A Big Earth Data Platform for Three Poles

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

1、Description

The data set is the HWSD soil texture dataset of the Shulehe River Basin. The data comes from the Harmonized World Soil Database (HWSD) constructed by the Food and Agriculture Organization of the United Nations (FAO) and the Vienna International Institute for Applied Systems (IIASA). Version 1.1 was released on March 26, 2009. The data resolution is 1km. The soil classification system used is mainly FAO-90.  
The main fields of the soil attribute table include:  
SU\_SYM90 (soil name in FAO90 soil classification system)  
SU\_SYM85 (FAO85 classification)  
T\_TEXTURE (top soil texture)  
DRAINAGE (19.5);  
ROOTS: String (depth classification of obstacles to the bottom of the soil);  
SWR: String (soil moisture characteristics);  
ADD\_PROP: Real (a specific soil type related to agricultural use in the soil unit);  
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 cohesive layer soil);  
T\_CEC\_SOIL: Real (cation exchange capacity of soil)  
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 beginning with T\_ indicates the upper soil attribute (0-30cm), and the attribute field beginning with S\_ indicates the lower soil attribute (30-100cm) (FAO 2009).  
The data can provide model input parameters for modelers of the Earth system, and the agricultural perspective can be used to study eco-agricultural zoning, food security, and climate change.

2、Keywords

Theme：Harmonized world soil database,Soil,Soil water content,Soil texture,Crushed stone volume  
Discipline：Terrestrial Surface  
Places：Shule River Basin  
Time：2009

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：0.98MB

4.Data format：栅格

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：43.12 | - |
| west：92.0 | - | east：100.0 |
| - | south：37.88 | - |

5、Time frame:None--None

6、Reference method

References to data:

Food and Agriculture Organization of the United Nations（FAO）. The HWSD soil texture dataset of the Shulehe River Basin (2009). A Big Earth Data Platform for Three Poles, 2014

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

name: Food and Agriculture Organization of the United Nations（FAO）  
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