A Big Earth Data Platform for Three Poles

**Multi-scale dataset of environment and element-at-risk for the Qinghai-Tibet Plateau**

1、Description

The multi-scale dataset of environment and element-at-risk for the Qinghai-Tibet Plateau includes geomorphic data, normalized vegetation index data, annual temperature and rainfall data, and disaster bearing value grade data, covering an area of 6.56 million square kilometers. The data set is mainly prepared for disaster and risk assessment. Due to the huge coverage, the geomorphic data adopts 150m spatial resolution and other data adopts 1000m spatial resolution. Geomorphology, vegetation index, temperature and rainfall data are mainly produced by processing open source data, and disaster bearing value grade data are produced by superposition calculation, comprehensively considering population data, night light index, buildings and surface cover types.

2、Keywords

Theme：Precipitation,Topography,Temperature,Vegetation,Geomorphology
Discipline：Atmosphere,Terrestrial Surface
Places：Qinghai-Tibet Plateau
Time：NONE

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：18450.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：46.106587 | - |
| west：66.285139 | - | east：106.628417 |
| - | south：21.645312 | - |

5、Time frame:1969-12-31 16:00:00+00:00--2020-12-31 16:00:00+00:00

6、Reference method

References to data:

TANG Chenxiao. Multi-scale dataset of environment and element-at-risk for the Qinghai-Tibet Plateau. A Big Earth Data Platform for Three Poles, 2022

References to articles:

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WorldPop (www.worldpop.org - School of Geography and Environmental Science, University of Southampton; Department of Geography and Geosciences, University of Louisville; Departement de Geographie, Universite de Namur) and Center for International Earth Science Information Network (CIESIN), Columbia University. (2018). Global High Resolution Population Denominators Project - Funded by The Bill and Melinda Gates Foundation (OPP1134076). https://dx.doi.org/10.5258/SOTON/WP00647

Elvidge, C.D, Zhizhin, M., Ghosh, T., Hsu, F.C, & Taneja, J. (2021). Annual time series of global VIIRS nighttime lights derived from monthly averages:2012 to 2019. Remote Sensing, 13(5), p.922, doi:10.3390/rs13050922

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Fick, S.E., & Hijmans, R.J. (2017). WorldClim 2: new 1‐km spatial resolution climate surfaces for global land areas. International journal of climatology, 37(12), 4302-4315.

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

name: TANG Chenxiao
unit:
email: c.tang@imde.ac.cn