

# Update on Metadata Projects in CCOP

EPPM Metadata on Natural Gas Resources in the  
CCOP Region

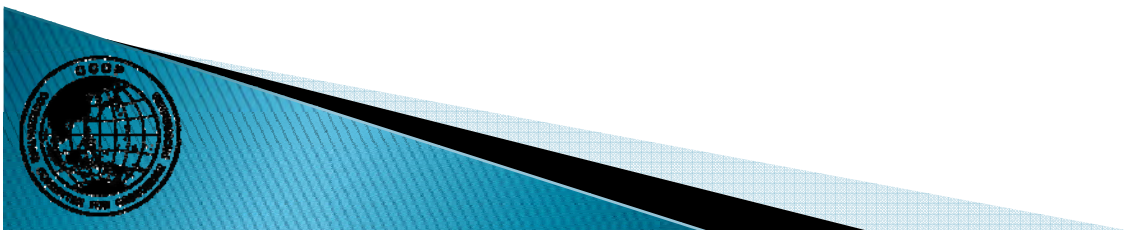
*P3W2: Workshop on metadata system development*

Davao City, Philippines, 7-9 October 2009



# CCOP Mission

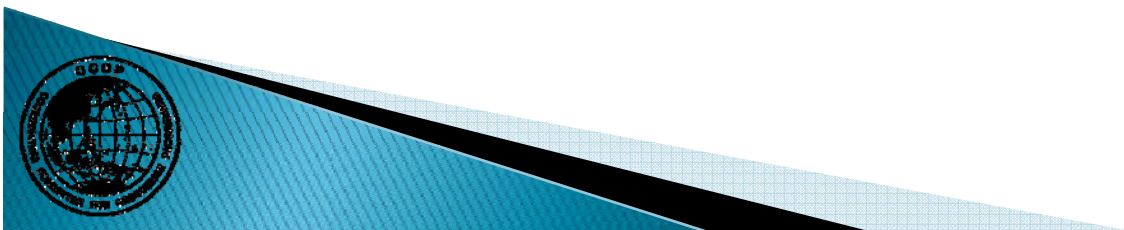
CCOP promotes capacity building, technology transfer, **exchange of information** and institutional linkages for sustainable resource development, **management of geoinformation**, geohazard mitigation and protection of the environment



# CCOP strategies on Geoinformation

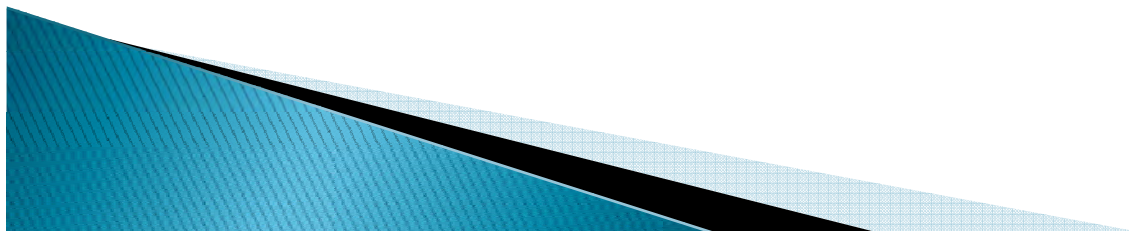
## ▶ Key Objectives

- to strengthen Member Countries' capabilities in developing appropriate methodologies for improved management of geoscience information, its efficient dissemination to users in government, industry and civil society
- to promote the use of geoscience information in both traditional and new areas of economic and social activity.

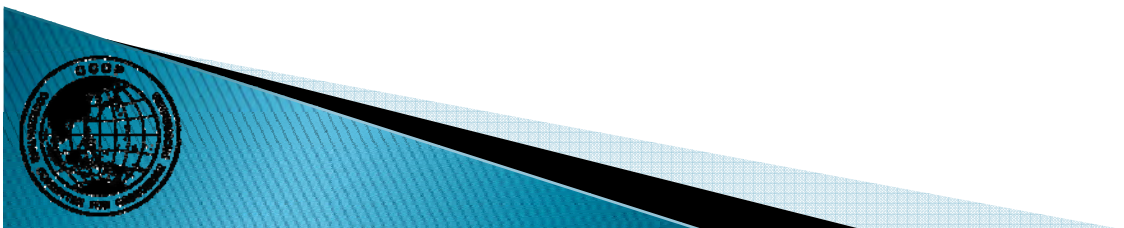
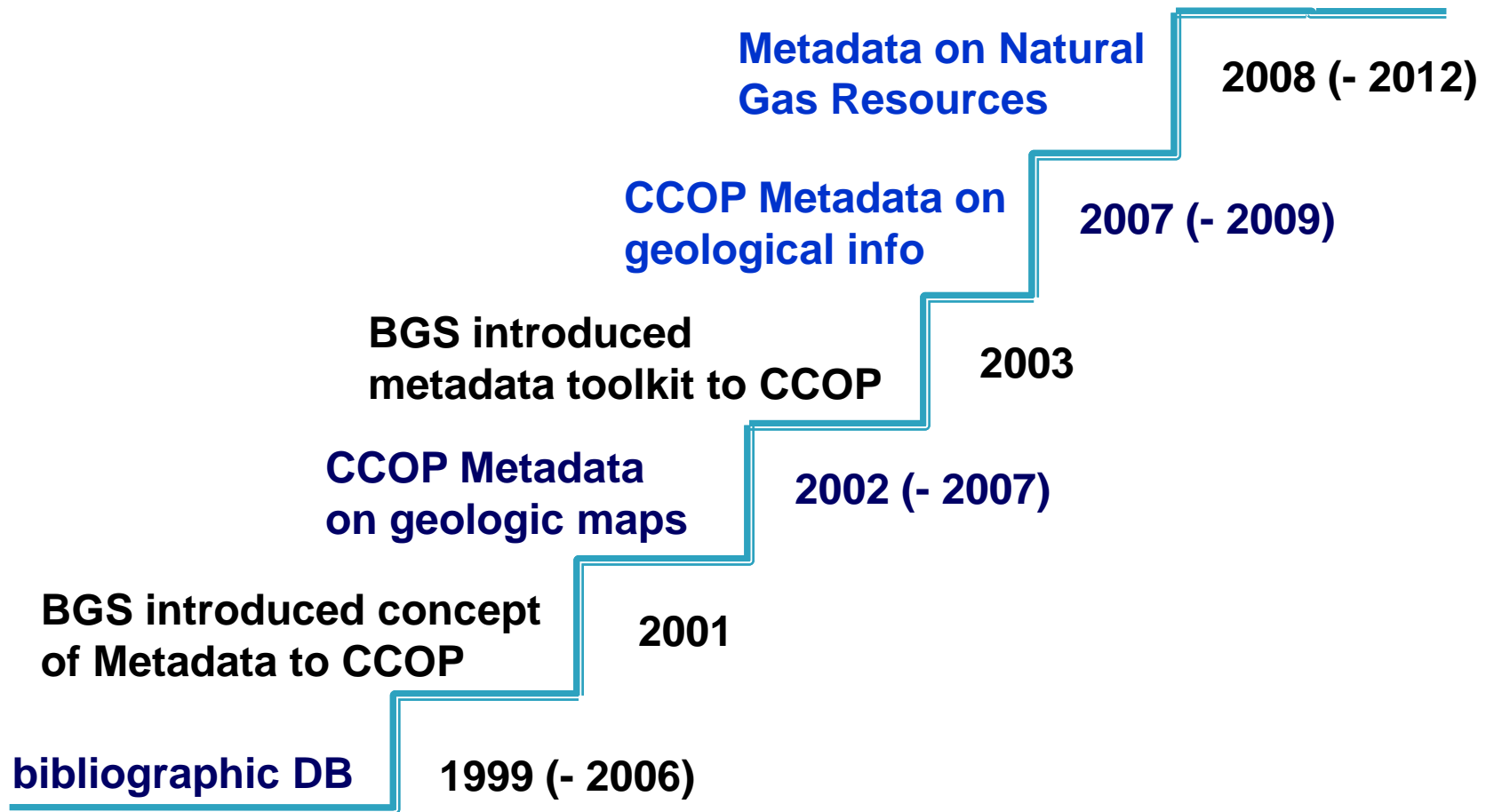


# Current Geo-Information Projects

- ▶ CCOP Metadata Projects
  - Metadata for Geoscience Information
  - EPPM Metadata for Natural Gas Resources
- ▶ GEO Grid
- ▶ OneGeology-CCOP
  - <http://portal.onegeology.org>
- ▶ Geological Museums Book & Database
- ▶ Online Databases
  - SANGIS
  - Metadata of Geological Maps
  - Database for CASM-Asia



# CCOP Metadata Projects / Activities



# Southeast Asian Network for Geological Information System (SANGIS)

## MS Access Bibliographic Database Management System

**Bibliographic Data**

CCOP  
Coordinating Committee for  
Geoscience Programmes

SANGIS

**Cataloguing Form**

Record No. **7** **BIBLIOGRAPHIC DATA**

Date of entry **24/11/2003** **Part 1 : Cataloguing**

Producer **F-BRGM** Transfer No. Doc. No. Confidentiality **Confidential**

Document type Doc. Language Library, Shelfmark, Number of copies PDF File name

|               |            |             |                   |          |                                |
|---------------|------------|-------------|-------------------|----------|--------------------------------|
| <b>Report</b> | <b>FRE</b> | <b>BRGM</b> | <b>89-GAB-079</b> | <b>1</b> | <b>BRGM-89-GAB-079-GEO.pdf</b> |
| *             | *          | *           |                   | <b>1</b> |                                |

**Authors/Institutions** Year of publication **1989** Month

Original title **Contribution à la connaissance géologique et pétrographique de l'Archéen du massif de Chaillu et du Francevillien du bassin des Abeilles.**

Translated title

Select a document type: **Monograph** **Periodical**


Select a Bibliographic level: **Congress** **Thesis** **Map**

Collation **44 p., 8 cartes**

Notes

**Analysis**





South-East Asian Network for a Geological Information System

Presentation Objectives Partners Contacts

Search in the bibliographic database

Search by Country | with criteria | free text :  Search Help

## INTRODUCTION




South-East Asian Network for a Geological Information System

Presentation Objectives Partners Contacts

Search in the bibliographic database

Search by Country | with criteria | free text :  Search Help

Advanced search results in all the database [[back to search form](#)]

2 records found [Search in these results](#)

Sort results    OK

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1 - **Yu, B. ; Sajjapongse, A. ; Yin, D. ; Eusof, Z. ; Aneksamphant, C. ; Rose, C.W. ; Cakurs, U. ; Univ. Griffith (Nathan, AUS)**

**Application of a physical based soil erosion model, GUEST, in the absence of data on runoff rates; II, Four case studies from China, Malaysia, and Thailand.**

Surficial geology  
 conservation; erodibility; erosion; erosion rates; factor analysis; hydrology; methods; physical properties; prediction; quantitative analysis; runoff; slopes; soils; soil erosion  
 China; Malaysia; Thailand; **Chiang Dao; Chiang Mai; Chiang Rai; i Tung; Kuala Dal; Luodian; Malay peninsula; Perak; Guizhou**  
*Australian J. Soil Sci. (AUS), 0, 1999; Vol.37, N°1, p.13-31; Refs: 29; illus. incl. 5 tables. Localization : DGM-L*

Abstract : Runoff rates were estimated from rainfall rates and runoff amounts for 4 experimental sites in China, Malaysia, and Thailand before a physically based erosion model GUEST was used to determine the soil erodibility parameter and evaluate the potential to use the erosion model to predict the amount of soil loss on an event basis. We also examined 3 different ways of determining the soil erodibility parameter for the same storm event using: (i) hydrographs estimated from rainfall intensities and runoff amounts; (ii) an effective runoff rate calculated from the hydrograph; (iii) an estimate of the effective runoff rate based on a scaling technique involving the peak rainfall intensity and the gross runoff coefficient. All 3 methods can produce consistent soil erodibility parameters for a given runoff event. The calculated soil erodibility for individual storm events for all sites shows considerable temporal variation and for most sites a decreasing trend over time, as observed elsewhere in the same region. Among the 4 soils examined, the average soil erodibility tends to decrease as the ratio of coarse to fine materials decreases. When the erosion model GUEST is used to predict event soil loss using estimated soil erodibility parameters, an average model efficiency of 0.68 is achieved for the sites tested.

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2 - **Sun Yuzhuang ; , W. Püttmann ; Kucha, H. ; Hebei Inst. Architectural Sci.and Technol. (Hebei, CHN)**

**Geochemical Characteristics of a Veinlet Kupferschiefer Profile from the Lubin Mine, Southwestern Poland.**

Geochemistry  
 Ore deposits  
 aromatic hydrocarbons; kupferschiefer-type; organic materials; Permian; trace-element analyses; veins; Veinlet Kupferschiefer  
 Poland; **Lubin mine**  
*Acta Geol. Sinica (CHN), 0, 2001/3; Vol. 75, N°1, p.66-73; illus. incl. 2 fig., 3 tables.. Localization : DGM-L*

SANGIS Web Application  
<http://www.ccop.or.th/sangis>

# CCOP Metadata Project Phase I – Metadata on Geologic Maps

- ▶ To compile metadata on geologic maps following TC211 standard
- ▶ To introduce metadata compilation and management to CCOP Member Countries
- ▶ Initiated in 2002 supported by GSJ/AIST

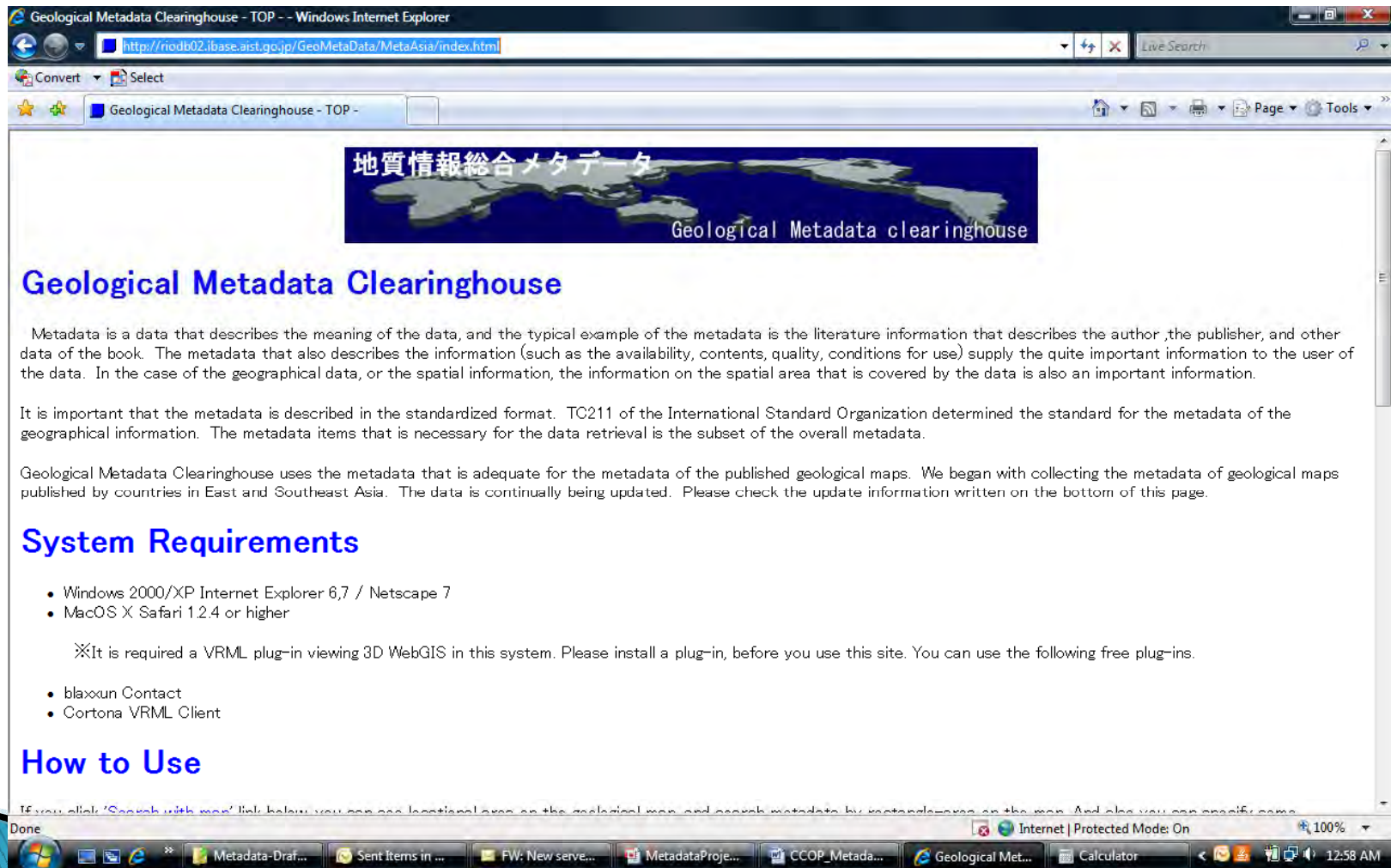
International Seminar on  
Geoinformation via the Internet &  
Workshop on CCOP Metadata  
18-22 February 2002 Tsukuba, Japan





# Geological Metadata Clearinghouse

<http://riodb02.ibase.aist.go.jp/GeoMetaData/MetaAsia/index.html>



The screenshot shows a Windows Internet Explorer browser window displaying the Geological Metadata Clearinghouse website. The browser's address bar shows the URL <http://riodb02.ibase.aist.go.jp/GeoMetaData/MetaAsia/index.html>. The website's header features a banner with the Japanese text "地質情報総合メタデータ" and the English text "Geological Metadata clearinghouse" over a map of Japan. Below the banner, the main heading is "Geological Metadata Clearinghouse". The page contains several paragraphs of text explaining the purpose of the clearinghouse and the importance of standardized metadata. A section titled "System Requirements" lists the necessary software and plug-ins. The "How to Use" section is partially visible at the bottom.

Geological Metadata Clearinghouse - TOP - Windows Internet Explorer

<http://riodb02.ibase.aist.go.jp/GeoMetaData/MetaAsia/index.html>

Convert Select

Geological Metadata Clearinghouse - TOP -

地質情報総合メタデータ  
Geological Metadata clearinghouse

## Geological Metadata Clearinghouse

Metadata is a data that describes the meaning of the data, and the typical example of the metadata is the literature information that describes the author, the publisher, and other data of the book. The metadata that also describes the information (such as the availability, contents, quality, conditions for use) supply the quite important information to the user of the data. In the case of the geographical data, or the spatial information, the information on the spatial area that is covered by the data is also an important information.

It is important that the metadata is described in the standardized format. TC211 of the International Standard Organization determined the standard for the metadata of the geographical information. The metadata items that is necessary for the data retrieval is the subset of the overall metadata.

Geological Metadata Clearinghouse uses the metadata that is adequate for the metadata of the published geological maps. We began with collecting the metadata of geological maps published by countries in East and Southeast Asia. The data is continually being updated. Please check the update information written on the bottom of this page.

## System Requirements

- Windows 2000/XP Internet Explorer 6.7 / Netscape 7
- MacOS X Safari 1.2.4 or higher

※It is required a VRML plug-in viewing 3D WebGIS in this system. Please install a plug-in, before you use this site. You can use the following free plug-ins.

- blaxxun Contact
- Cortona VRML Client

## How to Use

If you click 'Search with map' link below, you can see locational area on the geological map, and search metadata by coordinates on the map. And also you can specify some

Done Internet | Protected Mode: On 100%

Metadata-Draf... Sent Items in ... FW: New serve... MetadataProje... CCOP\_Metada... Geological Met... Calculator 12:58 AM



# Geological Metadata Clearinghouse

## Search with Map

The screenshot displays the Geological Metadata Clearinghouse web application in a Windows Internet Explorer browser. The address bar shows the URL: <http://riodb02.ibase.aist.go.jp/GeoMetaData/MetaAsia/mapframe.jsp>. The page title is "Geological Metadata Clearinghouse - Map".

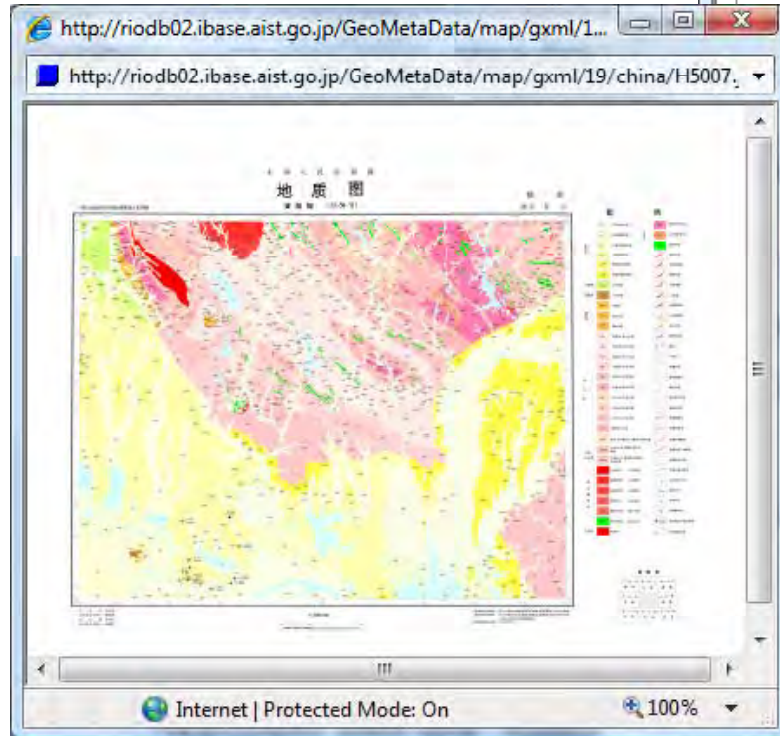
The main content area features a map of Asia with a grid overlay. The map includes labels for various countries and regions: Russia, China, Korea, Japan, Laos, Cambodia, Vietnam, Myanmar, Thailand, Philippines, Indonesia, Malaysia, Papua New Guinea, and Viet Nam. A scale bar at the bottom left of the map indicates distances up to 2600 km. A "MAP" button is located in the bottom right corner of the map area.

On the right side, there is a "View / Search" sidebar. It contains a section titled "Metadata for Asia" with a list of countries, each with a checked checkbox: Cambodia, China, Indonesia, Japan, Korea, Laos, Malaysia, Papua New Guinea, Philippines, Thailand, and Viet Nam. Below this list, there is a "Keyword" search field with a dropdown menu set to "AND", and "Search" and "Clear" buttons.

The browser's taskbar at the bottom shows several open applications: "3 Windows Exp...", "Program and rep...", "MetadataProject...", "CCOP\_Metadata...", and "Geological Meta...". The system clock in the bottom right corner displays "1:37 AM".



# Query Results



Map thumbnail

AIST:G-INDEX [Geological Information Index in Southeast Asia] - Query result -- Windows Intern...

http://riodb02.ibase.aist.go.jp/GeoMetaData/MetaAsia/queryresult.jsp?geomlist=3659:cp581,

| No. | Filename  | Information                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Link |
|-----|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
|     | china.xml | <p>01Metadata file identifier : H5007 Huangpi<br/>                     02Title in English Translation (Full) : H5007 Huangpi<br/>                     Quadrangle of 1:200,000-scale Digital Geological Map<br/>                     Database<br/>                     03Edition : Published on Mar. 5, 2003.<br/>                     04Series name : Digital Geological Map 1:200,000, China<br/>                     05Reference date : 20030305<br/>                     06Responsible party organization name : Development and<br/>                     Research Center, China Geological Survey<br/>                     07Postal address : No.31 Xueyuan Road, Haidian District<br/>                     08City : Beijing<br/>                     09Postal Code : 100083<br/>                     10Country : CN<br/>                     12Electronic mail address : metadata@mail.cgs.gov.cn<br/>                     13Voice telephone : 86-010-82329117<br/>                     14Fax number : 86-010-82329126<br/>                     15West bounding coordinate : 114<br/>                     16East bounding coordinate : 115<br/>                     17North bounding coordinate : 31.333333<br/>                     18South bounding coordinate : 30.666667<br/>                     19Geographic extent name : Huangpi<br/>                     20Resolution level (Map scale) : 200000<br/>                     21Access constraints : No restriction of access<br/>                     22Use constraints : The copyright of this database is legally<br/>                     owned by the China Geological Survey<br/>                     23Spatial reference system (Description) : Geographic<br/>                     Coordinates System<br/>                     24Distribution data format name (like Shape, Raster, DXF,<br/>                     etc.) : MAPGIS format<br/>                     25Distribution media : CD, Printed map<br/>                     26Language of metadata code : en<br/>                     27Metadata character code set (ASCII) : ASCII<br/>                     28Metadata date : 20030602</p> |      |

Internet | Protected Mode: On 100%



# Search by Keywords – ‘China’

The screenshot shows a web browser window displaying the search results for the keyword 'China' on the AIST:G-INDEX website. The page title is 'AIST:G-INDEX [Geological Information Index in Southeast Asia] - result'. The search results are displayed in a table with columns for No., Country, Number, Show records, Metadata, Link, and Download. Two results are shown: 'thailand.xml' with 1 record and 'china.xml' with 1402 records. The 'china.xml' result is selected, and the 'Show records' button is highlighted. The page also includes a search bar, a 'Live Search' button, and a 'Protected Mode: On' indicator at the bottom.

**Geological Metadata Clearinghouse**

AIST > GSJ > Metadata Help | HOME

Result of search (Files / Records)

Select database: Metadata for Asia

Show 20 Re-search Back to search by text

1 to 2 / 2 results

| No. | Country      | Number | Show records | Metadata | Link | Download |
|-----|--------------|--------|--------------|----------|------|----------|
| 1   | thailand.xml | 1      |              |          |      |          |
| 2   | china.xml    | 1402   |              |          |      |          |

No. Country Number Show records Metadata Link Download

First 1

Done Internet | Protected Mode: On 100%



AIST:Geological Metadata Clearing House - Result records - - Windows Internet Explorer

http://riodb02.ibase.aist.go.jp/GeoMetaData/MetaAsia/recresult.jsp

### Result of Search(List of Geometry)

Filename:china.xml / Metadata for Asia

Show 20

1 to 20 / 1402 results

| No. | Information                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Link |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 1   | 01Metadata file identifier : Anhui province                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |
| 2   | 01Metadata file identifier : Hong Kong Quadrangle                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |
| 3   | 01Metadata file identifier : I44 B 002001 Gaer county                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <br> |
| 4   | 01Metadata file identifier : K4506 Jimusaer county<br>02Title in English Translation (Full) : K4506 Jimusaer county Quadrangle of 1:200,000-scale Digital Geological Map Database<br>03Edition : Published on Mar. 5, 2003.<br>04Series name : Digital Geological Map 1:200,000, China<br>05Reference date : 20030305<br>06Responsible party organization name : Development and Research Center, China Geological Survey<br>07Postal address : No.31 Xueyuan Road, Haidian District<br>08City : Beijing<br>09Postal Code : 100083<br>10Country : CN<br>12Electronic mail address : metadata@mail.cgs.gov.cn<br>13Voice telephone : 86-010-82329117<br>14Fax number : 86-010-82329126<br>15West bounding coordinate : 89<br>16East bounding coordinate : 90 |      |

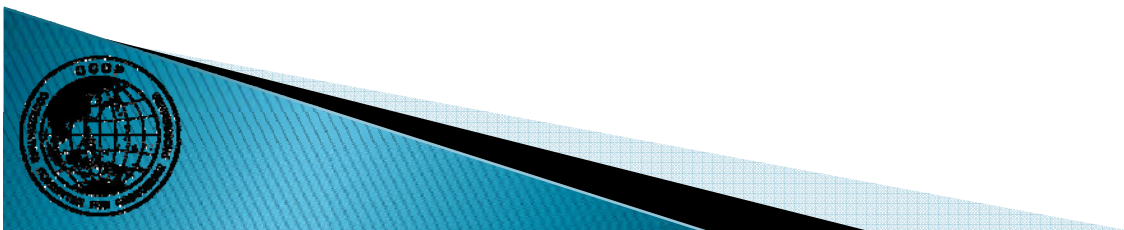
Done Internet | Protected Mode: On 100%



# Status of Completed Metadata Projects

## SANGIS

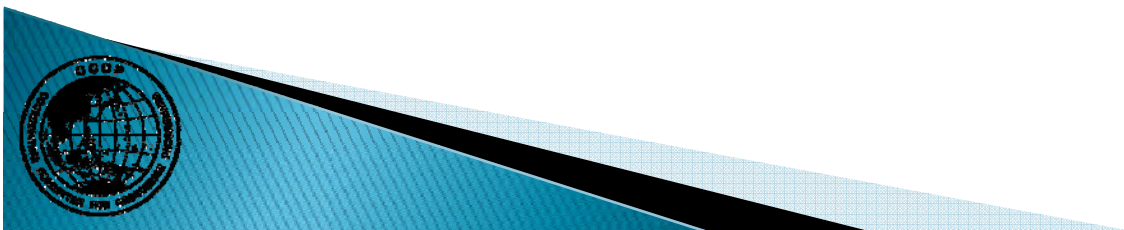
- ▶ Server at CCOPTS
- ▶ Data management by CCOPTS
  
- ▶ Incomplete data
- ▶ Irregular updates by participating countries
  - No online updating of data?
  - SANGIS system is completely different from the national bibliographic system – interfacing is a problem?



# Status of Completed Metadata Projects

## Metadata of geological maps

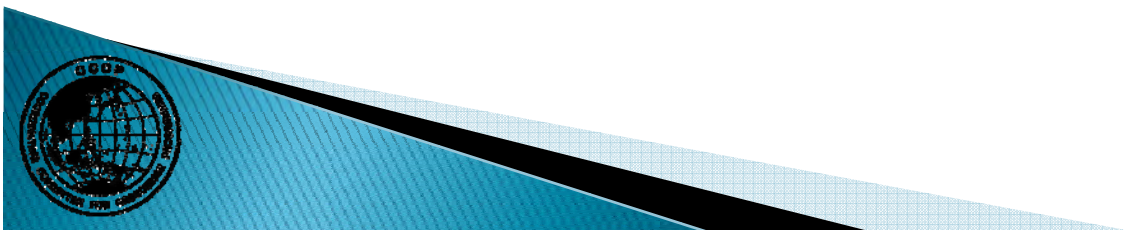
- ▶ Server at GSJ
- ▶ Data management by GSJ
  
- ▶ Difficulty in updating data
  - No online updating of data?



# Ongoing Metadata Projects

## Metadata for Geoscience Information

- ▶ Metadata Standard already finalized – under printing
- ▶ Ongoing software development by CGS
  - To be deployed at CCOPTS
- ▶ Hands-on training in 2010.

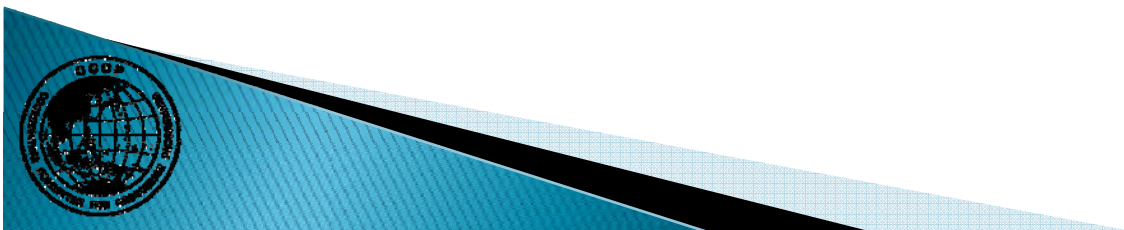




# Ongoing Metadata Projects

## Metadata on Natural Gas Resources

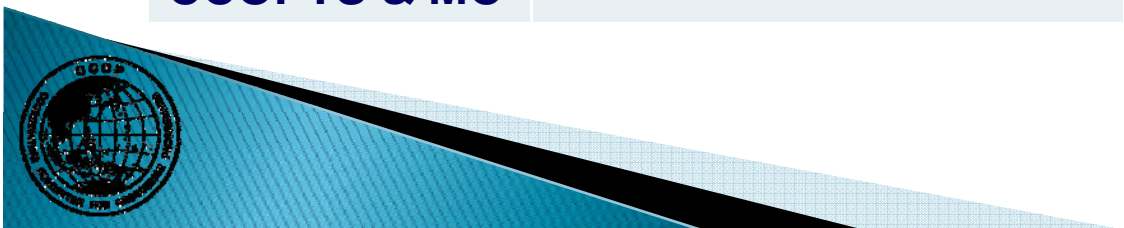
- ▶ Workshop 1
  - **Workshop on metadata standards & requirement analysis for the CCOP Natural Gas Database Metadata**
- ▶ Workshop 2
  - **Workshop on metadata system development**



# CCOP Metadata Projects

## Progress Table (System Development)

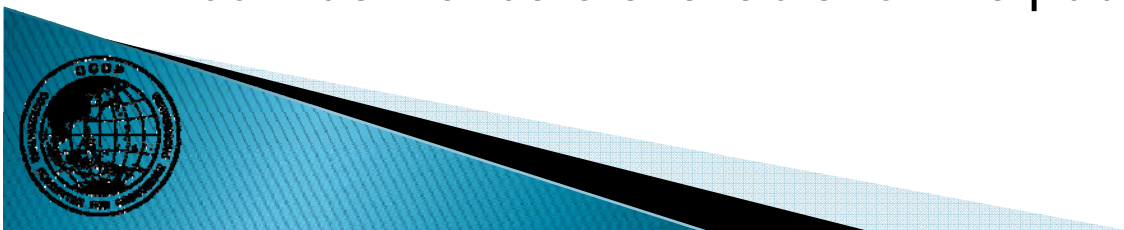
| Tasks / Activities                                   | Metadata on Geologic Maps                                          | Metadata on Geological Information         | Metadata on Natural Gas Resources |
|------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------|-----------------------------------|
| <b>Metadata Standard</b>                             | 28-items based on ISO19115                                         | 40+ items based on ISO19115 & CGS standard | To be identified                  |
| <b>Metadata System</b>                               | Done – Metadata Clearinghouse (Entry done by manager, at GSJ/AIST) | Development ongoing                        | To be developed                   |
| <b>Training</b>                                      | Not done with the revised system                                   | To be done (2010)                          | To be done                        |
| <b>Launching &amp; deployment to CCOPTS &amp; MC</b> | Installed at GSJ/AIST server                                       | To be done (2009-2010)                     | To be done                        |



# Ongoing CCOP Metadata Projects

## Recommendations – System Development

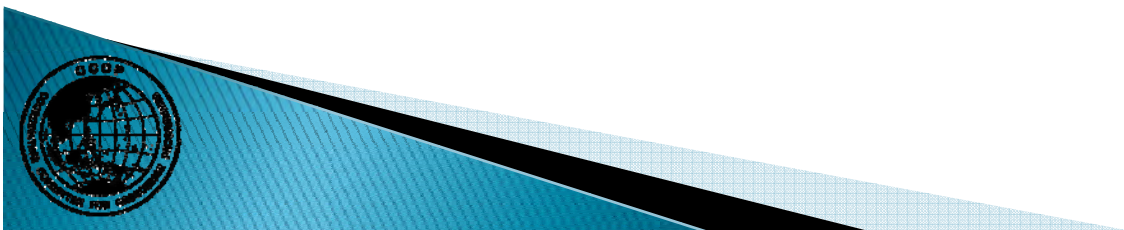
- ▶ To develop an integrated metadata system to include the metadata on geologic maps, geological information & natural gas resources
- ▶ To build on the existing CCOP Metadata Clearinghouse if possible
- ▶ To provide technical support to countries with national metadata system (if needed) – importing their data to the CCOP metadata system automatically
- ▶ To use Open-Source Software in system development
- ▶ To consider multi-lingual features for the system – user interface and at least on keywords used (to make use of the Asian Multilingual Thesaurus for Geoscience)
- ▶ To consider linkage with the SANGIS Bibliographic database
- ▶ To consider publication of retrieval system in CD (with data) at a particular point in time.
- ▶ To consider linkage to the data itself, in particular for the non-confidential data available for the public



# Recommendations

## (for the Ongoing Metadata Projects)

- ▶ Build on existing metadata systems & linkage with CCOP databases compiled
- ▶ Consider the following issues in updating data:
  - National metadata system is not compatible with the Project metadata system
  - Online updating of metadata
  - One time updating only
- ▶ Assist MC in having their own metadata system linked to the data if possible.





# Thank you...

**Marivic Pulvera UZARRAGA**  
Geo-Information Sector Coordinator  
CCOP Technical Secretariat  
Email: [marivic@ccop.or.th](mailto:marivic@ccop.or.th)



CCOP Technical Secretariat  
CCOP Building, 75/10 Rama VI Road  
Phayathai, Ratchathewi  
Bangkok 10400, THAILAND  
Website: <http://www.ccop.or.th>