A Big Earth Data Platform for Three Poles

**Dataset of IWEMS (Integrated Wind-Erosion Modelling System) in the Kubuqi Desert**

1、Description

I. Overview  
This data set contains the terrain data, soil data, meteorological data, land use data, NDVI data, etc. required for the operation of the IWEMS model. All maps and relevant point coordinates (weather stations) use the isometric projection UTM / WGS94 coordinate system.  
Ⅱ. Data processing description  
All maps and related point coordinates (weather stations) use the isometric projection UTM / WGS84 coordinate system.  
Ⅲ. Data content description  
The data content mainly includes:  
The basic terrain data includes the Cuneiform Desert (DEM) and the river network. The river network is used as the boundary for wind and sand transmission. The size of the DEM grid is 250 \* 250 m. The river network was extracted using the ASTER-GDEM terrain data with the river burning method.  
Soil data, including soil physics, chemistry, and spatial distribution of soil types. It is derived from 1: 1 million soil database of China and converted to ESRI-grid format with a grid size of 250 \* 250 m.  
Meteorological data, including daily data from Baotou, Dongsheng and Linhe meteorological stations around the Kubuqi Desert, from 2002 to 2010. Includes precipitation, wind speed and wind direction data.  
Land use data, 2000 land use data, scale is 1: 100,000. Convert it to ESRI-grid format with a grid size of 250 \* 250 m.  
Ⅳ. Data usage description  
Evaluate wind and sand hazards along the Yellow River, estimate the amount of wind and sand entering the upper reaches of the Yellow River, and provide data support for establishing an early warning system for wind and sand hazards in the region.

2、Keywords

Theme：Soil,Digital elevation model,Topography,Soil classification  
Discipline：Atmosphere,Terrestrial Surface  
Places：Kubuqi Desert  
Time：2002, 2011

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：7020.0MB

4.Data format：ESRI-GRID、EXCEL

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：41.0 | - |
| west：106.5 | - | east：110.0 |
| - | south：40.0 | - |

5、Time frame:2002-07-05 17:24:00+00:00--2012-07-03 17:24:00+00:00

6、Reference method

References to data:

XUE Xian, DU Heqiang. Dataset of IWEMS (Integrated Wind-Erosion Modelling System) in the Kubuqi Desert. A Big Earth Data Platform for Three Poles, 2013

References to articles:

Shao Y., 2008. Physics and Modelling of Wind Erosion.

7、Supporting project information

8、Data resource provider

name: XUE Xian  
unit:   
email: xianxue@lzb.ac.cn  
  
name: DU Heqiang  
unit:   
email: dilikexue119@163.com