

## THE INTERNATIONAL SOURCES OF DOMESTIC CARBON TRADING IN CHINA: A CONSTRUCTIVIST PERSPECTIVE<sup>1</sup>

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### ABSTRACT

*From 2007 to 2015, China initiated, entrenched, and expanded, the 'National Climate Change Programme' that supported the development of domestic carbon trading schemes, culminating in a decision to create seven formalized 'cap-an-trade' platforms and then a nationwide carbon market. The market orientation of these efforts in general, and the carbon trading schemes in particular, were striking in how they seem to be in parallel with the domestic actions of the Kyoto Protocol's Annex I countries which were required to meet binding emissions reduction targets. Yet China, as a non-Annex I signatory, was not under any formal mitigation obligations under the Kyoto Protocol. Why would China take these domestic actions without any formally binding commitment to do so? Given the new Paris Agreement also contains no binding obligations, answering this question may shed light on what to expect from China in the post-Paris period.*

*This paper suggests that part of the explanation for China's domestic climate reforms can indeed be traced to two international influences. Drawing on a broad range of constructivist literature, it identifies and traces the functions and contributions of the international sources from three dimensions: the institutionalized principle of 'common but differentiated responsibilities', and strategic construction need for pursuing national interests in international climate negotiation. Referring to the example of China's domestically-established preference for adopting market-based approaches to socioeconomic reform, it concludes that the international sources, while not the only influential factors, are important in shaping China's emissions and carbon trading policy*

*Key words: Carbon trading, China, constructivism, international sources*

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### INTRODUCTION

As a non-Annex I country under the Kyoto protocol to the United Nations Framework Convention on Climate Change (UNFCCC hereinafter), China did not agree to any binding commitments. Yet, during the period of 2007-2015, the Chinese government undertook a 'National Climate Change Programme' (NCCP hereinafter) which resulted in the initiation of a domestic carbon market. The Program culminated in a decision to create seven formalized 'cap-an-trade' schemes which gradually rolled out between 2013 and 2015. The market orientation of these efforts in general, were striking in how they seem to parallel the domestic actions of the Kyoto Protocol's Annex I countries which were required to undertake binding responsibilities of emissions reduction.

Why would China take these domestic actions without any formally binding commitment to do so? Given the absence of internationally binding commitments in the approach of the new Paris Agreement, answering this question may shed light on the ways in which China's future climate policies might develop, and might have strategic implications for those domestic and transnational organizations seeking to nurture 'bottom up' domestic climate policies in developing countries.

Drawing on constructivist scholarship, this paper suggests that the international influence on domestic carbon trading in China could be understood in three aspects: the institutionalized principle of 'common but differentiated responsibilities' (CBDR hereinafter), expert knowledge of international epistemic communities, and strategic construction need for pursuing national interests in international climate negotiation.

Following this introduction, we proceed as follows. Part 2 reviews the evolution of the initiation phase of domestic carbon trading in China from 2007-2011, and the 2012-2015 phase of further development. Then Part 3 discusses the ability of constructivism to explain the international influences in the two phases. Part 4 concludes with a brief discussion about the implications nurturing meaningful Nationally Determined Contributions (NDCs hereinafter) in the developing world.

### GRADUAL DEVELOPMENT: 2007-2015

#### The initiation phase: 2007-2011

China's carbon trading policy was in a long preparatory phase from early 1990s when China started to participate in global climate negotiation, to 2007 before the Chinese central government initiated the NCCP. During this period, pilot SO<sub>2</sub> cap-and-trade schemes were implemented at a limited scale; at the global level, China insisted that developed countries should set mandatory emissions reduction targets while developing countries should be exempted. Despite its stance on the burden-sharing issue, China turned to advocate international carbon trading in early 2000s, and then actively supported Chinese companies to participate in Clean Development Mechanisms (CDM) projects, which allowed Annex I countries the ability to initiate carbon reduction projects outside of their own territorial boundaries.

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In 2007, through the NCCP, the necessity of ‘utilizing new market-based energy-saving mechanisms’ was formally declared. The NCCP set the framework for China’s climate policy. Since then, local climate exchanges have been gradually developed in the absence of national or regional emissions caps. In parallel a series of national policies were initiated to support domestic carbon trading experiments, including the Interim Regulations of Domestic Voluntary Carbon Trading, the 12th Five-year Plan on National Economic and Social Development, the State Council Decision to Accelerate the Development of Emerging Strategic Industries, etc.

These efforts coincided with the Chinese officials actively communicating these initiatives to the international community. China has also joined other countries in declaring a shared willingness of using ‘Market Based Measures’ (MBMs) to reduce GHG emissions. Just before the 2009 Copenhagen Climate Conference, China announced the target of reducing carbon emissions per unit of GDP by 40-45% by 2020 compared to the 2005 level.<sup>2</sup> In brief, the Chinese government has adopted a very cautious attitude while supporting the establishment of domestic carbon trading platforms. The use of MBMs, i.e. the idea of emissions/carbon trading, has gradually taken root and developed between 2007 - 2011.

### **The phase of further development: 2012-2015**

In September 2012, Xie Zhenhua, a then vice-chairman of the National Development and Reform Commission (NDRC hereinafter), said on behalf of the NDRC that preparations were being made for establishing a nationwide cap-and-trade market. Then seven pilot schemes were formally started between 2013 and 2015. Progress as well as problems associated with data collection, implementation, etc., have been identified in the experimental period<sup>3</sup>. The experiment in this phase has proved to be fruitful. In September 2015, Chinese President XI Jinping announced in U.S.-China Joint Presidential Statement on Climate Change that a nationwide cap-and-trade market would be initiated by 2017. At present, the market has become an integral part of China’s domestic mitigation mechanisms. Compared with the rapid evolution of domestic activities, China’s stance toward UN climate negotiations, as shown in the Paris Climate Conference, proved to be more constant<sup>4</sup>. In other words, China has determined to embrace cap-and-trade while it is still not obliged to do so.

## **THE INTERNATIONAL SOURCES: THROUGH THE CONSTRUCTIVIST LENS**

### **The Initiation Phase: 2007-2011**

#### *The CBDR Principle*

In the developing world, to differentiate developed and developing countries in terms of emissions reduction targets has long been a common view since the 1992 United Nations Conference on Environment and Development (Najam, 2008). From the Chinese perspective, the CBDR constitutes a cornerstone of the global climate regime (Leggett et al, 2008). The 2008 White Paper *China’s Policies and Actions for Addressing Climate Change* released by the Chinese State Council positions the norm as ‘the core principle of the UNFCCC’.

The interpretation of the CBDR principle has been controversial. One issue in the center of the past and current debate and particularly relevant to China’s climate policy-making is the linkage between the concept of ‘historical responsibility’ and the CBDR principle. The treatment of historically accumulated emissions matters to which countries and how these countries will be held responsible, morally and economically: developed countries account for the lion’s share of the world total if the volumes of national historical emissions are calculated from the industrial revolution period; but if the time horizon spans from 1990—the historical base year chosen by the Kyoto Protocol—to present, China will account for a much higher percentage.

There have been opposite views on the treatment of cumulative emissions (French, 2000; Rajamani, 2000; Halvorssen, 2007). China adopts the view that ‘historical responsibility’ constitutes, at least, part of the CBDR’s foundation: ‘(D)ue to the difference in historical responsibility... developed countries should be responsible for their historical accumulated emissions...’<sup>5</sup>. History is an important component of China’s political discourse (Renwick and Cao, 1999). ‘(I)n addition to linking traditional and nontraditional security’, the historical perspective ‘links international relations with domestic politics’ (Callahan, 2006, p185). Even at the individual level, Carlsson et al’s survey on preferences for international burden-sharing rules, which yields responses from 1264 Chinese citizens, indicates that Chinese people strongly prefer the rule based on historical emissions (Carlsson et al, 2010).

Therefore, China’s interpretation of the differentiation aspect of the CBDR, which is in consistency with its perception of history, is an important explanatory factor for China’s negotiating stance on mitigation policy. During the negotiation on the Kyoto Protocol, China was at first opposed to the use of market-based mechanisms (MBM hereinafter), which, China argued, would enable developed countries to shirk their mitigation responsibilities (Harris and Yu, 2005; Zhang, 2007). After turning to support the use of MBMs in early 2000s, China continued to argue that there potentially exists a tension between MBMs and equitable

<sup>2</sup> Reuters: China says carbon target only domestically binding. <http://www.reuters.com/article/2009/11/26/climate-china-copenhagen-domestic-idUSPEK1376820091126>

<sup>3</sup> For example, see Gonzalez, G. China’s Grand Carbon Trading Experiment Experiences Highs and Lows. Ecosystem Marketplace. <http://www.ecosystemmarketplace.com/articles/chinas-grand-carbon-trading-experiment-experiences-highs-lows/>.

Scientific American: China Will Start the World’s Largest Carbon Trading Market. <http://www.scientificamerican.com/article/china-will-start-the-world-s-largest-carbon-trading-market/>.

<sup>4</sup> Xinhua: China Voice: Fruitful Paris climate talks need greater resolve. [http://en.chinagate.cn/2015-12/01/content\\_37206621.htm](http://en.chinagate.cn/2015-12/01/content_37206621.htm).

<sup>5</sup> The 2008 White Paper.

burden-sharing: '(F)airness and responsibility are important criteria, and market instruments cannot solve the problems related to equity, which is a major issue in greenhouse gas emission reduction.'<sup>6</sup>

Meanwhile, however, another crucial characteristic of the CBDR principle is that it requires a universal participation in climate change mitigation, and divides the responsibility for addressing the climate problem by national boundary (Caney, 2005). The enormous volume of China's annual total emissions, which has boomed since early 2000s, has been leading to a rapid increase of its historical contribution. Since China states that it is the common responsibility of *all countries* to mitigate climate change, it becomes imperative for China to take mitigation actions at the national level<sup>7</sup>.

#### *Epistemic communities*

Common ideas can be advocated and disseminated by international epistemic communities affiliated with or supported by intergovernmental organizations, national governments, and international NGOs. An epistemic community, as defined by Haas, 'is a network of professionals with recognized expertise and competence in a particular domain and an authoritative claim to policy-relevant knowledge within that domain or issue-area' (Haas, 1992, p3). Such a 'network' does not necessarily preclude heterogeneity between communities: '(E)pistemic communities do not require agreement on the details of what should be *done* in response to the consensually defined problem...The need for differentiation on appropriate responses is partly one of the scale of political action' (Gough and Shackley, 2001, p334, italic original). International epistemic communities disseminate the idea of carbon trading by resorting to expert knowledge and experience. They act as 'norm entrepreneurs' of carbon trading (Finnemore and Sikkink, 1998).

#### (a) Experts from intergovernmental organizations

All of the three intergovernmental organizations discussed below have devoted many efforts to implementing energy-related and/or carbon trading projects, though to different extents<sup>8</sup>. The acceptance and influence of these organizations can be discerned from their presence and close cooperation with China.

The World Bank exerting influence on China's energy and environmental policy through the idea of using MBMs for reducing GHG emissions<sup>9</sup>. China was engaged in the Prototype Carbon Fund (PCF hereinafter) in 2003, one objective of which is to disseminate knowledge. Concerned about the lack of awareness and capacity, the World Bank expects the PCF to provide more insights into the CDM and strengthen China's capacity of implementing CDM projects (Zhang, 2004). At the 2010 Cancun Climate Conference the Partnership for Market Readiness (PMR hereinafter) was initiated, aiming at mobilizing \$100 million to support the development of domestic carbon markets in developing countries. According to the World Bank, developing countries 'are looking to build on lessons from the 10 years of experience of the Clean Development Mechanism under the Kyoto Protocol, and adapt them to their local contexts'<sup>10</sup>. In June 2011, the PMR approved a \$350,000 grant to help China research and use market-based instruments<sup>11</sup>.

The United Nations Development Programme (UNDP hereinafter) and the Asian Development Bank (ADB hereinafter) have also been directly involved in China's preparation for domestic carbon trading. After supporting CDM research in China, the UNDP promoted the idea of setting up Chinese climate exchanges as early as in 2007. Reportedly, it played a role in the establishment of the carbon emissions exchange in Beijing<sup>12</sup>. Under the 2011-2015 Green Development Project, which is revised on the basis of the 2006-2010 Green Poverty Alleviation Project, the UNDP is implementing a pilot carbon trading capacity-building project which involves Chinese government agencies, research institutions and the CBEEEX (UNDP, 2010). In particular, it supports the project 'Provincial Plans for Addressing Climate Change', which in 2011 started research on establishing a registry for carbon trading. The ADB participated in pilot SO<sub>2</sub> emissions trading in the 1990s and pilot CDM projects in early 2000s, and then decided in 2011 to provide technical assistance as well as a \$750,000 grant to support the development of the pilot emissions trading system in Tianjin, which is to be based on the Tianjin Climate Exchange (Morgenstern, R. et al. 2004)<sup>13</sup>.

#### (b) Experts affiliated with or supported by developed country governments

International NGOs have contributed to constructing climate change as a scientific-policy issue, raising public awareness, and communicating and exchanging scientific information about global climate change and China (Schroeder, 2008). Regarding mitigation path selection, experts affiliated with or supported by developed country governments have taken an active stance as norm entrepreneurs.

<sup>6</sup> See FCCC/SBSTA/2002/MISC.5, p15, available at [www.unfccc.int](http://www.unfccc.int).

<sup>7</sup> The 2008 White Paper states that '(B)oth developed and developing countries are obliged to adopt measures to mitigate and adapt to climate change'.

<sup>8</sup> For a review of the cooperation between China and international institutions on energy projects during the 1990s and early 2000s, see Hatch, 2003.

<sup>9</sup> The World Bank started to implement energy projects in China in mid-1980s. The concept of energy management contract, was introduced to China by the Global Environmental Facility and the World Bank in 1997. See Martinot, E. 2001. World Bank Energy Projects in China: Influences on Environmental Protection. *Energy Policy* 29, 581-594.

See also Baldinger, P. 2002. Lean and Green: Boosting Chinese Energy Efficiency through ESCOs. *China Environment Series, Issue5*, 90-91. Woodrow Wilson International Center for Scholars. Available at: <http://www.wilsoncenter.org/sites/default/files/ACF3C9.pdf>.

<sup>10</sup> World Bank: New Multi-Million Dollar Fund for Developing Country Carbon Trading Initiatives. Press Release No: 2011/232/SDN.

<sup>11</sup> World Bank: Partnership Approves Grants for Eight Carbon Market Initiatives. Press Release No: 2011/523/SDN.

<sup>12</sup> Financial Times: China and UN Plan Carbon Exchange. <http://www.ftchinese.com/story/001009438/en>.

<sup>13</sup> ADB: People's Republic of China: China Clean Development Mechanism Fund Capacity Development. See also ADB: People's Republic of China: Developing Tianjin Emission Trading System.

Carbon trading is one of the issue areas of 'climate policy diffusion' in China-EU relations (Carrapatoso, 2011). In 2005, the EU-China Partnership on Climate Change was launched. Among its various policy goals is the aim to 'facilitate the exchange of information and experience on the design and practical implementation of other market-based instruments such as emissions trading and on assessing the costs and benefits of their use'<sup>14</sup>. As the establishment of Chinese climate exchanges started in 2008, international epistemic communities further strengthened their support for operationalizing the idea of carbon trading. The China Council for International Cooperation on Environment and Development (CCICED hereinafter), a senior advisory body co-initiated by the Canadian and the Chinese government, keeps stressing the importance of pursuing low-carbon development, and suggests China to gradually develop a carbon trading system which can be transformed from a voluntary to a compliance one (CCICED, 2009).

Other international experts devote more energy to technical issues. The International Carbon Action Partnership (ICAP hereinafter), launched by several EU countries in 2007, started to convene training programs for emerging economies in 2009. China is a focus of ICAP's work: the China Conference Greenhouse Gas Emissions Data Management in Energy Intensive Industries and the Power Sector, which involved leading Chinese research institutions, was held in Beijing in 2009, emphasizing on the necessity of developing a well-functioning monitoring system and advocating the use of international standards for promoting cooperation between countries and carbon markets. The EU and the German Society for International Cooperation have also co-hosted technical workshops with the Chinese National Development and Reform Commission and the Chinese Academy of Governance respectively. Since 2008, the EU and the Norwegian government have been providing technical and financial support for the project 'Provincial Plans for Addressing Climate Change'.

The voice from the European Council on Foreign Relations (ECFR hereinafter) suggests that this knowledge generation transcends national boundaries: '(T)he EU has helped transform China's domestic policy in this area. China now recognizes the threat of climate change and has made reducing the carbon and energy intensity of its economy a priority' (ECFR, 2009, p10).

#### 'Strategic construction' need

Conventional constructivists, in a general sense, agree with theorists of other IR schools that power matters in the anarchic world, but argue that 'material resources only acquire meaning for human action through the structure of shared knowledge in which they are embedded' (Wendt, 1995, p73; Finnemore, 1996). In these cases international anarchy leads to norm-shaping activities, which can be conceptualized as 'strategic construction': i.e. 'actors are making detailed means-ends calculations to maximize their utilities, but the utilities they want to maximize involve changing the other players' utility function in ways that reflect the normative commitments of the norm entrepreneurs' (Finnemore and Sikkink, 1998, p910)<sup>15</sup>. Such a scenario often appears when norms are ambiguous or in flux, and their interpretation is relevant to legitimacy as well as burden and benefit allocation (March and Olsen, 1998; Risse, 2000).

This phenomenon plays out in the world of climate politics. For example, the EU's decision to include international airlines in the EU Emissions Trading Scheme, which according to the opinions of the EU Advocate General and the European Court of Justice is coherent with the intergovernmental Kyoto Protocol, provides an EU version of the CBDR principle—state actors can legitimately impose non-discriminating mitigation rules on developing country industries, which conflicts with China's interpretation<sup>16</sup>. The EU's proposal that 'advanced developing countries' such as Brazil, China, and India should be differentiated from other developing countries also reflects the EU's efforts to re-construct the CBDR (Höhne, et al, 2006; von de Goltz, 2009)<sup>17</sup>.

Increasingly, China has been more active in the formulation and interpretation of international rules in some key issue areas, such as sovereignty and the United Nations Convention on Law of the Sea (Wang and Hu, 2010). Another example is its strong advocacy for establishing a BRICS (Brazil, Russia, India, China, and South Africa) bank, which could bring new momentum to the realm of international development aid<sup>18</sup>.

Perceiving climate change as fundamentally a 'development issue', China has made efforts to influence the setting of relevant international agendas accordingly<sup>19</sup>. Before and during the 2012 Doha Climate Conference, Xie Zhenhua, a then vice-chairman of the National Development and Reform Commission, confirmed that China would not set absolute emissions caps in the short term due to the need for industrialization and economic growth<sup>20</sup>. For Chinese policy-makers, to interpret the CBDR principle as

<sup>14</sup> Joint Declaration on Climate Change between China and the European Union. Available at: <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/05/298>.

<sup>15</sup> A similar concept that has been used by constructivists is 'strategic framing' or 'framing processes', referring to '*the conscious strategic efforts by groups of people to fashion shared understandings of the world and of themselves that legitimate and motivate collective action*'. See McAdam, D. et al. 1996. Introduction: Opportunities, Mobilizing Structures, and Framing Processes—toward a Synthetic, Comparative Perspective on Social Movements. McAdam, D. et al (eds.). 1996. Comparative Perspectives on Social Movements. Cambridge University Press. 1-21. p6, italic original. Another similar concept is 'rhetorical action' which 'changes the structure of bargaining power in favor of those actors that possess and pursue preferences in line with, though not necessarily inspired by, the standard of legitimacy'. Schimmelfennig, F. 2001. The Community Trap: Liberal Norms, Rhetorical Action, and the Eastern Enlargement of the European Union. International Organization, Vol. 55, Issue 1, 47-80. p63.

<sup>16</sup> Reuters: EU-China talks on aviation CO2 caps still up in air. <http://www.reuters.com/article/2011/10/18/china-carbon-aviation-idUSL3E7LI2A720111018>.

<sup>17</sup> EU Council conclusions on International financing of climate change: [http://www.consilium.europa.eu/uedocs/cms\\_data/docs/pressdata/en/ecofin/106572.pdf](http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ecofin/106572.pdf).

<sup>18</sup> The New York Times: Group of Emerging Nations Plans to Form Development Bank. [http://www.nytimes.com/2013/03/27/world/africa/brics-to-form-development-bank.html?\\_r=1&](http://www.nytimes.com/2013/03/27/world/africa/brics-to-form-development-bank.html?_r=1&).

<sup>19</sup> Xinhua: Chinese president calls for int'l efforts to address climate change. <http://www.china-embassy.org/eng/xw/t606127.htm>.

<sup>20</sup> The Guardian: China pledges 'due contribution' on emissions cuts. <http://www.guardian.co.uk/environment/2012/dec/05/china-due->

differentiating the North from the South and exempting developing countries from mandatory reduction targets 'has not only safeguarded the interests of developing countries, but has also become an important part of fair and just international fair and economic order' (Wang and Hu, 2010, p198).

Meanwhile, in the post-Kyoto climate negotiations, international carbon trading has become an important issue area, and received increasing attention and support from the international community<sup>21</sup>. Yet, how to differentiate developed and developing countries in MBMs is left to elaboration and negotiation between countries. China has put much emphasis on the differentiation between developed and developing countries on contentious issues such as MRV rule-making, financial and technology transfer, etc<sup>22</sup>. For participating in international carbon trading, there is a need for China to explore how MBMs can be designed in a way that fairly interprets the CBDR principle. And such an exploration necessitates the implementation of domestic pilot schemes, which can provide in-depth insights into crucial issues like standard-setting, rule-making and the operation of a carbon trading system, and strengthen China's bargaining power in designing international rules. For example, Beijing Environmental Exchange developed the Panda Standard for forestry and agricultural projects, which have a high growth potential in China; and Shanghai Environment & Energy Exchange developed a carbon-intensity standard, which echoes with China's announcement of the carbon-intensity target before the 2009 Copenhagen Conference.

### The phase of further development: 2012-2015

While domestic needs for low-carbon development are always important contributors to mitigation policy-making, the evidence indicates that the Chinese approach towards carbon trading between 2007 and 2011 could not be reduced to domestic explanatory factors. The constructivist explanation for the initiation phase could be used to further explain the international sources of China's carbon trading policy after 2011.

The CBDR principle has continued to set the keynote of China's negotiating stance, which means that China would insist on its developing country identity while making more ambitious mitigation commitments in light of its rapidly-increasing contribution to world total emissions. Meanwhile, at a more technical level, the involvement of international epistemic communities for developing cap-and-trade could still be clearly discerned. Since 2012, China and Germany has co-launched the 'China cap-and-trade capacity building' initiative. According to the Joint Statement issued after the 4<sup>th</sup> round consultation between the Chinese and German government, the initiative will be strengthened to provide more technological and financial assistance. Norway has actively participated in the establishment of China's national carbon trading registry.

Strategic construction needs have also played a role between 2012 and 2015. While the Paris Agreement put some emphasis on 'non-market' approaches, carbon trading remains to be favored by major economies. In fact, Australia and China decided in April 2013 to launch a joint expert group on emissions trading, the task of which includes exploring the possibility of establishing carbon market linkages<sup>23</sup>. At the global level, the ICAO made continuous progress to develop a sectoral 'market-based mechanism' for international civil aviation, the institutional design of which was under complex negotiation<sup>24</sup>. As discussed above, to develop a full-fledged carbon market could help strengthen and demonstrate the capacity of Chinese carbon trading platforms for further international engagement.

### CONCLUSION

As the global climate regime has turned to a 'bottom up' approach and rely on NDCs after the Paris negotiation, countries need to be more concerned about how the international community perceives the sufficiency of their climate actions. This paper explores the potential ways of understanding and nurturing NDCs in developing countries.

First, as a principle between nation states, the CBDR principle has propelled China to assess its 'climate responsibility' with both its historical and foreseeable total contribution to GHG accumulation taken into account. Retrospectively, China's interpretation of the CBDR's differentiation aspect has excluded the possibility of setting absolute emissions caps in the short term. At the same time, however, in light of its future contributions the common responsibility imposed by this principle could provide some explanation for the formal initiation of carbon trading policy-making around the time when China became the largest emitter in terms of total annual emissions. Similarly, for other developing countries, it would also be important to promote bilateral or multilateral cooperation on the basis of a shared understanding of the key principles.

Second, international epistemic communities could make further contributions to the development of carbon markets in developing countries. Since 2007, experts from developed countries and international organizations have been substantially engaged in the

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contribution-emissions-cuts .

<sup>21</sup> For example, the Baili Action Plan, Decision 1/CP. 13: <http://unfccc.int/resource/docs/2007/cop13/eng/06a01.pdf#page=3> . The Copenhagen Accord, Decision 2/CP.15: <http://unfccc.int/resource/docs/2009/cop15/eng/11a01.pdf#page=3> .

The Cancun Agreements, Decision 1/CP.16: <http://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf#page=2> . Draft decision of the Durban Conference: [http://unfccc.int/files/meetings/durban\\_nov\\_2011/decisions/application/pdf/cop17\\_lcaoutcome.pdf](http://unfccc.int/files/meetings/durban_nov_2011/decisions/application/pdf/cop17_lcaoutcome.pdf) .

<sup>22</sup> ChinaDaily: Climate change challenge. [http://www.chinadaily.com.cn/opinion/2011-03/03/content\\_12106866.htm](http://www.chinadaily.com.cn/opinion/2011-03/03/content_12106866.htm) .

<sup>23</sup> Business Green: Australia and China agree carbon trading partnership. <http://www.businessgreen.com/bg/news/2261803/australia-and-china-agree-carbon-trading-partnership> . See also EcoNews: China, Australia to collaborate on carbon market. <http://econews.com.au/featured/china-australia-to-collaborate-on-carbon-market/>.

<sup>24</sup> ICAO. 2015. ICAO Wraps up Successful Multi-Region Outreach Effort on Global MBM for International Air Transport. Retrieved from: <http://www.icao.int/Newsroom/Pages/ICAO-WRAPS-UP-SUCCESSFUL-MULTI-REGION-OUTREACH-EFFORT-ON-GLOBAL-MBM-FOR-INTERNATIONAL-AIR-TRANSPORT.aspx> .

construction of Chinese carbon trading mechanisms. Under the PMR, the carbon markets in some other developing countries have also received international support. The active participation and contribution of international epistemic communities in China indicates that the collaboration between international actors and host countries could be gradually strengthened and expanded from general issues to technical specifics.

Third, it would be necessary to take into account the national interest concerns of developing countries, which are often reflected as strategic construction needs in institutional development. For other developing countries, how to make their voice heard and protect their national interests has always been a concern in global climate negotiations. As illustrated in the development of carbon trading mechanisms in China, the design of mitigation policy instruments under global-level consensus, if echoing with the strategic construction needs of particular countries, could facilitate their adoption in those countries.

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