A Big Earth Data Platform for Three Poles

**Oasis dataset of Hexi Corridor based on landsat data (1986-2020)**

1、Description

Timely and correct observation of the spatial and temporal patterns and dynamics of oases is important for the property socioeconomic development of arid zones. During this study, a complete of 9 periods of Landsat image knowledge in 1986, 1990, 1995, 2000, 2005, 2010, 2015, 2018, and 2020 were accustomed get oasis distribution knowledge within the Hexi region from 1986 to 2020 employing a combination of OSTU threshold methodology and manual visual interpretation, and combined with high-resolution Google Earth pictures and field validation knowledge were combined to ascertain random sample points supported confusion matrix to verify the accuracy of oasis extraction results. The overall accuracy of oasis data in Hexi Corridor is over 94%, and the Kappa coefficient is over 0.88. This dataset can provide data support for the ecological environment protection of Hexi oasis.

2、Keywords

Theme：Image interpretation,Remote Sensing Technology,detection,Terrestrial Surface Remote Sensing  
Discipline：Terrestrial Surface,Remote Sensing Technology  
Places：Hexi  
Time：1986-2020

3、Data details

1.Scale：None

2.Projection：

3.Filesize：155.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：43.0 | - |
| west：93.0 | - | east：105.0 |
| - | south：37.0 | - |

5、Time frame:1985-12-31 16:00:00+00:00--2020-12-30 16:00:00+00:00

6、Reference method

References to data:

HUANG Xiaojun, LIU Yiyang, QIN Mengyao, ZHANG Xueyuan, ZONG Leli, LI Ruyan, XIE Yaowen, XIAO Min. Oasis dataset of Hexi Corridor based on landsat data (1986-2020). A Big Earth Data Platform for Three Poles, doi:10.11888/Terre.tpdc.2727662022

References to articles:

7、Supporting project information

Spatiotemporal processes of oasification along the Hexi Section of the Silk Road and dynamic monitoring of oasis desertification along the Hexi Corridor

8、Data resource provider

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