

Study on the Relationship between Carbon Emission and Economic Structure in China from 1978 to 2009

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Abstract: To analyze China sustainable development constrained by energy and environment, this paper constructs grey relational model to study the effect of different economic growth model on carbon emission during industrialization process in China from 1978 to 2009. Investment, consumption and net export constructs GDP. The result indicates that all of gray correlation degrees are significant. The gray correlation degree between investment and carbon emission is biggest and the degree between net export and carbon emission is smallest among 3 gray correlation degrees. 1978-2009 is divided into 3 span: 1978-1991、 1992-2001 and 2002-2009 according to the feature of industrialization in China. The result of gray correlation degrees in different span shows that investment is still the main reason to the increasing of carbon emission, the correlation of net export and carbon emission is weakening. Some suggestions are put forward.