing for soybean plantation in Brazil (Brown 2012); and Chinese appetite for seafood is also criticized as a major source of global overfishing and illegal fishing (Economy 2015). Nonetheless, most Chinese know little about such consequences of their rising standard of living, and consequently lack incentives to push the government taking responsibility or change their own consumption behavior. Therefore, raising public awareness about China's environmental impact on other countries is a necessary part of the solution for the depletion of global natural resources.

Conclusion

Environmental governance is critical to China's future because better environment and cleaner energy are helpful to restoring the government's legitimacy, moving towards a sustainable model of economic growth, and build an image of responsible rising power. Having realized the importance of environmental protection, China launched its reforms of environmental policy since more than ten years ago and has made important progress in the past decade, especially on the reductions of energy and carbon intensity. More recently, China's leadership announced ambitious plans to mitigate climate change, promote green finance, and control pollution, showing more openly to the world their determination to move from a laggard towards a new leader in global environmental governance.

While these changes seem encouraging, the actual impact of China's actions remains highly uncertain because of many challenges in the policy implementation. For the success of China's transition to green economy, future reforms need to be focused on three areas: institutionalizing channels of engagement between the government and private actors, establishing unified governance system without overlapping authority across regulatory agencies, and raising public awareness on the broader issue of sustainability. Without these reforms, China can hardly meet its targets. By contrast, if it can deepen its reforms in these aspects, China will have a chance to provide its timely solutions to today's global environmental crisis from which our future generations will benefit.

Bio

Yixian Sun is a PhD candidate in Political Science, affiliated with the Centre for International Environmental Studies, at the Graduate Institute of International and Development Studies (IHEID), in Geneva, Switzerland. His research focuses on private governance and environmental politics, and has been published or is forthcoming in scholarly journals including *Global Environmental Politics* and *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*. Yixian is now writing a dissertation to examine the diffusion of private sustainability standards in China, funded by Swiss National Science Foundation. He has also attend several multilateral environmental negotiations as a writer for the *Earth Negotiations Bulletin*.

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