

Speaking note:

Progress and challenges of China's low carbon economy

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In June 2007, China issued its national programme to handle the climate change issues<sup>i</sup>. This programme is the first official document that gives an overall, authentic evidence of Chinese government's perception about, and its strategy to handle this global challenge of climate change.

No better document is better than the speech of President Hu Jintao to illustrate the latest development of Chinese position on climate change<sup>ii</sup>. China reiterated that the principle of common but differentiated responsibilities is a foundation that embodies the consensus of the international community. "Developed countries should fulfill the task of emission reduction set in the Kyoto Protocol... and support developing countries in countering climate change," he added, urging developing countries to also work hard to adapt to climate change according to their national conditions and with the financial and technological support from developed countries.

This paper will give a brief analysis of progress and challenges of China's implementation of its national climate change programme. It will be followed by some thoughts regarding their implications for international cooperation.

### **Progress**

In terms of implementation of its national climate change programme, China has made its achievements in five major areas since 2006.

Firstly, China has reduced its energy intensity (i.e. energy consumption per unit GDP) at a rate of 1.79%, 4.04% and 4.59% in three consecutive years from 2006 to 2008 respectively in comparison to the previous year. China is expected to reach a goal of about 20% reduction of energy intensity from the baseline of 2005.

Secondly, from 2006 to 2008, China shut down small thermal power plants amounting to 38.26 million kilowatts, eliminated backward production capacity of 60.59 million tons in iron sector, 43.47 million tons in steel sector, 140 million tons in cement sector.

Thirdly, China has increased the renewable and nuclear energy significantly. From 2000 to 2008, China's installed wind power capacity rose from 340,000KW to 10 million KW, hydro power installed capacity from 79.35 million KW to 163 million kilowatts, and nuclear power capacity from 2.1 million KW to 9.1 million KW. In its national programme, China set up a target to raise the proportion of renewable energy (including large-scale hydropower) in primary energy supply up to 10% by 2010. President Hu in his speech in September at UN added a longer term target of increasing the share of non-fossil fuels in primary energy consumption to around 15% by 2020.

Fourthly, it is reported that China has also reduced greenhouse gas emission in agriculture production and rural development. By the end of 2007, over 2650 million household have used biogas, which is estimated to be equivalent to reduction of 44 million tons of carbon dioxide emissions.

Fifthly, China increased its effort of forestation to enhance carbon sinks. The target set in the national programme is to increase the forest coverage rate to 20%, realizing the increase of carbon sink by 50 million tons over the level of 2005 by 2010.

### **Challenges**

Nevertheless, it is still a question mark whether China can reach those targets that were set up at its national Climate Change Programme, because internal incentives are still absent or not strong enough for governments, enterprises and consumers to alter their traditional behaviors that do not take into account of environmental costs. It reflects some major challenges faced by China in its way to a lower carbon society.

Not mentioning that a task to maintain economic growth and quickly recover from financial crisis would complicate China's national campaign of energy conservation and emission reduction.

First challenge is how to advance its governance for the purpose of seeking a new sustainable development. Two outstanding problems are among others: 1, backward management system of nature resources, 2, a rigid relationship between central government and authorities at sub-national level.

Property rights and transaction schemes in the areas of natural resources are regulated in a way that does not reflect environmental costs of such supply into a whole value chain. There is a lack of sophisticated tax system to support a good management of using natural resources. The pricing of natural resources lags behind environmental concerns.

China is a centralized political system but local governments have been notorious for their impulse of over investment and GDP driven regardless environmental guidelines from the Central Government. Here are three major stumbling blocks: the positive linkages between GDP and local revenue, lack of surveillance from within government and from civil society, and strong political alliance between government agencies and local business.

The second challenge is how to formulate policy instrument so as to incentivize corporations and consumers. The first round of policy tools are mainly setting up mandatory targets for enterprises combined with high punishment of violation. Many companies, especially those small and medium sized enterprises, simply fall short of capacity to reach the target, which then would create vicious circle of risky business behaviors. Along with regulations, it is urgent to introduce a well mixed policy tools including good public services of information and technical assistance, governmental procurement measure, direct financial support, etc. It is also relevantly urgent to development Chinese carbon market and integrates into global market, which will help generate incentives of private sector to save energy and advance technology.

Finally, there are many technical challenges at both policy and technology areas. For policy, there is a serious lack of statistic capacity to monitor emission at both sectoral and regional level. New statistic methodology and technical tools are needed to evaluate level of emission at different stage. At micro level, the recent emphasis on life circle assessment (LCA) of any product requires more statistic support as well. At the technological area, where there have been lots of discussions already, clean coal and smart grid are two priority areas for China.

For all these areas, a stronger cooperation between China and other countries are important. Policy experience shall be shared. Technical support will be mutually beneficial. That is why the UNFCCC process would perhaps be meaningful if it can go beyond just several numbers.

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The text of China's National Climate Change Programme, June 2007, is available at <sup>i</sup>  
<http://www.ccchina.gov.cn/WebSite/CCChina/UpFile/File188.pdf>

<sup>ii</sup> The full text of President Hu Jintao's speech on Climate Change in the UN General Assembly, September 2009, can be referred to <http://www.china-un.org/eng/gdxw/t606111.htm>