CHINA'S CARBON TRADING PILOT PROGRAMMES FLAWED

By Wang Yan* | IDN-InDepthNews Analysis

It is hoped that a carbon finance scheme will encourage Township-Village Enterprises like this to reduce greenhouse gas emissions and use energy efficient technologies. Credit: UNDPBEIJING (IDN | UNDP) - As China prepares to launch a nationwide carbon cap-and-trade program to try to slow climate change, experts are warning of a long list of flaws in seven pilot programs that are already operating throughout the country.

Major issues ahead of the planned 2017 launch of a national carbon trading program include a lack of openness, transparency and fairness; a flawed system of allowance allocation which does not reflect real industry conditions; and an inadequate monitoring, verification and reporting system.

Inconsistencies in the existing pilot programs have manifested in wildly varying prices. During a survey earlier this year (2015), prices for carbon allowances were found to be five times more expensive in one of the markets than in one of the others.

A statement on climate change issued by Chinese President Xi Jinping and U.S. President Barack Obama on September 25 was hailed as a breakthrough following years of dormancy of UN climate talks.

China's cap-and-trade program, once established, will set a maximum amount of climate-changing carbon dioxide that can be released every year. It will force firms to buy or sell allowances to meet their emissions limits, providing a monetary incentive for them to reduce emissions.

"The recent joint announcement strengthens the common ground shared by both sides on climate change and may make them a model for other developed and developing nations to follow," said Teng Fei from Tsinghua University's Institute of Energy, Environment and Economy during a recent interview with caixin.com.

In addition to announcing 20 billion yuan (US$3.1bn) to support other developing countries in combating climate change, roughly the same as the U.S.'s pledge of US$3 billion to the Green Climate Fund, Xi made another significant announcement in the joint statement: China plans to establish a national "cap-and-trade" program, the world's largest emissions trading system (ETS), by 2017.

As the world's largest greenhouse gas polluter every year, and its second-largest economy, China's domestic efforts to slow climate change could see it play a leadership role in helping the developing world slow and adapt to climate change.

Joshua P. Meltzer of the Brookings Institution wrote a commentary in late September describing China's ambitious ETS as the "most noticeable element" of the joint statement. "The decision by China to introduce a national cap-and-trade system stands in increasingly stark contrast to the absence in the U.S. at the federal level of a national program (or even a serious political debate) on pricing carbon," he wrote.

Pilot Performance

In a pledge submitted to the UN ahead of the Paris meeting, China committed to making sure its annual greenhouse gas emissions stop increasing by 2030, but the absolute ceiling at which its pollution will peak has yet to be announced.

According to estimates by the Paulson Institute, an independent think tank located at the University of Chicago, the cap for China's carbon emissions may range from three to four billion tons – far higher than the current annual carbon emissions of around one billion tons. The group estimates that the Chinese carbon market's size may be 64 billion yuan (US$10.1bn) per year.

China's National Development and Reform Committee (NDRC) has predicted the national carbon market to cap at two to three billion tons, which still allows China to eclipse the European Union (EU) as the world's largest carbon market.

China's experience with carbon trading dates back to October 2011, when it declared it would set up seven pilot regional carbon markets. They are located in Shenzhen, Beijing, Shanghai, Tianjin and Chongqing, as well as the provinces of Hubei and Guangdong.

Since mid-2013, the seven pilot schemes have been rolled out successively, and about 2,000 companies have participated so far. By July 31, carbon allowances permitting more than 50 million tons of CO2 to be released have been traded under the pilot programs, at a combined value of about US$300 million, according to the Paulson Institute.

Yet as these pilot programs have been operating, each region's market has performed differently.

The 2015 China Carbon Pricing Survey, which was conducted by China Carbon Forum and ICF International, showed that prices in the seven pilot schemes have fluctuated significantly.

"Prices in many schemes temporarily rose following their establishment in 2013 and 2014 (prices in Shenzhen even exceeded 100 yuan/ton for a short time in October 2013), but then declined and stabilized throughout late 2014 and early 2015," reads the report. "In May and June 2015 prices in most schemes dropped sharply, largely due to oversupply of allowances."

When the survey was taken in mid-2015, prices ranged from 9 yuan (US$1.42) per ton in Shanghai to 42 yuan (US$6.61) per ton in Beijing.

"For a healthy, intact carbon market, once the price runs too low, it may indicate there's a surplus of allowances and that the overall emission cut target is lethargic," said Jiang Enjun, senior researcher at Energy Research Institute.

"However, in China, so far the market is in its trial period, and prices, largely manipulated by some market forces rather than being adjusted by emission allowance demand, cannot fully indicate the present condition of the carbon market," Enjun said.

As pilot projects, the seven different places can hardly be judged to be performing well or poorly either based on price or trading volumes.

Hubei Province appears to have traded the largest amount of allowances, but that is only because it allows for intermediary companies to trade allowances between themselves, while the other six pilot schemes do not allow this practice. By contrast, the city of Chongqing has been reluctant to participate, fearing economic impacts, and some days have passed by in that pilot program with very little trading at all.

Company Reaction

When the pilot schemes launched, most of the affected companies had no conception of what carbon trading was. Dimitri de Boer of China Carbon Forum said that, despite local governments' mandates that high-emission enterprises take part in the carbon market, there were some who simply refused to buy allowances.

In Hubei Province, 138 coal power plants, chemical plants, cement producers and other enterprises that use as much energy every year as would be produced using 60,000 tons of coal were included in the pilot scheme. The director of a science and technology department within a large petrochemical company in Hubei said she started to take government-organized training programs on the carbon market in March 2013.

The petrochemical company executive, who spoke on condition of anonymity so she could speak honestly about government policies, said it was not difficult for her company to fulfill its compliance in 2014 with free allowances issued to the company by the government. (Most allowances in China have so far been free — a common approach when carbon trading programs are first being established.)

“Through the application of a new waste gas recycling technique last year, not only is our company producing an extra 10,000 tons of natural gas annually, we’re also making an extra 1 million yuan (US$157,000) by selling our saved allowances on the market,” she said.

“An unwillingness to participate in the carbon market is a universal attitude amongst enterprises, particularly when most industries are facing overcapacity,” said Wu Changhua, director of the greater China office of the Climate Group, an NGO. “Thus, it’s very important for the government to have the proper policies in place to stimulate enterprises’ enthusiasm.”

“Wait and See”

National ETS will cover such key industry sectors as iron and steel, power generation, chemical, building materials, papermaking, and nonferrous metals when it launches in 2017. These sectors were selected for two main reasons, according to Wu Changhua.

“First of all, these key industry sectors account for about 60 percent of [China’s] total emissions,” Changhua said. “Secondly, data collected during the past decade for these sectors is comparatively complete.”

The petrochemical executive from Hubei Province said that when the national ETS is formed, her company’s biggest concern will be the system’s fairness in terms of how it allocates allowances.

“To conclude whether China’s ETS is going to be effective or not, we need to see whether there is real trading within its system, whether the trading can stimulate technological innovation, and push companies to take measures to cut emissions,” Changhua said. “We need to wait and see.”

*Wang Yan is a professional reporter from China. She has published over 200 pieces of in-depth environment reports in English and Chinese in China Newsweek and NewsChina Magazine. Some of her publications have won international fellowships or nationwide awards including The Environmental Press Awards issued jointly by Chinadialogue and the Guardian for two consecutive years in 2011 and 2012. This article was first published in UNDP blog on December 1, 2015. This story was sourced through the Voices2Paris UNDP storytelling contest on climate change and developed thanks to John Upton from Climate Central. [IDN-InDepthNews – 03 December 2015]

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