A Big Earth Data Platform for Three Poles

**High-resolution extreme climate change dataset (air temperature and precipitation) during 10 years under 1.5-2.0℃ global warming**

1、Description

This dataset is the high-resolution downscaled results of three global circulation models (CCSM4, HadGEM2-ES, and MPI-ESM-MR) from CMIP5. The regional climate model applied is the WRF model. The domain of this dataset covers the five countries of Central Asia. Its horizontal resolution is 9km. The future (reference) period is 2031-2050 (1986-2005), which includes the 10 years under 1.5-2℃ global warming. The carbon emission scenario is RCP4.5. The variances are annual mean temperature at 2m and precipitation (cumulus and grid-scale precipitation). This dataset can be used to project the climate in Central Asia.

2、Keywords

Theme：Precipitation,Temperature,Downscaling,Downscaling
Discipline：Atmosphere
Places：Five countries of Central Asia
Time：Projections, 2031-2050

3、Data details

1.Scale：None

2.Projection：WGS84

3.Filesize：210.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：57.8 | - |
| west：36.9 | - | east：93.6 |
| - | south：30.7 | - |

5、Time frame:2050-12-30 16:00:00+00:00--2050-12-30 16:00:00+00:00

6、Reference method

References to data:

QIU Yuan . High-resolution extreme climate change dataset (air temperature and precipitation) during 10 years under 1.5-2.0℃ global warming. A Big Earth Data Platform for Three Poles, doi:10.11888/Meteoro.tpdc.2710642020

References to articles:

7、Supporting project information

Pan-Third Pole Environment Study for a Green Silk Road-A CAS Strategic Priority A Program

8、Data resource provider

name: QIU Yuan
unit: Institute of Atmospheric Physics, Chinese Academy of Sciences
email: qiuyuan@tea.ac.cn