A Big Earth Data Platform for Three Poles

**Monthly mean vegetation index and precipitation data set of Heihe River Basin (1961-2010)**

1、Description

The monthly average vegetation index data of Heihe River Basin is based on MODIS 1 km and 250 m NDVI products. From 250 m products, the grid value of Heihe River Basin is proposed as precision control, and the 1 km product is modified by HASM method. The monthly average vegetation index of Heihe River Basin from 2001 to 2011 was obtained by fusing multi-source NDVI data using HASM method. Resolution: 1km \* 1km  
The average precipitation data set of Heihe River Basin adopts the data information of 21 meteorological conventional observation stations in Heihe River Basin and its surrounding areas and 13 national reference stations around Heihe River basin provided by Heihe planning data management center. The daily precipitation data of each station from 1961 to 2010 is calculated. If the coefficient of variation is greater than 100%, the daily precipitation distribution trend can be obtained by using the geographic weighted regression to calculate the relationship between the station and the geographical terrain factors; if the coefficient of variation is less than or equal to 100%, the relationship between the station precipitation value and the geographical terrain factors (longitude, latitude, elevation) is calculated by ordinary least square regression, and the daily precipitation score is obtained HASM (high accuracy surface modeling method) was used to fit and modify the residual error after removing the trend. Finally, the trend surface results and residual correction results are added to get the annual average precipitation distribution of Heihe River Basin from 1961 to 2010. Time resolution: annual average precipitation from 1961 to 2010. Spatial resolution: 500M.

2、Keywords

Theme：vegetation index,Precipitation,Vegetation  
Discipline：Atmosphere,Terrestrial Surface  
Places：Heihe River Basin  
Time：1961-2010

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：12.0MB

4.Data format：img

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：42.0 | - |
| west：98.0 | - | east：101.5 |
| - | south：38.0 | - |

5、Time frame:1961-01-08 16:03:00+00:00--2011-01-07 16:03:00+00:00

6、Reference method

References to data:

ZHAO Na, YUE Tianxiang. Monthly mean vegetation index and precipitation data set of Heihe River Basin (1961-2010). A Big Earth Data Platform for Three Poles, doi:10.3972/heihe.0267.2016.db2018

References to articles:

7、Supporting project information

8、Data resource provider

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