A Big Earth Data Platform for Three Poles

**The NPP spatio-temporal dataset of the Tibetan Plateau (1982-2006)**

1、Description

This data set contains the results of the calculation of Net Primary Productivity (NPP) on the Tibetan Plateau based on ecological models and remote sensing data from 1982 to 2006.  
Ecosystem NPP of the Tibetan Plateau was generated based on the remote sensing Advanced Very High Resolution Radiometer (AVHRR) data and the Carnegie-Ames-Stanford Approach (CASA) model(1982-2006), the soil carbon content was generated based on the second soil census data, and the biomass carbon data were generated based on the High Resolution Biosphere Model (HRBM) model.  
Forest ecosystem NPP of the Tibetan Plateau (1982-2006):  
npp\_forest82.e00，npp\_forest83.e00，npp\_forest84.e00，npp\_forest85.e00，npp\_forest86.e00，  
npp\_forest87.e00，npp\_forest88.e00，npp\_forest89.e00，npp\_forest90.e00，npp\_forest91.e00，  
npp\_forest92.e00，npp\_forest93.e00，npp\_forest94.e00，npp\_forest95.e00，npp\_forest96.e00，  
npp\_forest97.e00，npp\_forest98.e00，npp\_forest99.e00，npp\_forest00.e00，npp\_forest01.e00，  
npp\_forest02.e00，npp\_forest03.e00，npp\_forest04.e00，npp\_forest05.e00，npp\_forest06.e00  
Grassland ecosystem NPP of the Tibetan Plateau(1982-2006)：  
npp\_grass82.e00，npp\_grass83.e00，npp\_grass84.e00，npp\_grass85.e00，npp\_grass86.e00，  
npp\_grass87.e00，npp\_grass88.e00，npp\_grass89.e00，npp\_grass90.e00，npp\_grass91.e00，  
npp\_grass92.e00，npp\_grass93.e00，npp\_grass94.e00，npp\_grass95.e00，npp\_grass96.e00，  
npp\_grass97.e00，npp\_grass98.e00，npp\_grass99.e00，npp\_grass00.e00，npp\_grass01.e00，npp\_grass02.e00，npp\_grass03.e00，npp\_grass04.e00，npp\_grass05.e00，npp\_grass06.e00.  
Biomass carbon and soil carbon of the Tibetan Plateau：  
Biomass.e00，Socd.e00.  
The soil carbon content data （Socd） are generated based on data of the second soil census of China and Soil Map of China (1:1,000,000) by soil subclass interpolation.  
The NPP data are generated from the CASA model and AVHRR data simulation:  
Potter CS, Randerson JT, Field CB et al. Terrestrial ecosystem production: a process model based on global satellite and surface data. Global Biogeochemical Cycles, 1993, 7: 811–841.  
The biomass carbon data are generated via HRBM model simulation：  
McGuire AD, Sitch S, et al. Carbon balance of the terrestrial biosphere in the twentieth century: Analyses of CO2, climate and land use effects with four process-based ecosystem models. Global Biogeochem. Cycles, 2001, 15 (1), 183-206.  
The raw data are mainly remote sensing data and field observation data with high accuracy; the verification and adjustment of the measured data in the field during the production were undertaken to maintain the error of the simulation results and the field measured data within the acceptable range as much as possible; the verification results of the NPP data and the field measured data show that the error remains within 15%.  
The spatial resolution is 0.05°×0.05° (longitude×latitude).

2、Keywords

Theme：Carbon flux,vegetation index,Soil,Net primary productivity,Vegetation,Social and Economic  
Discipline：Terrestrial Surface,Human-nature Relationship  
Places：Tibetan Plateau   
Time：1982-2006

3、Data details

1.Scale：None

2.Projection：

3.Filesize：109.746MB

4.Data format：shp

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：45.0 | - |
| west：73.0 | - | east：105.0 |
| - | south：26.0 | - |

5、Time frame:1982-01-11 08:00:00+00:00--2007-01-10 08:00:00+00:00

6、Reference method

References to data:

ZHOU Caiping. The NPP spatio-temporal dataset of the Tibetan Plateau (1982-2006). A Big Earth Data Platform for Three Poles, doi:10.11888/Ecology.tpe.41.file2018

References to articles:

7、Supporting project information

8、Data resource provider

name: ZHOU Caiping  
unit: Institute of Geographic Sciences and Natural Resources Research,Chinese Academy of Sciences  
email: zhoucp@igsnrr.ac.cn