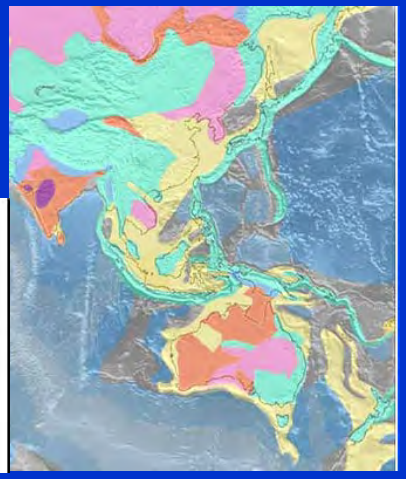
1 CCOP Metadata Standard of Geoinformation

2 Software development

3 Benefits and Suggestion



1 CCOP Metadata Standard

based on ISO19115 and CGS DD2006-05

2006

Guangzhou, China 2006

- CCOP Metadata working group workshop in 2006

Pic. By Marivic

Summary on 28-item standard

Requirement Analysis for an entire coverage metadata standard

Advanced IT application and products for geological survey and exploration

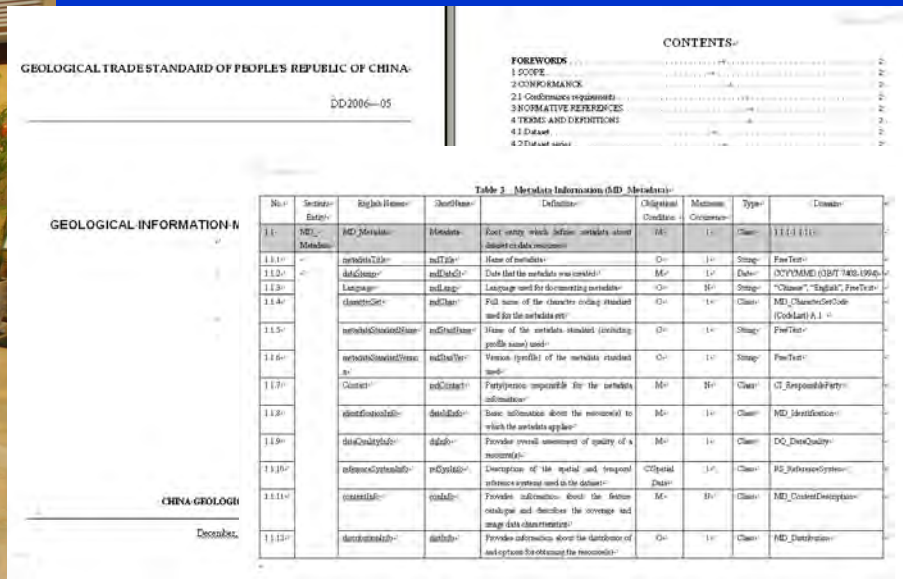
CCOP metadata project phase II

2007

CGS submitted a proposal to support phase II CCOP metadata standard work and was approved in 43rd annual meeting at Daejeon, Korea, 2006.

English version of Chinese ***Geo-information Metadata Standard*** sent to most of the CCOP member countries as reference.

CGS launched a project early 2007 to fund CCOP metadata phase II



GEOLOGICAL TRADE STANDARD OF PEOPLE'S REPUBLIC OF CHINA

DD2006—05

CONTENTS

FOREWORDS
1 SCOPE
2 CONFORMANCE
2.1 Conformance requirements
3 NORMATIVE REFERENCES
4 TERMS AND DEFINITIONS
4.1 Dataset

GEOLOGICAL INFORMATION-M

CHINA GEOLOGI

December

Table 3 Metadata Information (MD_Metadata)

No.	Section/Entity	English Name	ShortName	Definition	Obligation/Condition	Maximum Occurrence	Type	Domain
1	MD_Metadata	MD_Metadata	Metadata	Root entity which defines metadata about dataset or data occurrence	M	1	Class	
1.1		metadataTitle	mdTitle	Name of metadata	O	1	String	FreeText
1.2		dateStamp	mdDateSt	Date that the metadata was created	M	1	Date	ISO8601
1.3		Language	mdLang	Language used for documenting metadata	C	M	String	"Chinese", "English", FreeText
1.4		characterSet	mdChar	Full name of the character coding standard used for the metadata set	O	1	Class	MD_CharacterSetCode (CodeList) A.1
1.5		metadataStandardName	mdStanName	Name of the metadata standard (including profile name) used	O	1	String	FreeText
1.6		metadataStandardVersion	mdStanVer	Version (profile) of the metadata standard used	O	1	String	FreeText
1.7		Contact	mdContact	Party/person responsible for the metadata information	M	M	Class	CI_ResponsibleParty
1.8		identificationInfo	datalnfo	Basic information about the resource(s) to which the metadata applies	M	1	Class	MD_Identification
1.9		dataQualityInfo	dqInfo	Provides overall assessment of quality of a resource(s)	M	1	Class	DQ_DataQuality
1.10		referenceSystemInfo	rsSystem	Description of the spatial and temporal reference systems used in the dataset	C[Spatial Data]	1	Class	RS_ReferenceSystem
1.11		contentInfo	coInfo	Provides information about the feature catalogue and describes the coverage and image data characteristics	M	M	Class	MD_ContentDescription
1.13		distributionInfo	distInfo	Provides information about the distributor of and options for obtaining the resource(s)	O	1	Class	MD_Distribution

Cataloguing information 1	
Metadata file identifier	
Title in English Translation (Full)	
Edition	
Series name	
Reference date	
Responsible party information	
Responsible party organization name	
Postal address	
City	
Postal Code	
Country	
On-line resource linkage	
Electronic mail address	
Voice telephone	
Fax number	
Location information	
West bounding coordinate (Generally Lat-Lon decimal degree)	
East bounding coordinate	
North bounding coordinate	
South bounding coordinate	
Geographic extent name	
Resolution level (Map scale)	
Constraint information	
Access constraints	
Use constraints	
Cataloguing information 2	
Spatial reference system (Description)	
Distribution data format name (like Shape, Raster, DXF, etc.)	
Distribution media	
Language of metadata code	
Metadata character code set (ASCII)	
Metadata date	

CCOP 28 Item Standard

For geological maps

2008

CCOP Metadata Project Phase Ⅱ – First Workshop
17–21 March 2008, Hainan, China

CCOP Metadata standard

General Draft

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

FINAL DRAFT

INTERNATIONAL STANDARD

ISO/FDIS 19115

ISO/TC 211

Secretariat: NSF

Voting begins on: 2003-01-23

Voting terminates on: 2003-03-23

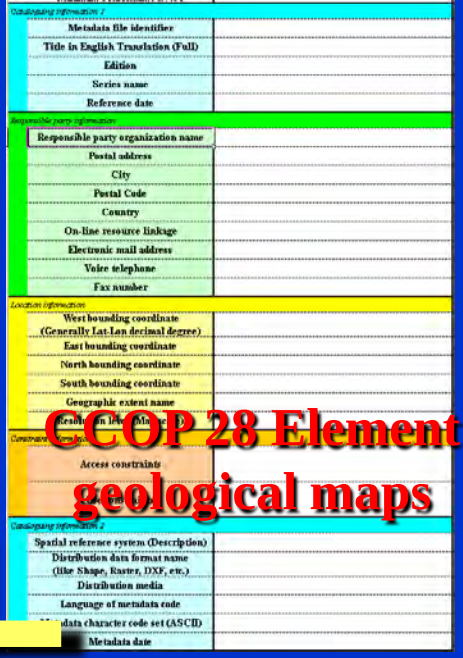
Geographic information — Metadata

Information géographique — Métadonnées

Please see the administrative notes on page ii-1

Reference number ISO/FDIS 19115:2003(E)

ISO19115


Metadata file identifier

Title in English Translation (Full)

Edition

Series name

Reference date

Responsible party information

Responsible party organization name

Postal address

City

Postal Code

Country

On-line resource linkage

Electronic mail address

Voice telephone

Fax number

Location information

West bounding coordinate (Generally Lat-Lon decimal degree)

East bounding coordinate

North bounding coordinate

South bounding coordinate

Geographic extent name

Access constraints

Spatial reference system (Description)

Distribution data format name (like Shape, Raster, DXF, etc.)

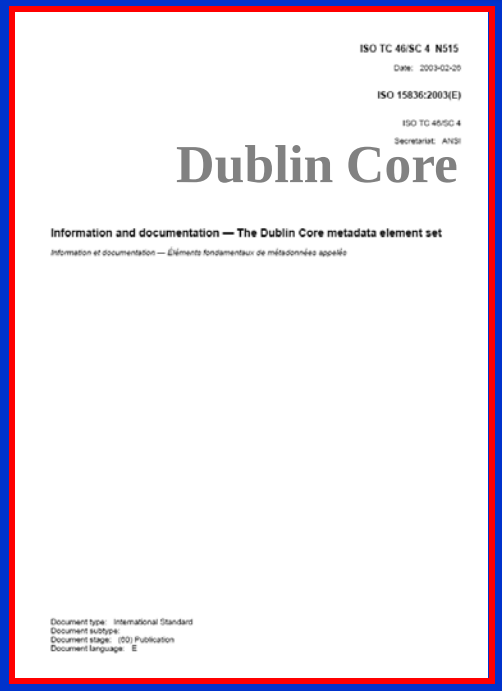
Distribution media

Language of metadata code

data character code set (ASCII)

Metadata date

CCOP 28 Element geological maps


ISO TC 46/SC 4 N515

Date: 2003-02-26

ISO 15836:2003(E)

ISO TC 46/SC 4

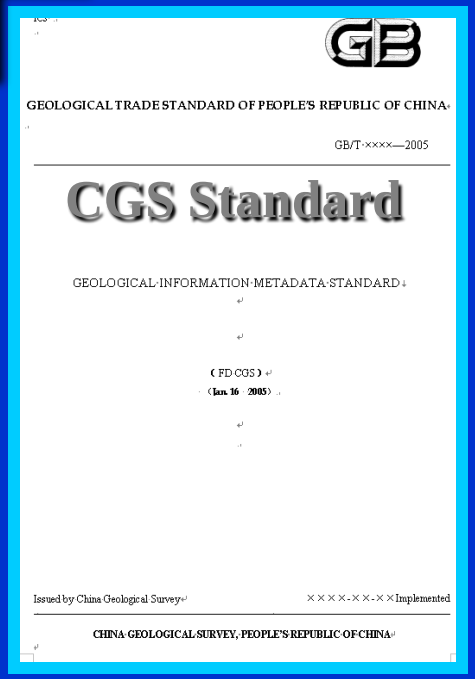
Secretariat: ANSI

Dublin Core

Information and documentation — The Dublin Core metadata element set

Information et documentation — Éléments fondamentaux de métadonnées appelés

Document type: International Standard
Document subtype:
Document stage: (00) Publication
Document language: E


GB

GEOLOGICAL TRADE STANDARD OF PEOPLE'S REPUBLIC OF CHINA

GB/T ××××—2005

CGS Standard

GEOLOGICAL INFORMATION METADATA STANDARD

(FD CGS)

(Jan. 16 , 2005)

Issued by China Geological Survey

××××-××-×× Implemented

CHINA GEOLOGICAL SURVEY, PEOPLE'S REPUBLIC OF CHINA

ICS

CCOP STANDARD

CCOP/ GI/T 2008

GEOLOGICAL INFORMATION METADATA STANDARD

CCOP Metada

Draft

(Mar. 18 , 2008)

Issued by CCOP Meatadata Working Group

××××-××-×× Implemented

COORDINATING COMMITTEE FOR GEOSCIENCE PROGRAMME OF ASIA AND SIUTHEAST ASIA

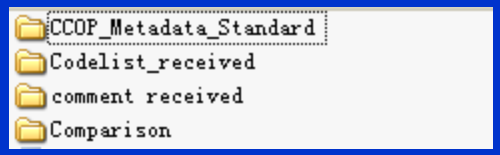
5 packages

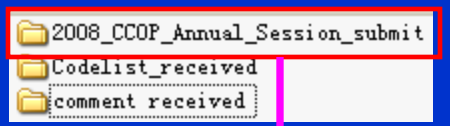
6 code-list

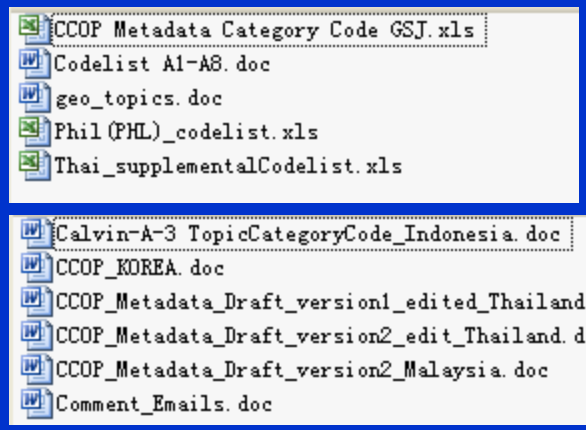
56 elements

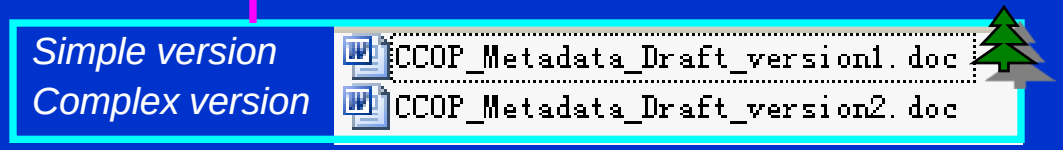
2 circulations since Mar.,2008

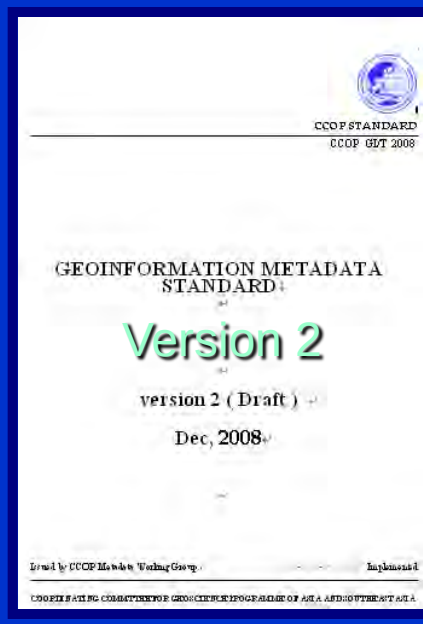
2008



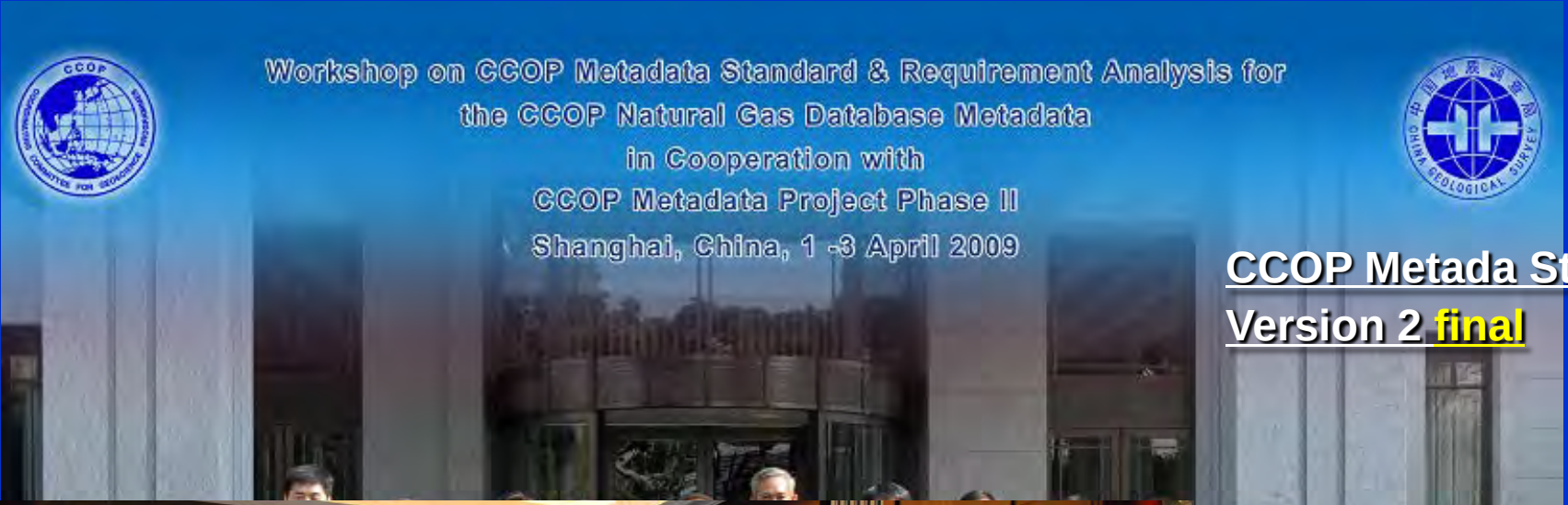








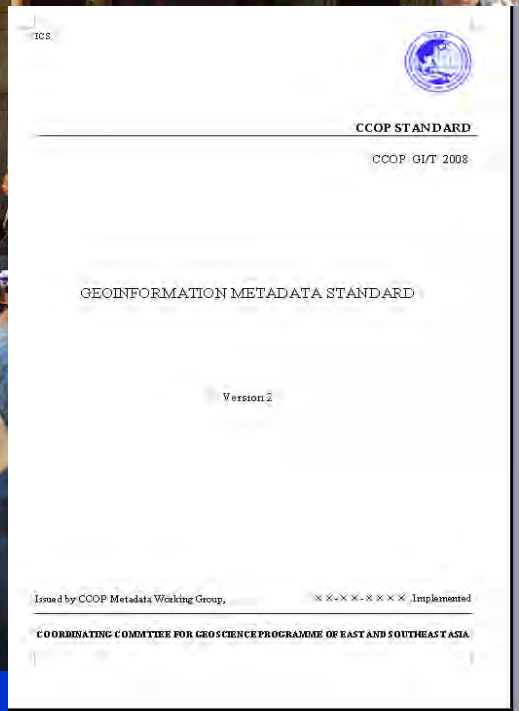
- *Mr. xxx, Cambodia*
- *Dr. Zhang Minghua, Dr. Jiang Zuoqin and Dr. Zhang Zhenfang, China*
- *Mr.Calvin Karo Karo Gurusinga, Indonesia*
- *Mr.Kazuaki Watanabe and Mr.Yuichiro Fusejima, Japan*
- *Mr.Young-Kwang Yeon, Korea*
- *Ms. Brendawati Ismail, Malaysia*
- *Mr.William Tau-Vali, Papua New Guinea*
- *Ms. Czarina Morgia, Philippines*
- *Mr. Sompob Wongsomsak, Thailand*
- *Mr. Le Tuan Anh, Vietnam*
- *Ms. Marivic P.Uzarraga, Dr.Hee-Young Chun and Mr.Simplicio Caluyong, CCOP TS.*



2009

CCOP Metada Standard Version 2 final

Second workshop



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CCOP STANDARD

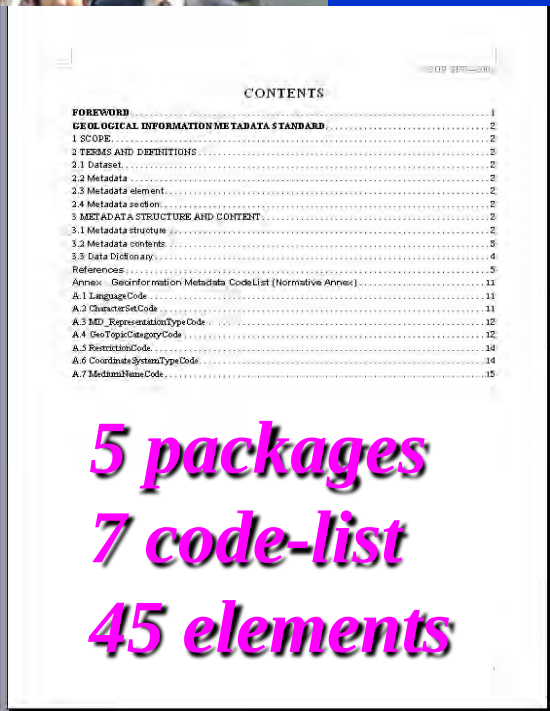
CCOP GI/T 2008

GEOINFORMATION METADATA STANDARD

Version 2

Issued by CCOP Metadata Working Group, ××-××-×××× Implemented

COORDINATING COMMITTEE FOR GEOSCIENCE PROGRAMME OF EAST AND SOUTHEAST ASIA



CONTENTS

FOREWORD I
GEOLOGICAL INFORMATION METADATA STANDARD 2
1 SCOPE 2
2 TERMS AND DEFINITIONS 2
2.1 Dataset 2
2.2 Metadata 2
2.3 Metadata element 2
2.4 Metadata section 2
3 METADATA STRUCTURE AND CONTENT 2
3.1 Metadata structure 2
3.2 Metadata contents 3
3.3 Data Dictionary 4
References 5
Annex Geoinformation Metadata CodeList (Normative Annex) 11
A.1 LanguageCode 11
A.2 CharacterSetCode 11
A.3 MD_RepresentationTypeCode 12
A.4 GeoTopicCategoryCode 12
A.5 RestrictionCode 14
A.6 CoordinateSystemTypeCode 14
A.7 MediumNameCode 15

5 packages
7 code-list
45 elements

CCOP GEOINFORMATION METADATA STANDARD S01

Edition 2 published in Sep.2009

1 SCOPE

2 TERMS AND DEFINITIONS

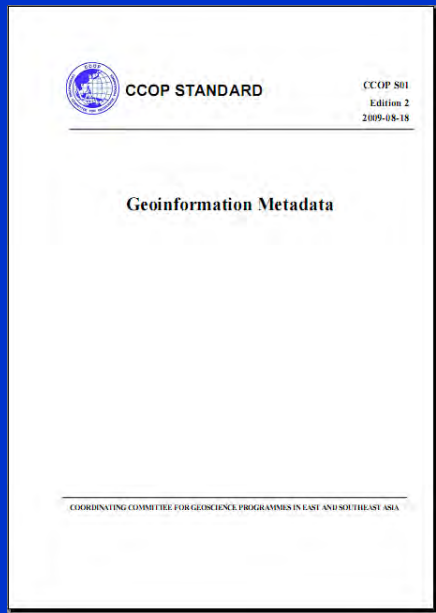
- Dataset
- Metadata
- Metadata element
- Metadata section

3 METADATA STRUCTURE AND CONTENT

- Metadata structure
- Metadata contents
- Data Dictionary

DATA DICTIONARY : 5 TABLES

ANNEX : 7 CODELISTS


CCOP STANDARD

CCOP S01
Edition 2
2009-08-18

Geoinformation Metadata

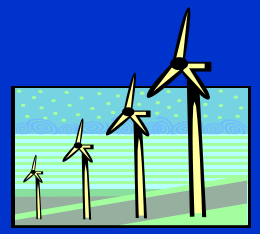
COORDINATING COMMITTEE FOR GEOSCIENCE PROGRAMMES IN EAST AND SOUTHEAST ASIA

1 SCOPE

- This standard has defined the schema required for description of geoinformation and provides information about the identification, quality, contents, spatial reference information, and the distribution of geological information.

- This standard is applicable to the description, dataset information publication, and network interchanges of the geological datasets dominated by various spatial data and the non-spatial information datasets and can also be referenced in the metadata collection and the metadata database construction.

- Applicable to the publication and interchange of spatial and non-spatial geological information covering *geological maps, minerals, groundwater, geo-hazard, oil and gas, coal, geothermal, coastal zone, geophysics, geochemistry, drilling, geo-archives, etc.*



2 TERMS AND DEFINITIONS

A. Dataset

Identifiable collection of data.

Collection of data can be either a database or a part of the database.

B. Metadata

Data about data.

They describe the related information about the data, including the contents, coverages, quality, status, management, owner, and the distribution.

C. Metadata element

Discrete unit of metadata.

Metadata elements are collected and described in tables called metadata dictionary.

D. Metadata section

Set of metadata elements describing the same aspect of a dataset. Metadata section can be either a single section or an aggregation of one or more sections and elements.

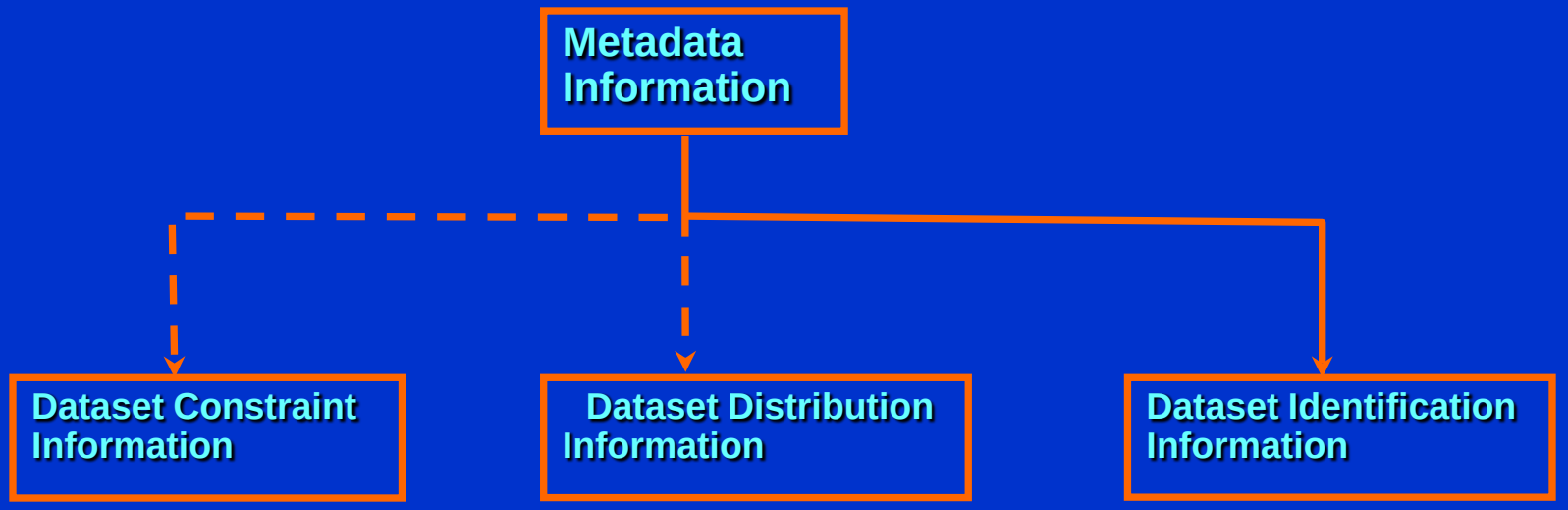
3 METADATA STRUCTURE AND CONTENT

A. Metadata structure

Fig.1 describes the structure of geoinformation metadata.

Geoinformation metadata comprises of 4 sections:

- One mandatory section
- Two optional sections
- A common class named ResponsibleParty.



The structure diagram of geoinformation metadata

3 METADATA STRUCTURE AND CONTENT

B. Metadata contents

- Metadata Information

  Metadata information section describes the whole metadata information of geoinformation, and is represented by the mandatory section MD_Metadata. It comprises of the following metadata sections and elements: Mandatory section, Optional section, Mandatory elements, Optional elements

- Dataset Identification Information

  Identification information is the basal one of geo-dataset, and is represented by MD_Identification section which is a mandatory section.

- Dataset Constraint Information

  Constraint Information describing general limitation for access and restrictions on using the dataset. It is an optional section.

- Dataset Distribution Information

  Dataset distribution information describing dataset distributor and data-obtaining method. It is an optional section.

CCOP Geoinformation Metadata Standard *Sections and Elements*

Section	*Total*	*Mandatory*	*Conditional*	*Optional*
Metadata information (MD_Metadata)	6	2+1		3
Dataset identification information (MD_Identification)	23	7	9	7
Dataset constraint Information (MD_Constraint)	2	1		1
Dataset distribution Information (MD_Distribution)	4	3		1
Responsible Party Information (ResponsibleParty)	10	1		9
SUM	45	15		

Metadata Information

It describes the whole metadata information of geoinformation, and comprises of the following sections and elements:

Mandatory section
- MD_ Identification

Optional section
- RS_Constraint
- MD_Distribution

Mandatory elements
- metadataTitle
- metadataStamp

Optional elements
- contact (refer to a common class ***ResponsibleParty***)

Dataset Identification Information

It's the basal one of geo-dataset, and is represented by MD_Identification. It is an aggregation of the following elements:

Mandatory elements:

- **title**
- **dateRelease**
- **language** ☆
- **abstract**
- **dataRepresentationType**
- **topicCategory**
- **pointOfcontact**

7 Ms

Conditional elements:

- **spatialResolution**
- **eastBoundLongitude**
- **westBoundLongitude**
- **southBoundLongitude**
- **northBoundLongitude**
- **geographicIdentification** ☆
- **browseGraphic**
- **coordinateSystemType**
- **referenceSyetemName**

9 Cs

Optional elements:

- **subtile**
- **dateCreate**
- **edition**
- **seriesName**
- **characterSet**
- **keyWords**
- **projection**

7 Os

Dataset Constraint Information

It describes general limitation for access and restrictions on using the dataset. It is an optional section.

Mandatory elements:

useConstraint

Optional elements:

accessConstraint

Dataset Distribution Information

It describes dataset distributor and data-obtaining method.

Mandatory elements:

- distributorContact
- mediaName
- dataFormatName

Optional element:

- onlineSource

ResponsibleParty

Mandatory elements

- electricMailAddress
  - *mm@xx.yy.zz*

Optional element:

- individualName
- organizationName
- phone
- fax
- deliveryPoint
- city
- country ☆
- postCode
- onlineResource

3 METADATA STRUCTURE AND CONTENT

- Data Dictionary
- Element and section names

  Element name is the sole marker of metadata element.
- Short names

  Except for the codelists, each metadata element has a unique short name in the entire standard.
- Definitions

  Definition offers accurate description of metadata entites and metadata elements.
- Obligation/Condition

  This is a descriptor indicating whether a metadata section or metadata element shall always be documented in the metadata or sometimes be documented (i.e. contains value(s)). This descriptor may have the following values: M (mandatory), C (conditional), or O (optional).

DATA DICTIONARY : 5 TABLES

- Table 1 to 5 have offered a data dictionary that describes the details of geoinformation metadata sections, classes and elements with names, short names, definitions, obligation/condition, maximum occurrence, types and domain.

- They together with the metadata codelists in Annex have comprised of a complete definition of geoinformation metadata of CCOP.

Data dictionary tables

Table 1

Table 1. Metadata information (MD_Metadata)

No.	Section	Name / Role name	Short name	Definition	Obligation/ Condition	Maximum occurrence	Type	Domain
1	MD_Metadata		Metadata	Root section which defines metadata about dataset or data resources	M	1	Class	1.1-1.6
1.1		metadataTitle	mdTitle	Name of metadata	M	1	String	Free Text
1.2		dataStamp	mdDataSt	Date that the metadata was created	M	1	Date	YYYYMMDD(i.e.YearMonthDay)
1.3		*Role name:* identificationInfo	dataIdInfo	Basic information about the resource(s) to which the metadata applies	M	1	Class	**MD_Identification**
1.4		*Role name:* constraintsInfo	constInfo	Offering general limitation for access and restrictions on using the dataset	O	1	Class	**MD_Constraint**
1.5		*Role name:* distributionInfo	distribution	Describing dataset distributor and data-obtaining method	O	N	Class	**MD_Distribution**
1.6		contact	mdContact	Party/person responsible for the metadata information	O	N	Common Class	**ResponsibleParty**

Table 2

Table 2. Dataset identification information (MD_Identification)

No.	Section	Element name	Short Name	Definition	Obligation/ Condition	Maximum occurrence	Type	Domain
2	MD_Identification		Id	Describing basal information about the geological dataset	M	1		2.1-2.23
2.1		title	title	Title or name of the dataset	M	1	String	Free Text
2.2		subtitle	subtitle	An alternative title or name of the dataset to describe the dataset	O	1	String	Free Text
2.3		dateCreation	dateCreat	Date of dataset creation	O	1	Date	YYYYMMDD
2.4		dateRelease	dateReles	Date of dataset release	M	1	Date	YYYYMMDD
2.5		edition	edition	Version of dataset	O	1	String	Free Text
2.6		seriesName	seriName	Name of the dataset series	O	1	String	Free Text
2.7		language	dataLan	Language(s) used within the dataset	M	N	String	LanguageCode (CodeList) A.1
2.8		characterSet	dataChar	Full name of the character coding standard used for the dataset	O	1	Class	CharacterSetCode (CodeList) A.2
2.9		abstract	idAbs	Brief narrative summary of the content of the resource(s), including purpose, source and data quality description.	M	1	String	Free Text
2.10		keyWords	kwords	Keywords used to describe the dataset	O	N	String	Free Text
2.11		dataRepresentationType	dataRpType	The expressing way of spatial data of geological information	M	N	Class	RepresentationTypeCode (CodeList)A.3
2.12		spatialResolution	dataScale	A parameter describing the spatial data density of a dataset, such as scaleDenominator, and average ground sampling intervals.	C/Spatial data is applied	N	String	Free Text
2.13		topicCategory	tpCat	Geological category codes of the main theme(s) of the dataset	M	N	Class	GeoTopicCategoryCode (CodeList) A.4
2.14		pointOfContact	idPoC	A person or party related with the dataset	M	N	Common Class	**ResponsibleParty**

Table 3 and 4

Table 3. Dataset constraint Information (MD_Constraint)

No.	Section	Element name	Short name	Definition	Obligation/ Condition	Maximum occurrence	Type	Domain
3	MD_ Constraint		Consts	Restriction on the access and use of a resource or metadata	O	N		3.1-3.2
3.1		accessConstraint	accessConsts	Assure the protection of privacy or intellectual property, and any special restrictions or limitations on obtaining the resource or metadata	O	N	Class	RestrictionCode(CodeList) A.5
3.2		useConstraint	useConsts	Assure the protection of privacy or intellectual property, and any special restrictions or limitations or warnings on using the resource or metadata	M	N	Class	RestrictionCode(CodeList) A.5

Table 4. Dataset distribution information (MD_Distribution)

No.	Section	Element name	Short name	Definition	Obligation/ Condition	Maximum occurrence	Type	Domain
4	MD_Distribution		Consts	Restriction on the access and use of a resource or metadata	O	N		4.1-4.4
4.1		onlineResource	onLineSrc	Information about online resources from which the resource can be obtained; addresses that offer online access in the model of URL address.	O	N	Class	URL (IETF RFC1738 IETF RFC2056)
4.2		distributorContact	distorCont	Distributor of geological information dataset or data resources	M	N	Common Class	**ResponsibleParty**
4.3		mediaName	medName	Medium name of dataset offered by the distributor	M	1	Class	MediumNameCode (CodeList) A.7
4.4		dataFormatName	fomatName	Name and version of data transfer format(s) offered by the dataset distributor	M	1	String	Free Text

Table 5

Table 5. Responsible Party Information (ResponsibleParty)

No.	Common Class	Element name	Short name	Definition	Obligation/Condition	Maximum occurrence	Type	Domain
5	ResponsibleParty		RespParty	Information about the person(s) and organizations associated with the dataset	Use obligation or condition from the referencing object	Use maximum occurrence from the referencing		5.1-5.10
5.1		individualName	rpIndName	Name and title of the responsible person, separated by a delimiter	C/ organisationName not documented	1	String	Free Text
5.2		organisationName	rpOrgName	Name of responsible party	C/ individualName not documented	1	String	Free Text
5.3		electronicMailAddress	eMailAddr	Public address of the electronic mailbox of the responsible organization or individual	M	N	String	Free Text
5.4		phone	cntPhone	Telephone numbers at which the organization or individual may be contacted	O	N	String	Plain text with arrangement of letters as "+" (international numbering plan prefix) " "(country code) " " (city code) " "(local number), for example, +86 10 58584305
5.5		facsimile	cntFaxNum	Fax numbers at which the organization or individual may be contacted	O	1	String	Free Text
5.6		deliveryPoint	cntDelPnt	Detail physical address at which the organization or individual may be contacted, including road name and room number	O	1	String	Free Text
5.7		city	city	city of the location (city name, county name)	O	1	String	Free Text
5.8		country	country	Country of the responsible party	O	1	Class	LanguageCode (CodeList) A.1
5.9		postCode	postCode	ZIP or other postal code	O	1	String	Free Text
5.10		onlineResource	cntOnlineRes	On-line information that can be used to contact the individual or organization	O	1	String	URL (IETF RFC1738 IETF RFC2056)

Annex: Geoinformation Metadata CodeList

A1 and A2

A. 1 LanguageCode (based on ISO639. 2)

No.	English Nam
	LanguageCode
1	KHM
2	CHI
3	IDN
4	JPN
5	KOR
6	MAY
7	MON
8	PAA
9	TGL
10	FIL
11	THA
12	VIE
13	ENG
14	POR
15	TET

A. 2 CharacterSetCode

No.	English Names	Code	Definition
	CharacterSetCode	CharSetCd	Character coding standard
1	UTF8	004	8-bit variable size UCS Transfer Format, based on ISO/IEC 10646
2	ISO-8859-1	006	GB/T 15273.1-1994 Information Process 8-bit single byte coded graphic character sets --Part 1: Latin alphabet No. 1
3	usASCII	025	United States ASCII code set (ISO 646 US)
4	BIG5	028	Traditional Chinese code set used in Taiwan, Hong Kong of China and other areas
5	GB2312	029	Simplified Chinese code set
6	Windows-874		Thai character set encoding for Windows (a standard should not be bounded with particular software.)
7	TIS 620	030	Thai Industrial Standards ,8-bits character set, a subset of ISO-IR-166, declared by Thai Industrial Standards Institute (TISI)
8	ISO-8859-11	016	ISO/IEC8859-11 Information Process 8-bit single byte coded graphic character sets --Part 11: Latin alphabet /Thai character
9	eucKR	027	Korean character set
10	TCVN3-ABC		8 bit character code set (Vietnam)
11	TCVN 6909:2001		Unicode font (Vietnam)
12	eucJP	024	Japanese code set used on UNIX based machine (TBC)
13	shiftJIS	023	Japanese code set used on MS-DOS based machine (TBC)
14	others	099	Other characters not defined above

A3

A.3 RepresentationTypeCode

No.	English Names	Code	Definition
	RepresentationTypeCode	RepTypCode	Types of spatial data
1	Vector	001	Vector data is used to represent geographic data
2	Grid	002	Grid data is used to represent geographic data
3	Text	003	Textual data is used to represent geographic data
4	TIN	004	Use triangulated irregular network to represent geographic data
5	Stereo model	005	Multidimensional representation of data
6	Video	006	Represent data in video
7	Matrix	007	Matrix data
8	Table	008	Tabular data is used to represent geographic data
9	Raster	009	Scanned and digital images
10	Others	099	Other types not defined above

A4

No.	1st Category Name	2nd Category Name	Definition and illustration	code
1	Geography		The study of the Earth and its lands, features	1000
2	Geology			
		Geochemistry	Geochemistry includes isotope geochemistry, biogeochemistry, organic geochemistry, regional, environmental and exploration geochemistry, such as rock geochemical exploration, soil geochemical exploration, stream sediment geochemical exploration, atmospheric geochemical exploration, biogeochemical exploration, water geochemical exploration, geo-gas survey, chemical analysis, geochemical mapping, geothermal manifestation, radiometric dating, etc.	2500
		Geological exploration	Geology on searching or discovery of geo-resources, such as minerals, oil & gas, etc. It includes mineral exploration, ore geology, ocean geoexploration, mineral economics, and so on.	2600
		Exploration and mining administration	Regulations, law and relative activities and documents on geological exploration and mining.	2700
		Drilling	Geological drills for exploration, scientific study	2800
	3			
		Oil and Gas	It includes petroleum geology, oil and gas exploration, exploitation or production, oil and gas field, etc.	4300
		Coalbed methane	It includes coalbed methane geology, coalbed methane exploration, coalbed methane production, etc.	4400
		Gas hydrate	It includes both natural and experimental gas hydrate, gas hydrate geology, gas hydrate exploration, gas hydrate exploitation, etc.	4500
		Coal	It include coal geology, coal exploration, coal production, etc.	4600
		Oil shale	It include oil shale geology, oil shale exploration, oil shale production, etc.	4700
		Geothermal	It is related to energy and may refer to heat that comes from within the Earth. It includes geothermal geology, geothermal exploration, geothermal exploitation, geothermal tourism, etc.	4800
	5	Geo-Literature	Literatures of and about geology	5000
		Geological publications	Publications of geology, such as books, periodicals, magazines, etc.	5100
		Geological Archives	Geological reports and written materials that mostly are not published	5200
	4			
		Geopark	It includes activities, databases, books and other materials about Geopark. A geopark is defined by UNESCO as a territory encompassing one or more sites of scientific importance, not only for geological reasons but also by virtue of its archaeological, ecological or cultural value.	5600
	6	Others	Can not be classified above	6000

6 1st Category Names

31 2nd Category Names

72 3rd Category Names defined

A5 and A6

A. 5 RestrictionCode

No.	English Names	Code	Definition
	RestrictionCode	Restrict	Limitation(s) placed upon the access or use of the data
1	copyright	001	Exclusive right to the publication, production, or sale of the rights to a literary, dramatic, musical, or artistic work, or to the use of a commercial print or label, granted by law for a specified period of time to an author, composer, artist, distributor
2	patent	002	Government has granted exclusive right to make, sell, use or license an invention or discovery
3	patentPending	003	Produced or sold information awaiting a patent
			A name, symbol, or other device identifying a product, officially registered and legally

A. 6 CoordinateSystemTypeCode

No.	English Names	Code	Definition
	CoordinateSystemTypeCode	CoorSysType	
1	Cartesian	001	A *n*-dimensional (*n* stands for an arbitrary positive integer) coordinate system that consists of *n* number axes which perpendicularly cut each other at the origin
2	Geodetic	002	A spherical coordinates of a ground point location expressed in longitudinal and latitudinal degrees
3	Projected	003	Coordinate systems formed through different projection methods
4	Polar	004	A coordinate system that describes the location of a point through the distance between the point and the pole as well as the extensional direction
5	Gravity Related	005	A norm for gravity survey and related calculation
6	WGS 84	4326	World wide GPS coordinate system.

non-tangible property

A7

A. 7 MediumNameCode

No.	English Names	Code	Definition
	MediumNameCode	MediumNameCd	Name of the medium
1	cdRom	001	Read-only optical disk
2	dvd	002	Digital versatile disk, include rewritable disk
3	dvdRom	003	Digital versatile disk, read only
4	3halfinchFloppy	004	3,5 inch magnetic disk
5	7trackTape	006	7 track magnetic tape
6	9trackTape	007	9 track magnetic tape
7	3480CatridgeTape	008	3480 cartridge tape drive
8	3490 CatridgeTape	009	3490 cartridge tape drive
9	3590 CatridgeTape	010	3590 cartridge tape drive
10	4mm CatridgeTape	011	4mm magnetic tape
11	8mm CatridgeTape	012	8mm magnetic tape
12	lquaterInch CatridgeTape	013	0.25 inch magnetic tape
13	digitalLinearTape	014	Half inch cartridge streaming tape drive
14	onLine	015	Direct computer linkage
15	Satellite	016	Linkage through a satellite communication system
16	TelephoneLink	017	Communication through a telephone network
17	hardcopy	018	Pamphlet or leaflet giving descriptive information
18	harddisk	019	Hard disk
19	flashMemory	020	Flash disk
20	electronicMail	021	Offering data in e-mail mode
21	cdRewritable	022	Rewritable optical disk
22	blurayDisk	023	High-definition optical disk
23	portable hard disk	024	Portable Computer hard disk
24	U-disc/flash disc	025	Memory disk of small size
25	videoDigital	026	Digital video recording
26	others	099	Medium not listed

2010

2 Software development

1. **The Web based software *CCOP GIMS* deployed at CCOP T/S server.**
2. **Hand on training workshop.** http://www.ccop.org.th

Software Name: *CCOP GIMS*

Metadata Search & Release

CCOPGIMS

Last Updated | Full Text Search | **Advanced Search** | Map Search | About

CCOPGIMS

topicCategory: All

Bound:
Longitude: -
Latitude: -

Country: Cambodia

KeyWords:

geographicIdentification:

metadataTitle:

createTime: -

Submit

Cambodia
- Cambodia
- China
- Timor-Leste
- Indonesia
- Japan
- Malaysia
- Papua New Guinea
- Philippines
- Singapore
- Korea
- Thailand
- Vietnam

Search in the Map

CCOPGIMS Last Updated | Full Text Search | Advanced Search | **Map Search** | About

Search on Map

topicCategory: All

Country:

KeyWords:

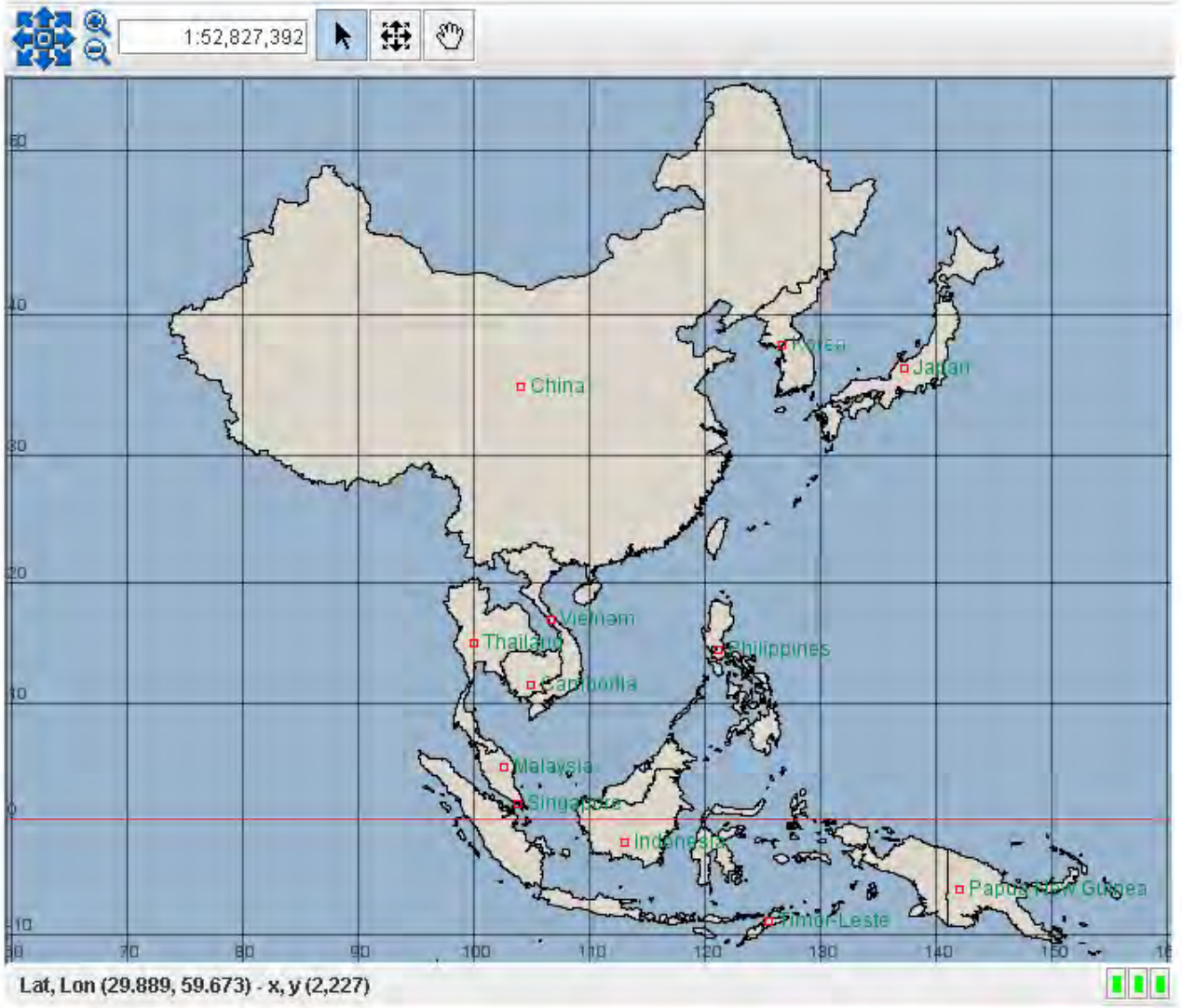
geographic Identification:

metadataTitle:

createTime:

Submit

Note: If the page can display map correctly, please click here to download the java runtime environment.



The Metadata

CCOPGIMS Last Updated **Full Text Search** Advanced Search Map Search About

Search: Submit Advanced Search

Result List: **172** found

K4826 Shalataoerhan

base on Geological survey result.With AcrInfo and MapGIS Format,managed by GIS, viewed and queried with standard map sheet and attribute feature.25 geological layers with attribute data.Provide geological map products of 1:200,000 standard map sheet. K4826 Shalataoerhan K4826 Shalataoerhan Quadrangle of 1:200,000-scale Digital Geological Map Database 2002-10-09 2003-03-05 Geological Map Database Published on Mar. 5, 2003. Digital Geological Map 1:200,000 CHI BIG5 ... Text View

K4826 Shalataoerhan

base on Geological survey result.With AcrInfo and MapGIS Format,managed b
attribute data.Provide geological map products of 1:200,000 standard map sh
Map Database 2002-10-09 2003-03-05 Geological Map Database Published

K4928 Huhehaote city

base on Geological survey result.With AcrInfo and MapGIS Format,managed b
attribute data.Provide geological map products of 1:200,000 standard map sh
Map Database 2002-10-09 2003-03-05 Geological Map Database Published

Facts 2009

The publication provides a general overview of information regarding the petro
Petroleum Sector Facts of the Norwegian Petroleum Sector--2009 2009-06-0
UTF8 ... Text View

K4825 Guaizihunan

base on Geological survey result.With AcrInfo and MapGIS Format,managed b
attribute data.Provide geological map products of 1:200,000 standard map sh
Database 2002-10-09 2003-03-05 Geological Map Database Published on M

Metadata - Windows Internet Explorer

http://ccop.cgs.cn/metaDetail.jsp?metDataId=3011&flag=0

Metadata

metadataTitle: K4826 Shalataoerhan

dataStamp: 2003-03-05

MD_Identification:

title: K4826 Shalataoerhan

subtitle: K4826 Shalataoerhan Quadrangle of 1:200,000-scale Digital Geological Map Database

dateCreation: 2002-10-09

dateRelease: 2003-03-05

edition: Published on Mar. 5, 2003.

seriName: Digital Geological Map 1:200,000

language: CHI

characterSet: BIG5

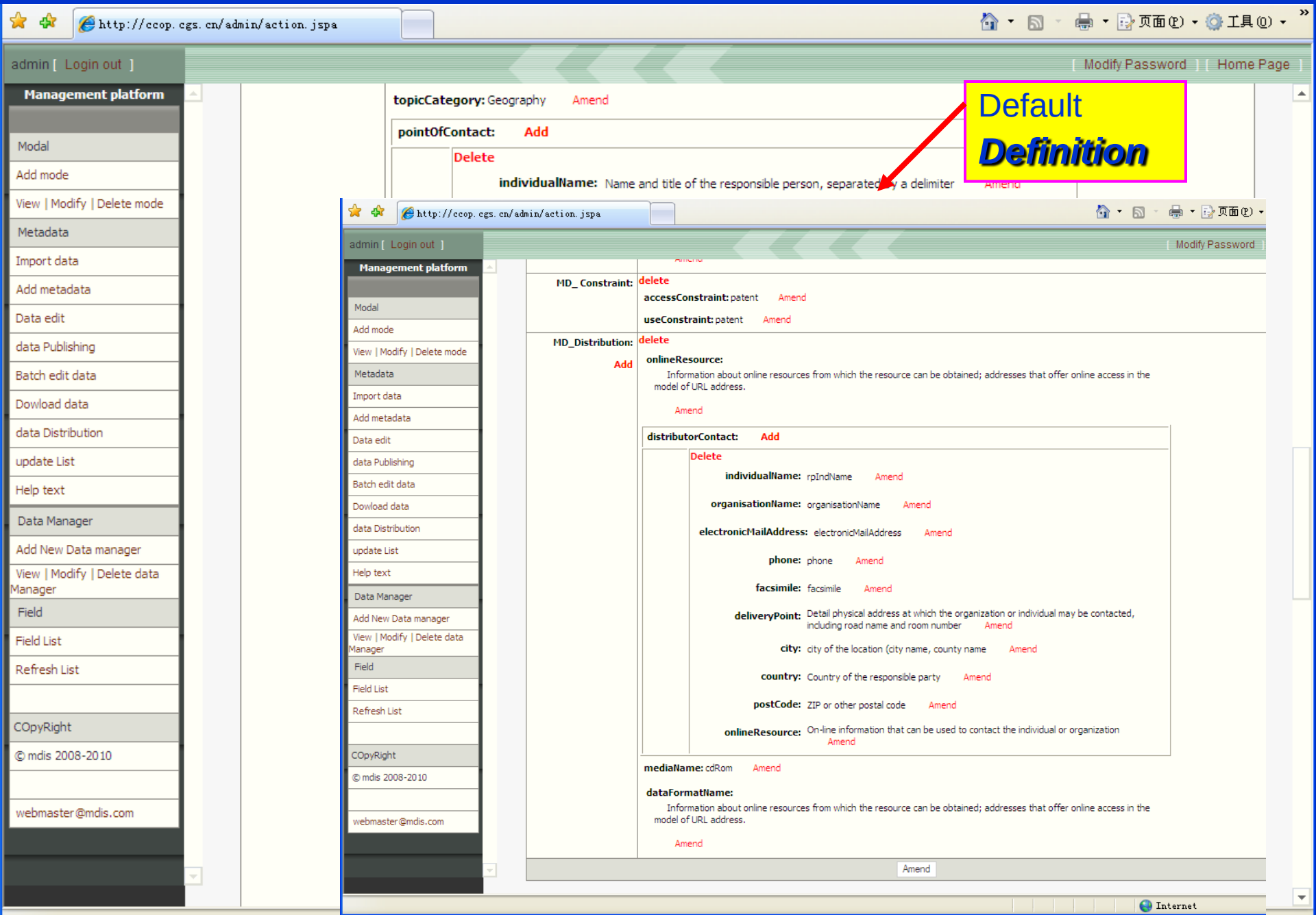
abstract: base on Geological survey result.With AcrInfo and MapGIS Format,managed by GIS, v queried with standard map sheet and attribute feature.25 geological layers with attribu data.Provide geological map products of 1:200,000 standard map sheet.

keyWords: Geological Map Database

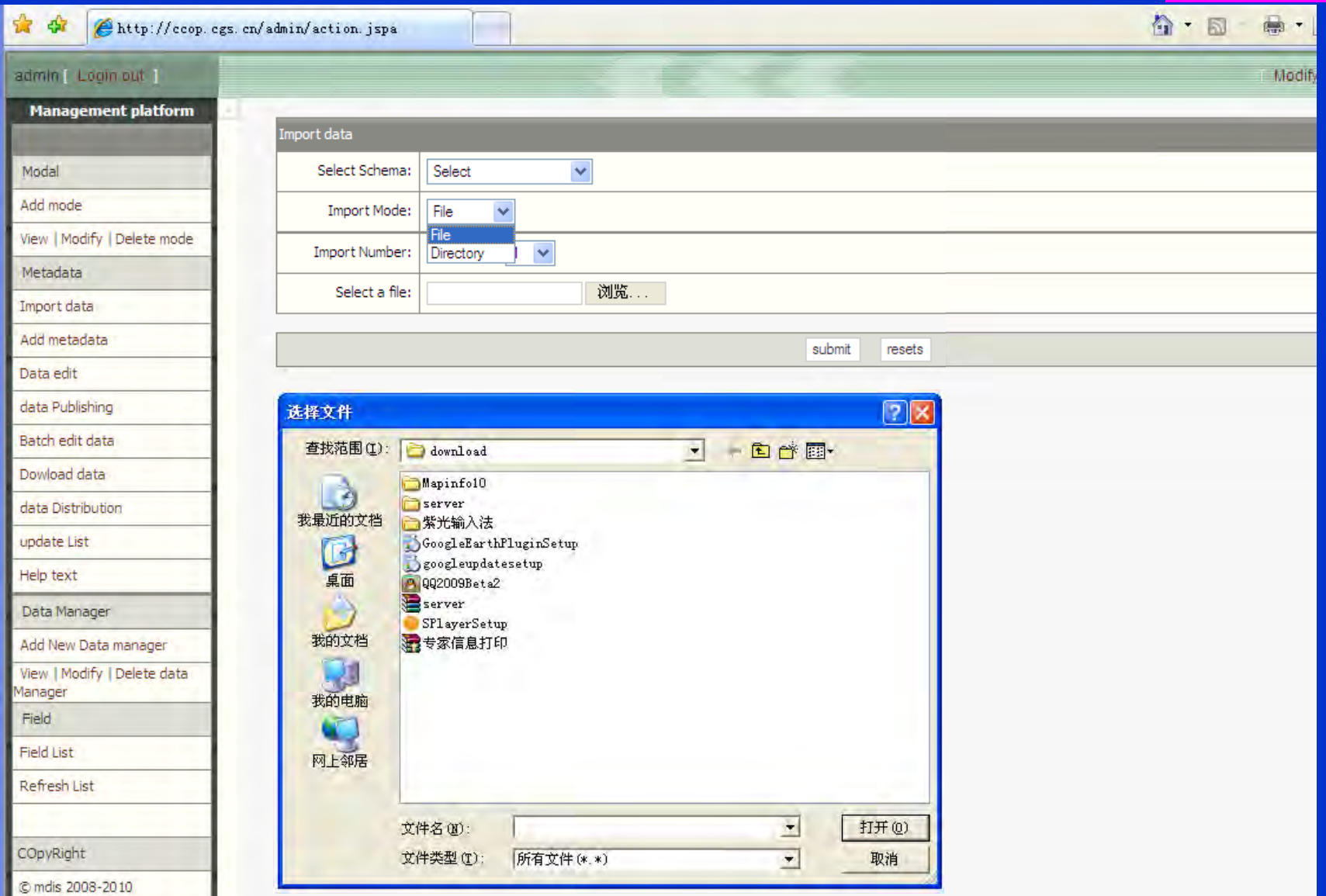
dataRepresentationType: Vector

spatialResolution: 200K

topicCategory: Regional geology


http://ccop.cgs.cn/admin/action.jspa
admin [Login out]
[Modify Password] [Home Page]
Management platform
Modal
Add mode
View | Modify | Delete mode
Metadata
Import data
Add metadata
Data edit
data Publishing
Batch edit data
Dowload data
data Distribution
update List
Help text
Data Manager
Add New Data manager
View | Modify | Delete data Manager
Field
Field List
Refresh List
COpyRight
© mdis 2008-2010
webmaster@mdis.com
topicCategory: Geography Amend
pointOfContact: Add
Delete
individualName: Name and title of the responsible person, separated by a delimiter Amend
Default
Definition
MD_ Constraint: delete
accessConstraint: patent Amend
useConstraint: patent Amend
MD_Distribution: delete
Add
onlineResource:
Information about online resources from which the resource can be obtained; addresses that offer online access in the model of URL address.
Amend
distributorContact: Add
Delete
individualName: rpIndName Amend
organisationName: organisationName Amend
electronicMailAddress: electronicMailAddress Amend
phone: phone Amend
facsimile: facsimile Amend
deliveryPoint: Detail physical address at which the organization or individual may be contacted, including road name and room number Amend
city: city of the location (city name, county name Amend
country: Country of the responsible party Amend
postCode: ZIP or other postal code Amend
onlineResource: On-line information that can be used to contact the individual or organization Amend
mediaName: cdRom Amend
dataFormatName:
Information about online resources from which the resource can be obtained; addresses that offer online access in the model of URL address.
Amend
Amend
Internet

Metadata
Import / upload



This web based CCOP Geoinformation Metadata System (CCOP-GIMS) is developed and supported by China Geological Survey based on 'CCOP Geoinformation Metadata Standard-CCOP S01'.

Software design and programming is led by Dr. Zhang Minghua and Dr. Wang Chengxi in The Development Research Center of China Geological Survey.

Software test and comments are form experts in CCOP member countries , CCOP Technical Secretariat and CCOP- EPPM project. Main experts are Mr. Sieng Sotham and Mr. Vorakcheat Huot(Cambodia), Dr. Jiang Zuoqin, Dr. Zhang Zhenfang, Mr. Liu Liqun, Ms. Chen Fangli and Mr. Zhang Qinhe(China), Mr. Calvin Karo Karo Gurusinga, Mr. Hanafi Suroyo and Ms. Rina Wahyuningsih(Indonesia), Mr.Kazuaki Watanabe and Mr.Yuichiro Fusejima and Mr. Yoshiaki Sugawara(Japan),Mr. Young-Kwang Yeon, Dr. Seonghyung Jang and Dr. Jaehong Hwang (Korea), Ms. Brendawati Ismail and Mrs. Norzilah Jaffar(Malaysia), Mr. William Tau-Vali and Mr. John Arumba(Papua New Guinea), Ms. Czarina Morgia, Mr. Demujin Antiporda and Mr. Michael Santiago J. Luna(Philippines), Mr.Sompob Wongsomsak and Ms. Kanitta Danudom (Thailand), Mr. Le Tuan Anh, Mr.Hoang Hai Bui and Mr. Luu Quang Viet (Vietnam), Mr. Inpong Homsombath (Laos), Mr. U Toe Aung Kyaw(Myanmar), Dr.Hee-Young Chun, Dr. He Qingcheng, Ms. Marivic Pulvera Uzarraga and Mr. Simplicio Caluyong(CCOP Technical Secretariat).

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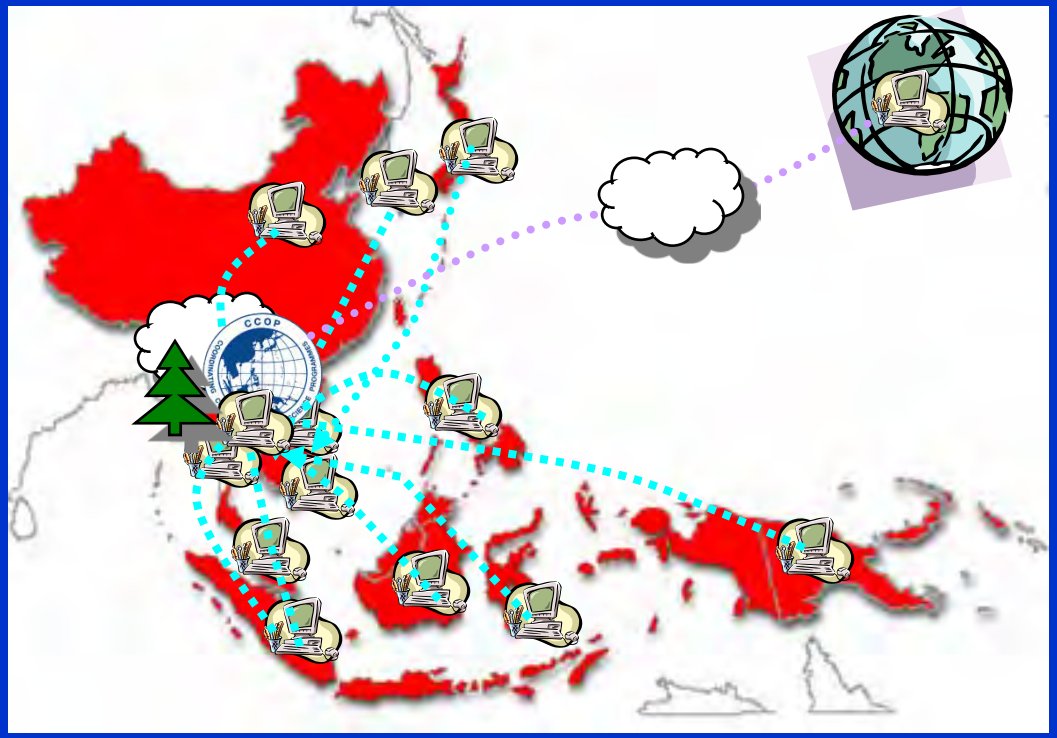
For more information, contact Ms. Marivic Pulvera Uzarraga at marivic@ccop.or.th and Dr. Zhang Minghua at zminghua@mail.cgs.gov.cn.

3 Benefits and Suggestion

Geoinformation sharing amongst *CCOP Member countries*.
CCOP Geoinformation sharing world wide…

Metadata database management in CCOP T/S & MC and International cooperation…

Data title
Abstract
Quality
Constrains
Contact
……

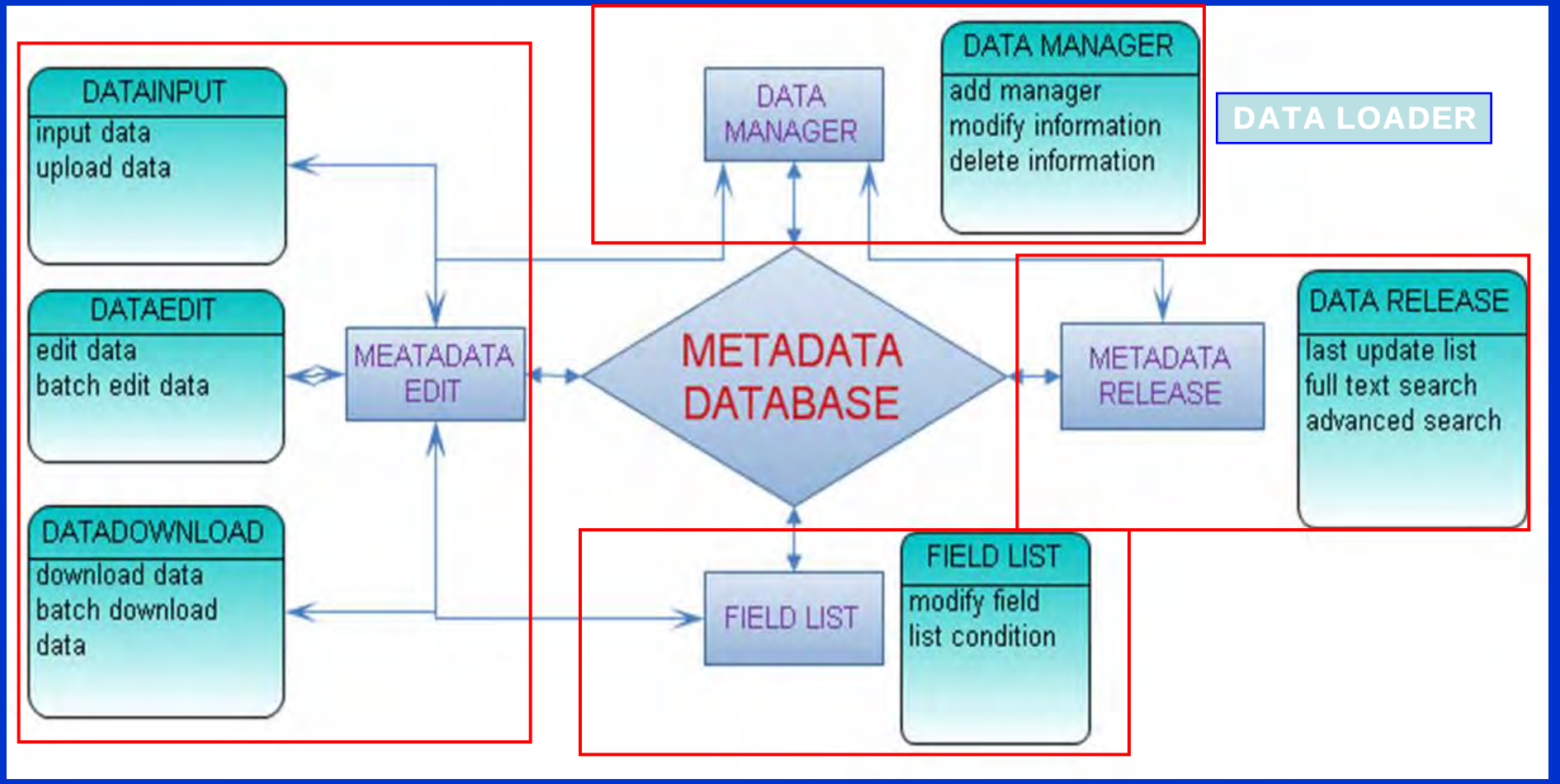


Answer *What, Who, Where, When, Why and How……*

Suggestion: Future of CCOP metadata porject

- *Launching Web-based application*
- *Hand on training on request to the member country by the CGS project group* ***with CGS support.***
- *Web based metadata software system maintainence by CCOP TS, and necessary extension making to the standard to meet the need of any other CCOP projects by the working group…*
- *Software upgrading and training will be continuly supported by the CGS group…*

Software structure



What is new

- Data manager_ Three level

Superadministrator

view\modify\delete\release all of the metadata,

Add \manage data manager & data loader.

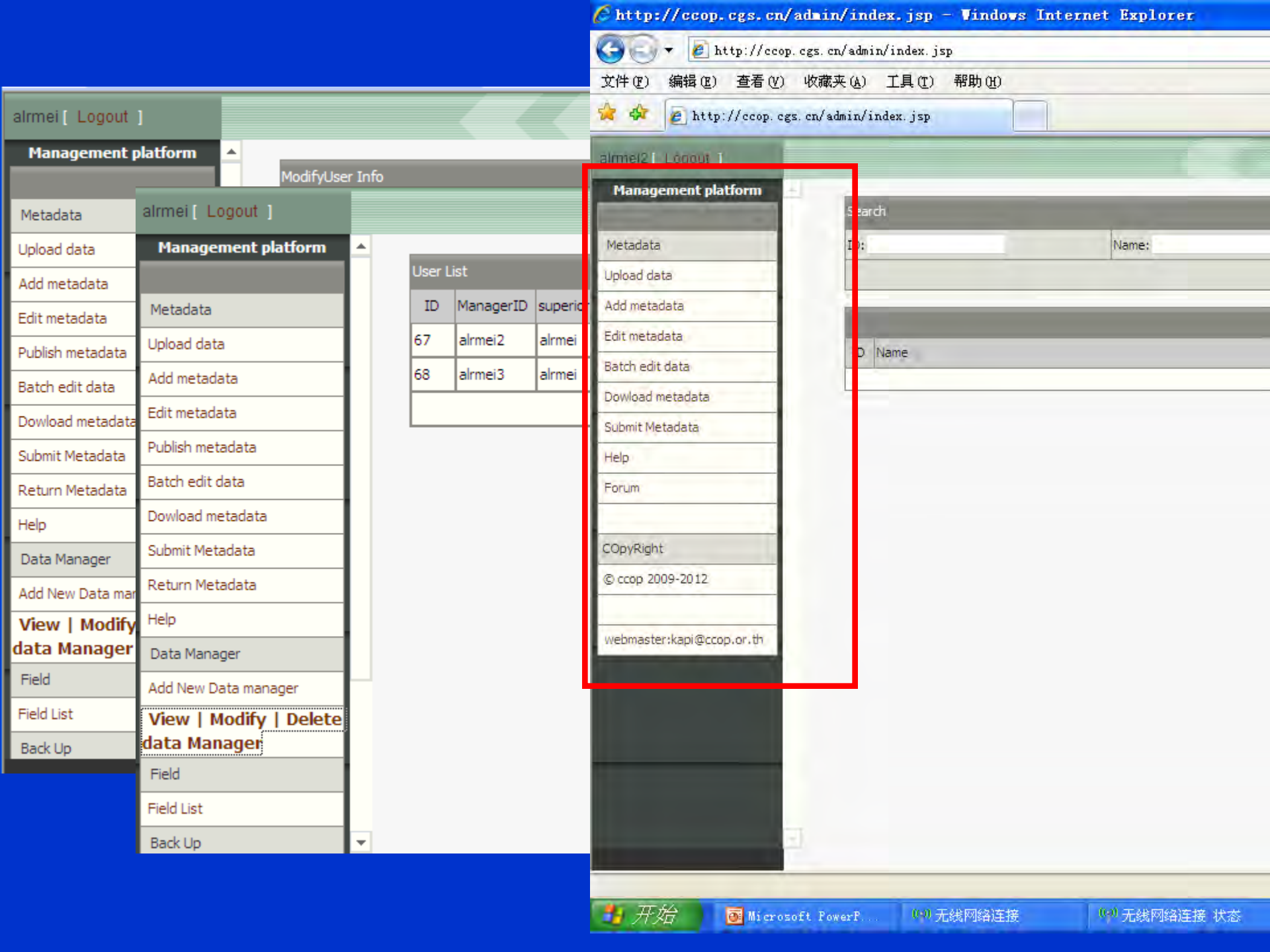
data manager

view\modify\delete\release own metadata , retrun metadata to data loader.

Add \manage data loader.

data loader

view\modify\delete\ own metadata, submit metadata to data manager.


http://ccop.cgs.cn/admin/index.jsp - Windows Internet Explorer
http://ccop.cgs.cn/admin/index.jsp
文件(F) 编辑(E) 查看(V) 收藏夹(A) 工具(T) 帮助(H)
http://ccop.cgs.cn/admin/index.jsp
alrmei2 [Logout]
Management platform
Metadata
Upload data
Add metadata
Edit metadata
Batch edit data
Dowload metadata
Submit Metadata
Help
Forum
COpyRight
© ccop 2009-2012
webmaster:kapi@ccop.or.th
Search
ID:
Name:
ID
Name
ModifyUser Info
alrmei [Logout]
Management platform
Metadata
Upload data
Add metadata
Edit metadata
Publish metadata
Batch edit data
Dowload metadata
Submit Metadata
Return Metadata
Help
Data Manager
Add New Data manager
View | Modify | Delete data Manager
Field
Field List
Back Up
User List
ID
ManagerID
67
alrmei2
alrmei
68
alrmei3
alrmei
alrmei [Logout]
Management platform
Metadata
Upload data
Add metadata
Edit metadata
Publish metadata
Batch edit data
Dowload metadata
Submit Metadata
Return Metadata
Help
Data Manager
Add New Data mar
View | Modify data Manager
Field
Field List
Back Up
开始
Microsoft PowerP...
无线网络连接
无线网络连接 状态

What is new

- Forum: build a platform to users to publish or share the work of the materials or knowledge.
- Further works:

Metadata Input System(offline)

CCOPMDIS some webpage modify.

Update the online help.

THANK YOU !

Dr. Zhang Minghua
China Geological Survey
zminghua@mail.cgs.gov.cn

CGS issued and released *CGS Geinformation Metadata Standard (DD2006-05)* in 2006

For geoinformation collection and release Since 2005.

With coverage of

geological mapping, minerals, groundwater, geo-hazard, oil and gas, coal, geothermal, coastal zone, geophysics, geochemistry, drilling, geo-archives, etc.

8 entities

88 elements

(46 mandatory, 19 conditional)

1 annex.

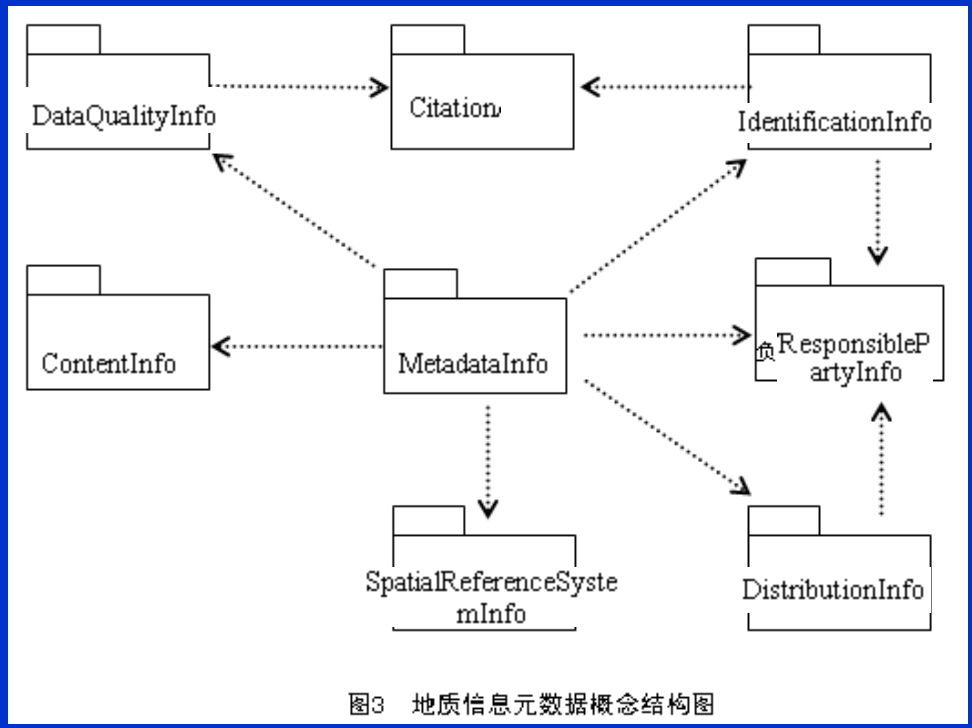
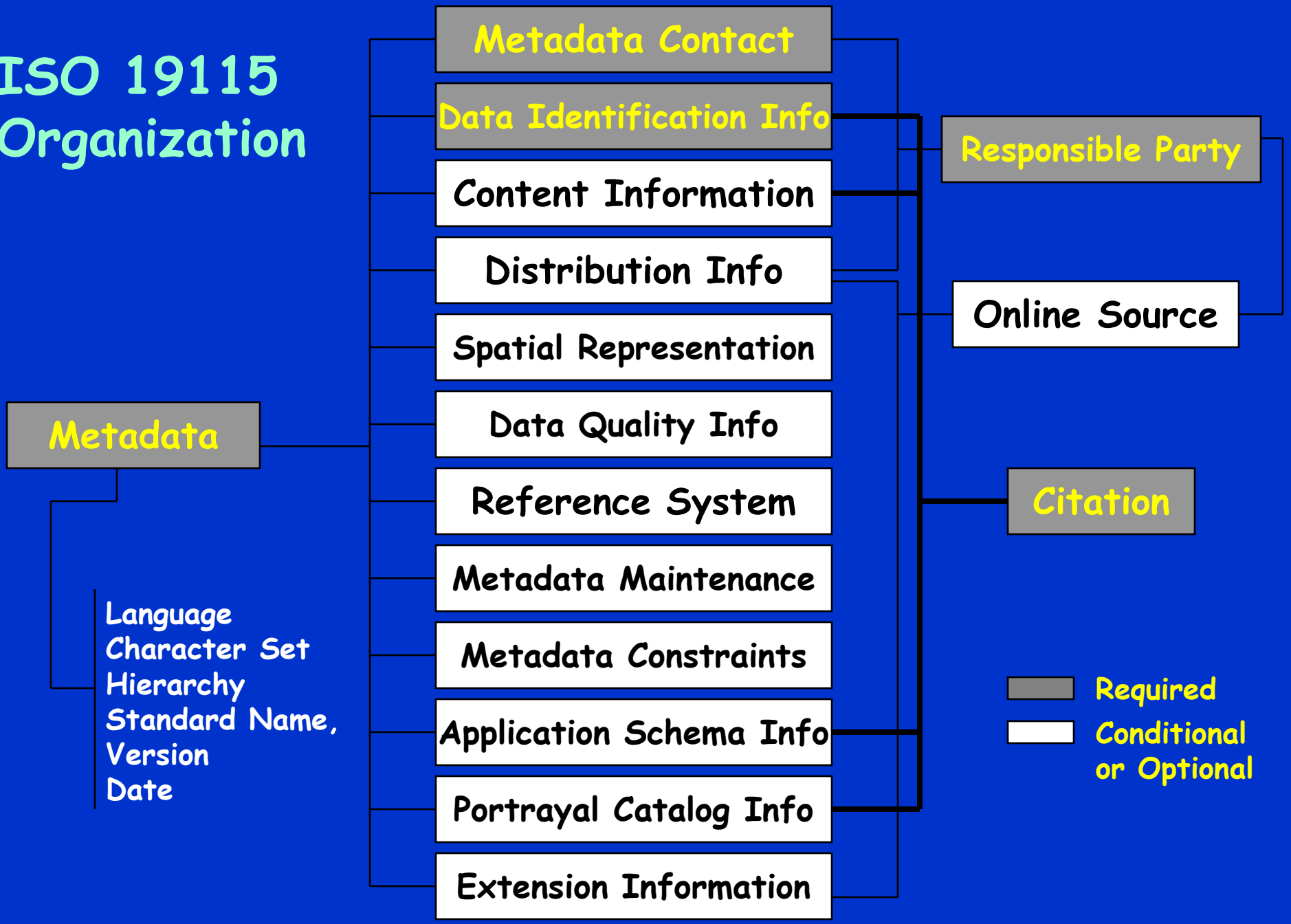


图3　地质信息元数据概念结构图

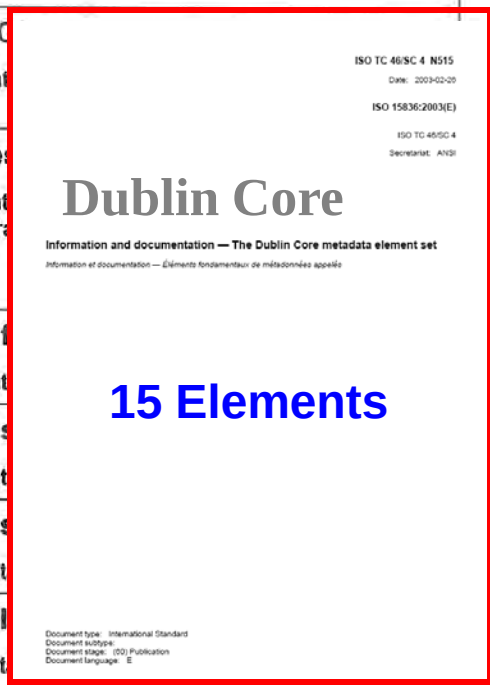
ISO 19115 Organization



- MD_Identification **(M)**
- MD_Constraints
- DQ_DataQuality
- MD_MaintenanceInformation
- MD_SpatialRepresentation
- MD_ReferenceSystem
- MD_ContentInformation
- MD_PortrayalCatalogueReference
- MD_Distribution
- MD_MetadataExtensionInformation
- MD_ApplicationSchemaInformation

Table 3 — Core metadata for geographic datasets

Dataset title (M) (MD_Metadata > MD_DataIdentification.citation > CI_Citation.title)	**Spatial representation type** (O) (MD_Metadata > MD_DataIdentification.spatialRepresentationType)
Dataset reference date (M) (MD_Metadata > MD_DataIdentification.citation > CI_Citation.date)	**Reference system** (O) (MD_Metadata > MD_ReferenceSystem)
Dataset responsible party (O) (MD_Metadata > MD_DataIdentification.pointOfContact > CI_ResponsibleParty)	**Lineage** (O (MD_Metadat
Geographic location of the dataset (by four coordinates or by geographic identifier) (C) (MD_Metadata > MD_DataIdentification.extent > EX_Extent > EX_GeographicExtent > EX_GeographicBoundingBox or EX_GeographicDescription)	**On-line res** (MD_Metadat MD_DigitalTra
Dataset language (M) (MD_Metadata > MD_DataIdentification.language)	**Metadata l** (MD_Metadat
Dataset character set (C) (MD_Metadata > MD_DataIdentification.characterSet)	**Metadata s** (MD_Metadat
Dataset topic category (M) (MD_Metadata > MD_DataIdentification.topicCategory)	**Metadata s** (MD_Metadat
Spatial resolution of the dataset (O) (MD_Metadata > MD_DataIdentification.spatialResolution > MD_Resolution.equivalentScale or MD_Resolution.distance)	**Metadata l** (MD_Metadat
Abstract describing the dataset (M) (MD_Metadata > MD_DataIdentification.abstract)	**Metadata character set** (C) (MD_Metadata.characterSet)
Distribution format (O) (MD_Metadata > MD_Distribution > MD_Format.name and MD_Format.version)	**Metadata point of contact** (M) (MD_Metadata.contact > CI_ResponsibleParty)
Additional extent information for the dataset (vertical and temporal) (O) (MD_Metadata > MD_DataIdentification.extent > EX_Extent > EX_TemporalExtent or EX_VerticalExtent)	**Metadata date stamp** (M) (MD_Metadata.dateStamp)



15 Elements