

**Dataset of changes in spatial distribution of polders around Dongting Lake, China
(1949–2013)**

Data Documentation

I. Dataset/atlas content features

i. Abstract

Long-term sediment deposition and embankment reclamation have formed a special distribution of polders around Dongting Lake in China. The area encompassed by the dataset includes 20 counties around Dongting Lake. The dataset content includes the polder distribution in 2013 and the spatial changes during 1949–1998, 1998–2008, and 2008–2013. The 2013 polder distribution was extracted using object-oriented image classification using remotely sensed images. Information about spatial changes in the polders during the three historical periods was extracted from water-conservancy engineering drawings and related materials using automatic vectorization and the ArcGIS software. The dataset could be used to look for temporal and spatial patterns, explain the process of polder evolution, investigate land use and its changing patterns, and formulate corresponding policies for managing polders in the Dongting Lake area.

ii. Elements (content fields)

iii. Temporal cover

1949-2013

iv. Spatial cover

The spatial range of this dataset is Dongting Lake, China.

II. Subject/industry scope of dataset/atlas

i. Subject scope

Geography .

ii. Industry scope

Environmental industry

iii. Other classifications (optional)

(Other categories can be applied, but should reflect the dataset/atlas characteristics.)

III. Accuracy of dataset/atlas

i. Time frequency

ii. Spatial reference, accuracy, and granularity

100m

IV. Dataset/atlas storage management

i. Data quantity

9.31MB

ii. Type format

.Shp

iii. Update management

Irregular updating

V. Quality control of the dataset/atlas

i. Production mode

Three main methods are used to produce the dataset. The first is remote-sensing interpretation of Wang, J. L. et al.: Polders Spatial Dataset around Dongting Lake, China (1949–2013) 95

polder information based on object-oriented image classification, the second is digital processing of historical polder material, and the third is information processing of changes in the spatial distribution of polders in different periods.

ii. Data sources (condition selection)

Polder information is extracted using object-oriented image classification based on four sets of Landsat 8 satellite images in 2013 (July 31, 2013, 123/40 and 123/41 and August 7, 2013, 124/39 and 124/40).

iii. Methods of the data acquisition and processing (condition selection)

Three main methods are used to produce the dataset. The first is remote-sensing interpretation of Wang, J. L. et al.: Polders Spatial Dataset around Dongting Lake, China (1949–2013) 95 polder information based on object-oriented image classification, the second is digital processing of historical polder material, and the third is information processing of changes in the spatial distribution of polders in different periods.

VI. Sharing and usage method of the dataset/atlas

i. Sharing methods and restrictions

Fully opened sharing

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

Contact Information for Service:

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

Address: A11 Datun Road, Chaoyang District, Beijing

Zip Code: 100101

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

iii. Conditions and methods of usage

The dataset can be read by ArcGIS software.

VII. Intellectual property rights of the dataset/atlas

i. Property rights (optional)

The property of the dataset belongs to the Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences.

ii. Reference method of the dataset/atlas

Dataset of changes in spatial distribution of polders around Dongting Lake, China (1949–2013). Disaster Risk Reduction Knowledge Service of International Knowledge Centre for Engineering Sciences and Technology (IKCEST) under the Auspices of UNESCO, 2014.12.30. <http://drr.ikcest.org/info/8927>.

iii. Usage contacts of the datasets/atlas

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

Address: A11 Datun Road, Chaoyang District, Beijing .

Postcode: 100101

Telephone: 010-64889048-8006

Email: 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, Gao Mengxu,	Update time	2014.12.30
Organization	Institute of Geographic Sciences and Natural Resources Research,		

	Chinese Academy of Sciences.		
Contact information			
Address	A11 Datun Road, Chaoyang District, Beijing .	PostcodeS	100101
Telephone	010-64889048-8006	E-mail	ikcest-drr@reis.ac.cn

