

# Combating Climate Change in China : Recent Policies and Efforts

(Summary)

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## 1. Current status and outlook of CO<sub>2</sub> emission

As in other countries, CO<sub>2</sub> is the major GHG in China. It accounts about 73% of the total GHG emissions. CO<sub>2</sub> emissions of China are about 4.7 billion tons and are increasing by 5% annually, though its speed slowed down in the 1990s. In 2004, China's CO<sub>2</sub> emissions reached 17% of global emissions and China became the 2nd largest emitter. Fossil fuel burning, especially coal burning is the major factor of those emissions.

In the International Energy Agency (IEA) prospect, China will be the largest CO<sub>2</sub> emitter in 2007, surpassing the US. China's emission grows rapidly recently. This is mainly due to the fast growing economy which the World Resources Institute (WRI) estimated that would overtake the US economy in 2025.

Despite the growing economy and huge emission, GDP and primary energy consumption per capita are still low in China and India.

China's GHG emissions per capita were only 3.9 tons of CO<sub>2</sub>-equivalent in 2000 which ranked 99<sup>th</sup> in the world. The energy consumption will increase further in China and India due to the ongoing quality of life improvement in these regions.

One has to keep in mind that development in China is imbalanced. Mainly, only urban regions, where many tourists visit, have well-developed infrastructure. By the end of 2005, there were still 24 million people living in poverty who do not have enough access to electricity, housing, transportation, education and so on. Tremendous disparities exist in China's development between the rural and urban regions and between the eastern and western regions.

## 2. Past actions and achievements in recent 20 years in China

Though the UNFCCC and the Kyoto Protocol constitute no responsibility on it, China has made tremendous efforts to protect global climate during the past 20 years. The efforts include restructuring the economy, utilizing renewable energy, improving energy efficiency and tree-planting.

First of all, restructuring the economy and improving energy efficiency. The annual growth rate of energy consumption is only 5.6% with a GDP growth rate of 10.2% from 1991 to 2005, which avoided more than 30 million tons of CO<sub>2</sub> emissions.

The second point is optimizing energy mix by developing low-carbon and renewable energy. There has been an increase in the percentage of hydropower generation in the total power generation capacity to

23% and an increase in the percentage of renewable energy in the total energy consumption to about 7.5% in China.

The third point is launching nationwide tree-planting campaign which has conserved 54 million hectares artificial forests in China.

The last one is family planning which has been implemented since the 1970s to control population. This policy avoided the birth of 300 million people nationally by 2005 which would emit more than 30 million tons of CO<sub>2</sub>.

China has been very actively involved in the Kyoto Mechanisms, especially in CDM projects. By the end of 2007, the government of China approved more than 1000 projects. More than 150 CDM projects have been registered, which accounts for about 92 billion tons of CO<sub>2</sub> reduction every year.

All of these actions and policies have made great achievements in CO<sub>2</sub> emission avoidance. China realized a 64% decrease in CO<sub>2</sub> emission per GDP in 2004 comparing to that of the 1980s. If we compare that to the emissions in 1990, the decrease is almost 50%. Meanwhile OECD countries could only decrease by 15%.

### **3. Recent policies and strategies**

Although China has nearly 20 years of action in combating GHG emissions, the efforts were made stronger especially in the last 2 years. The report of the 17th session of the National Congress of the Communist Party Central Committee in 2007 mentions that a policy recommendation addressing climate change has been submitted to the government. This inclusion means that addressing climate change has become an important action of the whole society in China. Political priorities are also given to scientific development, resource savings, building an environmentally friendly society, human resource development and capacity development. China's government also established a consultative assembly which is composed of leaders of the communist party to combat global warming. All of this political will shall have direct or indirect positive implications for the climate change issues.

In 2006, China's National Assessment Report on Climate Change was published. In the following year, China's National Climate Change Program was also launched by the central government.

This program details China's climate change policies and strategies. It sets up strategic goals and provides guidelines to local governments to develop plans and programs.

It combines consideration of sustainable development and climate concerns, and integrates local, national and global concerns.

To support this national program, the Ministry of Science and Technology of China together with more than 10 other ministries in China issued China's Scientific and Technological Actions on Climate Change. In this action, the priorities of R&D in China were established.

Putting special focus on energy conservation, the Work Plan for Energy Conservation and Pollutant Discharge Reduction, and Middle and Long Term Program of Renewable Energy Development were also issued.



The principles of China to address climate change are tackling climate change within the framework of sustainable development and following the principle of “common but differentiated responsibility” of the UN FCCC.

China would like to place equal emphasis on both mitigation and adaption, to integrate climate policy with other interrelated policies, to rely on the advancement and innovation of science and technology, and to

participate in international cooperation actively and extensively.

#### **4. Concrete targets against climate change**

China has set concrete targets which aim to reduce energy consumption per unit GDP by 20%, to increase in the share of renewable energy to 10%, to stabilize nitrous oxide emissions from industrial processes at 2005 level, and to increase the improved grassland by 24 million hectares by 2010. China is taking a series of actions including regulatory, legal, financial, and economic instrument for those targets. To realize the energy saving goal of 20%, the central government has given the energy saving goals to each province and then the provinces assign the goals to the lower cities.

There is also an implementation of 10 key initiatives: amendment of the Energy Conservation Law, implementation of Medium and Long Term Plan of Energy Conservation, creation of GDP/Energy Consumption Level Reporting and Releasing System, Energy Efficiency Labeling Management Directive, and development of energy-saving and environmentally friendly small engine vehicles. China also is closing down the small-scale, low energy-efficient plants and replacing them with advanced plants. Another action plan which targets nearly 1,000 top energy-intensive enterprises to lower the emissions is implemented.

China has an analysis quantitatively estimating the effects of recent policies and actions for future emission reductions. According to the study conducted in 2006, about 420 million tons of CO<sub>2</sub> emissions would be reduced in the year 2020 from the 5 energy-intensive sectors including iron and steel, and cement industry.

To cite an international review, the Center for Clean Air Policy (CCAP) commented that “a 7% reduction from Business-as-usual emissions will be achieved in 2020 due to China’s unilateral climate-friendly actions”, and “70% of China’s voluntary emission reduction programs were financed by itself”.

As Su Wei mentions, “China takes climate change very seriously, and we will do what we can do. China is committed to strengthening the ability and the capacity to fight climate change and to making new contributions to the production of the global economy”.

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