

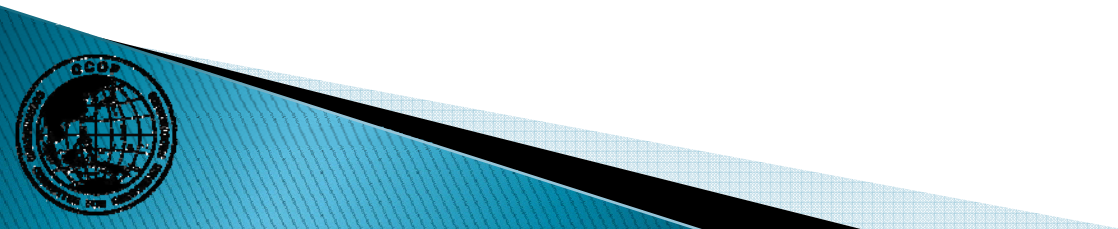
# Metadata Projects in CCOP – Status Report

EPPM Launching Seminar  
9-10 October 2008, Bangkok Thailand

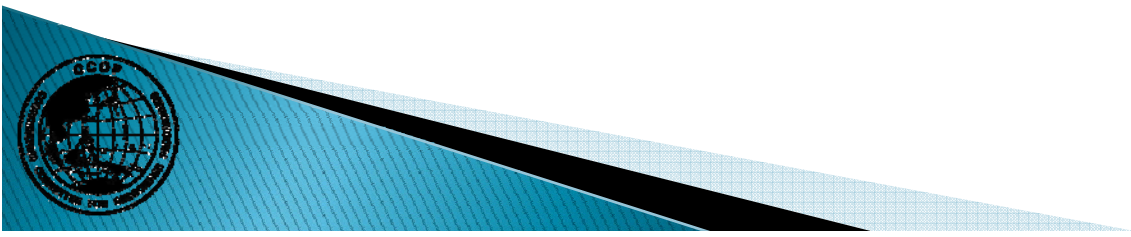
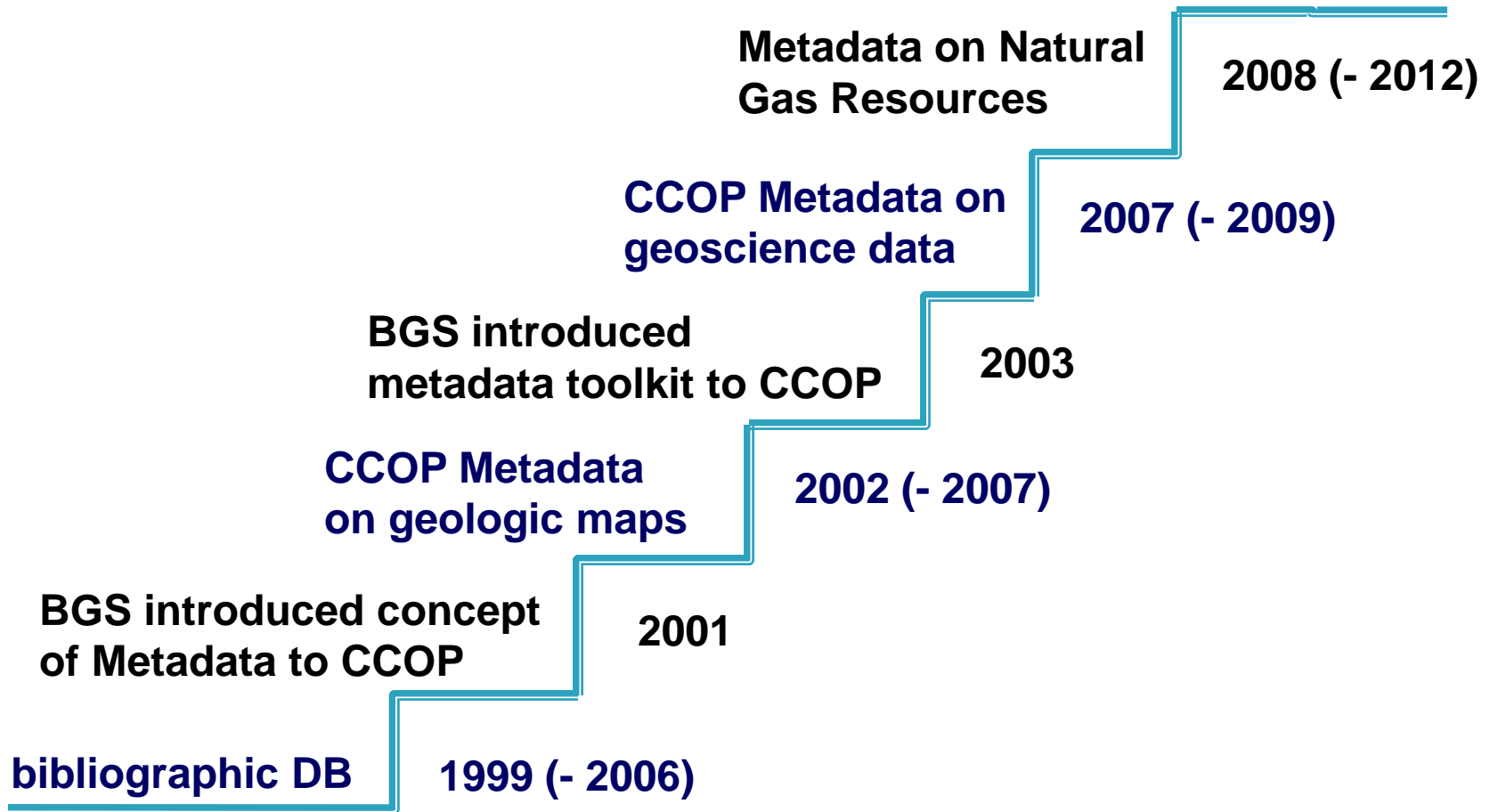


# Outline

- ▶ Early project / activities related to Metadata & CCOP Metadata Projects
  - Background/Objectives of Project
  - Project Activities / Outputs
  - Impacts
  - Lessons Learned
- ▶ Key Issues about Regional Metadata Projects

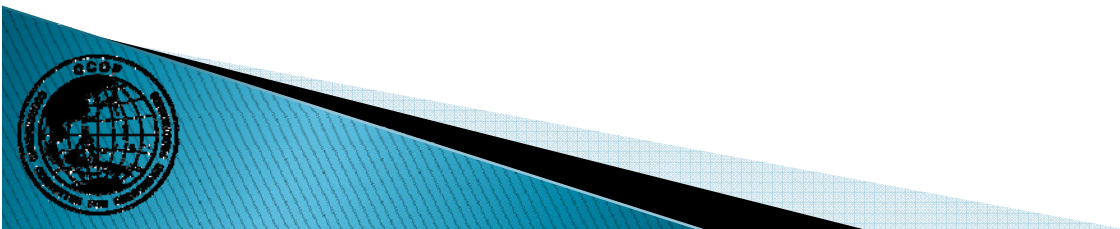


# CCOP Metadata Projects / Activities



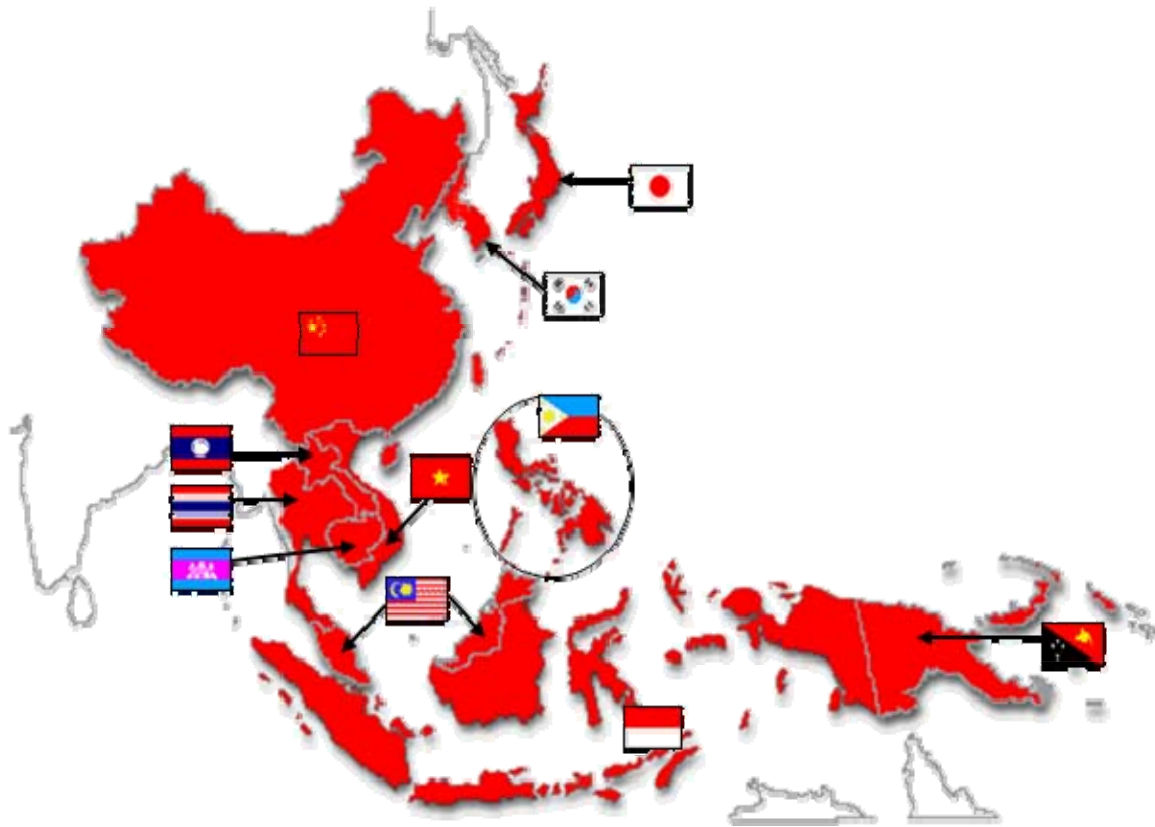
# **Southeast Asian Network for Geological Information System (SANGIS)**

- ▶ for the development of the information potential of South-East Asian Geological Surveys.
- ▶ up-grading and harmonising existing digital data management systems in order to stimulate information circulation, to facilitate access to information and to promote the creation of an efficient regional geoscientific network.



# SANGIS Network

## 11 Participating Countries



- ▶ Cambodia
- ▶ China
- ▶ Indonesia
- ▶ Japan
- ▶ Korea
- ▶ Lao PDR
- ▶ Malaysia
- ▶ Papua New-Guinea
- ▶ Philippines
- ▶ Thailand
- ▶ Vietnam



## Background

- ▶ Supported by UNESCO and French Ministry of Foreign Affairs through CIFEG
- ▶ 1999 – initiated with CCOP by a Regional Technical SANGIS workshop in Bangkok
- ▶ 2003 – initiated Asian Multilingual Thesaurus Geoscience (AMTG) Project under SANGIS
- ▶ 2005 – transfer of Web SANGIS bibliographic database to CCOPTS and installation of SANGIS server at CCOPTS – <http://www.ccop.or.th/sangis>
- ▶ 2006 – published AMTG Book & online AMTG at <http://www.ccop.or.th/amtg>





## Participating agencies

- ▶ General Department of Mineral Resources, Cambodia
- ▶ China Geological Survey (CGS)
- ▶ Geological Research and Development Center, Indonesia
- ▶ Geological Survey of Japan, AIST
- ▶ Korea Institute of Geoscience and Mineral Resources (KIGAM)
- ▶ Minerals and Geoscience Department Malaysia (JMG)
- ▶ Department of Mining, Geological Survey Division, Papua New Guinea
- ▶ Mines and Geosciences Bureau, The Philippines (MGB)
- ▶ Department of Mineral Resources (DMR), Bangkok, Thailand
- ▶ Center for Information and Archives of Geology, Department of Geology and Minerals of Vietnam
- ▶ Department of Geology and Mines, Vientiane, Lao PDR



## Activities / Outputs

- ▶ Workshops / 2 Training Courses / Several Technical Visits
- ▶ Bibliographic database management system designed for publications in geoscience developed under MsAccess
- ▶ Web application – to search and display the database on the web - in XML language – <http://www.ccop.or.th/sangis>
- ▶ AMTG – book & web –<http://www.ccop.or.th/amtg>







SANGIS 1<sup>st</sup> Workshop on AMTG  
Bangkok, Thailand, Aug 2003



SANGIS 2<sup>nd</sup>  
Training Course,  
Bangkok, Thailand,  
January 2002



Technical Visit in China combined with Training Session,  
Sept 2005

## Workshops, Training Courses, Technical Visits



**Bibliographic Data**

CCOP  
Coordinating Committee for  
Geoscience Programmes  
SANGI

**Cataloguing Form**

**BIBLIOGRAPHIC DATA**

Record No. **7**

Date of entry **24/11/2003**

Part 1 : Cataloguing

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

Document type **Report** Doc. Language **FRE** Library, Shelfmark, Number of copies **BRGM 89-GAB-079 1** PDF File name **BRGM-89-GAB-079-GEO.pdf**

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**

## MS Access Bibliographic Database Management System





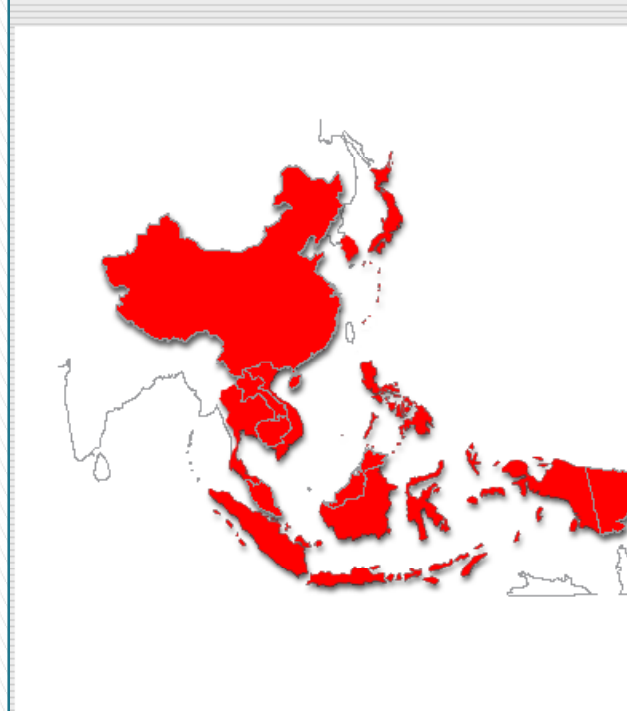
South-East Asian Network for a Geological Information System

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 Title    OK

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1 - Yu, B. ; Sajjapongse, A. ; Yin, D. ; Eusof, Z. ; Anecksamphant, 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.

---

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>



Thesaurus - Windows Internet Explorer

http://203.148.160.165/amtg/index.php?page=Thesaurus

Asian Multilingual Thesaurus of Geoscience

SANGIS amtg

Presentation Thesaurus Partners Help

SANGIS Asian Multilingual Thesaurus of Geoscience

Selected languages for translation

from : English to : Thai

Geoscientific Keywords selection

classified by : General geology keywords : geology

Translation

Microthesaurus:  
General geology

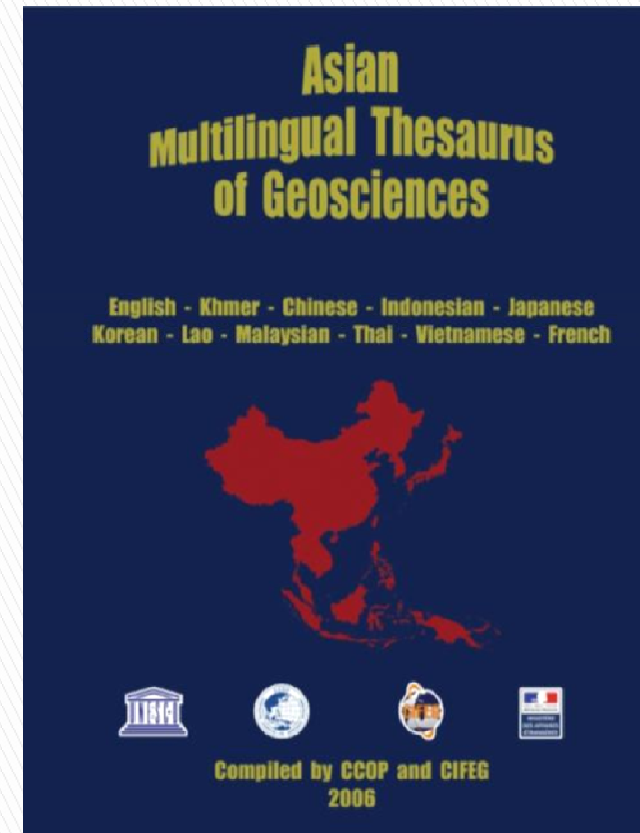
Use for:

เว็บไซต์  
วิทยากร  
ประวัติธรณีวิทยา  
ธรณีวิทยาได้ทั่วโลก

ธรณีวิทยา

Webmaster | Disclaimer | Copyright 2005©Cifeg - CCOP. All rights reserved.

Done Internet 100%



AMTG Book & Web





# SANGIS

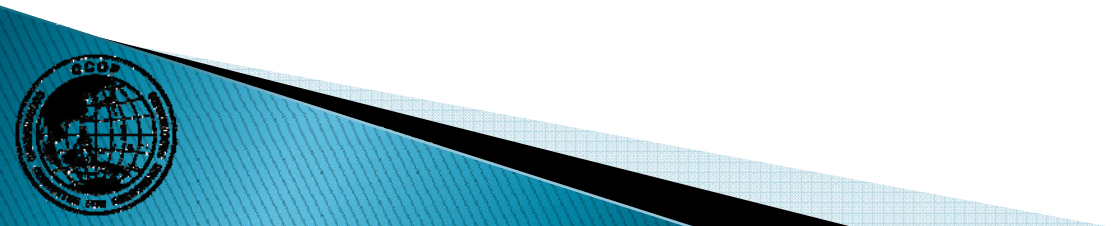
## Impacts

- ▶ Trained personnel in data management – in particular bibliography (metadata on publications)
- ▶ Some MC adopted the use of the bibliographic management system in managing their bibliographic data, both as is and extended.
- ▶ Researchers around the world can go to the SANGIS website for available geoscience literatures in East and Southeast Asia
- ▶ The start of metadata network/cooperation among CCOP



## Impacts

- ▶ With AMTG, some MC use the bibliographic system in their local language, providing ease of use.
- ▶ The AMTG book has been widely and freely distributed, and have been made as reference in research works.
- ▶ AMTG online helps fast translation of geoscientific terms



中国  
中国地质调查局  
SANGIS 数据库

添加新记录

选择记录

控制管理

借用图书馆

输出 XML

退出

Version 2.4 - 2005  
CIFEG




文献目录数据

第二部分：分析

in fauna from Rotti Island, Indonesia

科学关键词

限定地理关键词  
▶ 印度尼西亚

自由地理关键词  
▶ Rotti Island

GIS链接字段  
产品

州/区

到分类

- (限石)球粒
- [交]互相关
- 摘 [介]壳灰岩
- A w [可]压缩性

radiolarian fauna was discriminated from calcareous shale of the Wai Luli Formation on Rotti Island, Indonesia. This fauna is characterized by the presence of *Tricolocapsa plicarum*, *Tricolocapsa ? fusiformis*, *Stichocapsa japonica*, *S. convexa*, *Cryptocapsa mastoidea*, *Protunuma turbo*, *Transsumum maxwelli*, *Eucyrtiellum sp.*, *Archaeodictyomitra sp. A.* and others. These radiolarians represent the *T. plicarum* Assemblage reported from Bajocian and early Bathonian (Middle Jurassic) sequences in Japan and southeastern Europe. Based on accumulated micropaleontological evidence in Timor Island contributed by the present authors, Rotti Island was probably positioned within a warm water current system originating in the low latitude Tethyan realm through the Middle Jurassic. Fifteen species belonging to seven genera are systematically investigated. Among them, *Tricolocapsa*

# SANGIS MsAccess Bibliographic Application in Chinese





## Lessons learned



- ▶ To tackle issues about the following at the start of the project
  - Sustainability
  - Multiple language
  - Needs/Requirements of the Participating Agencies
- ▶ Address the easy/efficient transfer of data from national existing systems
- ▶ Centralized database vs decentralized database
- ▶ Ownership of metadata & responsibility of updating own metadata
- ▶ Cooperation among the 3 stakeholders – geologists, librarian and IT personnel



# CCOP Metadata Project Phase I – Metadata on Geologic Maps

- ▶ To compile metadata on geologic maps following ISO19115 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



# Metadata on Geologic Maps

## Participating agencies

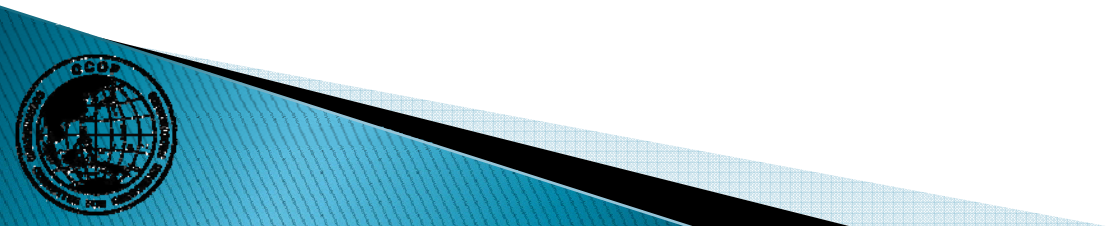
1. General Department of Mineral Resources, Cambodia
2. China Geological Survey (CGS)
3. Geological Survey Institute, Geological Agency, Indonesia
4. Geological Survey of Japan, AIST
5. Korea Institute of Geoscience and Mineral Resources (KIGAM)
6. Minerals and Geoscience Department Malaysia (JMG)
7. Department of Mining, Papua New Guinea
8. Mines and Geosciences Bureau, The Philippines (MGB)
9. Department of Mineral Resources (DMR), Bangkok, Thailand
10. Center for Information and Archives of Geology, Department of Geology and Minerals of Vietnam



# Metadata on Geologic Maps

## Activities / Outputs

- ▶ CCOP Metadata Working Group
- ▶ Workshops / Seminars / Working Group Meetings
- ▶ 28-items metadata standard on geologic maps based on ISO19115
- ▶ Metadata clearinghouse
- ▶ 4,400 metadata records collected at the end of project – 2007.





CCOP Metadata Workshop  
10-11 March 2003, Daejeon, Korea



CCOP Metadata Working Group Meeting  
Nov 2005, Bangkok, Thailand

## Workshops, Meetings





Clearinghouse - Basic Query Form - Microsoft Internet Explorer

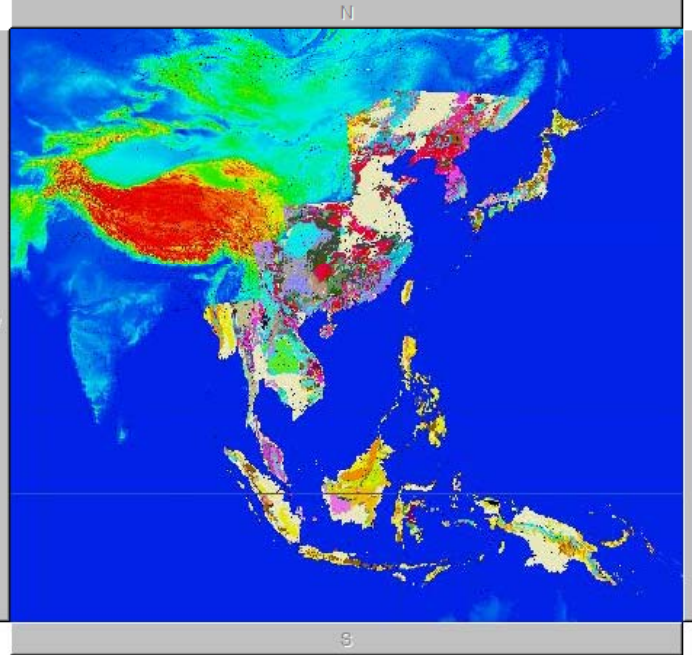
ファイル(E) 編集(E) 表示(V) お気に入り(A) ツール(T) ヘルプ(H)

戻る 検索 お気に入り

アドレス(D) <http://www.aist.go.jp/RIODB/GeoMetaData/ASIA/editQuery.do> 移動

Specify the search area by rectangle on the map and click "Search" button.  
Or specify the search conditions on the right side and click "Search Now" button.

**Search Now**



**Area-Specific**

Area Name  **Change Method**

Unspecified

**Dataset Creation Date**

Since Year / Month

Until Year / Month

**Map Scale**

From Unspecified

To Unspecified

**Text Search**

**Data Format**

**Logic Operation**

AND  OR

**Spatial Search**

Metadata ...

Metadata  Metadata  Metadata

is included in search area  includes search area  overlaps search area

is included in search area  includes search area  overlaps search area

Zoom Out Zoom In Search

アプレット jp.jasminesoft.gcat.mapplot.MapApplet started インターネット

## Metadata Clearinghouse



# Metadata on Geologic Maps

## Impacts

- ▶ Awareness of CCOP Member Countries on the need of metadata in data management
- ▶ Awareness of CCOP Member Countries in existing international metadata standards
- ▶ Countries began to build on the agreed CCOP metadata standard for geologic maps for other geoscientific data.
- ▶ Countries began to see the need of promoting their data through building a metadata.





# Metadata on Geologic Maps

## Lessons Learned



- ▶ To address issue of fast and efficient update of metadata.
- ▶ Sustainability – server maintenance
- ▶ Address the easy/efficient transfer of data from national existing systems
- ▶ Centralized database vs decentralized database
- ▶ Ownership of metadata & responsibility of updating own metadata



# CCOP Metadata Phase II – Metadata on Geoscientific Data

- ▶ Extension of Phase I
- ▶ To develop CCOP Metadata Standard for a wide coverage of geoscientific subjects in conformance with ISO19115 Metadata Standard and with reference to CGS Metadata Standard for Geo-information. These geoscientific subjects include minerals, groundwater, geohazard, coastal zone (marine and quaternary geology), geophysics and geochemistry, and energy (sedimentary basins, geothermal).
- ▶ Started in 2007 and target to finish in 2009
- ▶ Technically and financially supported by CGS





CCOP-CGS-GSJ/AIST  
Seminar on Geoinformation Technology &  
4<sup>th</sup> Workshop of CCOP Metadata Working Group  
5 - 7 September, 2006, Guangzhou, China

# Metadata on Geoscientific Data

## Participating Agencies

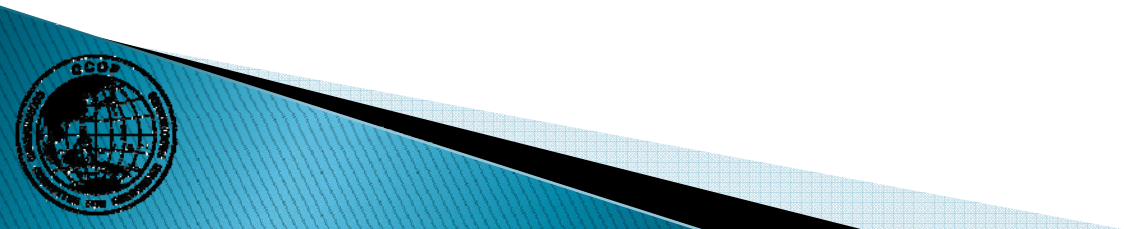
1. General Department of Mineral Resources, Cambodia
2. China Geological Survey (CGS)
3. Center for Geological Resources, Geological Agency, Indonesia
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5. Korea Institute of Geoscience and Mineral Resources (KIGAM)
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8. Mines and Geosciences Bureau, The Philippines (MGB)
9. Department of Mineral Resources (DMR), Bangkok, Thailand
10. Center for Information and Archives of Geology, Department of Geology and Minerals of Vietnam



# Metadata on Geoscientific Data

## Deliverables

- ▶ CCOP Metadata Standard on Geoscientific Data
- ▶ CCOP Metadata Management System –updating and retrieving data
- ▶ Trained personnel in metadata management





# Metadata on Geoscientific Data

## Progress

- ▶ First Workshop, 17-21 March 2008, Hainan, China
  - Output of the workshop
    - Working Group were introduced to ISO19115 metadata standard in detail
    - Draft CCOP Metadata Standard excluding Codelists
- ▶ Collecting inputs from Working Group on codelists





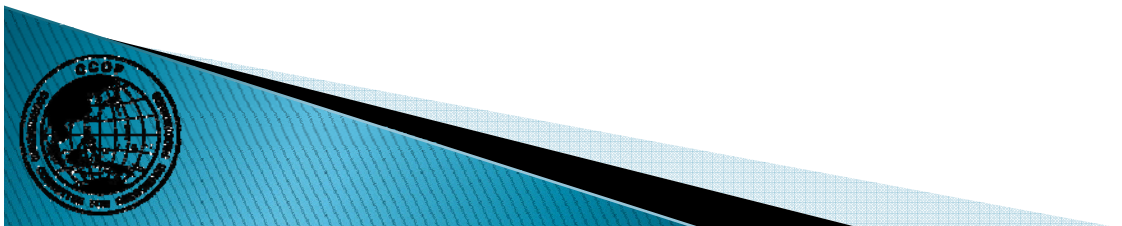
CCOP Metadata Project Phase II – First Workshop  
18 – 20 March 2008, Haikou, China



# Metadata on Geoscientific Data

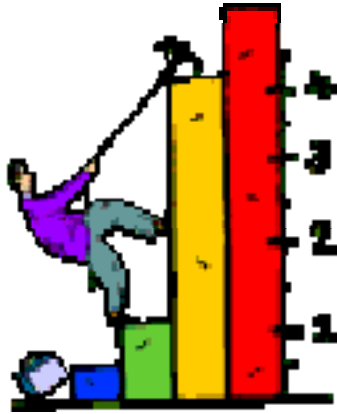
## Workplan for 2009

Activities	Schedule
To complete CCOP Metadata Standard for Geoscience	2008
To develop the CCOP Metadata System Software	2009
Workshop/Hands-On Training for Using the CCOP Metadata System Software	December 2009
Launching and deploy the software to CCOPTS and to Member Country	December 2009
Hands-on Training for Member Country upon request	2009 - 2010



# Metadata on Geoscientific Data

## Challenges so far

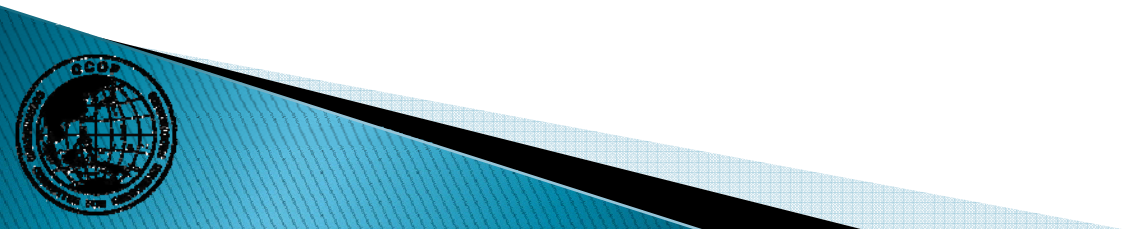


- ▶ Discussions among the Working Group are mostly limited to workshop/meeting period only
- ▶ Codelists construction



# Key Issues in Regional Metadata Projects

- ▶ Completeness
- ▶ Language
- ▶ Interoperability – Metadata & Systems
  - Compliance to International Standards
- ▶ Updating metadata
- ▶ Sustainability – Metadata & Systems





# Thank you... & best wishes to the EPPM Project!

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CCOP Technical Secretariat  
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