A Big Earth Data Platform for Three Poles

**Soil texture dataset of the Heihe River Basin (2011)**

1、Description

The soil texture dataset of the Heihe River Basin (2011) is compiled by LIU Chao et al. (2011) by using the SOLIM model. Based on the famous Jenny equation of soil science, and according to the environmental factors such as climate, biology, topography and parent material, knowledge mining and fuzzy logic are combined on the basis of existing soil texture maps and soil profiles in Heihe River Basin. It is produced and integrated with thematic maps of glaciers and lakes. According to the different characteristics of the six ecological zones in Heihe River Basin, different mapping methods are used in the upper, middle and lower reaches. According to the different characteristics of six ecological zones in Heihe River Basin, different mapping methods are used in the upper, middle and lower reaches. The data is in grid format with 1KM spatial resolution and WGS-84 projection. Soil texture attributes and categories represent 0-30 cm topsoil texture attributes, derived from depth-weighted averages. The texname in the attribute table indicates the soil texture type name. Sandrange, siltrange, and clayrange respectively represent the sand, powder, and clay content ranges in the USDA soil triangle. Sandaverage, siltaverage and clayaverage are taken from the measured soil profiles, the average content of sand, silt and clay particles as the sand, silt and clay content of the soil type. (Note: The soil particle content of clay loam is derived from the soil quality map of Beijing Normal University). The soil texture classification standard is USDA, the sand grain size is defined as (2~0.05mm), the silt particle size is (0.05~0.002mm) and the clay size is defined as (<0.002mm).

2、Keywords

Theme：Soil,Soil texture
Discipline：Terrestrial Surface
Places：Heihe River Basin
Time：2011

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：0.14MB

4.Data format：shp

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：43.3 | - |
| west：96.1 | - | east：104.2 |
| - | south：37.7 | - |

5、Time frame:2018-12-05 18:47:00+00:00--2018-12-05 18:47:00+00:00

6、Reference method

References to data:

Soil texture dataset of the Heihe River Basin (2011). A Big Earth Data Platform for Three Poles, doi:10.3972/heihe.023.2013.db2013

References to articles:

刘超, 卢玲, 胡晓利. 数字土壤质地制图方法比较－－以黑河张掖地区为例. 遥感技术与应用, 2011, 26(2): 177-185.

7、Supporting project information

8、Data resource provider