A Big Earth Data Platform for Three Poles

**Surface water body extent and area dataset in the Sahel-Sudano-Guinean region of Africa (2000-2020)**

1、Description

The Surface water body extent and area dataset in pan-Sahel region includes the changes of surface water body (≥1km2) in pan-Sahelian 23 countries during 2000-2020. The dataset was produced based on the global surface water extent dataset (GSWED). Firstly, the misclassification caused by the dynamic threshold in the original GSWED data was eliminated by establishing the mask of area size and observation frequency to obtain an improved surface water data set. Then, the improved surface water surface data set was objected, and manually revised combination with global River widths from Landsat and lake data (HydroLAKES). Finally, based on the revised surface water body data set, the water body extent and area change in the Pan Sahel region in 21 years was counted.  
The dataset is in the vector file format (.shp) and has the geographic coordinate system of WGS 1984. It not only reduces the redundancy of data but increases the surface water from pixel scale to object scale, which is of more practical significance in geo-analysis. The dataset covers the Sahel and West Africa and provides data support for the assessment and research of surface water resources in the region.

2、Keywords

Theme：Area,Surface Water,Water,Land Use/Land Cover  
Discipline：Terrestrial Surface  
Places：the Pan Sahel  
Time：2000-2020

3、Data details

1.Scale：None

2.Projection：WGS84

3.Filesize：172.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：23.0 | - |
| west：-17.0 | - | east：45.0 |
| - | south：4.0 | - |

5、Time frame:None--None

6、Reference method

References to data:

JIANG Min , LV Yunzhe , JIA Li . Surface water body extent and area dataset in the Sahel-Sudano-Guinean region of Africa (2000-2020). A Big Earth Data Platform for Three Poles, doi:10.11888/Terre.tpdc.2720552022

References to articles:

7、Supporting project information

Driving Mechanisms of Land Use and Cover Change in the Sahel: Impacts and Responses

8、Data resource provider

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