

**CHINA'S REGIONAL CARBON  
MARKET: FROM PILOTS TO  
THE FUTURE**

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## Executive Summary

1. In line with the growing trends of adopting market mechanisms as policy measures to mitigate greenhouse gas (GHG) emissions, China's State Council had approved the establishment of its national carbon market at the end of 2017. On 16 July 2021, China's National Carbon Emission Trading System (NCETS) was launched on the Shanghai Environment and Energy Exchange.
2. NCETS is expected to become the world's largest carbon emissions trading market. It is planning to expand to cover more industries, more types of GHGs, introduce more financial products for trading, and attract and open to more types of investors in the future. Its emission reduction target can also transit from the current intensity-based to cap-based as adopted by the world leading carbon trading markets.
3. As traditionally practised, the development of China's carbon market started with local pilots. China's local carbon markets have been established in nine provinces and cities, including eight pilot regions (Beijing, Shanghai, Tianjin, Chongqing, Hubei, Guangdong, Shenzhen and Fujian) and one non-pilot region (Sichuan).
4. The pilot markets have explored the establishment and development of national carbon market from various aspects, including the types of GHG, industry coverage, conditions for involved emission units, market access of investors, availability of financial products and emission quota allocation.
5. With the continuous development, the trading volume and value of China's local carbon markets have been increasing every year. In 2020, the total trading volume of seven pilot carbon markets established before 2015 was about 57.85 million tonnes and at a transaction value of about RMB1.60 billion.
6. The coverage of emission units has also been increased for these pilot markets. By the end of June 2022, nearly 3,000 emission units have been included in the seven local pilot carbon markets, with a cumulative total of about eight billion tonnes of carbon emission allowances allocated.

7. The development of China's regional carbon market has also been problematic primarily in five aspects: low liquidity and high price volatility, insufficient financial function, weak price discovery capability, tardy development of industrial standard, poor supervision and information disclosure system for carbon control, and low penalty binding force and corporate responsibility fulfilment.
8. The NCETS is likely to reduce market segmentation in carbon trading, particularly if it is able to capture investors in more regions and industries, and increase the number of tradeable Carbon Emission Allowances.
9. With the problems faced, challenges to speed up the development of NCETS abound. The two most urgent ones are the development of CO<sub>2</sub> emission monitoring, reporting and verification system at the national level and the improvement of enforcement mechanisms.