A Big Earth Data Platform for Three Poles

**Refined spatial distribution data set of population in hanbantota port area (HRSLv1.2)**

1、Description

The refined population spatial distribution data set of Hambantota port area is generated by reanalysis based on hrsl data of Sri Lanka. Hrsl data provides an estimate of the population distribution in 2015 at a resolution of 1 arcsec (about 30 meters). The latest census information and built-up area information based on satellite images are used in hrsl data. This data set is based on hrsl data. Firstly, the boundary of buildings is extracted from the 0.5m resolution remote sensing image by computer vision technology, and the building types (high-rise buildings, medium and low rise buildings, bungalows, etc.) are determined by combining with manual visual interpretation and field sampling. The population distribution area mask is constructed in the building area, and the 10 meter grid is used as the analysis unit to calculate the population distribution in the unit According to the proportion of different building types, the proportion of main land use types, building density, distance from road and other related indicators, the average density of building type consistent area is calculated from hrsl data, and the corresponding population density of each building is obtained by machine learning method. Then, the population data in the area is allocated to the corresponding unit by proportional allocation method, and the 10 meter resolution is obtained Population distribution products. The data is distributed in the form of GeoTIFF files. Population GeoTIFF represents population estimates (in person) and provides detailed estimates for population, infrastructure and Sustainability Studies in the humanitarian field.

2、Keywords

Theme：Population,Total population  
Discipline：Human-nature Relationship  
Places：Sri Lanka  
Time：year

3、Data details

1.Scale：None

2.Projection：

3.Filesize：1.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：6.2 | - |
| west：81.0 | - | east：81.2 |
| - | south：6.0 | - |

5、Time frame:2014-12-31 16:00:00+00:00--2015-12-30 16:00:00+00:00

6、Reference method

References to data:

Refined spatial distribution data set of population in hanbantota port area (HRSLv1.2). A Big Earth Data Platform for Three Poles, doi:10.11888/Socioeco.tpdc.2711052020

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