A Big Earth Data Platform for Three Poles

**Historical air pollutant emission data set of China (1990-2015)**

1、Description

Provide the spatial distribution of the annual emissions of BC, CH4, CO2, CO, NH3, NMVOC, NOx, OC and SO2 from agriculture, energy exploitation, industrial and fuel combustion, surface transportation, residential and commercial housing, solvent production, waste disposal and international shipping in China from 1990 to 2015, in kg/m2/yr. The spatial precision is 0.5 °, and the geographic coordinate system is WGS84. The data comes from the CEDs data set. The historical homogenized land use data of China is obtained by linear time interpolation, Chinese regional mask extraction and coordinate system transformation of the original data, and saved in geotiff file format. The methods and standards of data over the years are consistent, the coverage is complete, and the collection and processing process is traceable and reliable.

2、Keywords

Theme：Pollution control,Environment Pollution and Control
Discipline：Human-nature Relationship
Places：China
Time：Historical, 1990-2015

3、Data details

1.Scale：None

2.Projection：

3.Filesize：19.2MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：54.0 | - |
| west：73.0 | - | east：135.0 |
| - | south：7.0 | - |

5、Time frame:None--None

6、Reference method

References to data:

WANG Jiachen , WANG Can . Historical air pollutant emission data set of China (1990-2015). A Big Earth Data Platform for Three Poles, doi:10.5281/zenodo.45093722022

References to articles:

Hoesly, R., Smith, S., Feng, L.Y., Klimont, Z., Janssens-Maenhout, G., Pitkanen, T., Seibert, J., Vu, L., Andres, R., Bolt, R., Bond, T., & Dawidowski, L., Kholod, N., Kurokawa, J., Li, M., Liu, L., Lu, Z.F., Moura, M., & Zhang, Q., et al. (2017). Historical (1750–2014) anthropogenic emissions of reactive gases and aerosols from the Community Emission Data System (CEDS). Geoscientific Model Development Discussions. 1-41. 10.5194/gmd-2017-43.

Feng, L., Smith, S. J., Braun, C., Crippa, M., Gidden, M. J., Hoesly, R., & Van Der Werf, G. R., et al. (2020). The generation of gridded emissions data for CMIP6. Geoscientific Model Development, 13(2), 461-482.

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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