A Big Earth Data Platform for Three Poles

**Slope Length and Stepness Factor Dataset of Pan-Third Pole 20 countries (2020, with a resolution of 7.5 arcsecond)**

1、Description

The Slope Length and Stepness Factor (LS) dataset of Pan-third pole 20 country is calculated based on the free accessed 1 arc second resolution SRTM digital elevation data (Shuttle Radar Topography Mission, SRTM; the website is http://srtm.csi.cgiar.org）. After the pre-processing such as pseudo edge removal, filtering and noise removal, the LS factor with 7.5 arc second resolution was calculated with the LS factor algorithm in CSLE model and the LS calculation tool (LS\_tool) developed in this project. The LS factor data of Pan-third pole 20 countries is the fundamental data for soil erosion rate calculation based on CSLE, and it also the fuandatmental data for analyzing the erosion topographic characteristics of Pan third pole 20 countries (such as macro distribution and micro pattern of elevation, slope and slope) . The dataset if of great importance for the analysis of geomorphic characteristics and geological disaster characteristics in this area.

2、Keywords

Theme：Soil,Soil erosion,Soil reosion,Water and soil loess,Soil erosion,Natural Disaster,Environment Pollution and Control  
Discipline：Terrestrial Surface,Human-nature Relationship  
Places：Pan-Third Pole Region  
Time：2020

3、Data details

1.Scale：None

2.Projection：WGS84

3.Filesize：2186.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：70.9 | - |
| west：134.9 | - | east：44.2 |
| - | south：0.81 | - |

5、Time frame:None--None

6、Reference method

References to data:

YANG Qinke. Slope Length and Stepness Factor Dataset of Pan-Third Pole 20 countries (2020, with a resolution of 7.5 arcsecond). A Big Earth Data Platform for Three Poles, doi:10.11888/Soil.tpdc.2717402021

References to articles:

7、Supporting project information

Pan-Third Pole Environment Study for a Green Silk Road-A CAS Strategic Priority A Program

8、Data resource provider

name: YANG Qinke  
unit: Northwestern University  
email: qkyang@ms.iswc.ac.cn