

THE REPUBLIC OF THE UNION OF MYANMAR



DATA BASE BUILDING

IN MINISTRY OF MINES, MYANMAR

SAW LWIN, MYANMAR

Department of Geological Survey and Mineral Exploration

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1. INTRODUCTION



Area	:	678528 sq.km
Coast Line	:	2100 km
Border	:	4000 km
NS Extend	:	2200 km
EW Extend	:	950 km
Population	:	60 millions(appx.)
Region	:	7
State:	:	7
Location	:	10° N to 28° 30' 92° 30' E to 101° 30'

2. ORGANIZATION

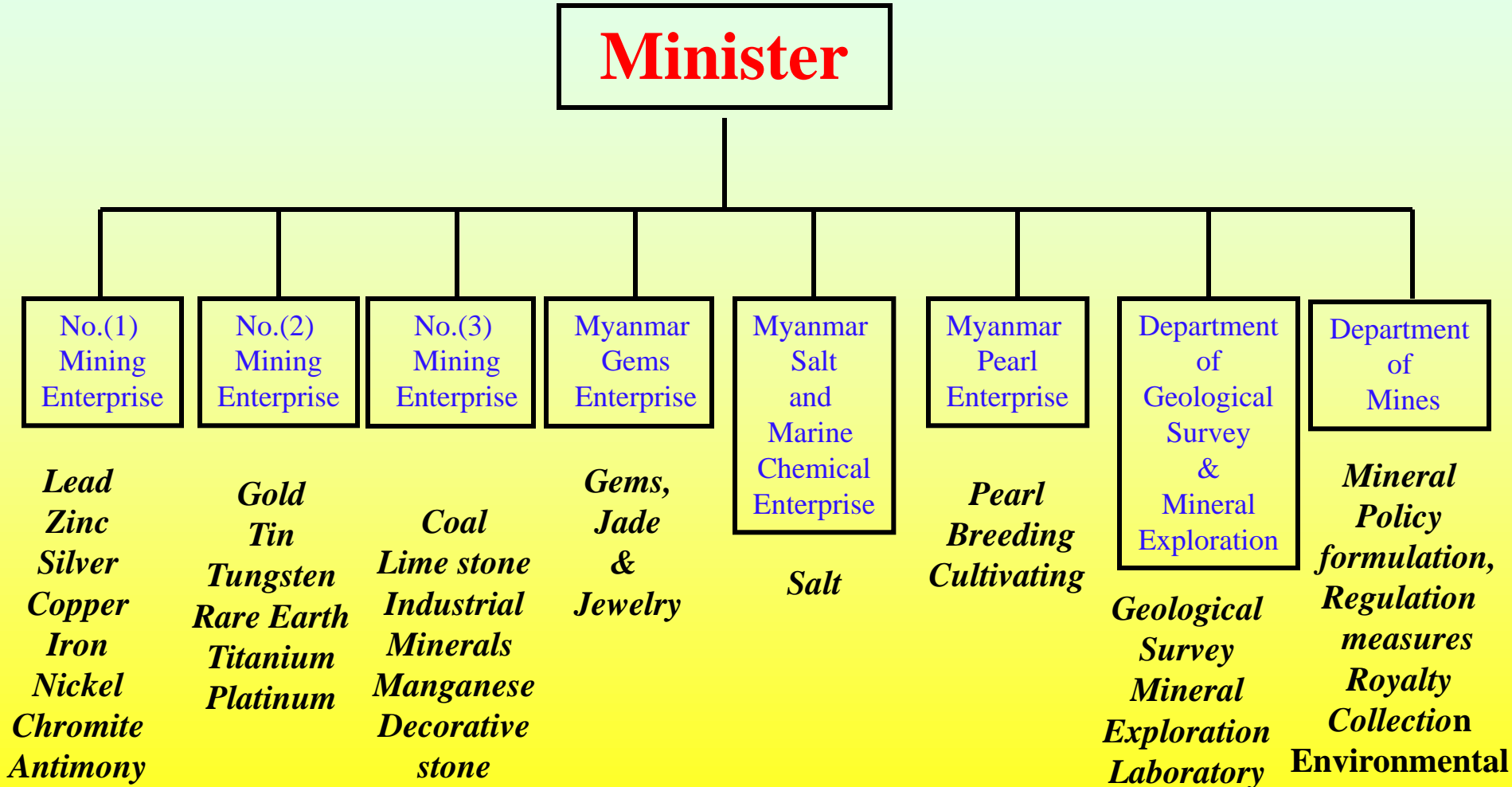
Ministry of Mines

❖ The Ministry of Mines is **the government authority** responsible for implementation of the policy, legislation and enforcement of law, Rules and Regulations in the mining Sector

Under the Ministry of Mines

❖ **6 Enterprises and 2 Departments**

2. ORGANISATION CHART OF THE MINISTRY



MINISTRY OF MINES

- 1 No(1) Mining Enterprise (ME 1) is to undertake production and marketing of lead, zinc, silver, copper, iron, antimony, nickel, chromite, ores.**
- 2 No(2) Mining Enterprise (ME 2) is responsible for production and marketing of tin, tungsten and gold ores.**
- 3 No(3) Mining Enterprise (ME 3) is responsible for productions and supply of industrial raw minerals such as, barites, gypsum, limestone, dolomite, clays and other industrial minerals, decorative stone and coals.**
- 4 Myanmar Gem Enterprise (MGE) is responsible for mining and marketing of various precious gemstones and jade.**

MINISTRY OF MINES

- 5 Myanmar Pearl Enterprise (MPE) handles breeding and cultivating of mothers of pearl, and production of pearl.**
- 6 Myanmar Salt and Marine Chemical Enterprise (MSMCE) is responsible for production and marketing of common salt, esporn salt, marine chemical and soda ash.**
- 7 Department of Mines is responsible for administration of mineral policy, regulation, relation with ASEAN affairs, planning mineral legislation, mine inspection and safety, issuing mining licenses and environmental conservation in mining.**
- 8 Department of Geological Survey and Mineral Exploration (D.G.S.E) is responsible for country wide geological mapping, mineral prospecting and mineral exploration.**

3. DEPARTMENT OF GEOLOGICAL SURVEY AND MINERAL EXPLORATION

SET UP- 600

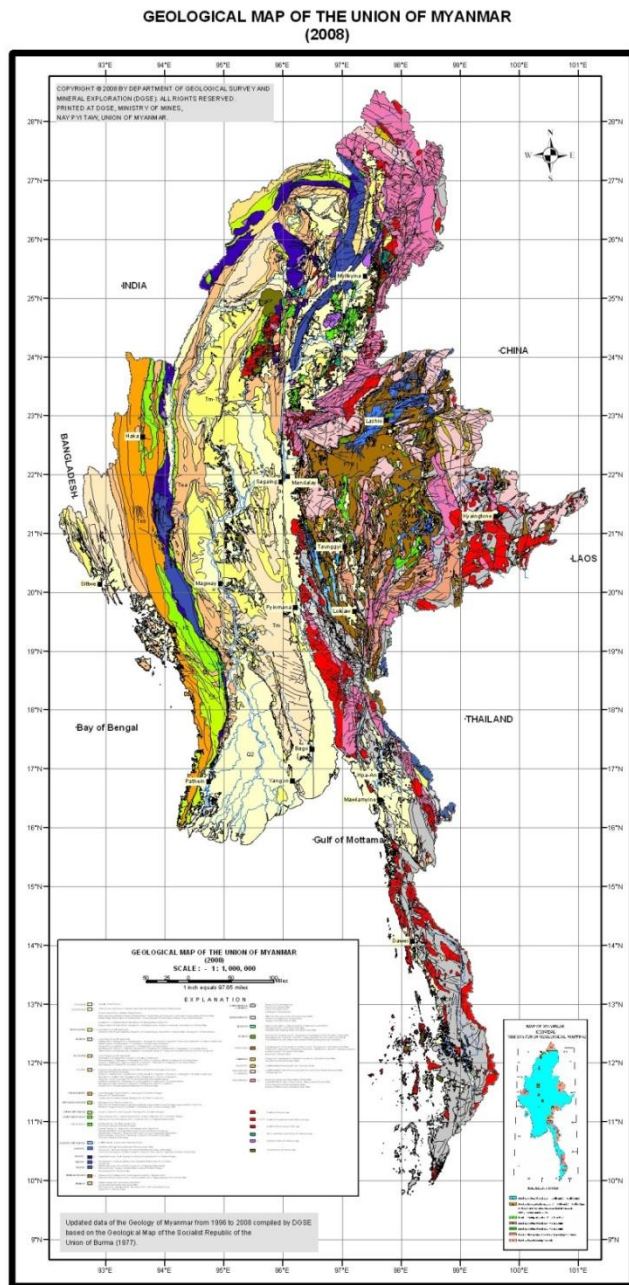
MAIN FUNCTION

- **GEOLOGICAL MAPPING**
- **MINERAL PROSPECTING**
- **MINERAL EXPLORATION**
 - TOPOGRAPHIC SURVEY**
 - DETAIL GEOLOGICAL MAPPING**
 - GEOCHEMICAL SURVEY**
 - GEOPHYSICAL SURVEY**
 - DRILLING**
 - DATA ASSESSMENT AND EVALUATION**
- **LABORATORICAL ANALYSIS**
- **JOINT VENTURES**



























Myanmar is endowed with variety of mineral resources.

General Category	Minerals
Very rich	Jade, Ruby, Sapphire, Limestone
Rich	Copper, Lead, Zinc, Tin, Tungsten, Gold, Coal, Barite,
Fairly rich	Antimony, Silver, Nickel, Gypsum, Iron, Manganese,
Poor	Chromite, PGM Minerals, Radioactive Minerals, Diamond, fertilizer Minerals, Fluorite, Bauxite, Mercury, Kaolin, Feldspar, Quartz, Bentonite, Mica, REE.

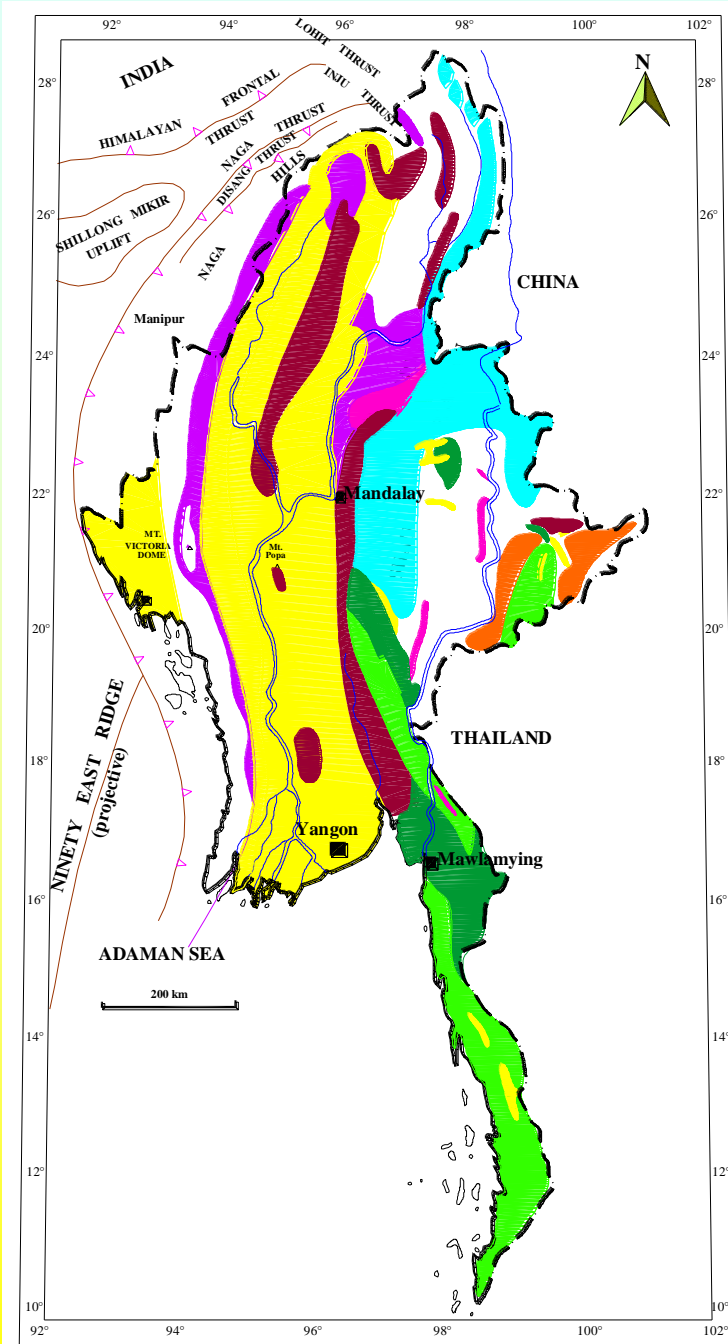
GEOLOGICAL MAP OF MYANMAR (Completed in 2008) in GIS



LEGEND

-  Holocene Rocks
 -  Pleistocene Rocks
 -  Miocene-Pliocene Rocks
 -  Miocene Rocks
 -  Oligocene Rocks
 -  Eocene Rocks , Molasse Type
 -  Eocene Rocks, Flysch Type
 -  Cretaceous Rocks
 -  Jurassic-Cretaceous Rocks
 -  Jurassic Rocks
 -  Triassic Rocks
 -  Permian-Triassic Rocks
 -  Upper Paleozoic Rocks
 -  Paleozoic Rocks
 -  undifferentiated Mainly Upper and partly Lower Paleozoic
 -  Paleozoic Rocks
 -  Cambrian Rocks
 -  Precambrian Rocks
 -  Low grade metamorphic Rocks (of greenschist facies)
 -  Metamorphic Rocks (undifferentiated)
-
-  Mesozoic & Cenozoic Granites
 -  Paleozoic Granites
 -  Unknown age Granites
 -  Gabbro and related intrusives
 -  Ultrabasic and basic intrusive
 -  Volcanic Rocks (mainly Cenozoic)

MINERAL BELTS OF MYANMAR



INDEX

-  Tin- Tungsten Belts
-  Antimony Belts
-  Lead – Zinc – Silver- Copper Belts
-  Gold- Copper- Iron Belts
-  Nickel- Chromite- Copper- Gold- Platinum Belts
-  Iron – Manganese Belt
-  The Precious Stone Belts
-  Oil- Gas and Coal Belts

After U Soe Thi Ha
(2006)

MINERAL BELTS OF MYANMAR

Mineral Belts

- (1) Tin-Tungsten-Iron Belt**
- (2) Antimony Belt**
- (3) Lead-Zinc-Silver-Copper Belt**
- (4) Gold - Copper - Iron Belt**
- (5) Nickel - Chromite - Iron - Copper - Gold - Platinum & Jade Belt.**
- (6) Iron Manganese Belt**
- (7) Oil-gas and Coal Belt**
- (8) The Precious Gemstones Belt**

4.

MINERAL OCCURENCES MAP OF MYANMAR

62 commodities of mineral about 2000 mineral occurrences are recorded.

MAJOR MINERALS

PRECIOUS STONES

- Jade, Ruby, Sapphire and other Gems stones

PRECIOUS METAL

- Gold, Silver, PGM

METALLIC MINERAL

- Copper, Lead, Zinc, Titanium, Telluride
- Tin, Tungsten, Bismuth, Molybdenum, Cobalt,
- Nickel, Chromite, Iron, Manganese,-

NONMETALLIC MINERAL

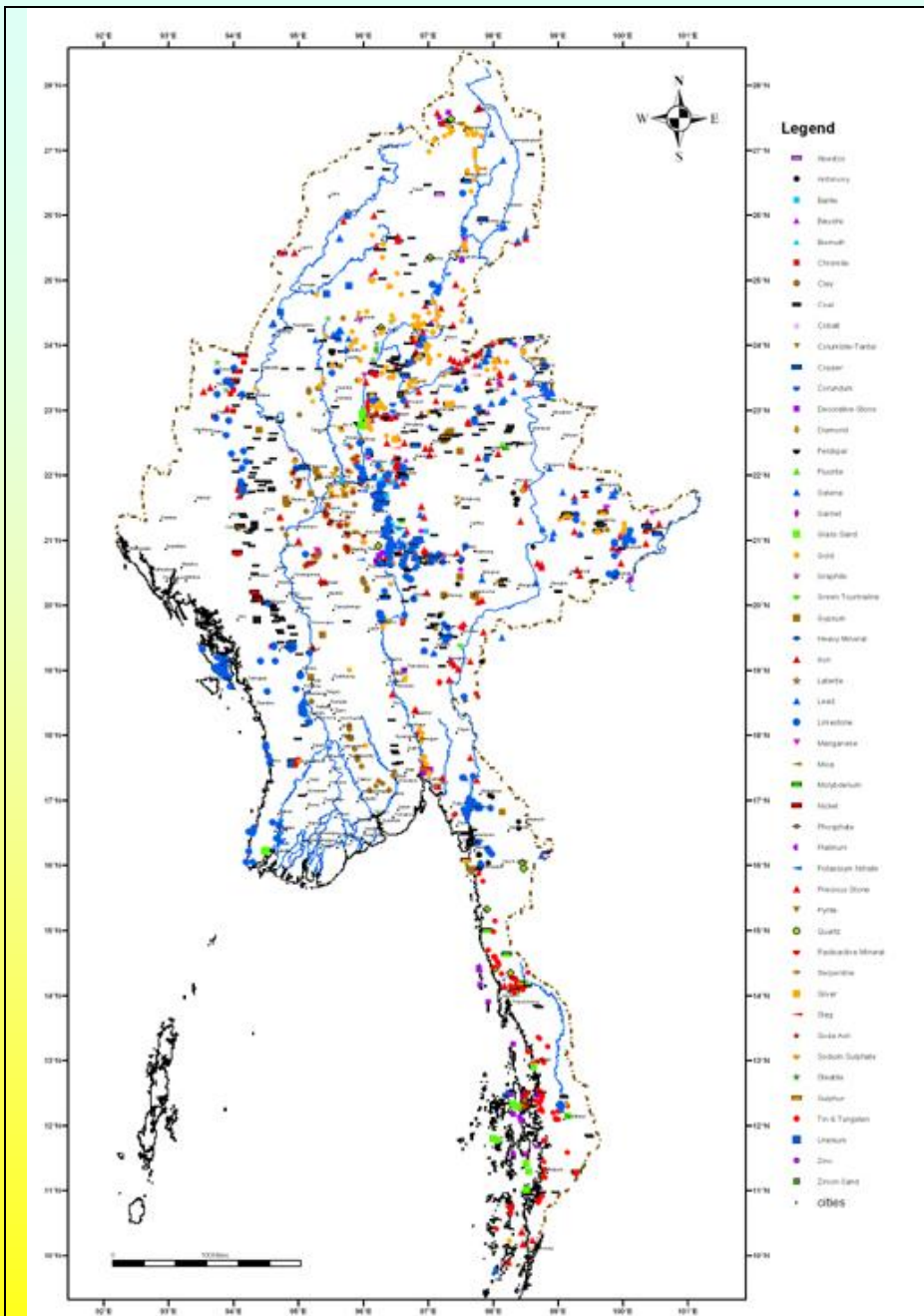
- Barite, Fluorite, Quartz, Feldspar, Beryllium
- Heavy mineral , Bauxite, Phosphate,
- Glass sand , Zircon sand, Graphite, Asbestos

INDUSTRIAL MINERAL

- Limestone, Feldspar, Clay, Bentonite

ENERGY MINERAL

- Coal, Oil Shale



DISTRIBUTION OF COPPER DEPOSITS

Shangalon
Cu - 0.23 %
9 million (Possible)

KyesinTaung
Cu - 0.77 %
66.5 million (Possible)

SabeTaung & SB south
Cu - 0.7 to 1.01 %
27.86 million (Possible)

Letpadaung
Cu - 0.4 %
1478 million (Possible)

Sabe Taung
Cu - 1.51 %
0.88 million (Possible)

Laymyetna
Cu - 0.8 to 2 %
0.28 million (Possible)

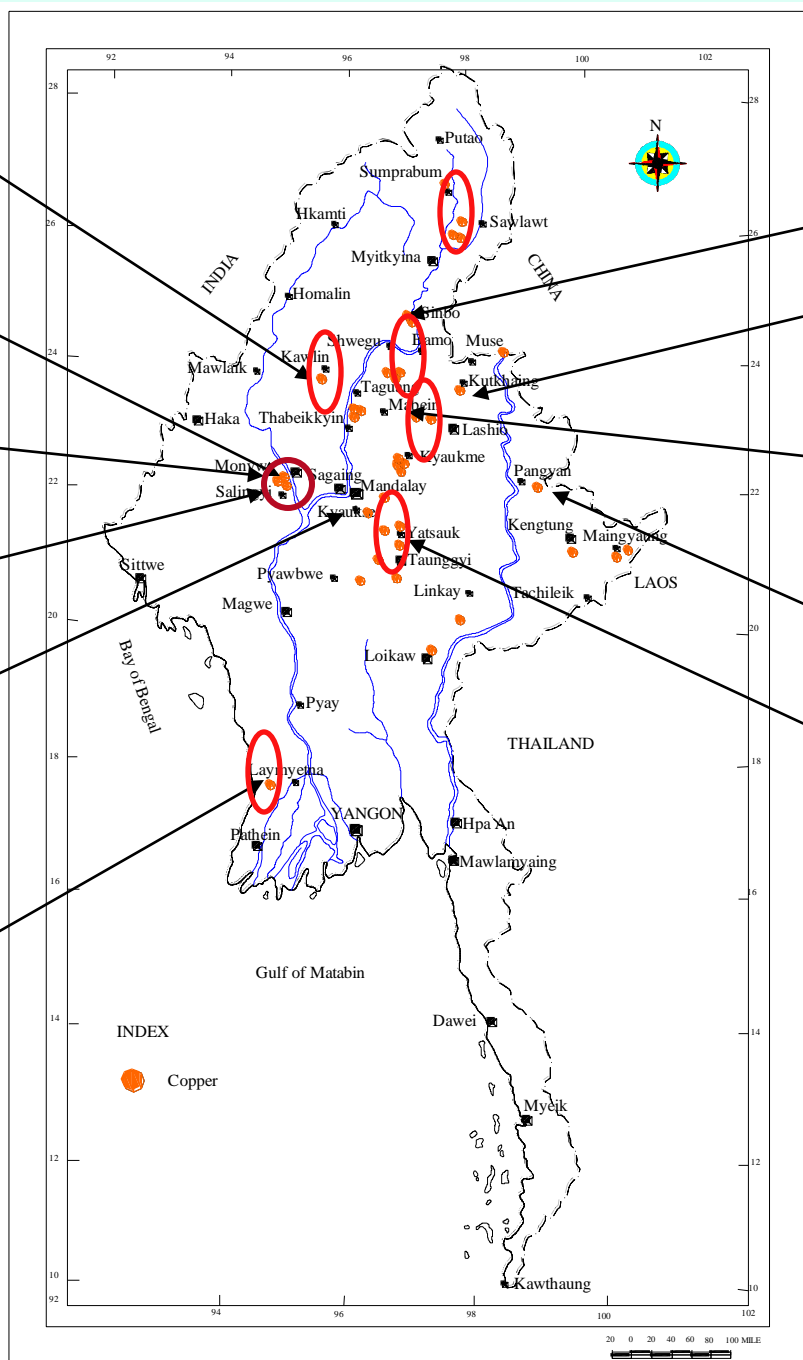
Sinbo- Nankesan
Cu - 3 to 4 %
0.21 million (Possible)

Bawdwin
Cu - 0.87 %
2.5 million (Possible)

Panmakut Manna
Cu - 4 %
0.001 million (Possible)

Panpwe KyaukTaung
Cu - 0.4 %
0.003 million (Possible)

Kweight
Cu - 4 %
0.001 million (Possible)

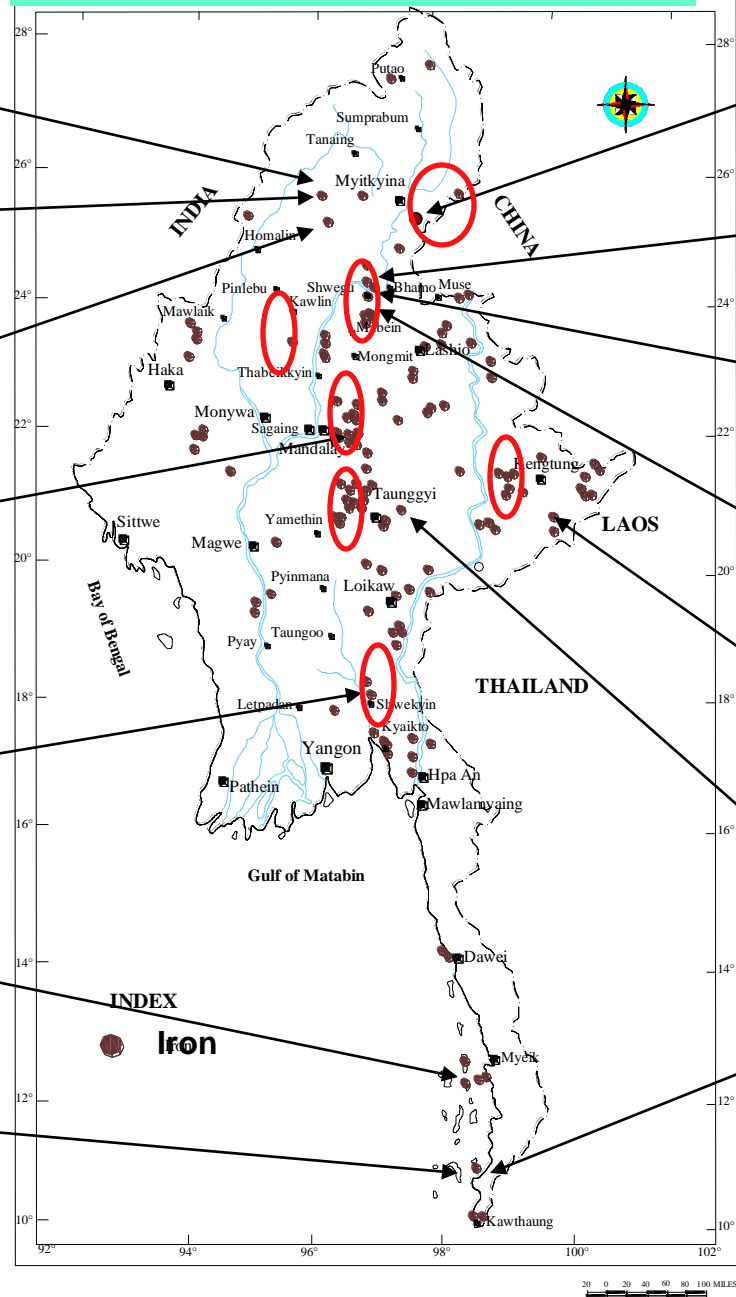


Copper Occurrences = 115

Potential = 1990 million ton

○ Potential area

DISTRIBUTION OF IRON DEPOSITS



Lamaung (Kachin)
Fe -51.54%
8.9 million (Probable)

Kathaing Taung (Kachin)
Fe -50.56 % (Goe, Lim, He)
223 million (Probable)

Sanleik (Kachin)
Lim.
10 million (Potential)

Kyatwinye, Inya (Mandalay)
Fe- 54 % (He ,Mag)
3.7+ 4.5 million (Probable)

Minlan Thanseik, ShweGyin (Bago)
Fe -28-56.7 % (Lim,)
75.53 million (Possible)

Kanmaw Island (Tanintharyi)
Fe -36 % (Lim, Mag)
21.2 million (Probable)

Kho Island (Tanintharyi)
Fe -46.05 % (He, Lim, Mag)
7.6 million (Probable)

Kantawyan (Kachin)
Fe -49-69% (He, Mag)
2.354 million (Possible)

Taungkaton Taung (Kachin)
Fe -37- 45 % (He, Lim)
2.3 million (Potential)

TaungNyo Taung (Kachin)
Fe -40.67 % (He, Lim)
18.9 million (Potential)

Haemaung (Kachin)
Fe -45.93 % (He, Lim)
1.1 million (Potential)

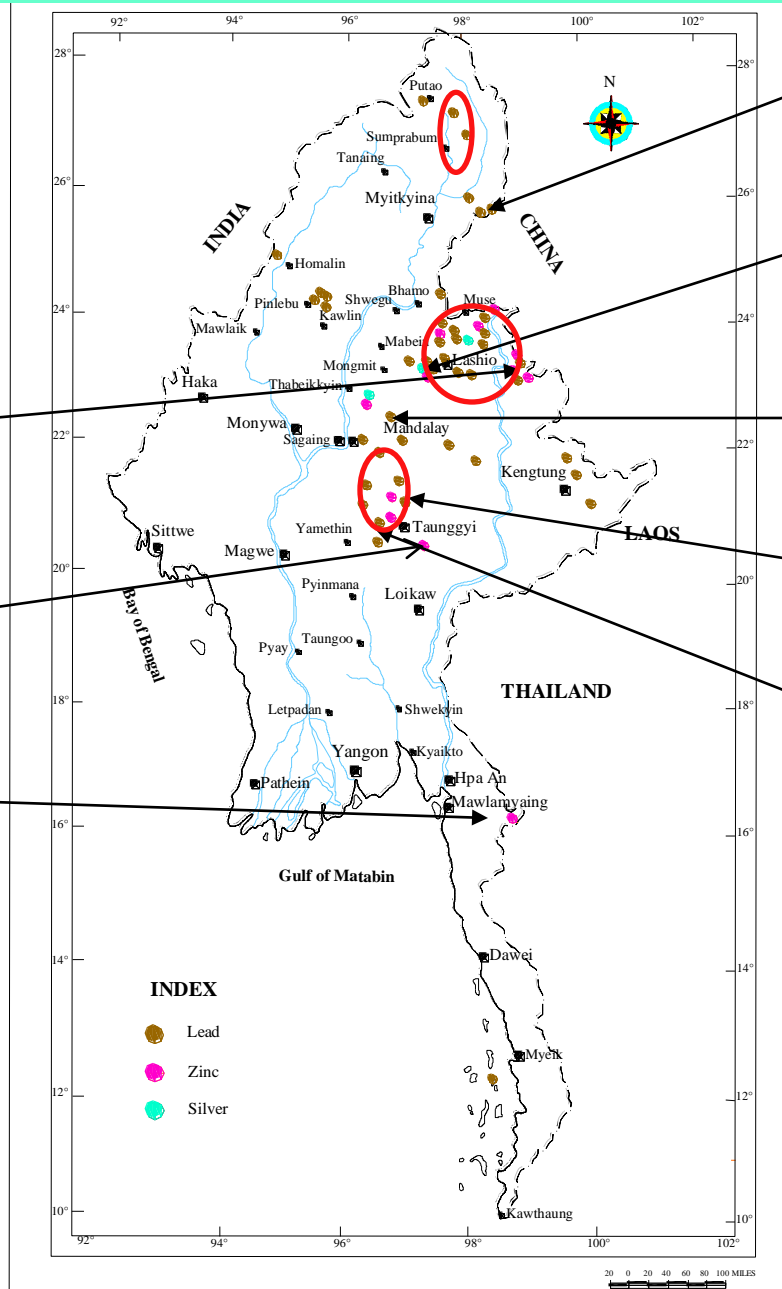
Mongkannwe (Shan East)
Fe -39- 66 % (He, Lim)
21.5 million (Potential)

Pinpeg (Shan South)
Fe -56.4 % (He, Lim)
80 million (Probable)

Maputae Island (Tanintharyi)
Fe -42 % (He, Lim, Mag)
1 million (Probable)

Iron Occurrences = 393
Potential = 495 million tons

DISTRIBUTION OF LEAD-ZINC-SILVER DEPOSIT



Panwa (Kachin)
Pb,Zn -1.06%
12.5 million (Possible)

Bawdwin (Shan North)
Pb,Zn -5%
12.8 million (Probable)

Yadanatheingi (Shan North)
Pb, Zn - 4%
0.1 million (Probable)

Bawsaing (Shan North)
Pb, Zn - 6%
0.0075 million (Probable)

Paungdaw (Mandalay)
Pb, - 4.7%
0.09 million (Probable)

Phaleng(Shan North)
Zn - 15.84%
0.011million (Possible)

LonChein(Shan South)
Zn - 36%
0.234million (Possible)

Mawhki (Kayin)
Zn - 0.3%
0.332 million (Possible)

Lead Zinc Occurrences = 291
Potential = 44 million ton

DISTRIBUTION OF NICKEL DEPOSITS

MWETAUNG
Ni- 1.19%
110 mt (Probable)

MAUNGDAW-NANMADAW
Ni- 0.41%
0.49 mt (Possible)

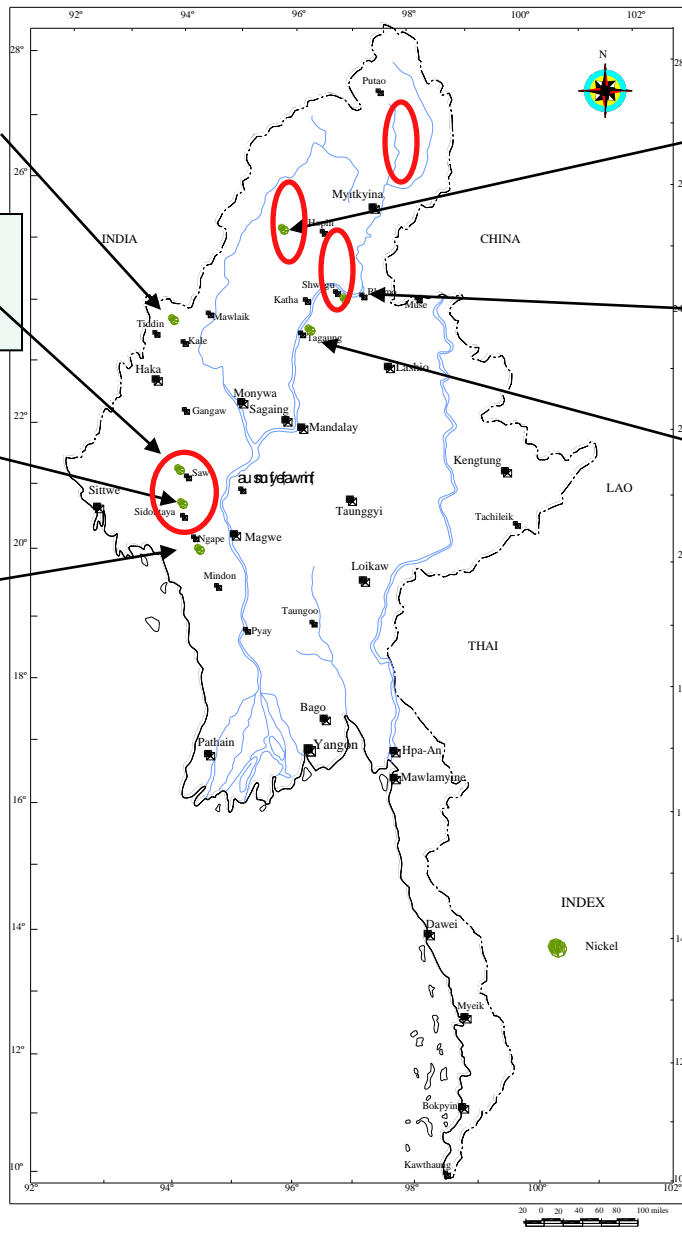
MINDINKYIN
Ni- 0.45%
0.02 mt (Possible)

UKINTAUNG, HKAKYINTAUNG
Ni- 0.4%
0.046 mt (Possible)

INDAWGYI
Ni- 0.41%
5.0 mt (Possible)

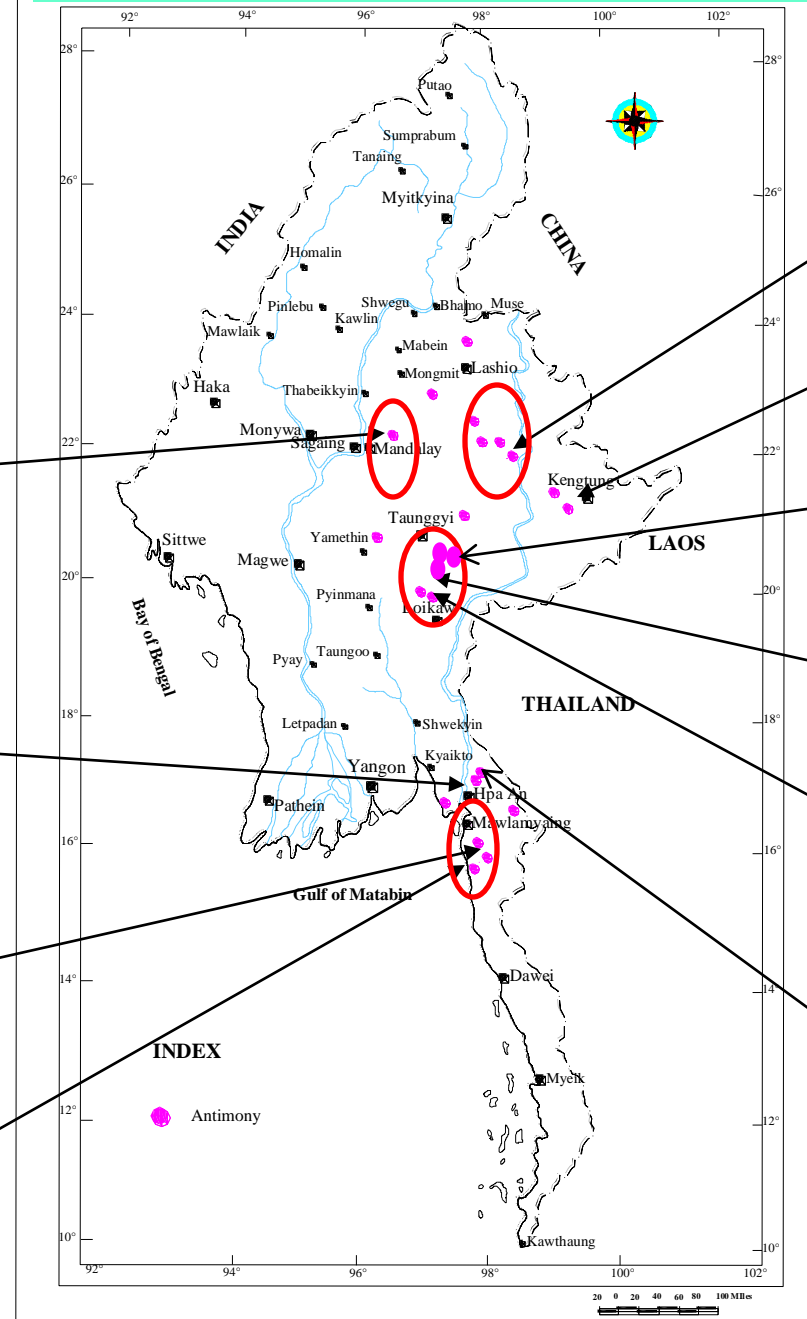
TAUNGGADON
Ni- 0.67%
0.028 mt Possible)

TAGAUNGTAUNG
Ni- 2.06%
40 mt (Possible)



Nickel Occurrences = 14
Potential = 162 million tons

DISTRIBUTION OF ANTIMONY DEPOSITS



Lebyin, Mandalay
Sb-34.5%
0.034mt

Kadaik, Mon
Sb-5%
0.044 mt

Tabyu, Mon
Sb-60.41%
0.01 mt

Kayukway, Mon
Sb-15%
0.006 mt

Nahok, Shan
Sb-21.9%
0.0007mt

Mong Inn, Shan
Sb-32.6%
0.0057mt

Liharmyar, Hopone
Sb-33%
0.065 mt

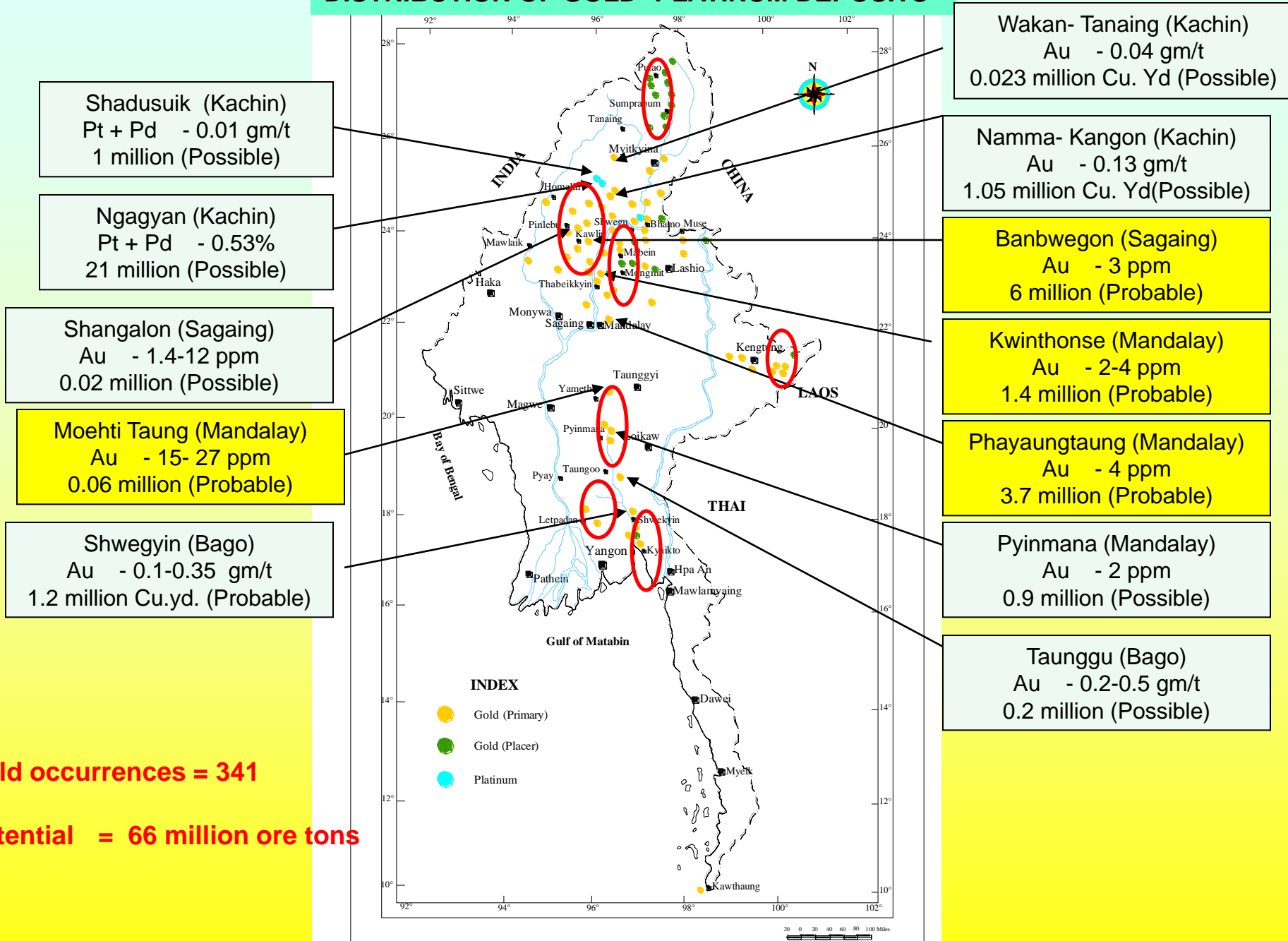
Peinchit, Kayah
Sb-17.99%
0.091mt

Konsut, Kayah
Sb-16.17%
0.174mt

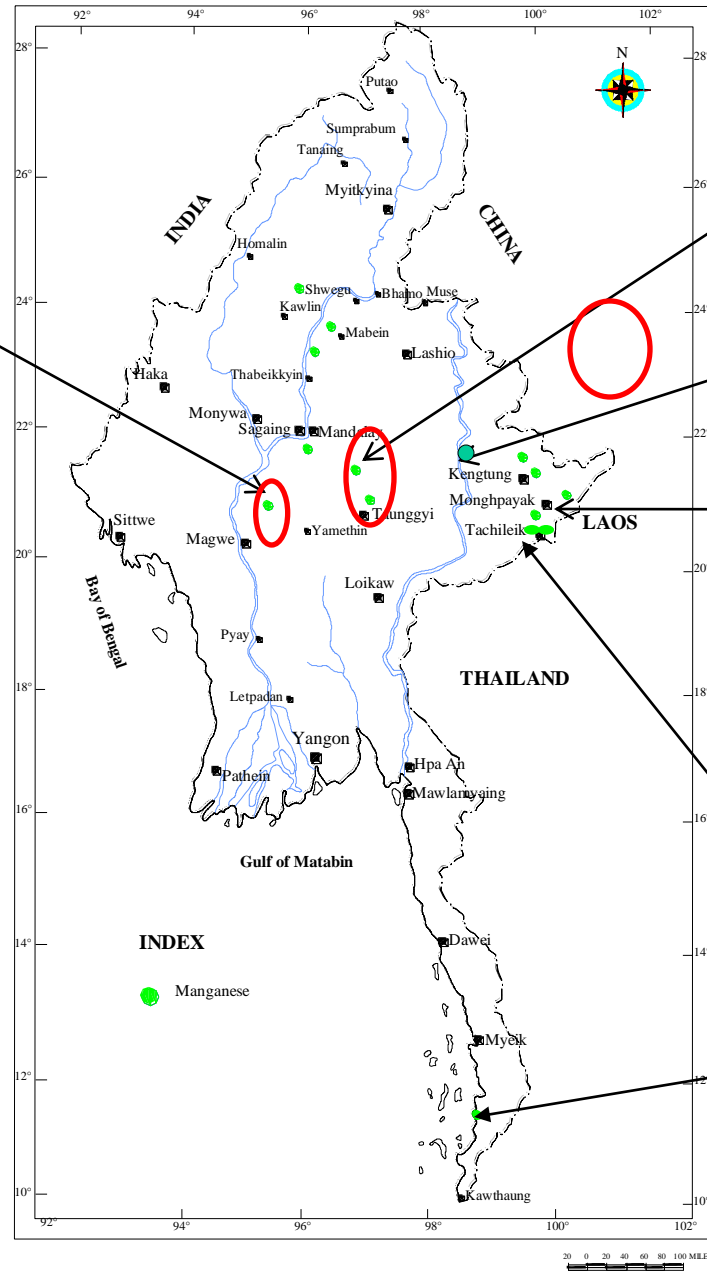
Laga, Kayin
Sb-15.0%
0.0256mt

Antimony occurrences =140
potential = 1 million tons

DISTRIBUTION OF GOLD- PLATINUM DEPOSITS



DISTRIBUTION OF MANGANESE DEPOSITS



Kyaukpadaung (Mandalay)
Mn - 51.1%
0.0115 million (Possible)

Monpyin (Shan South)
Mn - 38.76%
0.096 million (Probable)

Tar Pin (Shan East)
Mn - 6.6%
0.65 million (Possible)

Wansaw Wanpaing (Shan East)
Mn - 12.53%
4.95 million (Possible)

Areye (Shan East)
Mn - 25%
1 million (Possible)

Wansalot (Shan East)
Mn - 14%
0.135 million (Possible)

Powel Island (Tanintharyi)
Mn - 27%
2.8 million (Probable)

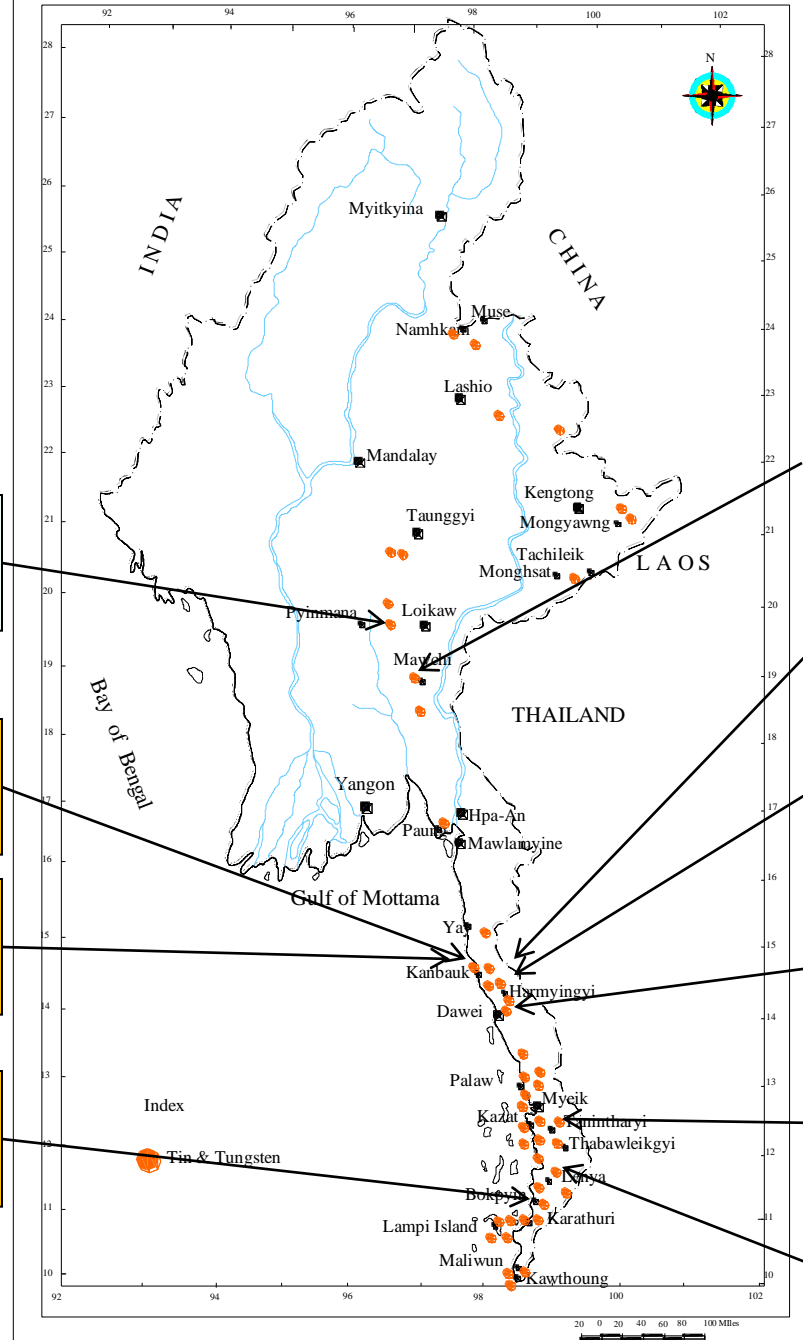
Manganese Occurrences= 52

Potential = 11 million tons

DISTRIBUTION OF TIN - TUNGSTEN DEPOSITS

Tin- Tungsten deposits= 480

Potential = 40 million tons



Padatchaung (Primary)
Sn – 0.11%, WO₃ -0.81%
0.46 million (Probable)

Heinze (Placer)
Sn – 0.2- 0.3 lb/cu.yd.
0.012 million (Possible)

Kanbawk(Primary/ Placer)
Sn – 0.59%, 0.56 lb/cu.yd.
0.00865 million (Possible)

Atwin Bokpyin (Placer)
Sn – 0.56 lb/cu.yd.
0.0036 million (Probable)

Mawchi (Primary)
Sn – 0.32%
31 million (Probable)

Hermyingyi (Primary)
Sn – 0.37%
0.698 million (Probable)

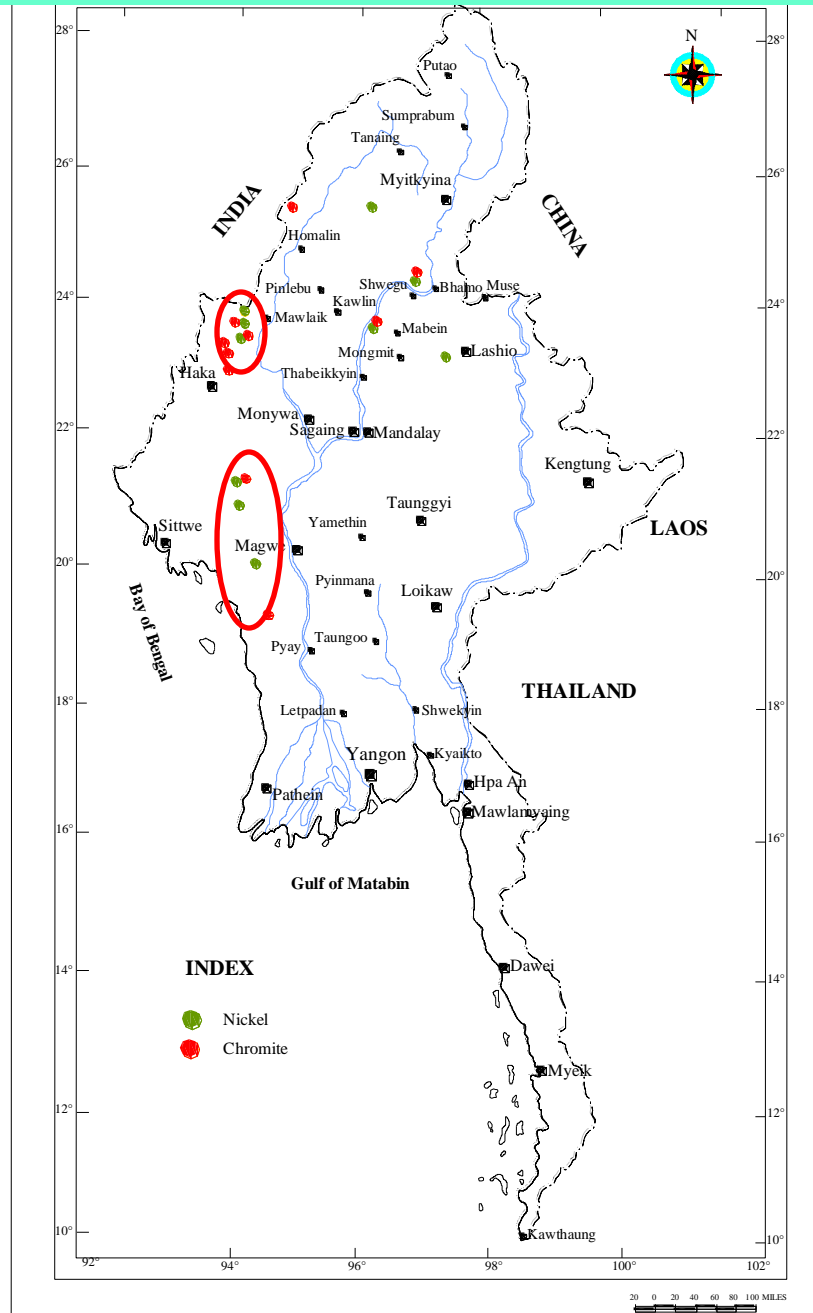
Heinda (Placer)
Sn – 0.68 lb/cu.yd.
0.013 million (Probable)

KyaukmeTaung,
Pagaye(Placer)
Sn – 0.5 lb/cu.yd.
0.001 million (Probable)

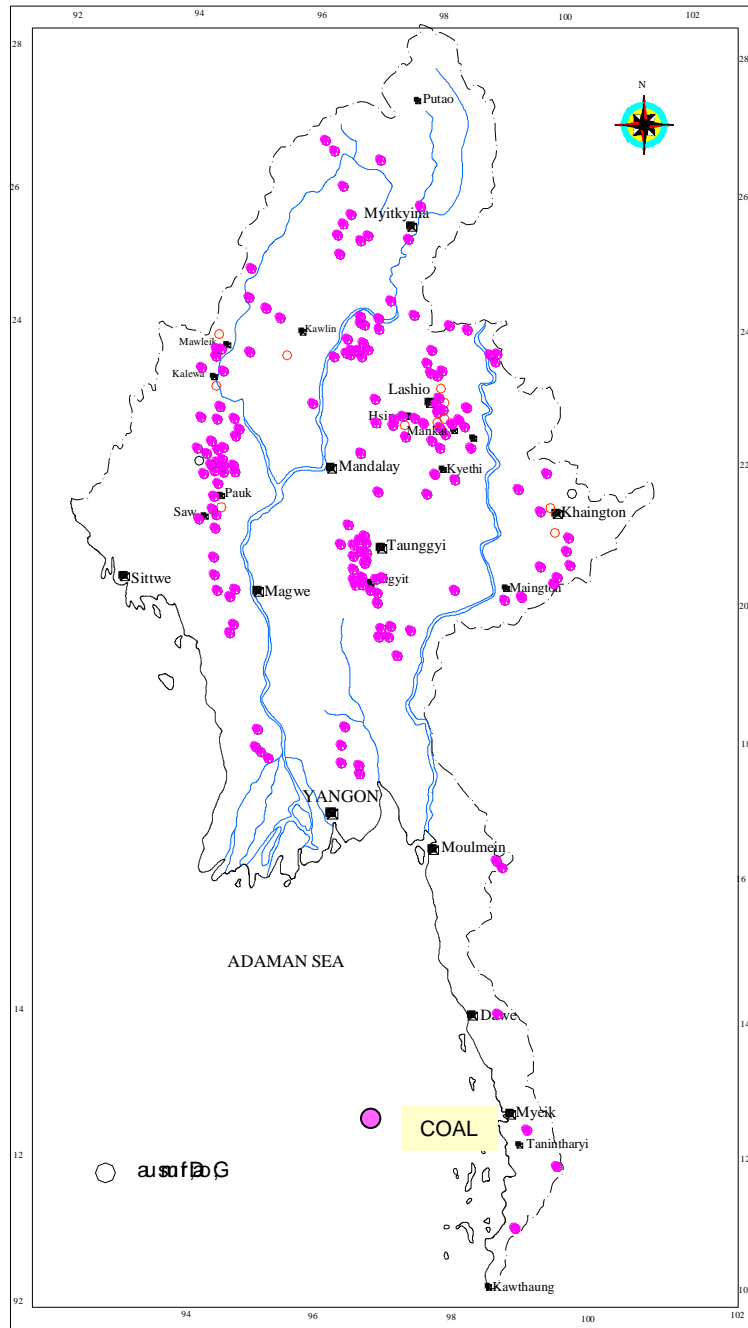
Theindaw(Placer)
Sn – 0.36 lb/cu.yd.
0.0016 million (Probable)

Manawlon(Placer)
Sn – 0.6 lb/cu.yd.
0.0021 million (Probable)

DISTRIBUTION OF CHROMITE DEPOSITS



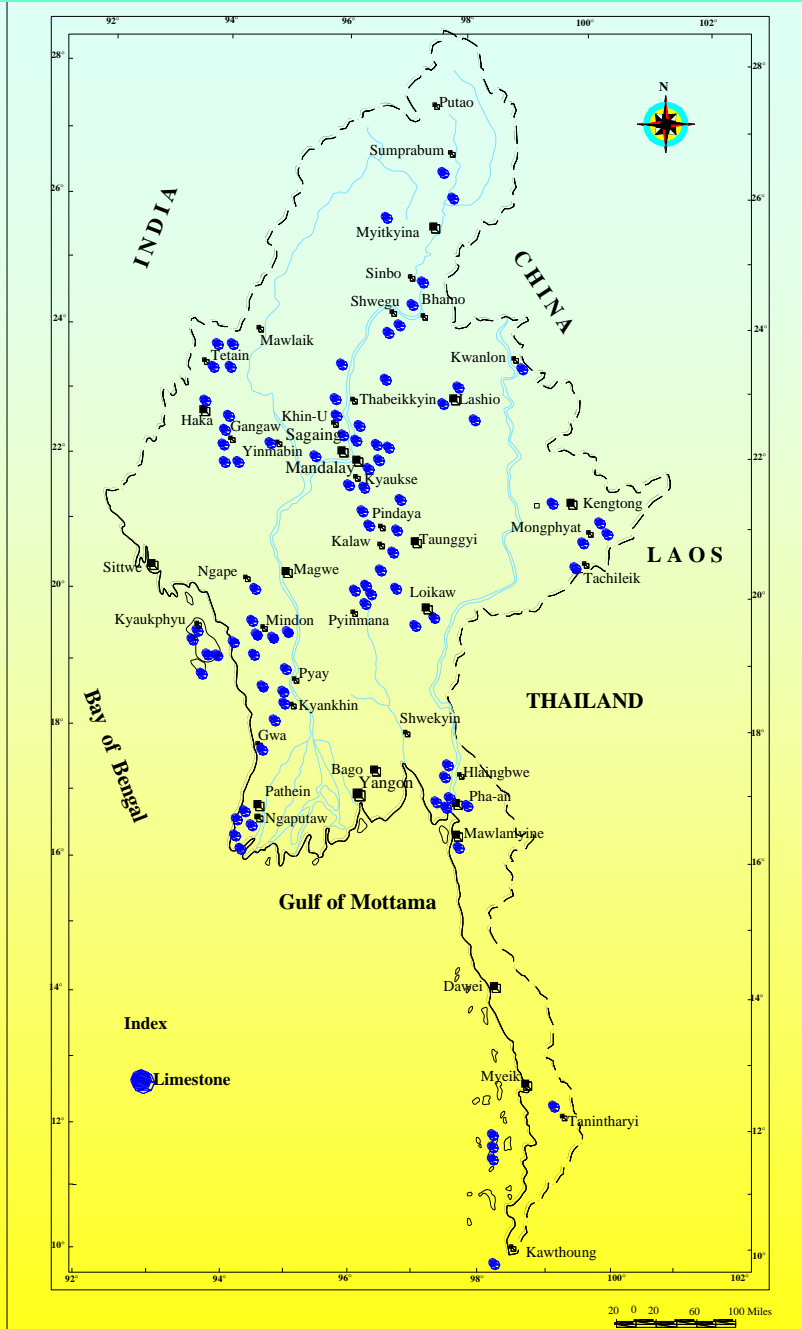
DISTRIBUTION OF COAL DEPOSITS



COAL OCCURENCES = 495

Potential = 490 million tons

DISTRIBUTION OF LIMESTONE DEPOSITS



Lime stone deposits = 452

Potential = 58800 million tons

MINERAL DEPOSITS RESERVE

Sr.	Mineral Commodity	Occurrences	Deposits	Total	Tonnage ((MillionTons)				Remarks
					P-2	P-3	P-4	Total	
1	Columbite Tantalite	3	2	5	0.0000 3	-	0.0036	0.0036	
2	Coal	203	292	495	229.58	140.73	121.53	491.84	
3	Gemstones	56	12	68	1.07	0.11	0.07	1.25	
4	Copper	88	27	115	1308.5 5	688.52	0.19	1997.3	
5	Feldspar	3	21	24	0.005	0.86	0.0002	0.865	
6	Antimony	74	58	132	0.18	0.56	0.26	1.0	
7	Chromite	23	20	43	0.02	0.04	0.02	0.08	
8	Lead	163	128	291	13.28	12.67	18.14	44.09	
9	Graphite	21	14	35	0.039	0.004	2.58	2.62	

Sr.	Mineral Commodity	Occurrences	Deposits	Total	Tonnage (MillionTons)				Remarks
					P-2	P-3	P-4	Total	
10	Tin – Tungsten	125	358	483	0.36 0.08	38.74 0.05	0.29 0.01	39.39 0.14	Ore Concentrate
11	Gypsum	13	24	37	23.18	12.81	0.007	35.99	
13	Zircon sand	-	11	11	-	31.46	0.38	31.48	
13	Limestone	30	422	452	3095.1	5982.4	49740.5	58818	
14	Dolomite	17	24	41	22.16	7.41	7.73	37	
15	Nickel	4	10	14	70	80.66	12.2	162.86	
16	Fluorite	13	6	19	-	0.002	0.004	0.006	
17	Phosphate rock	12	5	17	0.78	10.02	0.08	10.88	
18	Baryte	19	53	72	0.11	1.36	0.23	1.70	

Sr.	Mineral Commodity	Occurrences	Deposits	Total	Tonnage (MillionTons)				Remarks
					P-2	P-3	P-4	Total	
19	Bauxite	8	18	26	12.75	261.99	0.16	274.9	
20	Porzolan	-	6	6	-	651	-	651	
21	Molybdenum	16	3	19	-	0.019	0.006	0.025	
22	Manganese	21	31	52	2.9	2.66	5.34	10.9	
23	Kaolin	3	64	67	3.401	0.457	33.11	36.97	
24	Bentonite	2	20	22	-	22.06	2.04	24.1	
25	Glass Sand	4	35	39	83.16	19.86	28.12	131.14	
26	Gold	246	95	341	15.29 4.92	47.66 341.94	3.16 893.28	66.11 1240.2	Primary Alluvial (Cu..Yd.)
27	Platinum	14	5	19	4.2	1.37	26.95	32.52	
28	Mica	26	4	30	-	0.0036	-	0.0036	
29	Quartz	21	26	47	4	36.04	43.01	83.05	
30	Iron	194	199	393	332.92	61.53	101.44	495.42	
31	Zinc	18	11	29	5.21	14.41	0.33	19.95	
32	Heavy Mineral	10	4	14	-	0.007	0.019	0.026	
33	Decorative Stone	62	31	93	7354	44966	504	52924	

5. MINERAL DATABASE

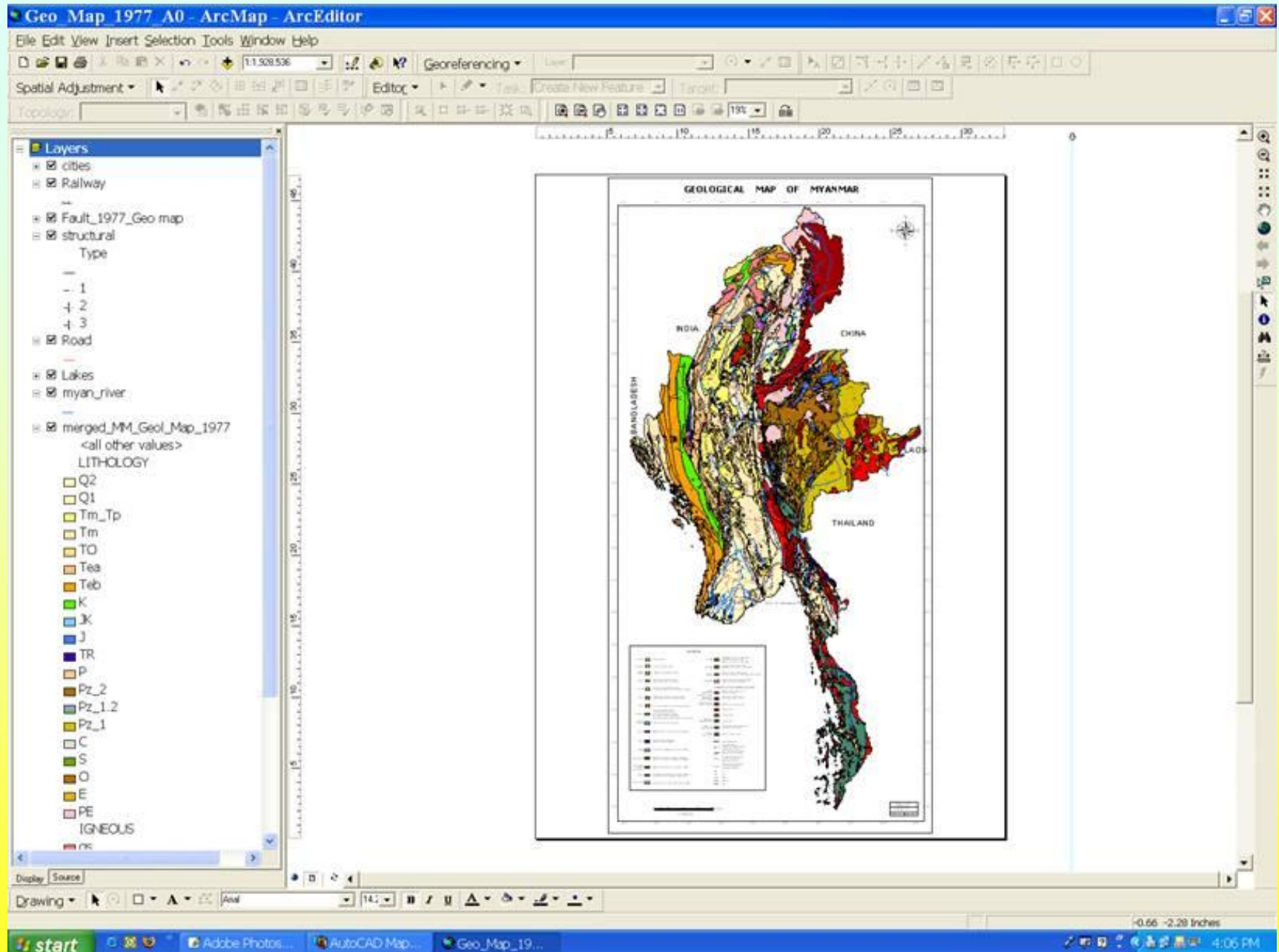
- 1. DGSE is responsible for geological and mineral deposits database of Myanmar under the Ministry of Mines.**
- 2. Ministry of Mines has encouraged the private sector since 2000 and now all the existing mines are transferred to the local mining company in large scale and small scale mining.**

Small scale mining area covers about 0.2 sq. km. and large scale mining area covers more.
- 3. At present more than 1000 local companies are operating in mining as well as in small scale mineral exploration.**
- 4. Department of Mines is responsible for the mining and exploration licenses and also responsible for mining data base.**

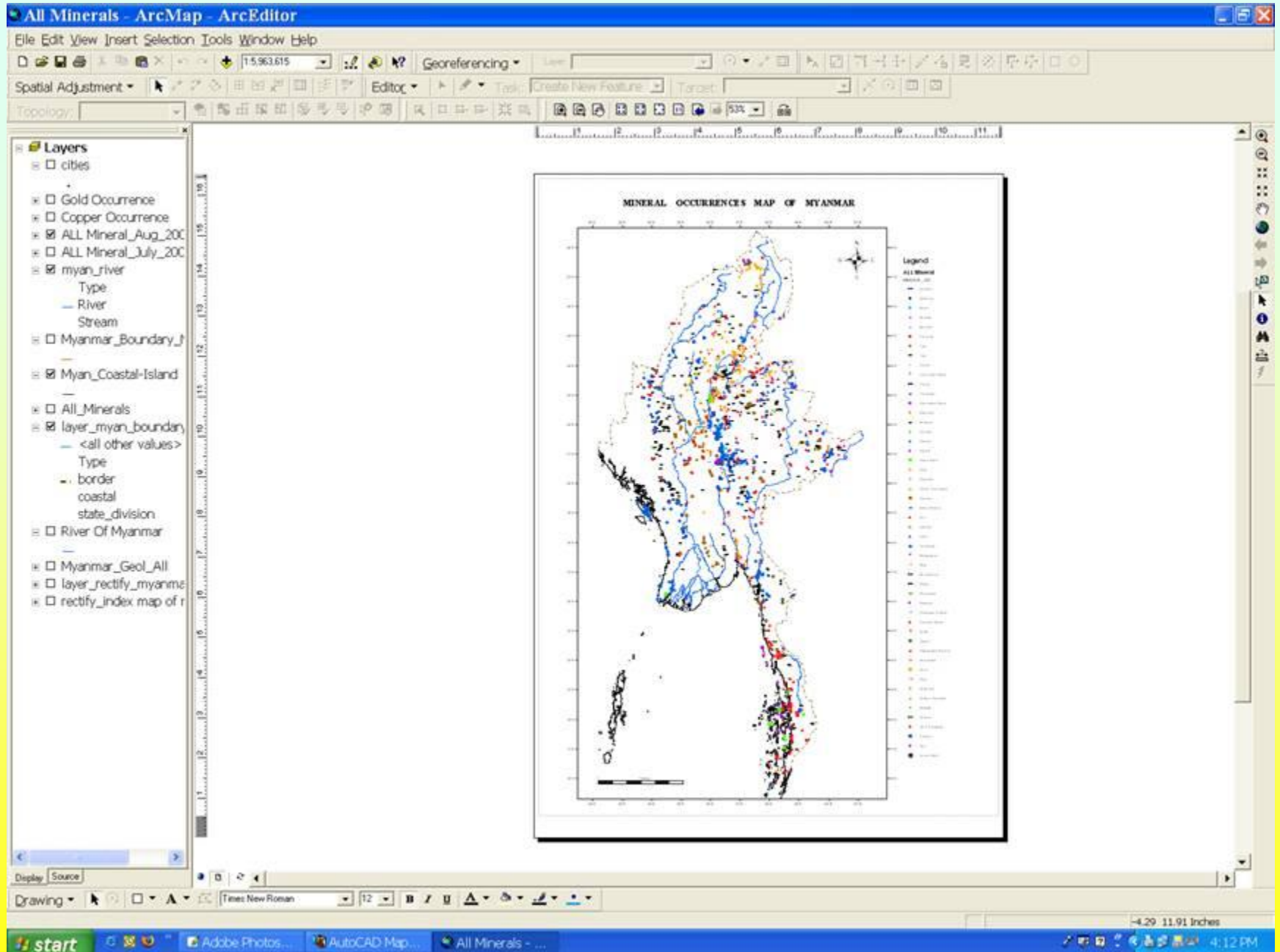
MINERAL DATABASE

- 1. For the Construction of Mineral Database DGSE has carried out in GIS and in word Text file format and also excel format.**
- 2. Text file format is in Myanmar language and completed all the mineral occurrences.**
- 3. It is updated every year at the end of March of fiscal year.**
- 4. GIS format is underway and not completed yet.**
- 5. Another data base construction is ASEAN mineral database establishment as the ASEAN member country. But it also not very progressive due to the internet access problem only about 40 deposits has been recorded.**
- 6. Two participants attended ASEAN mineral database training in Bang don , Indonesia from 12.7.2010 to 23.7.2010.**
- 7. Three participants attended in Japan from 11.1.2012 to 20.1.2012 for the training of EDMA database which assist to the ASEAN mineral database.**
- 8. One participants attended CCOP META data workshop and training in Shanghai from 20.7.2010 to 22.7.2010. But due to the internet access problem and lack of technology and knowledge it was not undertake thoroughly.**

DIGITAL GEOLOGICAL MAP OF MYANMAR, 1:1,000,000, (2008)



MINERAL OCCURENCE MAP OF MYANMAR



MINERAL DATABASE GOLD

All Minerals - ArcMap - ArcEditor

File Edit View Insert Selection Tools Window Help

1:8,951,924 Georeferencing Layer

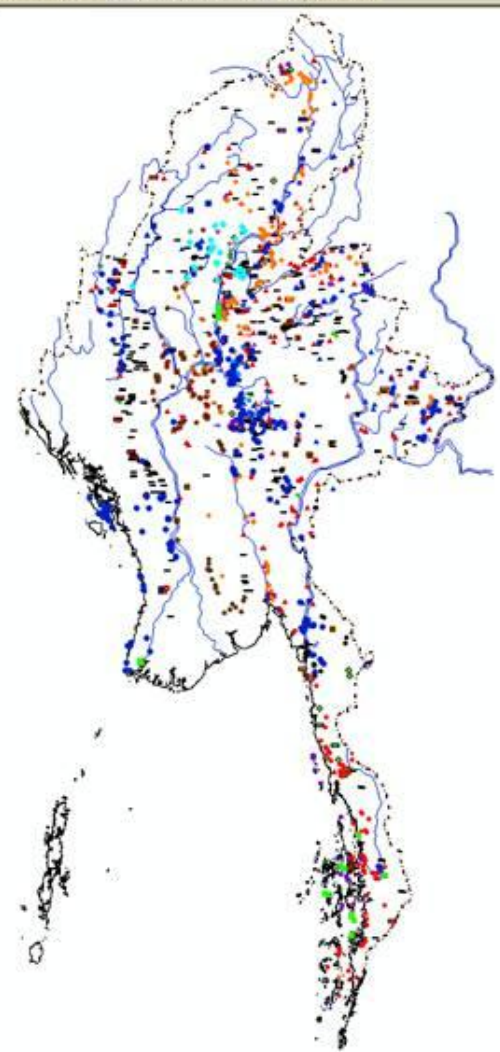
Spatial Adjustment Topology Editoc Task: Create New Feature Target:

- ▼ Manganese
- ▼ Mica
- ▼ Molybdenum
- ▼ Nickel
- ▼ Phosphate
- ▼ Platinum
- ▼ Potassium Nitrate
- ▲ Precious Stone
- ▼ Pyrite
- Quartz
- ▼ Radioactive Minerals
- ▼ Serpentine
- ▼ Silver
- ▼ Slag
- ★ Soda Ash
- ▼ Sodium Sulphate
- ★ Steatite
- ▼ Sulphur
- Tin_Tungsten
- ▼ Uranium
- Zinc
- ▼ Zircon Sand
- ALL Mineral_July_200
- Myanmar_Boundary_J
- Myan_Coastal-Island
- All_Minerals
- layer_myran_bounda
 - <all other values>
 - Type
 - border
 - coastal
 - state_division
- River Of Myanmar
- Myanmar_Geol_All
- layer_rectify_myranm
- rectify_index map of

Attributes

Property	Value
OID	1029
SR_NO.	1044
MINERAL_...	Gold
MINE/DEP...	Kyauk Pazat
STATE/DIVI	Sagaing
TOWNSHIP	Wuntho
MAP_REFE...	83 P16-SM 506830
LONGITUDE	
LATTITUDE	
TYPE	
SIZE	
AGE	
GRADE	Au - 0.05 to 10.2 pp
RESERVE_(T	
CATEGORY	
STATUS	
REFERENCE	D.G.S.E Yearly
YEAR	
LONGITU...	95.857
LATTIDUT...	24.086

2245 features



Display Source

Drawing Times New Roman 12 B I U

92°50'47.05"E 8°40'12.35"N

start All Minerals - ... Adobe Photos... 10:35 AM

MINERAL DATABASE NICKEL

The screenshot displays the ArcMap interface with the following components:

- Layers Panel:** Lists various mineral types such as Abestos, Antimony, Barite, Bauxite, Bismuth, Chromite, Clay, Coal, Cobalt, Columbite-Tantal, Copper, Corundum, Decorative Stone, Diamond, Feldspar, Fluorite, Galena, Garnet, Glass Sand, Gold, Graphite, Green Tourmaline, Gypsum, Heavy Mineral, Iron, Laterite, Lead, Limestone, Manganese, Mica, Molybdenum, Nickel, Phosphate, Platinum, Potassium Nitrate, Precious Stone, and Pyrite.
- Attributes Table:** Shows the following data for a selected Nickel feature:

Property	Value
OID	391
SR_NO	399
MINERAL_CO	Nickel
MINE/DEPOS	Tagsung Taung
STATE/DIVI	Mandalay
TOWNSHIP	Thabelkkyin
MAP_REFER	93 A2-M 855239
LONGITUDE	
LATTITUDE	
TYPE	
SIZE	
AGE	
GRADE	Ni - 2.01
RESERVE_(T	40 M
CATEGORY	P-2
STATUS	
REFERENCE	ECAMS
YEAR	1985
LONGITUD_D	96.146
LATTITUDE_	23.585
- Map:** Shows a geographical map of Myanmar with numerous colored points representing mineral locations. The map includes a river network and a dashed boundary.

Mineral Occurrence Database GIS

Sr. No.	Mineral Commodity	Mine/Deposit/Area	State/Division	Township	Map Reference	Longitude	Latitude	Type	Size	Age	Grade	Reserve (Tonnage)	Category	Status	Reference	Year	Longitude (DD.DDDD)	Latitude (DD.DDDD)
1	Abestos	Kyeinkhayan, Kyauk Mine	Kachin	Myitkyina	92 G-190810	97° 10'	26° 20'				2 lb/cu.yd	15	P-3		Zaw Win	1998	97.16667	26.33333
2	Abestos	Sanhkung	Kachin	Putao	92 ESW-NS 8093										Myint Cho	1998	97.21111	27.44444
3	Abestos	Sanhkung	Kachin	Putao	92 ESW-NS 8293						700	P-3		Myint Cho	1998	97.23889	27.44444	
4	Abestos	Barnabar	Kachin	Putao	92 ESW-NS 8493						0.0035 M	P-4		Myint Cho	1998	97.25	27.44444	
5	Bismuth	Panwar	Kachin	Chibwe	92 K6-SE 197817						Bi - 0.18 Fe - 11.2 Mn - 1.21			Saw Victotkay	1994	98.38333	25.60833	
6	Chromite	Shwelaung Kyin	Ayeyarwady	Laymyetnar		94° 57' 30"	17° 33'							E.LG Clegg	1944	94.95833	17.55	
7	Chromite	Zebin Kwin	Ayeyarwady	Laymyetnar		95° 00'	17° 36' 30"							E.LG Clegg	1944	95	17.60833	
8	Chromite	Lagone Village	Ayeyarwady	Laymyetnar		94° 59'	17° 38'						Found in serpentine	E.LG Clegg	1944	94.98333	17.63333	
9	Chromite	Nattaung Region	Chin	Tunzan	84 I1	94° 00' 10"	23° 45' 40"				Cr - 32.34	5.37	P-2		Toe Maung	1982	94.16389	23.76111
10	Coal	Homalin	Sagaing	Homalin	83 L13	95° 12'	14° 15'	Lignite				0.001146 M	P-4		L Kun Naung	1984	95.2	14.25
11	Coal	Wetwun	Mandalay	Pyin Oo Lwin	812-IG 160708										DGSE Minocc: Vol-1	1976	75.37057	14.90616
12	Coal	Kadak Chaung	Magway	Minhla	110-Y 955788							20	P-4		Saw Hen	1977	94.85444	15.4426
13	Coal	Lethwekal o Mawkhi	Kayin	Myawady	116-QT 603617			Lignite to Subbituminous							U Yi	1998	98.80748	16.19772
14	Coal	Lethwekal o Mawkhi	Kayin	Myawady	116-QT 610620			Lignite to Subbituminous							U Yi	1998	98.81345	16.20024
15	Coal	Kankwin	Ayeyarwady	85 O1-K 282677											DGSE Minocc: Vol-1	1976	95.06259	17.08768

MINERAL DATABASE SAMPLE FORM (IN MYANMAR)

Sr	Mineral	Locality	Map Reference Lat/Long	State Region Township	Grade (%)	Tonnage (million)	Cate gory	Reference
1	Lead	Bawdwin	93 E/8- SB 190725 97 18' 38"/ 23 6' 19"	Shan Namtu	Pb - 3.39 Zn - 6.42	12.16	P-2	ME(1) 2010
2	Copper	Monywa Letpadaung	84 N/4 – K 460805 95 5' 27" 22 5' 00"	Salingyi Sagaing	Cu – 0.43	1478	P-2	MICCL 2007
3	Nickel	Taunggaung Taung	93 A/2 – M 855219	Thabeikyin Mandalay	Ni – 2.02	40	P-2	ECAMS 1985
4.	Tin Tungsten	Mawchi	94 F/1 –QB 730810 97 9' 27" 18 49' 16"	Phasaung Kayah	Sn + W- 1.6	0.7 30.7	P-2 P-3	Hla Htay 1997
5.	Antimony	Peinchit	94 E/1- LR 755160 97 9' 32" 19 56' 16"	Loikaw Kayah	Sb – 17.99	0.11	P-2	Aung San 1975

P-2 = Possible Ore Reserve

P-3 = Probable Ore Reserve

ASEAN MINERALS DATABASE ENTRY FORM

A. GENERAL INFORMATION

I. REPORT

Commodity Type	Metallic Minerals	Non Metallic Minerals/ Industrial Minerals	Energy Minerals	Others
Report Title	REPORT ON MWE TAUNG NICKEL DEPOSIT			
Report Number	2/70/6			
Project Undertaken by	<input checked="" type="checkbox"/> Govt	Private	Joint Venture	Others
Reporting Agency	M.D.C			
Author(s)	NGAW CIN PAW			
Year of Publication	JUNE 1969			
Data Form	<input type="checkbox"/> Digital		<input checked="" type="checkbox"/> Hard Copy	<input type="checkbox"/> Both
Remarks				

II. BLOCK INFORMATION

Block Name/Number	MWE TAUNG	
Sub District/Township/ Commune/Village	TITIM TOWNSHIP	
Regency/District	FALUM DISTRICT	
Province/State/Division	CHIN STATE	
Country	MYANMAR	
Area Coordinate* (Rectangle)	Latitude	Longitude
	Min. 23° 22'	Max. 94° 03'
	Max. 23° 30'	Min. 94° 00'

** If more than 4 angles, please indicate the coordinates of the angles.*

III. MAPS

Topography Maps		84 E/3	1:63360
Geological Maps			
Satellite/Aerial Images Serial Number			

IV. EXPLORATION ACTIVITY

Organization(s)	MINERAL DEVELOPMENT CORPORATION				
Project Leader/ Coordinator/ Manager	NGAW CIN PAW				
Exploration Stage	✓Reconnaissance	Prospecting	General Exploration	Detail Exploration	
Exploration Method	✓Geological	✓Geochemical	rGeophysical	✓Drilling	Others
Duration of Survey	Start (MM/YYYY) End (MM/YYYY)	05/1965 05/1966			
Previous Investigation(s)				Year : Year : Year : Year :	

V. SUMMARY OF GEOLOGY

Free text Space		
1.	Alluvium	
2.	Chinflysch Series	
3.	Ultra-basic rock	
4.	Garnierite	
5.	Dunite	

B. COMMODITY INFORMATION

I. GENERAL

Primary Commodity	NICKEL SILICATE	
Secondary Commodity(s)	CHROMITE	
Location Name(s)	MWE TAUNG	
Point Coordinate(s)	Latitude	Longitude

II. DEPOSIT

Genesis	Volcanic Residual Guano ✓Magmatic Mechanical/ Accumulation	Sublimation Diagenesis ✓Leaching ✓Weathering Cavity Filling	Sedimentation Metamorphic Hydrothermal Epithermal Skarn Porphyry Devitrification Placer	Volcanogenic Replacement Recrystallization Enrichment Others
Alteration	Albitic Carbonate Fenitic Oxidation Phylitic Talc	Alunitic Chloritic Greissen Potassic ✓Serpentinization Tourmalinization	Argilic Deuteric Heamatite Propylitic ✓Silicification Zeolitic	Biotite Epidote ✓Leaching Pyrite Skarn Others

Deposit Form	<input type="radio"/> Stripping <input type="radio"/> Irregular	<input type="radio"/> Primordial <input checked="" type="radio"/> Stockwork/Vein	<input type="radio"/> Lenses <input type="radio"/> Disseminated	<input type="radio"/> Tabular <input type="radio"/> Others
Strike / Dip	NE-SW 40°			
Deposit Dimension	Length 4827.9 m	Width 244 m	Thickness 30.5, 35.99m	
Deposit Size	462.89 (For 30 million tons deposit)			
Overburden	M			

C. MISCELLANEOUS

Date Entry by	Daw Khin Saw Win
Entry Date (DD/MM/YYYY)	30-11-04
Data Verification Date (DD/MM/YYYY)	
Verification Date (DD/MM/YYYY)	

6. MINERAL DATABASE IMPLEMENTATION PLAN

- 1. Recently by the guidance of the Union Minister, the Ministry has been organizing to establish Mineral data base in Ministry for the aim of launching on Web page to fulfill ASEAN standard.**
- 2. A master plan has been prepared and consists of DGSE, Department of Mines and other responsible Enterprises to develop all the recorded mineral occurrences and mining permits or all the mining companies who carry out mining business in Myanmar.**

SABETAUNG OPEN PIT COPPER MINE



KYAUKPAHTO GOLD MINE



BAWDWIN MINE



NAMMA COAL MINE



HSIPAW GYPSUM MINE

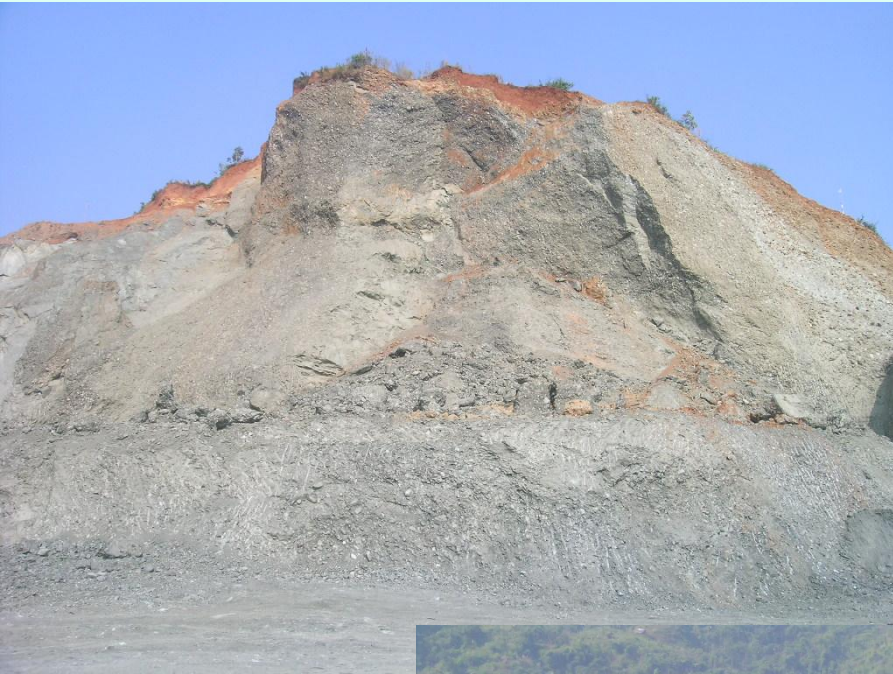


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TAGAUNG NICKEL MILL SITE



PHAKHANT JADE MINE



MYANMAR GEM EMPORIUM BUILDING(Naypyitaw)



22/03/2011 10:10

7. CONCLUSION

- 1. Myanmar is rich in mineral wealth. DGSE has carry out country wide mineral exploration every year. More and more minerals are being surveyed , estimated and recorded. But it still left much of the virgin lands which are remote, mountainous and rugged. Much will be find.**
- 2. Mineral database is not well establish and complete yet.**
- 3. To submit to the higher authority, mineral database in Myanmar language is one theme and for internationally ASEAN mineral database is also another theme.**
- 4. Now, DGSE (Myanmar) becomes as an observer in CCOP on behalf of the Ministry of Mines.**
- 5. From this training and workshop of Metadata , DGSE wish to contribute as far as we can and hope to learn more and willing to share in geosciences.**

THANK YOU
FOR YOUR ATTENTION