Geophysical Research Abstracts
Vol. 20, EGU2018-5908, 2018
EGU General Assembly 2018

Is China undergoing a sustainable socioeconomic development—by studying eight Chinese economic zones with environmental Kuznets curve. An example for BRICS countries.

Chenxi Lu and Sergey Venevsky
Tsinghua University, Department of Earth System Science, China (luchenxicc1023@163.com)

The environmental Kuznets curve (EKC) hypothesized that economic growth and environmental stress posit an inverted U-shaped relationship. Based on this hypothesis, we stimulated eight EKC curve models by dividing China into eight economic zones. Except for Southern coastal economic zone and Northwestern economic zone which show a U-shaped relationship, all the six economic zones supports the EKC hypothesis, showing an inverted "N" shape, which means that developing recycling economy will accelerate the sustainable development and measures beneficial to recycling economy should be advocated. However, in environmentally fragile area like Northwestern economic zone in China, protecting its environment should be put into the priority and stopping developing heavy industry rather than developing the third industry; in heavily relied on labor and unbalanced developing area like the Southern costal economic zone, it should put emphasis on introding high quality labor force to develop its technology to promote high-tech industry while promoting coordinated development among areas and rationally allocating the socioeconomic resources are fundamentally essential. Moreover, the method and results of this study can be applied into the study of BRICS countries and other countries all facing the sustainable development issues because they all have environmental problems arising from the economy development and unbalanced development among regions; therefore, different regions are adapted to different strategies of sustainable development.