A Big Earth Data Platform for Three Poles

**HiWATER: Land cover map in the core experimental area of flux observation matrix**

1、Description

The dataset contains vegetation type in the middle reaches of the Heihe River Basin, which was used to validate products from remote sensing. It was generated from investigating the land cover strips of CASI during 2012.  
Instruments: High-precision handheld GPS (2-3 m) and digital camera were used as main tools in the survey.  
Measurement method: Hierarchical classification is applied based on CASI data. According to various land types, pixel classifications is used for forest, grassland, bare land and building lands; in-situ observations and investigations are used for different crops.  
  
Dataset contains: land types, including maize, leek, poplar trees, cauliflower, bell pepper, potatoes, endive sprout, orchard, watermelon, kidney bean, pear orchard, shadow, and non-vegetation, except for 14 others which are not classified.  
Observation site: core experimental areas with 5\*5 matrix structure in the middle reaches of the Heihe river basin   
Date: From 25 June in 2012 (UTC+8) on.

2、Keywords

Theme：Ecological remote sensing products,Land-use and land-cover change(LUCC),Terrestrial Surface Remote Sensing  
Discipline：Terrestrial Surface  
Places：Heihe River Basin, the artificial oasis experimental area in the middle reaches, flux observation matrix  
Time：2012, 2012-06-25 to 2012-08-06

3、Data details

1.Scale：None

2.Projection：+proj=longlat +ellps=WGS84 +datum=WGS84 +no\_defs

3.Filesize：46.4MB

4.Data format：tif格式

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：38.8814 | - |
| west：100.3364 | - | east：100.3983 |
| - | south：38.8265 | - |

5、Time frame:2012-07-06 22:00:00+00:00--2012-08-17 23:00:00+00:00

6、Reference method

References to data:

Zhang Miao. HiWATER: Land cover map in the core experimental area of flux observation matrix. A Big Earth Data Platform for Three Poles, doi:10.3972/hiwater.156.2014.db2017

References to articles:

Li, X., Liu, S.M., Xiao, Q., Ma, M.G., Jin, R., Che, T., Wang, W.Z., Hu, X.L., Xu, Z.W., Wen, J.G., Wang, L.X. (2017). A multiscale dataset for understanding complex eco-hydrological processes in a heterogeneous oasis system. Scientific Data, 4, 170083. doi:10.1038/sdata.2017.83.

7、Supporting project information

Heihe Watershed Allied Telemetry Experimental Research (HiWATER)

8、Data resource provider

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