

# Emissions trading and climate diplomacy between Europe and China

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## Summary

Over the past decade, the EU has been following a “policy of unconditional engagement” vis-à-vis the People’s Republic of China, pursuing its promotion of effective multilateralism. In the field of climate change, China has been an increasingly important member of the UNFCCC process and a key target of European engagement policies. Regardless of geographical distance, which restricts European ability to influence, Europe has employed a variety of instruments in its foreign environmental policy. Yet how do Chinese decision-makers perceive these efforts?

The Paris COP21 Summit has been hailed as a major breakthrough by Europeans and Chinese alike. Drawing on two sets of interviews carried out in Beijing in 2012 and 2016 this brief looks at the dynamics of climate policy adoption in China. Emissions trading serves as a case study for domestic politics: the seven pilot systems were also result of a turf battle between the National Development and Reform Commission and the Ministry of Finance. The EU and Norway could plug into domestic policy making by providing large-scale capacity building. So, could this be a success story for climate policy promotion?

## COP21 opened a window of opportunity

China-EU climate relations are embedded in an emerging global consensus on climate change science and policy. In China, climate change policy started shifting around 2007 when Chinese emissions overtook those of the United States. Since then, policy actions against climate change have increased consistently in relation to public awareness of climate change vulnerability, and in particular linked to pollution. While this has meant a basic strategic alignment between Chinese and European attitudes in mitigating and adapting to climate change, the lack of trust in the international negotiations forestalled a more proactive Chinese position on the international stage. The fact that the United States never ratified the Kyoto Protocol, and refused to accept emissions reduction targets, meant that China did not want to unilaterally declare more ambitious climate policy measures. The Copenhagen Summit in 2009 was characteristic of this paradox.

This situation changed completely in 2014, when China and the US signed a strategic agreement on climate change outlining both countries’ commitments. China promised to reach a peak in its emissions by 2030, (although the expected date is around 2025 and coal consumption has reportedly already peaked), and the US pledged to reduce its emissions to 26–28% below 2005 levels by 2025 (an increase from its previous 17% goal).<sup>1</sup> These commitments were enshrined in the Paris Agreement in the two countries’ respective “nationally determined contributions”.

Beijing, to implement the agreement, will draw on its emissions trading scheme (ETS), which will be rolled out nationwide in 2017 and might well accelerate ETS adoption rates globally.<sup>2</sup> However, carbon prices will have to rise to €30 (US\$33) per tonne in 2030, (from currently under €6 or US\$6.60), and nuclear and renewable energy efforts will need to be ramped up to a level exceeding all coal-fired power plants that exist in China today.

Domestic developments will determine whether this momentum is maintained. Chinese Premier Li Keqiang underlined the importance of the “war” on pollution at the National People Congress, but implementation may slow down amid reduced one-digit economic growth since 2011. The new economic strategy of “new normal” focuses on better quality growth. “From structural changes in the economy to explicit policies on efficiency, air pollution and clean energy, China’s new development model is continuing to promote economic growth while driving down its GHG emissions.”<sup>3</sup>

1 Green, F. & Stern, N. (2015). China’s “new normal”: structural change, better growth, and peak emissions. *Grantham Research Institute Policy Brief*. Retrieved 15 October 2016, from [http://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2015/06/Chinas\\_new\\_normal\\_green\\_stern\\_June\\_2015.pdf](http://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2015/06/Chinas_new_normal_green_stern_June_2015.pdf)

2 Andresen, A., Skjærseth, J., Jevnaker, T., & Wettestad, J. (2016). The Paris Agreement: Consequences for the EU and carbon markets? *Politics and Governance*, 4:3. 188-196.

3 *Ibid.*

While reduced economic growth also translates into lower growth in emissions, Beijing has not specified an absolute level of emissions at its planned 2030 peak. If the period to 2015-30 sees an increase comparable to the doubling of per capita emissions during 2004-13, the target of limiting global warming to the 2 degrees above pre-industrial levels – agreed at the 2009 Copenhagen Summit - will be unachievable.

Hence, while progress has been made with Chinese and US high-level support and leadership, the implementation of these targets will be the next major task. Cooperation with the European Union, an experienced leader on climate policy, will thus continue and even scale up.

Furthermore, climate change is increasingly emerging as a mainstream issue of international cooperation which fulfils foreign policy functions and provides a platform for engagement. While tensions between China, its neighbouring countries and the United States have been rising, climate change has provided a platform for peaceful and constructive engagement. The old logic of seeing climate change as a historic responsibility of the developed countries is less prevalent in Chinese leadership circles nowadays. One of the reasons is the public awareness of climate change domestically triggered by air pollution putting increasing pressure on Chinese politicians. The fact that the “principle of common but differentiated responsibilities” (CBDR) between developed and developing countries has been enshrined in the Paris Agreement (Fig. 1), further helped to get Chinese leaders fully behind ambitious global action.



Figure 1 Frame Convergence between China and the EU

Similarly, considerations of environmental stewardship have risen on the agenda of Chinese energy policy making during the last Five-Year-Plan – energy being a large contributing sector to greenhouse gas emissions.<sup>4</sup> For EU-China relations, this has meant increasing avenues for bilateral cooperation and cooperation in international settings and vis-à-vis third

countries. Promoting climate instruments, such as emissions trading has become one of the main priorities of the European Commission’s “climate diplomacy”. When the Chinese government decided to introduce a carbon trading system, observers and practitioners alike saw it as an ideal area for EU influence and learning from the Union’s own lessons.

**EU-China relations on emissions trading**

In 2013, China began implementing its goal of a national emissions trading system (ETS) with ETS pilot schemes in seven cities and provinces. These pilots alone were designed to collectively cover carbon emissions equivalent to one-third of the European carbon market, making China in effect the world’s second-largest trader of emissions. The pilots are scheduled for nationwide rollout during 13th Five-Year Plan (2016-20). Should this go ahead as planned, the Chinese market would surpass the European one.

In 1994, the idea of emissions trading was first introduced by SEPA, then the environmental protection agency, when it conducted policy experiments in the six cities of Baotou, Kaiyuan, Liuzhou, Taiyuan, Pingdingshan, and Guiyang on the basis of sulphur dioxide emission-permit pilot projects.<sup>5</sup> Sulphur dioxide (SO<sub>2</sub>) is one of the six greenhouse gases covered under the Paris Agreement, alongside carbon dioxide/CO<sub>2</sub> which is the most common one. In 1999 SEPA signed an agreement with the US Environmental Protection Agency. The city of Taiyuan became the first pilot for an SO<sub>2</sub> cap-and-trade system with the support of the Asian Development Bank and Resources for the Future (RFF), a U.S. think tank. However, the SO<sub>2</sub> trading system was considered a failure. Despite political will by the leadership and international support, the project was never scaled up to the national level or even provincial level. Shin argued that the lack of domestic preconditions for effective diffusion and innovation made policy adoption costly, thus prompting local governments to decide not to adopt the policy.<sup>6</sup> It would take over ten years to re-launch the idea of a carbon trading system.

**Emissions trading is adopted**

In 2011 and 2013 China approved a policy to implement a national emissions trading system and began with the establishment of ETS pilot schemes in seven cities and provinces. Prior to the introduction of emissions trading pilots in China there was competition over the policy approach promoted by the NDRC, which supported the introduction of an emissions trading system (ETS), and the policy approach favoured by the Ministry of Finance (MOF), which proposed a CO<sub>2</sub> tax. MOF lost the “emissions reductions turf” to the NDRC when the State Council endorsed emissions trading as a national strategy in 2009.

4 Gippner, O. & Torney, D. Shifting policy priorities in EU-China energy relations: Implications for Chinese energy investments in Europe. *Energy Policy*. Retrieved 23 September 2016, from <http://dx.doi.org/10.1016/j.enpol.2016.09.043>.

5 Wang, J., Yang, J., Ge, C., Cao, D., & Schreifels, J. (2004). Controlling Sulfur Dioxide In China: Will Emission Trading Work? *Environment*, 46:5. 28-39.  
6 Shin, S. (2013) China’s failure of policy innovation: the case of sulphur dioxide emission trading. *Environmental Politics*, 22:6. 918-934.; Munnings, C., Morgenstern, R., Wang, Z., & Liu, X. (2014). Assessing the design of three pilot programs for carbon trading in China. *Resources for the Future*, 14-36.

The ETS adoption process also demonstrated the role of individual leaders. The fact that the Vice Chairman of the National Development and Reform Commission, Xie Zhenhua, was previously at the Ministry of Environmental Protection, where he learned about the mechanisms and effects of emissions trading, provided an important precondition for the adoption of ETS policy. The NDRC as the key climate policy maker had a general openness to the concept itself.

The European Union indirectly and directly supported NDRC's advocacy for ETS introduction: indirectly by serving as an example for the biggest existing carbon market, directly by building NDRC's capacity on various aspects of an ETS, such as the design, initial allowances, enforcement and MRV (measurement, reporting and verification). Although European member states also have experience on carbon taxation, capacity building on this policy area was limited.

The European Union acted as an early mover on emissions trading, providing ample experiences for China in the development of its own system. Also within the European Union there are internal divisions over the adoption and implementation of the EU ETS. Countries such as industry-dependent Germany were critical towards attaining strong emissions reductions caps, whereas the United Kingdom was in favour of ETS from the beginning. With the plummeting price of carbon certificates, the system is somewhat dysfunctional. This makes it all the more surprising that China is introducing a similar system and is rather looking to learn from the problems of the EU system. At the same time, some of the mistakes, such as making an allocation of initial emissions allowances, have been repeated. This was probably a conscious decision to show that actions are being taken, but simultaneously trying to shield state-owned enterprises from dramatic contextual changes.

#### **Pilot phase and intensive learning 2012-2017**

A list of seven pilot emission trading schemes was first approved by the National Development and Reform Commission (NDRC) in November 2011. It comprised five cities -- Beijing, Tianjin, Shanghai, Chongqing and Shenzhen; and two provinces, Guangdong and Hubei.

There are several reasons behind the introduction of the pilots: Pilots reflect the Chinese style of policy formulation through small steps and experimentation. They allow for experimentation in a variety of contexts, varying the caps, instruments used and speed of implementation.

Cooperation on emissions trading has become a key example of effective EU-China climate cooperation. The EU approach has served as a template regarding policy design and practical implementation, as well as providing lessons learned from a failed carbon credits market. For instance, in order to avoid a price fall similar to that in the EU ETS, Chinese ETS legislation already provides for a so-called "Market Stability Reserve". In this way the ETS Authority can remove

credits from the market should the price go under a certain acceptable level and "hold" them in the Market Stability Reserve. This is important because the carbon price sends a signal to companies about the cost of these emissions, encouraging them to invest in emissions-reducing activities. However, there are also positive lessons to be learnt from the EU-ETS. One of them is the use of third party verifiers in Measuring, Reporting and Verifications. Early experiments with self-reporting companies showed the danger of mis-reporting and thus under-accounting for actual emissions in China. Hence policy-makers changed their stance on the issue and are currently developing national MRV standards, supported by the EU and Norway amongst others. An open issue remains the verification through international experts, which the Chinese government continues to oppose.

The EU has been proactive regarding high-level visits, organising delegations of scientists and policy-makers and developing guanxi (good long-term personal relationships, characteristic of Chinese network-ing) with Chinese officials within various departments of the NDRC. The European Commission's DG Climate Action even has a specific office dedicated to emissions trading in China. The NDRC's high-level buy-in to the policy was an important precondition for the active exchange between the two jurisdictions. The importance of the issue for the bilateral relationship is also reflected by the fact that the Chinese embassy to the EU in Brussels is one of the few Chinese embassies with a climate change desk.

#### **Sino-Norwegian climate cooperation during ETS pilot phase**

Norway is also making considerable efforts in supporting the ETS pilots. First of all, in supporting the development of national MRV guidelines together with the NDRC. Targeting the training of officials, Norwegian cooperation projects support the creation of an ETS knowledge database in the form of an "ETS helpdesk" for provincial and municipal representatives, an online China Carbon Market Platform and training materials. Together with Beijing-based Sinocarbon Innovation & Investment (SCII) and Tsinghua University, Norway is helping in the establishment of a national registry system, which is a first stock take of how many emissions come from which installations. Finally, Norway, together with the United Nations Development Programme and the NDRC is developing ETS implementation plans for all Chinese provinces. Initially, the NDRC did not want to prescribe such implementation plans. However, as the pilots started operating with very different features, it became clear to the NDRC that the process of implementation for the national system had to be harmonized. By fulfilling these roles, Norway is an important actor in supporting capacity building on emissions trading.

#### **What's next?**

Broadly, the Chinese economy will continue to change and reach a "new normal" of single digit economic growth. This change will go hand in hand with efforts of energy transition and the climate commitments under the Paris Agree-

ment. The challenge will be to assist in up-scaling climate policies and in particular emissions trading to the national level. These efforts have already begun. Besides technical support for the mechanics of emissions trading, the policy requires a wide network of experts at the provincial levels and officials able to carry out Measuring, Reporting and Verification tasks and advising and controlling polluting companies. Having gone through a similar effort domestically when preparing the EU-ETS participant countries during the introduction in 2005, the EU is actively supporting the NDRC in this effort in alliance with other international actors, including Norway, and NGOs Sinocarbon and Saferworld, which are supporting this process.

If the current carbon price crisis in Europe is overcome, it will be in the EU's interest to link up with other regional carbon markets in North America, Australia, South Korea and eventually China.

#### Recommendations for Norway and for the EU

The new political will to act on climate change allows Europe to interact with China on many issues. In addition, climate change is a lower-sensitive policy area and promises to be a good basis for mutual engagement. For the European Union it should foster climate cooperation:

- In fields where the EU has something to offer that China cannot yet supply itself (reforestation, natural flood risk management, allocation methods for emissions reductions, coordination mechanisms in a devolved system etc.)
- Increasingly focus on two-way learning, the ETS pilots and various other experiments with the energy transition in China can yield useful lessons for European policy-makers.

Bilateral dialogues and technology transfer are effective ways of engaging on climate policy with Chinese decision-makers as Chinese climate policy is developing. European counterparts should invest much more in understanding Chinese decision-making processes and foster long-term relationships and institutions. Much of this is already happening, yet the tremendous challenges that Chinese climate policy has to deal with will remain a core priority for European countries as well.

#### Conclusion

In conclusion, European policies and efforts vis-à-vis its core strategic partners are mediated by the bureaucratic turf battles within the individual domestic policy-making structure. A successful EU external climate policy thus requires European capacity to understand these structures and invest resources efficiently with the most suitable actors. If the European Union wants to achieve its goal to “prevent the most severe impacts of climate change and to keep global warming below 2°C compared to the temperature in pre-industrial times,”<sup>7</sup> its efforts towards countries such as China will have to become more practical, targeted and less ideological in nature.

Addressing the question of how the Chinese economy can transition from its coal dependency has not only become a task for the Chinese government but a global challenge for all coal-using countries. Returning to the Chinese announcement of the emissions trading systems in 2012, which is slated to commence on a national scale in 2017, there are promising signs on climate action in the national politics of one of the most pivotal countries for combating global climate change.

7 European Commission DG Climate Action. (2014). EU Climate Action, Retrieved 12 October 2016, from [http://ec.europa.eu/clima/citizens/eu/index\\_en.htm](http://ec.europa.eu/clima/citizens/eu/index_en.htm).9

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