Inversion dataset of suspended solids concentration from 2000 to 2013 in Poyang Lake，China

Data Documentation

I. Dataset/atlas content features

i. Abstract

Suspended solids concentration (SSC) is an important parameter to evaluate water quality and water environment. To obtain data on the spatio-temporal distribution of SSC via remote sensing technologies has great implications for lake environmental management. Here we conducted a linear regression analysis on the measured SSC data in spring, summer, autumn and winter consecutively during 2009 – 2012, and on the multi-band MODIS images of the same period, through which to build four seasons inversion models. The models were then used to generate the SSC of Poyang Lake in spring, summer, autumn and winter during 2000 – 2013. A validation against measured data shows that the inversion models have a relative error of less than 40%, meeting the requirements of long-term SSC inversion in Poyang Lake. Generated from these models, the data set is expected to provide statistical support for water environment remote-sensing monitoring and regional environmental management in Poyang Lake.

ii. Elements (content fields)

This dataset includes inversion models of suspended solids concentration (SSC) data in spring, summer, autumn and winter consecutively during 2000 – 2013.

Table 1 Description of data element content

Data name	Item (field)	Field name in Chinese	Field measure unit	Field code description	Remarks
Suspended solids concentration	concentration	浓度			

iii. Temporal cover

2000-2013

iv. Spatial cover

Poyang Lake, China

II. Subject/industry scope of dataset/atlas

i. Subject scope

Basic Geography information

ii. Industry scope

Environmental and Textile

iii. Other classifications (optional)

III. Accuracy of dataset/atlas

i. Time frequency

quarterly

ii. Spatial reference, accuracy, and granularity

IV. Dataset/atlas storage management

i. Data quantity

The volume of the dataset is 10.9 MB.

ii. Type format

This dataset was stored in hard disk with formats of TIF.

iii. Update management

Unscheduled update.

V. Quality control of the dataset/atlas

i. Production mode

This dateset conducted a linear regression analysis on the measured SSC data in spring, summer, autumn and winter consecutively during 2009 – 2012, and on the multi-band MODIS images of the same period, through which to build four seasons inversion models. The models were then used to generate the SSC of Poyang Lake in spring, summer, autumn and winter during 2000 – 2013.

ii. Data sources (condition selection)

Data is obtained on the spatio-temporal distribution of SSC via remote sensing technologies.

VI. Sharing and usage method of the dataset/atlas

i. Sharing methods and restrictions

Open sharing.

ii. Contact information of the sharing service (condition selection)

Online link address: http://drr.ikcest.org/info/9b2c

Contact Information for Service：

Name: Service group of Disaster Risk Reduction Knowledge Service System of IKCEST

Address：11A, Datun Road, Chaoyang District, Beijing, 100101, China, Institute of Geographic Sciences and Natural Resources Research, CAS.

Zip Code：100101

E-mail: ikcest-drr@lreis.ac.cn

iii. Conditions and methods of usage

This dataset can be opened using ArcGIS.

VII. Intellectual property rights of the dataset/atlas

i. Property rights (optional)

Intellectual property of the dataset belonged to Institute of Geographic Sciences and Natural Resources Research, CAS.

ii. Reference method of the dataset/atlas

Inversion dataset of suspended solids concentration from 2000 to 2013 in Poyang Lake，China. Disaster Risk Reduction Knowledge Service of International Knowledge Centre for Engineering Sciences and Technology (IKCEST) under the Auspices of UNESCO, 2015.7.15. http://drr.ikcest.org/info/9b2c.

iii. Usage contacts of the datasets/atlas

Name: Service group of Disaster Risk Reduction Knowledge Service sub-platform of IKCEST

Address：11A, Datun Road, Chaoyang District, Beijing, 100101, China, Institute of Geographic Sciences and Natural Resources Research, CAS.

Zip Code：100101

E-mail: ikcest-drr@lreis.ac.cn

VIII. Others (optional)

In addition to the above, other information must also be explained.

Data documentation author information			
Data documentation author	Wang Juanle, Chen	Update time	2015-7-15

	Eryang, Zhu Junxiang, Zhou Yujie, Zhao Qiang			
Organization	Institute of Geographic Sciences and Natural Resources Research, CAS			
Contact information	Email			
Address	11A, Datun Road, Chaoyang District, Beijing, 100101, China		Postcode	100101
Telephone	010-64889048-8006	E-mail	ikcest-drr@lreis.ac.cn	