

**CHINA'S CLIMATE CHANGE POLICIES:
DEVELOPING PILOT EMISSION
TRADING SYSTEMS**

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Executive Summary

1. China has become a key actor on climate change – it is now the world’s largest greenhouse gas emitter, while also supporting renewable energy and the Paris Agreement of 2015. The Chinese leadership recognises the need to cut emissions to avoid the many negative consequences from climate change in the future if global greenhouse gas emissions continue their current trends.
2. If implemented according to theoretically optimal design, carbon pricing through an emissions trading system (ETS) or a cap-and-trade system can be an effective and efficient climate policy instrument that facilitates least cost compliance with climate targets. Although carbon tax is a policy instrument that also introduces a market price on greenhouse gas emissions, it has been resisted by many countries.
3. One key feature of carbon pricing instruments such as ETS is the cap placed on emissions to ascertain future level of emissions. Carbon markets are accordingly seen as a viable alternative to policy options such as top-down environmental regulation, or a carbon tax. A policy debate in China during the late 2000s ended with the leadership supporting the cap-and-trade option rather than carbon tax.
4. China had gained valuable capability in the design and implementation of emissions trade projects during the early 2000s through the Clean Development Mechanism, emissions reduction offsets, under the Kyoto Protocol. Building on this experience the Chinese government initiated its own local ETSs in the form of seven provincial or municipal pilot programmes in 2013.
5. The National Development and Reform Commission issued a set of guidelines for these local ETS pilots, but much of the operational regulations were developed by local governments. Each ETS reflects local economic conditions and structure, providing remarkable differences in the determination of emission caps, allowance allocations, industries and thresholds of emissions for the units covered.

6. The first phase (2013-2015) witnessed the establishment of local administration of industries covered, determination of emission caps and allocation of emission permits. Trading platforms were set up to facilitate electronic trade of emission permits, but both trading volumes and carbon prices fluctuated in these markets.
7. During the second phase (2016-2017) most pilot systems became stabilised. However, there were seemingly few opportunities for the development and trade of secondary financial products such as carbon futures or options.
8. In 2017 the Chinese government announced the plan to create a national ETS to become operational in 2020. However, Chinese efforts to implement ETS have encountered legal, institutional and political issues that will need to be addressed before a national ETS can successfully contribute to mitigating emissions in China.