A Big Earth Data Platform for Three Poles

**The HWSD soil texture dataset of the Heihe River Basin (2009)**

1、Description

The data comes from the Harmonized World Soil Database (HWSD) constructed by the Food and Agriculture Organization of the United Nations (FAO) and International Institute for Applied System Analysis in Vienna (IIASA), which released version 1.1 on March 26, 2009. The data resolution is 1 km. The data source in China is 1: 1 million soil data. The soil classification system used is mainly FAO-90.
The main fields of the soil property sheet include:
SU\_SYM90 (name of soil in FAO90 soil classification system)
SU\_SYM85 (FAO85 classification)
T\_TEXTURE (top soil texture)
DRAINAGE (19.5);
ROOTS: String (depth classification to the bottom of the soil with obstacles);
SWR: String (characteristics of soil water content);
ADD\_PROP: Real (specific soil type in the soil unit related to agricultural use);
T\_GRAVEL: Real (gravel volume percentage); T\_SAND: Real (sand content);
T\_SILT: Real (silt content);
T\_CLAY: Real (clay content);
T\_USDA\_TEX: Real (USDA Soil Texture Classification);
T\_REF\_BULK: Real (soil bulk density);
T\_OC: Real (organic carbon content);
T\_PH\_H2O: Real (pH)
T\_CEC\_CLAY: Real (cation exchange capacity of the sticky layer soil);
T\_CEC\_SOIL: Real (soil cation exchange capacity)
T\_BS: Real (basic saturation);
T\_TEB: Real (exchangeable base);
T\_CACO3: Real (carbonate or lime content)
T\_CASO4: Real (sulfate content);
T\_ESP: Real (exchangeable sodium salt);
T\_ECE: Real (conductivity).

The attribute field at the beginning of T\_ indicates the upper soil attribute (0-30 cm), and the attribute field at the beginning of S\_ indicates the lower layer soil attribute (30-100 cm) (FAO 2009).
This data provides model input parameters for Earth system modelers, and in agricultural perspective, it can be used to study eco-agricultural divisions, food security, and climate change.

2、Keywords

Theme：Soil,Soil texture
Discipline：Terrestrial Surface
Places：Heihe River Basin
Time：2009

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：0.56MB

4.Data format：栅格数据

4、Space scope

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

5、Time frame:2018-11-25 10:48:56+00:00--2018-11-25 10:48:56+00:00

6、Reference method

References to data:

Food and Agriculture Organization of the United Nations（FAO）. The HWSD soil texture dataset of the Heihe River Basin (2009). A Big Earth Data Platform for Three Poles, 2013

References to articles:

FAO, IIASA, ISRIC, ISS-CAS, JRC, 2009. Harmonized World Soil Database (version1.1). FAO, Rome, Italy and IIASA, Laxenburg, Austia.

7、Supporting project information

8、Data resource provider

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