

***A DECOMPOSITION ANALYSIS ON CHINA'S CARBON EMISSION BASED  
ON ENERGY CONSUMPTION: AVOIDING OVER-ESTIMATION  
AND THE REAL TREND***

Climate change is an essential issue over the world, and China is important given the world is to deal with climate change. As the largest emitter now, the change of carbon emission from China in recent years can influence climate change all over the world. The results of other researches have pointed out that the main source of carbon emission in China is energy combustion. In this article, carbon decomposition analysis based on the data from 2003 to 2012 is used to forecast the trend of the carbon emission of China. Since the energy quality in China is low, we calculate the data of coal, coke, gasoline, diesel, kerosene, fuel oil and natural gas in terms of thermal power, heating supply and total final consumption from 2003 to 2012, which is better to avoid over-estimation. Hence, the factors which influence carbon emission are decomposed, which is used to analyze the trend of China's carbon emission.

The paper is organised as follows: After the introduction the second section gives a brief overview about the data and the method for further analysis. The third section gives the result of carbon emission in China from 2003 to 2012, and compares them with other papers. In section four we decompose the the factors which influence China's carbon emission, to find their trend. In the final section policy implications are derived.