A Big Earth Data Platform for Three Poles

**Air pollutant emission data set of China's future carbon neutrality scenario (2017-2060)**

1、Description

The annual emission data of conventional air pollutants (PM2.5, SO2, NH3, NOX) under different carbon neutralization technologies and air pollutant end treatment scenario combinations from 2017 to 2060, generated based on the computable general equilibrium model and the base year emission inventory, are used for the policy scenario analysis of the future coordinated treatment of carbon dioxide and air pollution in China. This data has been applied to the evaluation of the health synergy benefits of the carbon neutral technology path, as the data input of the health impact assessment model, to estimate the premature death, incidence rate and the resulting life expectancy loss, and to monetize these health impacts. The health common interests of monetization are compared with the corresponding emission reduction costs to explore the cost-effectiveness of different carbon neutral technology combinations.

2、Keywords

Theme：Air Pollutants,Environment Pollution and Control
Discipline：Human-nature Relationship
Places：China
Time：2017-2060

3、Data details

1.Scale：None

2.Projection：

3.Filesize：7.12MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：53.5 | - |
| west：73.5 | - | east：135.0 |
| - | south：4.0 | - |

5、Time frame:None--None

6、Reference method

References to data:

ZHANG Shihui , WANG Can . Air pollutant emission data set of China's future carbon neutrality scenario (2017-2060). A Big Earth Data Platform for Three Poles, doi:10.11888/HumanNat.tpdc.2728252022

References to articles:

Zhang, S., An, K., Li, J., Weng, Y., Zhang, S., Wang, S., Cai, W., Wang, C., & Gong, P. (2021). Incorporating health co-benefits into technology pathways to achieve China’s 2060 carbon neutrality goal: A modelling study. The Lancet Planetary Health, 5(11), e808–e817. https://doi.org/10.1016/S2542-5196(21)00252-7

7、Supporting project information

Interaction and regional performance of natural and human factors on land surface driven by global change

8、Data resource provider

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