

# The New Milestone of China's Scientific Data Archiving and Access

*Peng Jie (ISINFO/MOST)*

*Zhao Hui (ISINFO/MOST)*

*Liu Chuang (IGSNRR/CAS) (reporter)*

*CODATA2006 Beijing China*

# **Scientific Data Archiving History in China**

**China is the country of good at  
archiving and has a long history  
in recording China**

# **Recoding China's Environment and Geography**

**The book on Zhouli (two thousands years ago), the book of Mr.Xu Xiake's Records on Geography of China (thousand years ago) are the earliest geographical and environmental records in the world about China**

**These information are archived in the  
National Library of China**

# **Qing Dynasty**

**A Series of Detail Records Related to the Climate (in descriptions), Earthquakes, Disasters, Agriculture, Labors (Population) in Qing Dynasty Had Been Recorded, the Quality of the Records (the truth) were Controlled by the Great Qing Law**

# **Spatial Information Records From 1919 to 1949**

**A series of maps and atlases of China had been published, in which the 1:4M China county boundary maps together with the data and information of population (M and F), schools, churches, hospitals in each of the counties were published, these are the first records in China in the detail of in county level and in 1:4M scale covering most areas of China and Mongolia.**

# **From 1949 to 1970'**

**More than 150 Statistic Year Books had been published each year, and archived in National Library, National Statistics Bureau Library and libraries in each agencies and provinces.**

**Thousands of Maps and Atlases had been published and archived in Chinese Academy of Surveying and Mapping (CASM) and Institute of Geography, Chinese Academy of Sciences.**

# From 1980' to 1994

**China had been undertaking the economic reform and the data media revolution from paper based into digital data at the same time period.**

**Almost all of the statistic information, including the weather data, are not available for public uses for free or for low cost, either in paper or in digital.**

# From 1994 to 2003

**Scientists and decision makers from MOST are looking for the national strategy which way could help China to solve the problems: commercial mechanism or no for profit mechanism, what is the government role in solving these problems ...**



# **China starts a new and long term program – NFII program in 2003**

**The principles of the program in  
implementation are:**

**Integration**

**Open access**

**Improvement (bridge gaps)**

**Advancing**

# Survey on Scientific Data

The first question for the program is how many data sets need to be integrated into the program, where these data are located, in which way these data are archived...

A project on surveying on scientific data launched in 2003.

# Archived Scientific Data in China

1. **Databases: 2459 in earth science, environment, public health, physical sciences**
2. **500 TB digital data are archived**

# Scientific Digital Data Have been Archived in 137 Organizations (20 agencies) in China

<b>Disciples</b>	<b>Number of databases</b>	<b>Volume ( GB )</b>
<b>Resources and environment</b>	<b>1 098</b>	<b>406 472</b>
agriculture	<b>483</b>	<b>14 675</b>
Population and public health	<b>221</b>	<b>15 213</b>
Physical science	<b>120</b>	<b>50 006</b>
<b>Engineering and technology</b>	<b>281</b>	<b>10 582</b>
<b>Management science</b>	<b>256</b>	<b>236</b>
<b>total</b>	<b>2 459</b>	<b>497 184</b>

# Percentage of the open accessible databases in archived databases

<b>Disciples</b>	Percentage of open accessible database in archived databases (%)
<b>Resources and environment</b>	49
agriculture	68
Population and public health	46
Physical science	56
<b>Engineering and technology</b>	63
<b>Management science</b>	31
<b>average</b>	53

# Nest Step

- **A Huge Data Archiving age is coming in China**  
(satellite data, genbank, biodiversity data...)
- **Data Long-Term Archiving Policies**
- **Data Archiving Standards and systems development**
- **Data accessibility**
- **New technology application**

**Thanks !**