

Statistics Report

No. ICTC 1/2561

Mineral Statistics of Thailand

2013 - 2017

Statistics Group

Information and Communication Technology Center

Department of Primary Industries and Mines

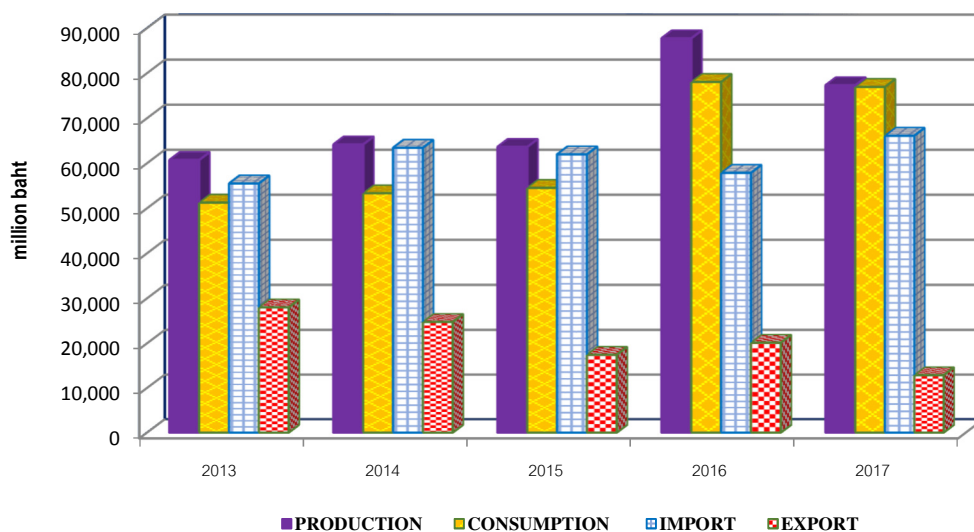
Statistics Report

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Mineral Statistics of Thailand

2013 – 2017

Total Values of Mineral of Thailand 2013-2017



Statistics Group
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ANDESITE

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
Northern Region					
Chiang Mai	-	-	-	-	217,466
Phetchabun	455,896	421,168	301,800	339,368	398,200
Uttaradit	449,038	388,810	370,648	295,983	257,653
Central Region					
Sara Buri	204,204	142,537	200,574	179,764	293,595
Total Production	1,109,138	952,515	873,022	815,115	1,166,914
Value (Million Baht)	149.7	128.6	126.7	163.0	233.4
<u>Consumption</u>					
Total Consumption	1,018,830	974,721	837,262	789,284	890,965
Value (Million Baht)	137.5	131.6	121.6	157.9	178.2

ANHYDRITE

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
Northern Region					
Nakhon Sawan	-	-	-	-	18,000
Southern Region					
Nakhon Si Thammarat	-	7,260	49,700	91,690	93,050
Surat Thani	1,264,077	969,558	826,324	1,248,523	1,281,643
Total Production	1,264,077	976,818	876,024	1,340,213	1,392,693
Value (Million Baht)	648.7	565.5	552.6	889.9	896.1
<u>Export</u>					
Unground					
Asia					
India	159,200	35,000	50,000	100,000	139,500
Indonesia	-	-	2,000	33,900	28,750
Japan	504,282	547,940	426,710	511,550	544,860
Korea, South	369,550	391,111	316,450	365,200	349,550
Malaysia	128,625	135,100	168,550	170,400	182,300
Philippines	-	2,000	-	-	-
Vietnam	9,750	-	71,200	169,200	204,200
Australia / Oceania					
Australia	-	-	60	-	-
Total Export	1,171,407	1,111,151	1,034,970	1,350,250	1,449,160
Value (Million Baht)	611.4	630.0	674.3	880.2	896.2
<u>Consumption</u>					
Total Consumption	-	142	-	-	102
Value (Million Baht)	-	0.1	-	-	0.1
<u>Import</u>¹					
Total Import	19	-	-	0**	-
Value (Million Baht)	0.5	-	-	0.0*	-

0** denoting the amount of less than 0.1 tonnes

0.0* denoting the amount of less than 0.05 million baht

1 data from 'www.customs.go.th'

ANTHRACITE

	Tonnes				
	2013	2014	2015	2016	2017
<u>Import</u> ¹					
Total Import	109,470	184,231	166,002	181,673	138,649
Value (Million Baht)	570.1	833.9	667.6	777.4	573.2

1 data from 'www.customs.go.th'

A N T I M O N Y

Tonnes

		2013	2014	2015	2016	2017
<u>Production</u>						
Northern Region						
Phrae	Ore	-	-	-	32	-
Total Production	Ore	-	-	-	32	-
Value (Million Baht)	Ore	-	-	-	0.9	-
<u>Export</u>						
Ore						
Asia						
China		5,523	2,023	648	752	1,386
Hong Kong		-	25	-	-	-
India		27	-	-	70	13
Japan		-	-	0**	-	0.2
Malaysia		-	-	-	-	-
Myanmar		3	0.2	-	40	-
Taiwan		-	38	42	43	-
Vietnam		592	1,425	2,825	3,001	0**
Australia / Oceania						
Australia		-	-	-	-	0**
Europe						
Belgium		-	25	-	-	-
Netherlands		-	-	195	-	-
Total Export		6,145	3,536	3,710	3,906	1,399
Value (Million Baht)		147.4	107.4	208.9	95.4	21.6
<u>Consumption</u>						
Total Consumption		-	-	-	2	-
Value (Million Baht)		-	-	-	0.1	-
<u>Import</u>¹						
Total Import		8,215	4,392	6,134	4,143	2,184
Value (Million Baht)		217.4	145.0	378.4	90.3	63.2

0** denoting the amount of less than 0.1 tonnes

1 data from 'www.customs.go.th'

BALL CLAY

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
Northern Region					
Chiang Rai	46,400	-	-	-	-
Lampang	-	-	-	65,701	86,254
Central Region					
Prachin Buri	2,500	112	-	-	-
Sara Buri	61,882	120,500	78,800	68,000	66,000
Southern Region					
Nakhon Si Thammarat	1,405	2,470	2,445	2,945	3,415
Total Production	112,187	123,082	81,245	136,646	155,669
Value (Million Baht)	61.7	67.7	44.7	75.2	85.6
<u>Export</u>					
Asia					
Bangladesh	1,060	2,354	154	-	1,330
China	2,255	2,660	3,510	1,490	1,552
India	2,093	2,520	3,973	1,344	3
Indonesia	-	-	1,486	-	1,782
Iran	-	-	60	-	-
Japan	-	-	-	-	20
Malaysia	7,255	7,060	9,318	6,904	6,020
Vietnam	7,070	8,920	7,960	3,600	3,143
Total Export	19,733	23,514	26,461	13,338	13,850
Value (Million Baht)	87.7	100.5	120.6	64.0	61.1

Tonnes

	2013	2014	2015	2016	2017
<u>Consumption</u>					
Total Consumption	328,729	295,379	261,677	915,326	153,677
Value (Million Baht)	180.8	162.5	143.9	503.4	84.5
<u>Import</u>¹					
Total Import	6,932	9,710	8,246	16,815	25,594
Value (Million Baht)	29.5	40.3	43.0	98.3	156.9

1 data from 'www.customs.go.th'

B A R I T E

Tonnes

	2013	2014	2015	2016	2017
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Production

1. Ground (Chemical grade)

Northeastern Region

Loei	3,889	4,425	4,075	2,232	1,563
Total Production	3,889	4,425	4,075	2,232	1,563
Value (Million Baht)	22.8	25.9	23.8	13.8	14.8

2. Ground (Drilling Mud grade)

Northern Region

Phrae	40,693	48,540	127,591	155,799	105,000
Total Production	40,693	48,540	127,591	155,799	105,000
Value (Million Baht)	158.5	189.1	497.0	606.8	489.3

3. Unground

Southern Region

Nakhon Si Thammarat	62,855	81,996	38,995	65,070	41,391
Total Production	62,855	81,996	38,995	65,070	41,391
Value (Million Baht)	93.3	121.8	57.8	96.6	61.5

Export

1. Unground

Asia

Brunei	-	-	-	1,261	-
Indonesia	-	40	-	-	66
Korea, South	-	-	-	-	38
Malaysia	-	-	2,666	5,050	3,570
Vietnam	-	-	-	20	-
Total Export	-	40	2,666	6,331	3,674
Value (Million Baht)	-	0.2	4.0	31.8	18.8

Tonnes

	2013	2014	2015	2016	2017
2. Ground (Chemical grade)					
Africa					
Egypt	-	22	22	-	-
South Africa	11	-	10	-	-
Asia					
Brunei	-	-	510	3,519	-
China	-	4	-	-	-
Hong Kong	60	80	60	44	40
India	-	21	-	-	-
Indonesia	180	1,049	806	-	-
Japan	381	454	369	225	177
Jordan	70	88	22	22	22
Korea, South	168	147	168	93	105
Malaysia	2,359	2,404	2,023	11,404	2,202
Singapore	280	220	228	183	120
Taiwan	167	377	489	189	308
U.A.E.	154	176	-	288	-
Vietnam	148	832	910	323	72
Australia / Oceania					
Australia	1,440	768	1,104	216	48
New Zealand	117	48	24	-	-
Total Export	5,535	6,690	6,745	16,506	3,094
Value (Million Baht)	43.3	52.5	84.9	94.2	22.9
3. Ground (Drilling Mud grade)					
Asia					
Brunei	-	-	2,000	-	4,002
Indonesia	-	-	-	2,091	-
Korea, South	-	-	282	-	2
Kuwait	-	-	-	2,000	-
Malaysia	-	756	11,658	-	2,884
Myanmar	-	-	1,000	-	-
Saudi Arabia	-	-	-	22,450	-
Singapore	-	756	904	-	3,051
Total Export	-	1,512	15,844	26,541	9,939
Value (Million Baht)	-	8.5	68.4	70.0	53.8

	Tonnes				
	2013	2014	2015	2016	2017
<u>Consumption</u>					
1.Ground (Drilling mud)	21,707	48,540	88,061	155,179	10,500
Value (Million Baht)	84.5	189.1	343.0	604.4	489.3
2. Unground	-	1,270	18,050	37,017	22,320
Value (Million Baht)	-	1.9	26.8	54.9	33.1
<u>Import</u>¹					
Total Import	67,537	65,089	98,358	86,651	81,133
Value (Million Baht)	285.9	201.4	183.6	163.0	177.1

1 data from 'www.customs.go.th'

B A S A L T

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
Northeastern Region					
Buri Ram	4,036,141	4,517,885	4,289,522	4,466,448	4,057,082
Nakhon Ratchasima	1,359,865	1,694,692	1,554,918	1,989,920	2,035,267
Si Sa Ket	-	-	83,320	316,580	539,300
Surin	2,867,249	5,919,373	4,415,255	3,986,076	2,733,650
Ubon Ratchathani	2,609,835	1,998,660	2,442,666	2,615,568	3,140,813
Central Region					
Lop Buri	-	-	84,640	168,358	227,973
Trat	500	2,000	6,728	4,492	-
Total Production	10,873,590	14,132,610	12,877,048	13,547,442	12,734,085
Value (Million Baht)	1,467.9	1,907.9	1,851.2	2,709.5	2,546.8
<u>Consumption</u>					
Total Consumption	10,223,704	13,980,299	12,055,712	12,927,838	12,822,093
Value (Million Baht)	1,380.2	1,887.3	1,734.7	2,585.6	2,564.4
<u>Import</u>¹					
Total Import	25,392	25,937	25,122	40,860	90,726
Value (Million Baht)	163.8	166.5	199.5	298.3	235.0

1 data from 'www.customs.go.th'

BENTONITE

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
Central Region					
Lop Buri	150	-	-	-	-
Total Production	150	-	-	-	-
Value (Million Baht)	0.1	-	-	-	-
<u>Consumption</u>					
Total Consumption	150	-	-	-	-
Value (Million Baht)	0.1	-	-	-	-
<u>Import</u>¹					
Total Import	103,195	101,283	104,547	107,644	120,287
Value (Million Baht)	639.0	665.3	717.4	758.0	776.6

1 data from 'www.customs.go.th'

CALCITE

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
Northern Region					
Lamphun	1,000	-	-	-	-
Northeastern Region					
Nakhon Ratchasima	-	21,417	-	-	-
Central Region					
Lop Buri	840,746	970,564	1,281,765	1,452,235	1,456,747
Total Production	841,746	991,981	1,281,765	1,452,235	1,456,747
Value (Million Baht)	165.8	195.4	610.8	1,089.2	1,092.6
<u>Consumption</u>					
Total Consumption	839,246	975,020	1,357,864	1,504,067	1,443,368
Value (Million Baht)	165.3	192.1	634.1	1,128.1	1,082.5
<u>Import</u>¹					
Total Import	60	41	-	30	216
Value (Million Baht)	0.2	0.2	-	0.1	0.5

1 data from 'www.customs.go.th'

C E M E N T C L A Y

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
Northern Region					
Lampang	-	81,258	230,591	297,776	255,544
Nakhon Sawan	-	20,000	20,000	40,000	38,550
Northeastern Region					
Nakhon Ratchasima	758,081	872,665	1,180,754	710,897	533,673
Central Region					
Lop Buri	128,036	280,510	857,160	1,086,932	1,053,093
Phetchaburi	-	-	-	150,734	5,000
Prachin Buri	-	9,000	43,000	125,540	110,072
Sara Buri	1,381,108	1,963,455	2,077,178	1,597,999	1,833,851
Southern Region					
Krabi	266,872	897,128	384,000	497,000	330,000
Nakhon Si Thammarat	-	-	-	-	95,000
Total Production	2,534,097	4,124,016	4,792,683	4,506,878	4,254,783
Value (Million Baht)	228.1	371.2	431.3	405.6	382.9
<u>Consumption</u>					
Total Consumption	3,762,027	4,548,240	4,760,412	4,278,942	3,142,781
Value (Million Baht)	338.6	416.6	428.4	385.1	282.9

CERAMIC CLAY

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
Northeastern Region					
Chaiyaphum	15,000	221,500	304,800	266,000	252,850
Central Region					
Lop Buri	-	-	102,000	36,100	45,800
Sara Buri	62,358	91,463	107,244	69,586	49,332
Sing Buri	-	-	-	-	10,000
Total Production	77,358	312,963	514,044	371,686	357,982
Value (Million Baht)	42.6	172.1	282.7	204.4	196.9
<u>Consumption</u>					
Total Consumption	138,723	220,093	373,642	361,182	341,762
Value (Million Baht)	76.3	121.1	205.5	198.7	187.9

C O L U M B I T E - T A N T A L I T E

Tonnes

	2013	2014	2015	2016	2017
<u>Export</u>					
Asia					
China	-	50	-	-	-
Total Export	-	50	-	-	-
Value (Million Baht)	-	7.1	-	-	-
<u>Import (Columbite)</u>¹					
Total Import	117	10	319	25	291
Value (Million Baht)	88.5	5.5	143.1	9.8	107.4

1 data from 'www.customs.go.th'

C O P P E R

Tonnes

	2013	2014	2015	2016	2017
<u>Production (Metal)</u>					
Northeastern Region					
Loei	0**	229	-	-	-
Total Production	0**	229	-	-	-
Value (Million Baht)	0.0*	52.3	-	-	-
<u>Export (Metal)</u>					
Asia					
Hong Kong	0**	229	-	-	-
Total Export	0**	229	-	-	-
Value (Million Baht)	0.0*	52.3	-	-	-
<u>Import (ore)¹</u>					
Total Import	6,666	9,502	18,818	19,868	299
Value (Million Baht)	37.3	56.8	815.4	619.9	3.9

0** denoting the amount of less than 0.1 tonnes

0.0* denoting the amount of less than 0.05 million baht

1 data from 'www.customs.go.th'

D O L O M I T E

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
Northern Region					
Phetchabun	13,510	14,190	14,000	6,600	2,640
Phrae	4,653	4,792	3,717	25,600	-
Central Region					
Kanchanaburi	95,400	59,368	266,091	184,572	402,606
Southern Region					
Krabi	120,000	153,514	603,667	1,045,086	631,691
Phangnga	141,341	150,615	179,577	202,579	237,288
Songkhla	114,699	285,800	259,137	501,922	341,500
Surat Thani	1,613,533	1,608,207	845,665	698,500	912,011
Trang	384,000	195,000	261,000	370,000	367,000
Total Production	2,487,135	2,471,486	2,432,853	3,034,860	2,894,736
Value (Million Baht)	870.5	865.0	1,090.0	1,669.2	1,592.1
<u>Export</u>					
1. Ground					
Asia					
Bangladesh	616	1,354	-	55	-
Cambodia	-	-	-	4,585	-
Malaysia	20	-	-	-	-
Myanmar	-	1,500	-	-	-
Philippines	2,493	1,580	-	-	820
Total Export	3,129	4,434	-	4,640	820
Value (Million Baht)	0.8	1.1	-	7.4	0.2
2. Unground					
Asia					
Bangladesh	-	-	2,120	-	-
India	347,480	588,415	497,134	438,870	458,461
Indonesia	-	8,300	-	35,000	7,500
Japan	519,150	553,750	537,900	565,850	458,150
Malaysia	-	7,385	40,250	-	-
Taiwan	-	90,000	135,650	222,165	156,305
Total Export	866,630	1,247,850	1,213,054	1,261,885	1,080,416
Value (Million Baht)	292.5	469.9	469.3	547.4	487.2

Tonnes

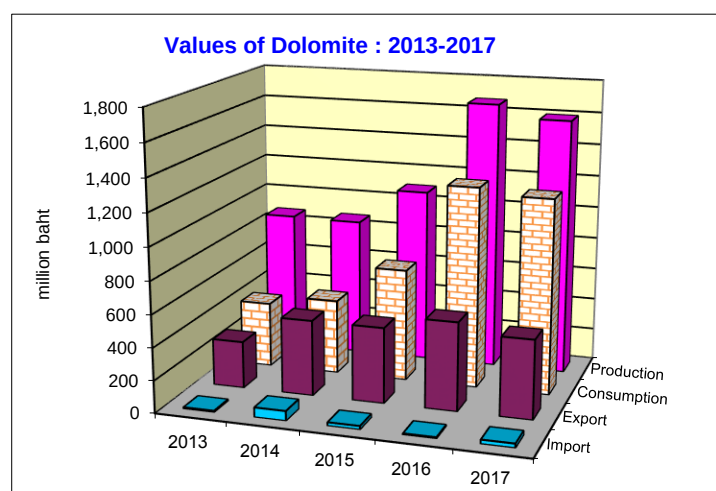
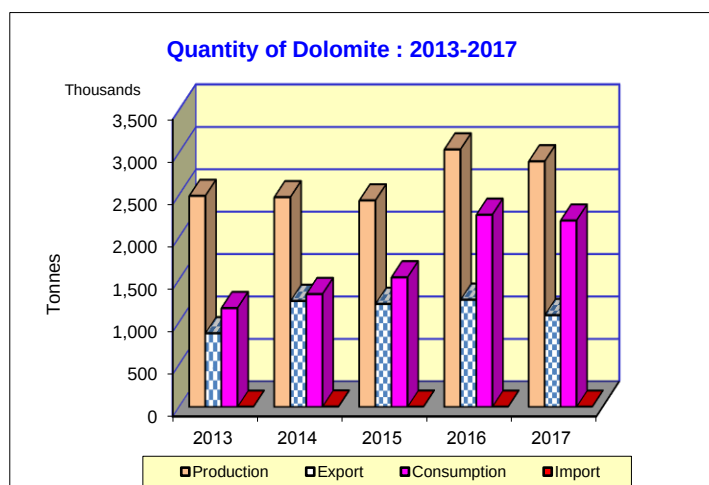
	2013	2014	2015	2016	2017
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Consumption

Total Consumption	1,163,580	1,328,785	1,525,810	2,263,982	2,195,261
Value (Million Baht)	407.3	465.1	699.4	1,245.2	1,207.4

Import¹

Total Import	853	3,137	1,495	785	1,078
Value (Million Baht)	9.5	59.9	21.6	7.9	25.6



1 data from 'www.customs.go.th'

F E L D S P A R

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
1. Potassium Feldspar (Unground)					
Central Region					
Kanchanaburi	3,000	11,000	400	-	-
Prachuap Khiri Khan	168	-	-	-	-
Southern Region					
Nakhon Si Thammarat	1,690	4,220	2,420	3,200	-
Total Production	4,858	15,220	2,820	3,200	-
Value (Million Baht)	8.3	25.9	4.8	5.4	-
2. Sodium Feldspar (Unground)					
Northern Region					
Tak	183,098	273,346	250,943	252,723	269,849
Central Region					
Kanchanaburi	500	900	5,096	5,260	11,550
Ratchaburi	108,700	92,402	126,017	158,864	188,596
Southern Region					
Nakhon Si Thammarat	775,500	1,031,560	947,040	747,100	915,930
Total Production	1,067,798	1,398,208	1,329,096	1,163,947	1,385,925
Value (Million Bath)	747.5	978.7	930.4	814.8	970.1
<u>Export</u>					
1. Potassium Feldspar (Ground)					
Asia					
Malaysia	-	30	-	-	-
Total Export	-	30	-	-	-
Value (Million Baht)	-	0.1	-	-	-
2. Potassium Feldspar (Unground)					
Asia					
Bangladesh	-	-	-	-	13,100
Indonesia	-	-	-	-	17,250
Vietnam	-	-	-	-	7,000
Total Export	-	-	-	-	37,350
Value (Million Baht)	-	-	-	-	30.7

Tonnes

	2013	2014	2015	2016	2017
3. Sodium Feldspar (Ground)					
Asia					
Bangladesh	115,769	126,722	207,670	263,972	375,940
China	96	-	-	-	-
India	39,386	25,700	33,000	22,072	-
Indonesia	113,228	171,716	177,812	100,884	72,292
Malaysia	111,411	98,910	101,190	64,180	70,730
Myanmar	3,600	-	-	-	-
Saudi Arabia	-	15,000	-	-	-
Singapore	-	-	18,500	-	-
Sri Lanka	-	-	-	-	1
U.A.E.	321,230	369,500	198,900	153,480	116,288
Vietnam	30,973	46,574	33,045	33,909	25,625
Europe					
Belgium	-	28,950	-	-	-
Total Export	735,693	883,072	770,117	638,497	660,876
Value (Million Baht)	596.0	770.5	707.9	569.4	579.5

Consumption

1. Potassium Feldspar (Unground)	1,856	9,950	14,200	1,185	-
Value (Million Baht)	3.1	15.3	24.1	2.0	-
2. Sodium Feldspar (Ground)	172,043	212,094	54,530	24,080	16,254
Value (Million Baht)	240.8	296.9	76.3	33.7	22.8
3. Sodium Feldspar (Unground)	100,401	155,867	159,779	229,618	496,357
Value (Million Baht)	70.3	109.1	111.8	160.7	347.4

	Tonnes				
	2013	2014	2015	2016	2017
<u>Import</u>¹					
1. Potassium Feldspar	30,395	36,000	34,389	27,416	-
Value (Million Baht)	94.6	117.6	116.2	97.9	-
2. Sodium Feldspar	5,871	2,807	1,645	2,051	-
Value (Million Baht)	20.9	11.6	7.0	8.7	-
3. Other Feldspar	5,612	8,275	14,403	7,568	-
Value (Million Baht)	35.9	53.6	84.0	57.1	-

1 data from 'www.customs.go.th'

FLUORITE

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
Northern Region					
Lamphun	2,432	4,590	14,495	18,800	-
Phrae	-	-	600	1,100	2,500
Central Region					
Kanchanaburi	-	-	-	200	3,000
Total Production	2,432	4,590	15,095	20,100	5,500
Value (Million Baht)	14.1	30.7	112.4	120.2	26.8
<u>Export (Metallurgical Grade)</u>					
Asia					
China	-	-	550	5,124	520
Hong Kong	-	325	-	-	-
India	820	3,090	20,613	24,541	19,163
Indonesia	-	200	80	60	-
Korea, North	-	-	330	-	-
Korea, South	-	410	22	-	-
Singapore	-	-	25	-	-
Taiwan	1,600	850	-	150	-
Europe					
Turkey	150	-	850	1,819	1,040
Ukraine	-	-	-	480	-
Total Export	2,570	4,875	22,470	32,174	20,723
Value (Million Baht)	13.8	35.4	121.8	174.2	111.5
<u>Consumption</u>					
Total Consumption	48	60	-	204	1,640
Value (Million Baht)	0.3	0.4	-	1.2	7.9
<u>Import¹</u>					
Total Import	578	545	498	1517	2962
Value (Million Baht)	12.1	12.1	8.7	10.3	22.3

1 data from 'www.customs.go.th'

G A R N E T

	Tonnes				
	2013	2014	2015	2016	2017
<u>Export</u>					
Europe					
Ukraine	162	216	-	-	378
North America					
U.S.A.	-	-	-	-	6,490
Total Export	162	216	-	-	6,868
Value (Million Baht)	0.7	1.1	-	-	43.5

GLASS SAND

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
Northeastern Region					
Bueng Kan	-	1,887	23,289	43,000	60,000
Roi Et	-	5,950	45,900	122,850	140,850
Central Region					
Cha Choeng Sao	80,000	190,000	215,000	120,000	132,990
Chanthaburi	96,431	240,110	193,560	207,675	102,995
Rayong	464,850	559,843	600,632	518,345	953,340
Southern Region					
Chumphon	234,804	136,116	113,231	90,829	386,013
Total Production	876,085	1,133,906	1,191,612	1,102,699	1,776,188
Value (Million Baht)	306.6	396.9	838.3	1,091.7	1,758.4
<u>Consumption</u>					
Total Consumption	568,904	1,059,202	991,337	918,481	1,383,058
Value (Million Baht)	199.1	370.7	658.6	909.3	1,369.2
<u>Import</u>¹					
Total Import	110,329	165,366	144,273	143,315	190,852
Value (Million Baht)	234.9	299.3	250.3	277.3	380.1

1 data from 'www.customs.go.th'

G N E I S S

	Tonnes				
	2013	2014	2015	2016	2017
<u>Production</u>					
Central Region					
Prachuap Khiri Khan	30	-	-	-	485
Total Production	30	-	-	-	485
Value (Million Baht)	0.1	-	-	-	1.9
<u>Consumption</u>					
Total Consumption	125	-	70	5	-
Value (Million Baht)	0.5	-	0.3	0.0*	-

0.0* denoting the amount of less than 0.05 million baht

G O L D

Gram

	2013	2014	2015	2016	2017
<u>Production (Metal)</u>					
Northern Region					
Phetchabun	1,770,621	4,114,053	3,305,225	4,185,795	-
Phichit	2,625,470	311,815	-	107,151	-
Northeastern Region					
Loei	22,797	87,726	-	-	-
Total Production	4,418,889	4,513,594	3,305,225	4,292,946	-
Value (Million Baht)	6,105.7	5,946.4	4,210.4	6,039.9	-
<u>Export (Metal)</u>					
Asia					
Hong Kong	4,418,889	4,513,594	3,305,225	4,292,946	-
Total Export	4,418,889	4,513,594	3,305,225	4,292,946	-
Value (Million Baht)	6,105.7	5,946.4	4,210.4	6,039.9	-

GRANITE

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
1. Dimension Stone*					
Northern Region					
Kamphaeng Phet	-	-	707	115	-
Nakhon Sawan	-	82	-	-	-
Tak	2,010	2,136	3,673	3,859	2,802
Central Region					
Cha Choeng Sao	220	58	179	47	20
Prachuap Khiri Khan	720	700	600	1,503	2,545
Total Production	2,950	2,976	5,159	5,524	5,367
Value (Million Baht)	17.4	17.6	29.9	32.0	34.9
2. Industrial Rock					
Northern Region					
Tak	138,900	199,571	190,764	179,478	52,316
Central Region					
Cha Chaeng Sao	137,950	222,200	291,500	422,700	315,525
Chon Buri	2,855,235	3,348,695	2,787,910	3,326,592	4,402,015
Kanchanaburi	-	-	161,000	477,440	40,000
Prachuap Khiri Khan	21,059	31,738	80,993	168,552	151,964
Rayong	1,896,900	997,000	1,539,286	1,507,400	1,114,888
Southern Region					
Narathiwat	853,306	1,130,395	1,222,374	1,179,675	1,234,682
Phangnga	544,954	609,607	639,619	667,966	652,946
Songkhla	619,930	1,051,406	1,161,055	1,528,942	1,065,354
Total Production	7,068,234	7,590,612	8,074,501	9,458,745	9,029,690
Value (Million Baht)	954.2	1,024.7	1,162.3	1,891.7	1,805.9

* unit : cubic meter

Tonnes

	2013	2014	2015	2016	2017
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Export (Industrial Rock)**Asia**

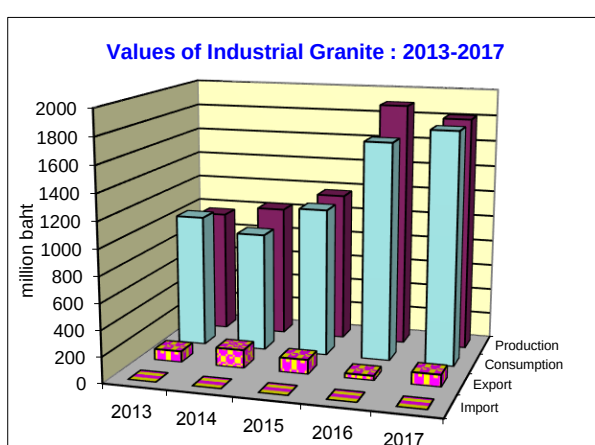
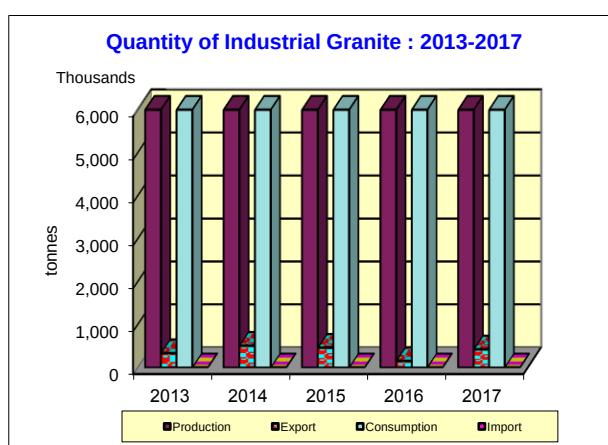
Myanmar	-	5	-	-	-
Singapore	331,474	505,710	458,800	149,995	419,320
Total Export	331,474	505,715	458,800	149,995	419,320
Value (Million Baht)	85.9	140.7	111.3	36.1	93.3

Consumption

1. Dimension Stone *	4,210	3,339	4,977	4,718	3,873
Value (Million Baht)	24.8	19.7	28.4	27.4	25.2
2. Industrial Rock	7,601,333	6,807,192	7,893,062	8,392,556	8,926,182
Value (Million Baht)	1,026.2	918.9	1,142.9	1,678.5	1,785.2

Import (Dimension Stone)¹

Total Import	132,200	128,227	112,695	114,134	98,569
Value (Million Baht)	491.9	525.1	492.4	465.4	373.4



* unit : cubic meter

1 data from 'www.customs.go.th'

GRAVEL

	Tonnes				
	2013	2014	2015	2016	2017
<u>Export</u> (Industrial Rock)					
Asia					
Malaysia	113	45	155	-	-
Qatar	81	-	-	-	-
Singapore	432	528	264	144	528
Total Export	626	573	419	144	528
Value (Million Baht)	2.4	2.8	2.4	0.8	2.4

GRAYWACKE

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u> (Industrial Rock)					
Central Region					
Chanthaburi	328,737	338,634	340,461	374,223	606,930
Trat	532,713	716,187	642,570	681,126	1,000,766
Total Production	861,450	1,054,821	983,031	1,055,349	1,607,696
Value (Million Baht)	90.5	110.8	112.5	211.1	321.5
<u>Consumption</u> (Industrial Rock)					
Total Consumption	801,281	1,018,120	942,630	819,237	1,546,315
Value (Million Baht)	84.1	106.9	107.7	163.8	309.3

G Y P S U M

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
Northern Region					
Nakhon Sawan	3,392,836	3,688,369	3,704,056	3,838,830	3,939,135
Phichit	134,400	453,102	400,246	503,703	529,482
Southern Region					
Nakhon Si Thammarat	2,217,212	1,472,991	2,033,928	1,326,727	1,360,870
Surat Thani	6,638,200	6,830,638	5,128,914	4,737,338	3,424,464
Total Production	12,382,648	12,445,100	11,267,144	10,406,598	9,253,951
Value (Million Baht)	6,358.7	7,205.1	7,040.4	6,910.0	5,960.7
<u>Export</u>					
1. Ground					
Asia					
China	22	220	-	-	110
Japan	2,340	1,560	1,360	1,120	1,340
Malaysia	-	-	-	-	5,000
Myanmar	1,392	528	-	-	-
Taiwan	352	903	252	315	430
Total Export	4,106	3,211	1,612	1,435	6,880
Value (Million Baht)	15.8	11.2	6.4	6.1	11.1
2. Unground					
Africa					
Reunion (La Reunion)	10,000	11,000	-	22,000	11,000
Mozambique	-	-	-	-	5,000
Australia / Oceania					
Australia	293,960	221,600	83,600	9,900	-
Fiji	-	14,000	-	-	-
New Zealand	-	-	-	-	5,500
Europe					
Turkey	-	-	-	-	19,000

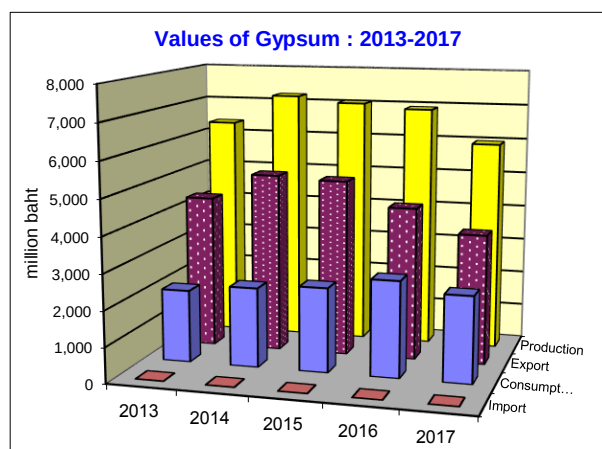
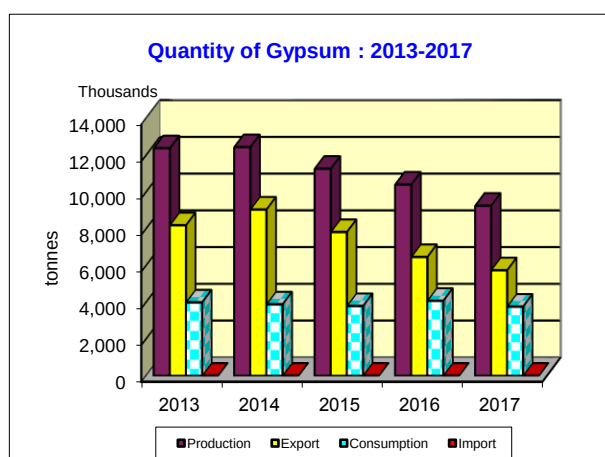
Tonnes

	2013	2014	2015	2016	2017
2. Unground (cont.)					
Asia					
Bangladesh	594,375	567,268	191,094	175,800	55,450
Brunei	16,000	8,800	-	-	17,600
Cambodia	62,800	80,600	122,100	158,300	183,100
China	84,090	87,210	158,425	185,010	396,960
India	480,905	91,650	-	-	-
Indonesia	1,923,604	2,008,490	2,100,013	1,695,900	1,377,910
Japan	1,082,160	1,426,345	941,092	777,010	842,920
Korea,South	120,300	145,880	81,500	110,000	54,000
Malaysia	1,344,784	1,360,885	1,487,015	1,159,470	1,010,740
Myanmar	-	-	11,000	-	11,000
Nepal	8,000	-	-	-	-
Philippines	412,150	727,287	490,212	410,600	411,450
Singapore	4,500	-	4,600	-	11,000
Sri Lanka	134,700	101,000	195,600	156,750	91,250
Taiwan	-	186,550	106,600	-	27,500
Vietnam	1,614,534	2,003,190	1,848,766	1,599,290	1,200,570
Total Export	8,186,862	9,041,755	7,821,617	6,460,030	5,731,950
Value(Million Baht)	4,342.0	5,092.7	5,011.3	4,329.6	3,663.7
<u>Consumption</u>					
Total Consumption	3,990,108	3,883,504	3,792,611	4,077,140	3,798,078
Value (Million Baht)	2,052.4	2,250.2	2,382.3	2,707.2	2,449.5
<u>Import</u>¹					
Total Import	482	456	258	227	214
Value (Million Baht)	8.2	7.3	5.5	3.8	4.4

1 data from 'www.customs.go.th'

Tonnes

2013	2014	2015	2016	2017
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ILMENITE

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
Southern Region					
Nakhon Si Thammarat	-	-	-	-	8
Total Production	-	-	-	-	8
Value (Million Baht)	-	-	-	-	0.1
<u>Export</u>					
Asia					
Bangladesh	-	60	200	100	-
Korea,South	-	-	20	22	-
Malaysia	620	21	100	-	-
Philippines	653	66	-	154	-
Total Export	1,273	147	320	276	-
Value (Million Baht)	5.0	1.3	2.0	2.4	-
<u>Import</u>¹					
Total Import	978	1,358	1,139	1,262	1,110
Value (Million Baht)	21.2	25.1	18.9	21.8	18.4

0.0* denoting the amount of less than 0.05 million baht

IRON

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
Northern Region					
Nakhon Sawan	56,250	66,650	-	-	-
Phetchabun	35,500	-	-	-	-
Northeastern Region					
Loei	257,155	185,488	9,683	-	135
Central Region					
Cha Choeng Sao	5,000	12,000	-	-	-
Chon Buri	15,715	250	-	-	-
Southern Region					
Nakhon Si Thammarat	20,000	83,530	6,800	-	-
Total Production	389,620	347,918	16,483	-	135
Value (Million Baht)	907.3	739.7	30.4	-	0.2
<u>Export</u>					
Asia					
China	296,208	167,011	15,770	57,668	-
Hong Kong	40	-	-	-	-
India	50	-	-	-	-
Indonesia	20	-	-	-	-
Japan	80	80	-	-	-
Myanmar	264	264	-	-	-
Total Export	296,662	167,355	15,770	57,668	-
Value (Million Baht)	597.8	312.7	33.7	61.3	-
<u>Import</u>¹					
1.Iron Ore	5,774	4,422	1,567	2,768	-
Value (Million Baht)	41.6	35.3	11.0	13.0	-
2.Iron Pyrite	278	310	330	321	265
Value (Million Baht)	3.2	4.7	4.6	5.0	4.1

1 data from 'www.customs.go.th'

KAOLIN

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
1. Kaolin (Washed)					
Northern Region					
Lampang	18,322	18,540	1,708	175	-
Central Region					
Chanthaburi	315	940	1,125	1,665	1,900
Southern Region					
Narathiwat	7,110	6,680	6,252	5,673	5,265
Ranong	93,765	97,461	93,678	94,105	95,914
Total Production	119,512	123,621	102,763	101,618	103,079
Value (Million Baht)	114.7	118.7	98.7	97.6	99.0
2. Kaolin (Unwashed)					
Northern Region					
Lampang	207,833	425,829	333,181	397,159	216,370
Uthai Thani	50,000	-	-	-	-
Uttaradit	-	13,000	2,400	32,940	34,650
Central Region					
Chanthaburi	3,100	11,800	25,565	13,444	11,510
Kanchanaburi	241,300	227,000	272,800	366,257	101,400
Lop Buri	82,000	48,000	-	-	-
Phetchaburi	29,500	17,200	-	-	-
Prachin Buri	16,600	13,084	21,250	20,593	28,170
Southern Region					
Surat Thani	800	-	-	-	-
Total Production	631,133	755,913	655,196	830,393	392,100
Value (Million Baht)	243.0	291.0	252.3	319.7	151.0

	Tonnes				
	2013	2014	2015	2016	2017
<u>Export</u>					
1. Washed					
Asia					
Bangladesh	584	1,606	1,812	2,492	4,316
China	566	966	457	2,472	3,769
India	939	769	1,005	620	1,366
Indonesia	1,372	840	436	48	48
Iran	-	7	36	-	282
Japan	-	-	-	-	42
Korea, South	27	24	-	20	20
Malaysia	3,583	3,621	3,546	2,985	2,145
Pakistan	88	40	-	-	-
Philippines	552	648	744	676	336
Singapore	-	-	16	26	-
Taiwan	-	790	-	-	-
Vietnam	3,778	4,001	4,018	4,440	5,016
Europe					
Turkey	-	-	-	6	-
Total Export	11,489	13,312	12,070	13,785	17,340
Value (Million Baht)	53.1	69.8	67.7	82.1	100.8
2. Kaolin (Filler)					
Asia					
Singapore	-	-	-	48	106
Vietnam	400	-	-	-	-
Europe					
Turkey	-	-	-	18	30
Total Export	400	-	-	66	136
Value (Million Baht)	2.5	-	-	0.5	1.2

Tonnes

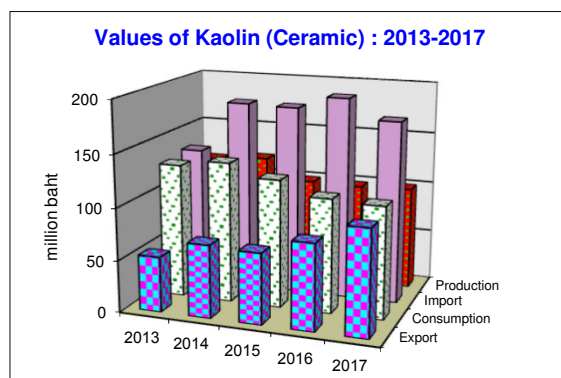
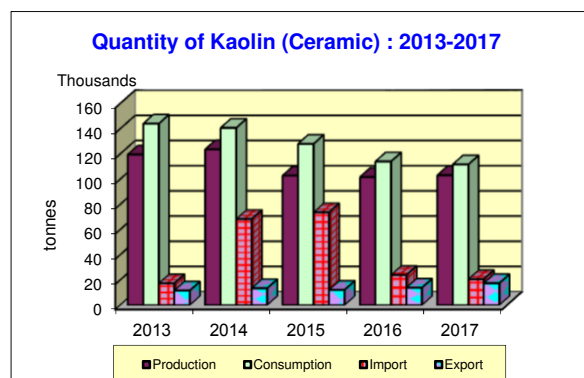
	2013	2014	2015	2016	2017
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Consumption

1. Washed	143,966	140,619	127,965	113,947	111,584
Value (Million Baht)	128.8	134.9	122.8	109.4	107.1
2. Unwashed	564,731	661,055	532,137	849,767	326,956
Value (Million Baht)	217.4	254.5	204.9	327.2	125.9

Import¹

1. Ceramic	17,240	68,239	73,587	23,810	20,539
Value (Million Baht)	133.2	182.7	181.5	193.3	174.4
2. Paper	3,166	7,486	3,600	4,371	4,781
Value (Million Baht)	29.6	74.7	39.5	49.8	51.8
3. Others	69,052	66,833	65,872	73,499	68,343
Value (Million Baht)	639.8	697.6	675.7	729.1	658.5



1 data from 'www.customs.go.th'

LEAD

	Tonnes				
	2013	2014	2015	2016	2017
<u>Import (Lead Ore)</u>¹					
Total Import	0**	20	1	42	85
Value (Million Baht)	0.0*	0.3	0.0*	0.7	1.3

0** denoting the amount of less than 0.1 tonnes

0.0* denoting the amount of less than 0.05 million baht

1 data from 'www.customs.go.th'

LEUCOXENE

Tonnes

	2013	2014	2015	2016	2017
<u>Export</u>					
Africa					
Tunisia	-	-	-	125	-
Asia					
China	-	-	21	-	250
India	-	200	932	1,600	1,450
Indonesia	240	278	300	-	-
Japan	-	42	84	-	-
Korea, South	462	359	102	450	160
Malaysia	315	484	75	425	595
Philippines	420	22	286	1,320	934
Singapore	24	-	-	-	80
Vietnam	-	-	-	201	-
Europe					
Italy	-	-	26	-	-
Russia	-	-	-	300	-
Turkey	205	62	389	1,342	350
Ukraine	63	-	54	150	175
North America					
Brazil	-	-	24	72	-
Total Export	1,729	1,447	2,293	5,985	3,994
Value (Million Baht)	46.3	35.9	54.4	148.8	127.6
<u>Import</u>¹					
Total Import	2,540	1,700	2,798	2,960	4,382
Value (Million Baht)	128.4	59.0	97.4	96.9	145.1

1 data from 'www.customs.go.th'

L I G N I T E

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
Northern Region					
Lampang	17,884,763	17,828,910	15,150,549	16,978,601	16,258,637
Lamphun	3,000	9,640	-	-	-
Tak	223,000	152,812	-	-	-
Total Production	18,110,763	17,991,362	15,150,549	16,978,601	16,258,637
Value (Million Baht)	17,386.3	17,271.7	14,544.5	16,299.5	15,608.3
<u>Consumption</u>					
Total Consumption	18,926,159	18,457,189	15,369,157	16,869,269	16,240,637
Value (Million Baht)	18,169.1	17,718.9	14,754.4	16,194.5	15,591.0
<u>Import</u>¹					
Total Import	4,870	35,502	30,366	91,721	198,926
Value (Million Baht)	24.8	50.5	46.0	120.1	209.4

1 data from 'www.customs.go.th'

L I M E S T O N E

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
1. Cement Industry					
Northern Region					
Lampang	2,357,795	2,774,218	2,630,045	2,560,891	3,832,460
Nakhon Sawan	496,789	558,062	699,320	680,879	617,680
Northeastern Region					
Nakhon Ratchasima	14,831	51,053	95,923	69,051	-
Central Region					
Phetchaburi	533,075	621,775	653,209	746,733	456,615
Sara Buri	58,254,579	60,521,082	61,794,681	59,859,201	57,836,801
Southern Region					
Nakhon Si Thammarat	6,929,365	6,414,718	7,398,104	6,505,696	5,280,291
Total Production	68,586,434	70,940,908	73,271,282	70,422,450	68,023,847
Value (Million Baht)	8,230.4	8,512.9	9,968.8	17,605.6	17,006.0
2. Other Industries					
Northern Region					
Lampang	1,464,842	1,142,687	1,427,421	1,370,122	1,362,092
Northeastern Region					
Nakhon Ratchasima	176,243	92,907	-	-	-
Central Region					
Sara Buri	4,462,533	4,646,038	5,296,271	5,095,627	6,147,107
Total Production	6,103,618	5,881,632	6,723,692	6,465,749	7,509,199
Value (Million Baht)	732.4	705.8	918.0	1,616.4	1,877.3
3. Dimension Stone					
Central Region					
Sara Buri	135	60	24	-	43
Total Production	135	60	24	-	43
Value (Million Baht)	0.3	0.1	0.0*	-	0.1

0.0* denoting the amount of less than 0.05 million baht

	Tonnes				
	2013	2014	2015	2016	2017
4. Construction					
Northern Region					
Chiang Mai	1,966,600	2,141,495	2,428,100	2,811,000	2,052,226
Chiang Rai	1,516,825	1,571,420	1,707,741	1,860,356	1,800,681
Kamphaeng Phet	655,817	768,098	742,597	311,196	250,344
Lampang	908,639	1,183,500	1,469,609	1,820,615	1,994,115
Lamphun	1,081,447	886,189	899,940	1,220,152	1,083,664
Nakhon Sawan	2,889,134	2,507,685	2,756,196	2,738,069	2,736,363
Nan	182,784	302,050	460,667	469,065	461,142
Phayao	933,897	904,497	965,134	631,456	18,592
Phetchabun	1,539,250	1,952,090	2,273,161	2,414,606	2,066,838
Phitsanulok	274,417	272,373	286,819	313,475	359,299
Phrae	274,646	327,854	449,846	578,550	704,054
Sukhothai	1,710,214	1,921,731	2,454,544	2,142,379	2,334,670
Tak	737,870	832,664	1,256,462	1,055,459	1,361,693
Uthai Thani	354,342	179,214	191,092	198,516	329,207
Northeastern Region					
Khon Kaen	3,355,908	2,826,484	2,492,399	2,418,741	2,735,140
Loei	2,990,422	3,971,675	4,795,833	5,042,611	7,245,121
Nakhon Ratchasima	2,189,684	2,207,586	2,020,135	2,403,586	1,879,779
Nong Bua Lamphu	1,290,209	900,365	984,872	1,166,225	1,774,304
Udon Thani	290,520	427,840	418,128	340,296	206,608
Central Region					
Cha Choeng Sao	516	-	-	-	31,726
Chai Nat	135,784	137,496	179,797	113,161	111,565
Chanthaburi	171,000	246,140	411,100	367,400	407,000
Chon Buri	9,927,498	11,339,203	12,414,194	12,875,789	9,162,843
Kanchanaburi	3,979,072	1,751,714	2,099,642	2,211,319	1,592,862
Lop Buri	539,787	541,000	734,000	1,963,512	3,182,592
Phetchaburi	1,304,775	1,284,264	1,690,830	1,555,925	1,366,121
Prachin Buri	259,910	454,170	662,684	676,000	1,104,000
Prachuap Khiri Khan	1,380,002	1,256,700	1,451,884	1,727,811	1,390,574
Ratchaburi	4,342,807	4,213,401	4,874,536	4,322,729	4,679,812
Rayong	520,309	538,254	529,469	583,974	1,406,190
Sa Kaeo	41,946	300,553	318,031	179,685	285,699
Sara Buri	14,244,290	14,449,942	15,189,241	15,980,362	15,871,414
Suphan Buri	13,386,874	14,381,758	13,720,231	14,487,887	15,285,450

Tonnes

	2013	2014	2015	2016	2017
Southern Region					
Chumphon	978,837	1,287,708	1,451,184	1,765,925	1,741,660
Krabi	511,807	611,173	567,864	567,470	604,944
Nakhon Si Thammarat	4,414,295	3,657,949	4,094,317	4,269,814	4,768,693
Phangnga	528,998	610,848	567,233	623,558	674,172
Phatthalung	-	218,608	562,063	33,120	442,980
Satun	808,203	887,939	914,084	902,484	983,182
Songkhla	311,224	357,938	331,674	411,122	216,160
Surat Thani	2,747,333	2,706,632	3,256,902	3,303,451	3,664,434
Trang	503,250	689,818	552,648	611,700	601,450
Yala	683,638	819,856	1,037,609	986,249	1,002,471
Total Production	86,864,780	88,827,874	96,664,493	100,456,800	101,971,834
Value (Million Baht)	9,120.8	9,326.9	11,184.1	18,082.2	18,354.9

Export**1. Construction****Africa**

Mozambique	-	-	-	15,040	-
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Asia

Bangladesh	42,000	293,692	192,910	238,131	392,460
Cambodia	-	20	6,000	-	-
India	283,706	284,367	147,918	120,085	-
Indonesia	-	18,850	9,100	-	-
Malaysia	-	5,000	-	-	-
Taiwan	84,000	80,800	134,300	125,147	141,060

Australia / Oceania

Australia	-	-	-	-	1,476
New Caledonia	65,740	140,350	116,125	112,867	11,007

Europe

Italy	-	7	-	-	-
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South America

Chile	-	-	-	-	20
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Total Export	475,446	823,086	606,353	611,270	546,023
Value (Million Baht)	185.9	296.6	251.1	271.0	219.6

	Tonnes				
	2013	2014	2015	2016	2017
2. Other Industries					
Asia					
Cambodia	126	-	20	40	-
China	-	-	-	-	2,916
India	-	-	150	-	-
Jordan	21	-	-	-	-
Korea, South	-	-	270	-	-
Laos	1,518	309	45	241	-
Malaysia	-	-	-	-	11,843
Myanmar	-	945	74	106	101
Taiwan	-	-	-	-	32
Vietnam	42	-	-	-	-
Australia / Oceania					
Australia	309	480	266	-	13
Total Export	2,016	1,734	825	387	14,905
Value (Million Baht)	7.0	3.6	1.8	1.6	28.3

Consumption

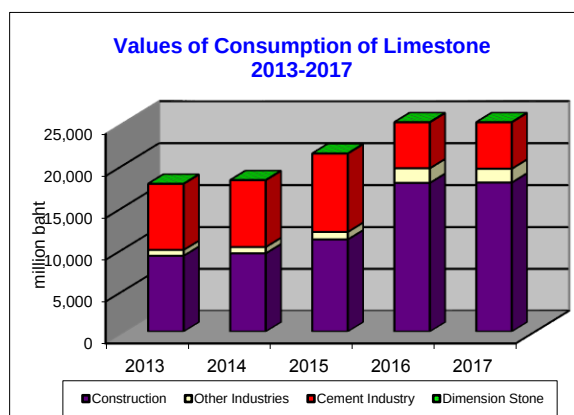
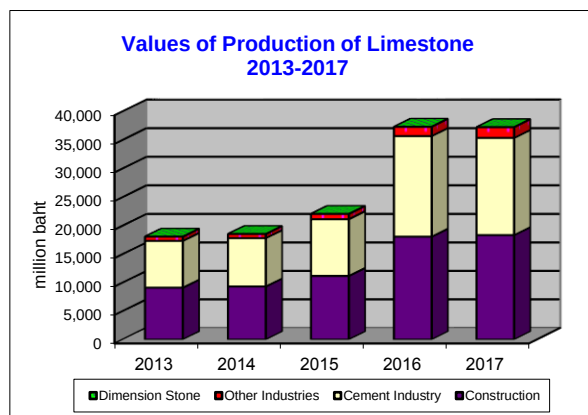
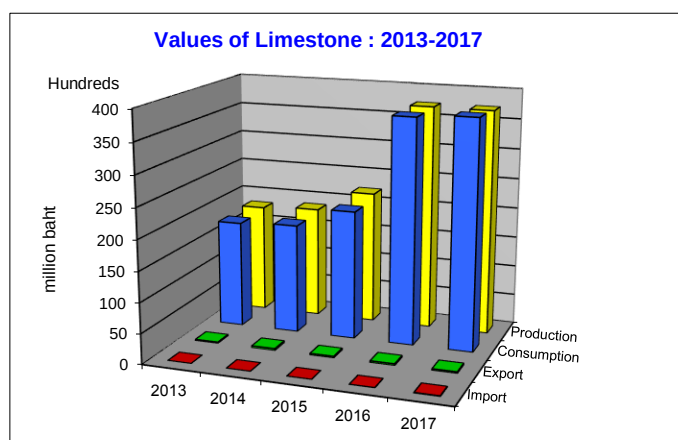
1. Cement Industry	65,731,000	66,468,509	68,188,880	70,790,395	73,124,917
Value (Million Baht)	7,887.7	7,976.2	9,343.5	17,697.6	18,281.2
2. Construction	86,494,047	89,267,612	95,625,701	98,770,644	98,991,214
Value (Million Baht)	9,081.9	9,373.1	11,034.3	17,778.7	17,818.4
3. Dimension Stone	135	60	24	-	43
Value (Million Baht)	0.3	0.1	0.1	-	0.1
4. Other Industries	5,816,898	6,262,694	6,568,305	6,970,446	6,514,668
Value (Million Baht)	698.0	751.5	900.4	1,742.6	1,628.7

Tonnes

	2013	2014	2015	2016	2017
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Import¹

Total Import	3,057	3,046	2,844	76,654	374,399
Value (Million Baht)	3.3	3.9	7.6	27.5	93.7



1 data from 'www.customs.go.th'

M A N G A N E S E

	Tonnes				
	2013	2014	2015	2016	2017
<u>Production</u> (Metallurgical grade)					
Northern Region					
Chiang Mai	-	500	4,000	400	3,520
Chiang Rai	14,320	13,830	-	-	-
Central Region					
Sa Kaeo	-	-	5,000	8,750	4,500
Total Production	14,320	14,330	9,000	9,150	8,020
Value (Million Baht)	73.3	70.5	39.6	24.1	37.5
<u>Export</u> (Metallurgical grade)					
Asia					
Bangladesh	-	-	132,277	-	-
China	10,640	30,368	12,714	31,954	39,963
Indonesia	-	-	-	-	0**
Total Export	10,640	30,368	144,991	31,954	39,963
Value (Million Baht)	31.6	96.1	199.0	79.5	78.7
<u>Consumption</u>					
Total Consumption	3,575	5,760	684	2,566	30
Value (Million Baht)	18.2	28.5	2.8	10.6	0.2
<u>Import</u> (Manganese Ore)¹					
Total Import	18,017	18,518	18,562	21,027	36,428
Value (Million Baht)	38.3	37.3	41.1	37.5	60.5

0** denoting the amount of less than 0.1 tonnes

1 data from 'www.customs.go.th'

M A R B L E

Cubic metre

	2013	2014	2015	2016	2017
<u>Production</u>					
1. Dimension Stone					
Northern Region					
Kamphaeng Phet	-	-	945	1,675	1,164
Sukhothai	450	38	-	-	200
Uthai Thani	1,197	1,437	175	-	-
Northeastern Region					
Nakhon Ratchasima	600	600	700	550	600
Central Region					
Sara Buri	5,920	9,048	10,531	9,879	14,692
Total Production	8,167	11,123	12,351	12,104	16,656
Value (Million Baht)	31.9	43.4	98.1	49.6	68.3
2. Fragment					
Northern Region					
Kamphaeng Phet	-	18,849	203,678	334,882	243,578
Lamphun	88,787	-	-	-	-
Nakhon Sawan	-	126,848	205,848	-	-
Uttaradit	364,915	493,562	617,657	668,590	519,184
Northeastern Region					
Nakhon Ratchasima	29,500	-	-	-	-
Central Region					
Lop Buri	1,000	-	-	-	-
Total Production	484,202	639,259	1,027,183	1,003,472	762,762
Value (Million Baht)	157.4	207.8	333.8	469.6	396.6

Cubic metre

	2013	2014	2015	2016	2017
<u>Consumption</u>					
1. Dimension Stone	7,420	7,338	12,752	11,400	12,381
Value (Million Baht)	28.9	28.6	101.3	46.7	50.8
2. Fragment	509,688	621,327	1,016,419	1,003,471	769,531
Value (Million Baht)	165.6	201.9	330.3	469.6	400.2
<u>Import</u>¹					
Total Import	37,128	38,279	55,610	60,462	59,121
Value (Million Baht)	348.0	387.6	565.7	588.8	720.1

1 data from 'www.customs.go.th'

M A R L

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
Northern Region					
Phrae	-	-	-	-	2,000
Central Region					
Sara Buri	75,500	1,200	-	-	6,200
Total Production	75,500	1,200	-	-	8,200
Value (Million Baht)	6.4	0.1	-	-	0.7
<u>Consumption</u>					
Total Consumption	13,300	3,000	4,900	5,000	10,600
Value (Million Baht)	1.1	0.3	0.4	0.4	0.9

M I C A

	Tonnes				
	2013	2014	2015	2016	2017
<u>Import</u> ¹					
Total Import	4,504	4,392	5,501	5,979	5,828
Value (Million Baht)	119.6	122.2	167.2	176.2	180.0

1 data from 'www.customs.go.th'

MONAZITE

Tonnes

	2013	2014	2015	2016	2017
<u>Export</u>					
Asia					
China	210	3,150	1,260	2,620	2,150
Total Export	210	3,150	1,260	2,620	2,150
Value (Million Baht)	9.3	147.1	61.0	111.0	216.4

PERLITE

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
Central Region					
Lop Buri	14,293	54,100	17,200	15,690	5,800
Total Production	14,293	54,100	17,200	15,690	5,800
Value (Million Baht)	10.1	38.2	14.7	23.5	8.7
<u>Consumption</u>					
Total Consumption	14,293	12,200	12,200	12,190	7,300
Value (Million Baht)	10.1	8.6	10.6	18.3	10.9

PHOSPHATE

Tonnes

	2013	2014	2015	2016	2017
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Production

Northern Region

Central Region

Kanchanaburi	-	500	-	-	8,000
Phetchaburi	350	-	-	-	-
Total Production	350	500	-	-	8,000
Value (Million Baht)	0.1	0.2	-	-	3.3

Consumption

Total Consumption	264	500	-	120	8,370
Value (Million Baht)	0.1	0.2	-	0.0*	3.5

Import¹

1. Ground	0**	1	0.1	0**	0**
Value (Million Baht)	0.0*	0.0*	0.0*	0.0*	0.0*
2. Unground	-	-	0**	250	1
Value (Million Baht)	-	-	0.0*	1.2	0.2

0** denoting the amount of less than 0.1 tonnes

0.0* denoting the amount of less than 0.05 million baht

1 data from 'www.customs.go.th'

P Y R O P H Y L L I T E

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
Central Region					
Sara Buri	26,820	49,100	45,500	96,800	54,000
Total Production	26,820	49,100	45,500	96,800	54,000
Value (Million Baht)	9.4	19.9	27.3	58.1	32.4
<u>Export</u>					
Asia					
China	200	100	-	-	-
Indonesia	1,936	480	800	352	2,022
Japan	40	-	-	-	-
Malaysia	40	-	20	20	20
Sri Lanka	-	-	-	-	40
Vietnam	3,680	2,180	440	480	680
Total Export	5,896	2,760	1,260	852	2,762
Value (Million Baht)	17.5	9.3	4.4	3.2	9.7
<u>Consumption</u>					
Total Consumption	26,000	34,900	45,488	71,220	67,816
Value (Million Baht)	9.1	13.6	27.3	42.7	40.7
<u>Import</u>¹					
Total Import	42	1	0.1	-	-
Value (Million Baht)	0.7	0.5	0.0*	-	-

0.0* denoting the amount of less than 0.05 million baht

1 data from 'www.customs.go.th'

Q U A R T Z

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
1. Ground					
Northern Region					
Tak	2,938	3,250	3,006	-	-
Total Production	2,938	3,250	3,006	-	-
Value (Million Baht)	2.2	2.4	2.3	-	-
2. Underground					
Central Region					
Kanchanaburi	126,700	88,940	84,980	20,340	6,200
Prachuap Khiri Khan	800	9,400	9,500	13,500	5,500
Total Production	127,500	98,340	94,480	33,840	11,700
Value (Million Baht)	95.6	73.8	70.9	25.4	8.8
3. Quartzite (Industrial Rock)					
Southern Region					
Songkhla	263,353	93,241	91,164	16,320	164,383
Total Production	263,353	93,241	91,164	16,320	164,383
Value (Million Baht)	27.7	9.8	10.0	3.3	32.9
<u>Consumption</u>					
1. Ground	2,737	3,093	3,366	-	-
Value (Million Baht)	2.1	2.3	2.5	-	-
2. Underground	66,560	160,147	70,350	20,320	30,011
Value (Million Baht)	49.9	120.1	52.8	15.2	22.5
3. Quartzite (Industrial Rock)	249,985	95,665	98,208	20,424	174,096
Value (Million Baht)	26.2	10.0	11.0	4.1	34.8
<u>Import</u>¹					
Total Import	3,248	5,920	9,978	15,578	37,216
Value (Million Baht)	17.8	39.4	95.2	137.4	229.2

1 data from 'www.customs.go.th'

RHYOLITE

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
Central Region					
Sara Buri	1,244,388	837,314	893,249	833,793	696,503
Total Production	1,244,388	837,314	893,249	833,793	696,503
Value (Million Baht)	130.7	87.9	98.3	125.1	104.5
<u>Consumption</u>					
Total Consumption	861,707	818,859	869,788	797,212	735,682
Value (Million Baht)	90.5	86.0	96.5	119.6	110.4

ROCK SALT

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
Northeastern Region					
Nakhon Ratchasima	1,300,156	1,381,067	1,385,911	1,390,548	1,497,223
Total Production	1,300,156	1,381,067	1,385,911	1,390,548	1,497,223
Value (Million Baht)	1,430.2	1,519.2	2,148.6	2,711.6	2,919.6
<u>Consumption</u>					
Total Consumption	1,312,516	1,372,904	1,397,168	1,339,851	1,475,405
Value (Million Baht)	1,443.8	1,510.2	2,124.5	2,612.7	2,877.0

R U T I L E

	Tonnes				
	2013	2014	2015	2016	2017
<u>Export</u>					
Asia					
China	-	-	-	-	425
India	-	-	-	78	390
Iran	410	-	-	-	-
Europe					
Belgium	-	-	24	-	-
Russia	-	-	408	-	-
Spain	-	-	-	-	50
Turkey	-	-	-	-	100
Ukraine	-	194	-	-	-
North America					
Mexico	-	-	-	48	-
South America					
Brazil	-	-	-	52	-
Colombia	-	-	-	48	-
Total Export	410	194	432	226	965
Value (Million Baht)	14.4	5.6	15.3	7.7	21.2
<u>Import</u>¹					
Total Import	3,991	6,799	5,220	4,108	2,423
Value (Million Baht)	220.3	241.1	169.5	129.8	75.9

1 data from 'www.customs.go.th'

S A N D S T O N E

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
1. Dimension Stone					
Northeastern Region					
Nakhon Ratchasima	2,445	357	4,540	560	2,460
Total Production	2,445	357	4,540	560	2,460
Value (Million Baht)	1.7	0.2	3.1	0.4	1.7
2. Industrial Rock					
Northern Region					
Uttaradit	-	61,835	168,555	155,356	80,651
Northeastern Region					
Mukda Han	-	-	-	-	75,557
Nakhon Phanom	-	-	-	446,882	-
Central Region					
Ratchaburi	-	-	-	-	5,000
Southern Region					
Phangnga	189,182	147,516	160,507	234,336	208,322
Satun	191,906	39,727	6,198	-	-
Total Production	381,089	249,078	335,260	836,574	369,530
Value (Million Baht)	38.1	24.9	35.8	125.5	55.4
<u>Consumption</u>					
1. Dimension Stone	2,415	357	4,510	560	1,260
Value (Million Baht)	1.7	0.2	3.1	0.4	0.9
2. Industrial Rock	316,637	259,635	331,271	814,095	362,027
Value (Million Baht)	31.7	26.0	35.2	122.1	54.3
<u>Import</u>¹					
Dimension Stone	220	823	6,847	14,182	14,871
Value (Million Baht)	2.6	11.6	12.1	11.2	16.1

1 data from 'www.customs.go.th'

S E R P E N T I N E

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u> (Industrial Rock)					
Southern Region					
Narathiwat	-	-	400	-	-
Total Production	-	-	400	-	-
Value (Million Baht)	-	-	0.0*	-	-
<u>Consumption</u> (Industrial Rock)					
Total Consumption	-	-	400	-	-
Value (Million Baht)	-	-	0.0*	-	-

0.0* denoting the amount of less than 0.05 million baht

S H A L E

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
Northern Region					
Lampang	3,031	-	2,000	18,750	-
Central Region					
Sara Buri	4,304,409	5,408,521	6,275,143	7,571,322	6,505,772
Total Production	4,307,440	5,408,521	6,277,143	7,590,072	6,505,772
Value (Million Baht)	538.4	676.1	893.4	1,897.5	1,626.4
<u>Consumption</u>					
Total Consumption	4,028,571	5,313,821	5,996,646	7,615,048	6,527,217
Value (Million Baht)	503.6	664.2	850.5	1,903.8	1,631.8

S I L V E R

	Gram				
	2013	2014	2015	2016	2017
<u>Production</u>					
Northern Region					
Phetchabun	12,703,941	28,495,328	21,047,075	34,350,652	-
Phichit	19,675,044	2,457,823	-	1,602,983	-
Northeastern Region					
Loei	2,280	92,765	-	-	-
Total Production	32,381,264	31,045,916	21,047,075	35,953,635	-
Value (Million Baht)	747.5	618.4	366.0	712.5	-
<u>Export</u>					
Asia					
Hong Kong	32,381,264	31,045,916	21,047,075	35,953,635	-
Total Export	32,381,264	31,045,916	21,047,075	35,953,635	-
Value (Million Baht)	747.5	618.4	366.0	712.5	-
<u>Import</u>¹					
Total Import	12	12	12	11	19
Value (Million Baht)	1.2	1.2	1.3	0.7	1.3

1 data from 'www.customs.go.th'

STRUVERITE

Tonnes

	2013	2014	2015	2016	2017
<u>Export</u>					
Asia					
China	147	87	64	100	248
Hong Kong	-	-	-	-	50
Total Export	147	87	64	100	298
Value (Million Baht)	27.1	16.7	12.6	20.7	65.2

T A L C

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
Northern Region					
Uttaradit	7,880	8,208	6,768	7,126	7,436
Total Production	7,880	8,208	6,768	7,126	7,436
Value (Million Baht)	4.7	4.9	4.1	4.3	4.5
<u>Consumption</u>					
Total Consumption	7,465	8,123	6,765	8,382	7,312
Value (Million Baht)	4.5	4.9	4.1	5.0	4.4
<u>Import</u>¹					
Total Import	143,049	137,228	134,349	137,350	140,289
Value (Million Baht)	1,751.1	1,662.8	1,625.0	1,646.5	1,634.2

1 data from 'www.customs.go.th'

T A N T A L U M

Tonnes

	2013	2014	2015	2016	2017
<u>Import (Tantalite)</u>¹					
Total Import	42	182	387	208	658
Value (Million Baht)	77.0	356.2	693.0	360.8	904.5

1 data from 'www.customs.go.th'

T I N

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
1. Production of Tin Concentrates by changwat					
Northern Region					
Chiang Mai	75	100	39	41	36
Central Region					
Kanchanaburi	18	31	11	13	-
Southern Region					
Nakhon Si Thammarat	-	-	-	21	502
Ranong	39	25	22	17	3
Total Production	132	156	72	92	541
Value (Million Baht)	65.7	80.0	28.4	43.8	265.0
2. Production of Tin Concentrates by Mining Methods.					
Open Pitting	93	131	50	75	538
Dulang Washing	39	25	22	17	3
Total Production	132	156	72	92	541
Value (Million Baht)	65.7	80.0	28.4	43.8	265.0
3. Percentage of Tin Production by Mining Methods.					
Open Pitting	70.4	84.0	69.3	81.7	99.5
Dulang Washing	29.6	16.0	30.7	18.3	0.5
4. Production of Primary Tin Metal					
Total Production	22,923	16,494	10,616	10,807	10,588
Value (Million Baht)	15,574.7	11,831.1	5,784.9	6,847.1	7,208.2

	Tonnes				
	2013	2014	2015	2016	2017
<u>Export</u>					
1. Tin Metal					
Africa					
Egypt	-	4	-	-	6
Asia					
Bangladesh	20	35	10	-	-
China	715	170	280	304	9
Hong Kong	84	61	12	43	37
India	175	45	1	30	-
Israel	10	-	-	-	-
Japan	9,209	5,774	3,609	2,965	3,348
Korea, South	3,318	3,835	1,854	2,073	1,514
Malaysia	180	89	1	28	6
Pakistan	6	5	5	6	5
Philippines	117	9	6	7	2
Singapore	-	62	23	42	63
Taiwan	607	191	193	486	312
U.A.E.	-	-	-	1	-
Vietnam	44	172	-	2	-
Australia / Oceania					
Australia	92	138	88	76	65
New Zealand	7	5	-	-	-
Europe					
Austria	-	-	-	-	2
Belgium	168	272	252	146	214
Bosnia & Herzegovina	-	-	1	-	-
France	-	25	-	5	25
Germany	158	74	385	443	494
Iceland	-	50	-	-	-
Italy	1,000	125	26	150	300
Netherlands	2,400	2,037	346	205	350
Russia	10	-	-	-	-
Spain	-	-	25	75	25
Turkey	-	-	-	25	51
U.K.	227	596	320	316	361
North America					
U.S.A.	1,175	115	62	396	425
Total Export	19,721	13,890	7,499	7,824	7,614
Value (Million Baht)	13,483.4	9,150.3	4,271.2	4,989.2	5,345.5

	Tonnes				
	2013	2014	2015	2016	2017
2. Tin-Lead Alloy					
Asia					
India	-	-	0.3	1	-
Korea, South	-	-	-	-	0.2
Malaysia	-	2	4	1	-
Philippines	-	-	-	2	4
Europe					
Belgium	25	-	-	-	24
Total Export	25	2	4	4	28
Value (Million Baht)	9.8	1.0	2.0	2.0	13.6
3. Final Slag					
Asia					
China	37	113	-	705	315
Europe					
Germany	3	-	-	313	642
Total Export	40	113	-	1,018	957
Value (Million Baht)	8.0	18.5	-	36.4	47.9
4. Bismuth Slime					
Asia					
Malaysia	-	-	-	-	1
Total Export	-	-	-	-	1
Value (Million Baht)	-	-	-	-	1.7
5. Tin Slime					
Asia					
Malaysia	-	-	0.5	-	-
Total Export	-	-	0.5	-	-
Value (Million Baht)	-	-	0.7	-	-
6. Copper Dross					
Europe					
Belgium	-	8	-	59	-
Total Export	-	8	-	59	-
Value (Million Baht)	-	3.4	-	23.2	-

Tonnes

	2013	2014	2015	2016	2017
7. Copper Powder					
Asia					
Philippines	-	-	-	-	0.5
Total Export	-	-	-	-	0.5
Value (Million Baht)	-	-	-	-	0.4
8. Hard Head					
Asia					
Singapore	-	13	-	-	-
Europe					
Belgium	45	145	-	421	192
Total Export	45	158	-	421	192
Value (Million Baht)	16.1	53.3	-	137.0	70.9
9. Tin Dross					
Europe					
Germany	-	-	2	-	-
U.K.	-	-	-	-	2
Total Export	-	-	2	-	2
Value (Million Baht)	-	-	0.8	-	0.8
<u>Consumption</u>					
Primary Tin Metal	3,012	3,257	2,930	3,132	3,564
Value (Million Baht)	2,044.3	2,313.0	1,613.0	1,976.2	2,430.6
<u>Import</u>¹					
Tin ore	648	5,851	5,742	7,870	10,877
Value (Million Baht)	280.3	2,385.5	1,731.6	2,738.3	4,237.0

1 data from 'www.customs.go.th'

TRAVERTINE

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
Central Region					
Sara Buri	-	5,103	1,350	2,600	1,969
Total Production	-	5,103	1,350	2,600	1,969
Value (Million Baht)	-	10.2	2.7	5.2	3.9
<u>Consumption</u>					
Total Consumption	-	1,103	2,200	3,600	1,990
Value (Million Baht)	-	2.2	4.4	7.2	3.9
<u>Import</u>¹					
Total Import	0**	17.0	-	0**	-
Value (Million Baht)	0.0*	0.2	-	0.0*	-

0** denoting the amount of less than 0.1 tonnes

0.0* denoting the amount of less than 0.05 million baht

1 data from 'www.customs.go.th'

TUNGSTEN

Tonnes

	2013	2014	2015	2016	2017
<u>1. Wolfram</u>					
<u>Production</u>					
Northern Region					
Phrae	108	36	-	-	1
Central Region					
Kanchanaburi	5	10	19	15	-
Total Production	113	46	19	15	1
Value (Million Baht)	11.2	4.6	3.5	4.9	0.3
<u>Export</u>					
Asia					
China	60	-	-	-	-
Europe					
Virgin Islands	-	16	-	-	-
Total Export	60	16	-	-	-
Value (Million Baht)	1.7	1.1	-	-	-
<u>Import¹</u>					
Total Import	5	3	-	-	-
Value (Million Baht)	1.3	0.8	-	-	-

1 data from 'www.customs.go.th'

	Tonnes				
	2013	2014	2015	2016	2017
<u>2. Scheelite</u>					
<u>Production</u>					
Northern Region					
Chiang Mai	139	127	42	42	82
Total Production	139	127	42	42	82
Value (Million Baht)	13.8	12.6	5.9	11.8	26.6
<u>Export</u>					
Europe					
Austria	71	21	-	-	-
North America					
U.S.A.	102	97	18	18	40
Total Export	173	118	18	18	40
Value (Million Baht)	17.2	11.8	10.5	6.6	14.1
<u>3. Other Tungsten</u>					
<u>Import</u>¹					
Total Import	-	-	0.4	0**	553.0
Value (Million Baht)	-	-	0.8	0.0*	4.8

0** denoting the amount of less than 0.1 tonnes

0.0* denoting the amount of less than 0.05 million baht

1 data from 'www.customs.go.th'

X E N O T I M E

Tonnes

	2013	2014	2015	2016	2017
<u>Export</u>					
Asia					
China	-	-	-	-	30
Total Export	-	-	-	-	30
Value (Million Baht)	-	-	-	-	1.5
<u>Import</u>¹					
Total Import	-	-	40	-	-
Value (Million Baht)	-	-	0.5	-	-

1 data from 'www.customs.go.th'

Z I N C

Tonnes

	2013	2014	2015	2016	2017
<u>Production</u>					
Northern Region					
Tak	172,578	226,893	181,025	175,632	7,877
Total Production	172,578	226,893	181,025	175,632	7,877
Value (Million Baht)	2,080.2	3,312.5	2,440.8	2,388.2	153.6
<u>Export</u>					
1. Zinc Metal					
Africa					
Niger	-	76	-	-	-
Nigeria	-	152	149	-	-
Asia					
Bangladesh	-	-	202	102	199
Cambodia	45	25	-	0**	2
China	-	-	0.1	-	-
India	133	627	83	2,575	432
Indonesia	1	28	102	205	14
Laos	-	3	14	91	12
Malaysia	3	504	280	2	3
Myanmar	-	144	72	96	32
Saudi Arabia	-	-	126	-	-
Singapore	212	1,010	0.2	-	1
Sri Lanka	-	-	-	0.2	0.2
Taiwan	389	-	-	182	66
Vietnam	303	0.2	2	31	38
Total Export	1,086	2,569	1,030	3,284	799
Value (Million Baht)	87.7	199.4	69.8	220.6	68.1

0** denoting the amount of less than 0.1 tonnes

Tonnes

	2013	2014	2015	2016	2017
2. Zinc Alloy					
Asia					
Cambodia	-	-	0**	-	-
China	-	-	-	-	77
India	-	-	-	177	329
Indonesia	-	-	193	145	503
Japan	-	-	-	0.1	-
Malaysia	39	-	-	26	19
Pakistan	-	-	-	-	0**
Taiwan	-	-	-	-	114
Vietnam	-	-	-	-	8
Australia / Oceania					
Australia	3	-	-	-	-
Europe					
Belgium	-	-	-	34	-
Total Export	42	-	193	382	1,050
Value (Million Baht)	2.2	-	12.3	26.1	92.7
<u>Consumption</u>					
1. Zinc Alloy	32,493	29,833	26,791	23,697	17,675
Value (Million Baht)	2,134.8	2,379.2	2,084.6	1,908.9	1,877.1
2. Zinc Metal	33,168	28,638	27,662	33,063	14,604
Value (Million Baht)	2,039.5	2,079.0	1,947.5	2,390.7	1,430.2
<u>Import (Zinc Ore)¹</u>					
Total Import	119,896	41,747	82,710	32,306	0.1
Value (Million Baht)	2,451.5	999.0	1,902.7	757.3	0.0*

0** denoting the amount of less than 0.1 tonnes

0.0* denoting the amount of less than 0.05 million baht

1 data from 'www.customs.go.th'

Z I R C O N

Tonnes

	2013	2014	2015	2016	2017
<u>Export</u>					
Asia					
China	8,681	9,175	6,235	6,500	5,723
India	-	1,479	1,596	2,106	1,716
Japan	-	-	2	-	-
Malaysia	-	84	-	-	-
U.A.E.	-	-	-	104	-
Vietnam	-	-	24	120	-
Europe					
Spain	-	-	-	176	-
South America					
Brazil	-	-	-	24	-
Total Export	8,681	10,738	7,857	9,030	7,439
Value(Million Baht)	277.8	273.7	197.8	250.4	237.1
<u>Import (Zirconium Ore)¹</u>					
Total Import	35,696	51,545	81,932	40,659	38,529
Value (Million Baht)	506.8	629.1	958.0	521.1	586.0

1 data from 'www.customs.go.th'

NUMBER OF ACTIVE MINES BY KIND OF MINERALS

	2013	2014	2015	2016	2017
Andesite	3	3	3	3	3
Antimony	-	-	-	-	1
Ball clay	6	5	4	4	3
Barite	4	6	6	7	6
Basalt (industrial rock)	26	32	36	39	41
Bentonite	1	-	-	-	-
Calcite	7	7	7	6	9
Cement clay	9	16	20	23	27
Ceramic clay	2	4	6	6	7
Dolomite	19	20	21	17	17
Feldspar	22	20	20	18	16
Fluorite	2	2	2	3	3
Glass sand	11	11	11	14	16
Gneiss	1	1	1	1	1
Gold	4	4	4	4	1
Granite (dimension stone)	22	22	22	19	15
Granite (industrial rock)	18	18	20	19	21
Graywacke	1	1	1	1	1
Gypsum	46	44	47	50	52
Iron	14	15	12	5	6
Kaolin	29	27	29	25	20
Lignite	7	6	5	3	2
Limestone (cement)	14	17	17	14	13
Limestone (construction)	193	196	201	198	193
Limestone (dimension)	5	3	3	3	3
Limestone (others)	13	15	16	15	17
Manganese	2	4	3	3	3
Marble	17	17	19	17	15
Marl	3	3	4	4	4
Perlite	3	3	3	4	3
Phosphate	1	1	1	1	1

NUMBER OF ACTIVE MINES BY KIND OF MINERALS

	2013	2014	2015	2016	2017
Pyrophyllite	3	3	3	2	2
Quartz	7	7	7	8	7
Rhyolite (industrial rock)	1	1	1	1	1
Rock salt	4	3	3	3	4
Sand stone (dimension)	8	9	10	10	3
Sand stone (industrial rock)	4	3	3	4	5
Shale	6	6	6	6	5
Talc	2	2	1	1	1
Tin*	3	3	3	4	2
Travertine	3	2	2	2	2
Wolfram	1	1	1	1	1
Zinc	1	1	1	1	1
Total	548	564	585	569	554

* Including tin-tungsten mines

NUMBER OF WORKERS EMPLOYED IN MINES

BY KIND OF MINERAL

	2013	2014	2015	2016	2017
Andesite	30	30	30	30	30
Antimony	-	-	-	-	5
Ball clay	354	351	344	120	80
Barite	85	131	130	137	98
Basalt (industrial rock)	544	686	704	674	694
Bentonite	12	-	-	-	-
Calcite	109	76	74	52	76
Cement clay	123	340	410	426	429
Ceramic clay	19	47	68	67	79
Dolomite	259	262	302	304	315
Feldspar	330	288	263	254	224
Fluorite	67	74	35	71	70
Glass sand	37	73	98	123	139
Gneiss	7	7	7	7	7
Gold	383	427	329	333	-
Granite (dimension)	221	224	251	220	184
Granite (industrial rock)	354	500	600	720	771
Graywacke	27	28	28	28	28
Gypsum	933	865	902	972	972
Iron	407	380	213	50	65
Kaolin	344	326	322	263	198
Lignite	1,921	1,884	1,560	1,649	1,648
Limestone (cement)	1,114	874	873	868	916
Limestone (construction)	3,611	3,947	4,101	3,986	3,891
Limestone (dimension)	24	15	6	6	6
Limestone (others)	308	351	432	501	456
Manganese	9	41	26	32	25
Marble	295	312	317	238	213
Marl	18	22	27	33	34
Perlite	69	69	73	65	54
Phosphate	60	60	60	67	43

NUMBER OF WORKERS EMPLOYED IN MINES
BY KIND OF MINERAL

	2013	2014	2015	2016	2017
Pyrophyllite	37	31	29	25	15
Quartz	108	110	107	98	79
Rhyolite (industrial rock)	43	43	43	43	43
Rock salt	126	128	124	128	131
Sand stone (dimension)	55	51	53	54	20
Sand stone (industrial rock)	59	56	56	60	70
Shale	84	113	153	149	109
Talc	19	26	9	6	6
Tin*	256	256	234	213	133
Travertine	19	10	8	5	17
Wolfram	76	57	9	14	51
Zinc	256	231	225	148	65
Dulang Washer	246	148	131	120	160
Total	13,458	13,950	13,766	13,359	12,649

* Including workers employed in tin-tungsten mines

Mineral Production of Thailand 2013 - 2017

Quantity : Tonnes

Value : Million Baht

Mineral	2013		2014		2015		2016		2017	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Mineral Fuels and Energy</u>										
Lignite	18,110,763	17,386.3	17,991,362	17,271.7	15,150,549	14,544.5	16,978,601	16,299.5	16,258,637	15,608.3
Total		17,386.3		17,271.7		14,544.5		16,299.5		15,608.3
%		28.63		26.91		22.86		18.58		20.19
<u>Iron and Ferro Alloy</u>										
Iron ore	389,620	907.3	347,918	739.7	16,483	30.4	-	-	135	0.2
Manganese (metallurgical grade)	14,320	73.3	14,330	70.5	9,000	39.6	9,150	24.1	8,020	37.5
Tungsten										
- Scheelite	139	13.8	127	12.6	42	5.9	42	11.8	82	26.6
- Wolfram	113	11.2	46	4.6	19	3.5	15	4.9	1	0.3
Total		1,005.6		827.4		79.4		40.8		64.6
%		1.66		1.29		0.13		0.05		0.08
<u>Base Metals</u>										
Antimony ore	-	-	-	-	-	-	32	0.9	-	-
Copper metal	-	-	229	52.3	-	-	-	-	-	-
Tin concentrates	132	65.7	156	80.0	72	28.3	92	43.8	541	265.0
Zinc ore	172,578	2,080.2	226,893	3,312.5	181,025	2,440.8	175,632	2,388.2	7,877	153.6
Total		2,145.9		3,444.8		2,469.1		2,432.9		418.6
%		3.53		5.37		3.88		2.77		0.54

Mineral Production of Thailand 2013 - 2017

Quantity : Tonnes
Value : Million Baht

Mineral	2013		2014		2015		2016		2017	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Precious Metals and Precious Stone</u>										
Gold metal (unit : gram)	4,418,889	6,105.7	4,513,594	5,946.4	3,305,225	4,210.4	4,292,946	6,039.9	-	-
Silver metal (unit : gram)	32,381,264	747.5	31,045,916	618.4	21,047,075	366.0	35,953,635	712.5	-	-
Total		6,853.2		6,564.8		4,576.4		6,752.4		-
%		11.29		10.23		7.19		7.69		-
<u>Light Metals and Rare Earth</u>										
Ilmenite	-	-	-	-	-	-	-	-	8	0.1
Total		-		-		-		-		0.1
%		-		-		-		-		-
<u>Cement Industrial Minerals</u>										
Anhydrite	1,264,077	648.7	976,818	565.5	876,024	552.6	1,340,213	889.9	1,392,693	896.1
Cement Clay	2,534,097	228.1	4,124,016	371.2	4,792,683	431.3	4,506,878	405.6	4,254,783	382.9
Gypsum (unground)	12,382,648	6,358.7	12,445,100	7,205.1	11,267,144	7,040.4	10,460,598	6,910.0	9,253,951	5,960.7
Limestone	68,586,434	8,230.4	70,940,908	8,512.9	73,271,282	9,968.8	70,422,450	17,605.6	68,023,847	17,006.0
Marl	75,500	6.4	1,200	0.1	-	-	-	-	8,200	0.7
Shale	4,307,440	538.4	5,408,521	676.1	6,277,143	893.4	7,590,072	1,897.5	6,505,772	1,626.4
Total		16,010.7		17,330.9		18,886.5		27,708.6		25,872.8
%		26.37		27.00		29.68		31.58		33.46
<u>Ceramic Industrial Minerals</u>										
Ball clay	112,187	61.7	123,082	67.7	81,245	44.7	136,646	75.2	155,669	85.6
Ceramic Clay	77,358	42.6	312,963	172.1	514,044	282.7	371,686	204.4	357,982	196.9
Dolomite	2,487,135	870.5	2,471,486	865.0	2,432,853	1,089.9	3,034,860	1,669.2	2,894,736	1,592.1

Mineral Production of Thailand 2013 - 2017

Quantity : Tonnes

Value : Million Baht

Mineral	2013		2014		2015		2016		2017	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Ceramic Industrial Minerals</u>										
Feldspar										
- Potassium (unground)	4,858	8.3	14,220	24.2	2,820	4.8	3,200	5.4	-	-
- Sodium (unground)	1,067,798	747.5	1,399,208	979.4	1,329,096	930.4	1,163,947	814.8	1,385,925	970.1
Glass sand	876,085	306.6	1,133,906	396.9	1,191,612	838.3	1,102,699	1,091.7	1,776,188	1,758.4
Kaolin										
- Unwashed	631,133	243.0	755,913	291.0	655,196	252.3	830,393	319.7	392,100	150.9
- Washed	119,512	114.7	123,621	118.7	102,763	98.7	101,618	97.6	103,079	99.0
Quartz										
- Ground	2,938	2.2	3,250	2.4	3,006	2.3	-	-	-	-
- Unground	127,500	95.6	98,340	73.8	94,480	70.9	33,840	25.4	11,700	8.8
Total		2,492.7		2,991.2		3,615.0		4,303.4		4,861.8
%		4.11		4.66		5.68		4.90		6.29
<u>Dimension Stone</u>										
Gneiss	30	0.1	-	-	-	-	-	-	485	1.9
Granite	2,950*	17.4	2,976*	17.6	5,159*	29.8	5,524*	32.0	5,367*	34.9
Limestone	135	0.3	60	0.1	24	0.1	-	-	43	0.1
Marble	8,167*	31.9	11,123*	43.4	12,351*	98.1	12,104*	49.6	16,656*	68.3
Sandstone	2,445	1.7	357	0.2	4,540	3.1	560	0.4	2,460	1.7
Serpentine	-	-	-	-	400	0.0**	-	-	-	-
Travertine	-	-	5,103	10.2	1,350	2.7	2,600	5.2	1,969	3.9
Total		51.4		71.5		133.8		87.2		110.8
%		0.08		0.11		0.21		0.10		0.14

Mineral Production of Thailand 2013 - 2017

Quantity : Tonnes

Value : Million Baht

Mineral	2013		2014		2015		2016		2017	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Industrial Rock</u>										
Andesite	1,109,138	149.7	952,515	128.6	873,022	126.7	815,115	163.0	1,166,914	233.4
Basalt	10,873,590	1,467.9	14,132,610	1,907.9	12,877,048	1,851.2	13,547,442	2,709.5	12,734,085	2,546.8
Granite	7,068,234	954.2	7,590,612	1,024.7	8,074,501	1,162.3	9,458,745	1,891.8	9,029,690	1,805.9
Graywacke	861,450	90.5	1,054,821	110.8	983,031	112.5	1,055,349	211.1	1,607,696	321.5
Limestone	86,864,780	9,120.8	88,827,874	9,326.9	96,631,193	11,180.6	100,456,800	18,082.2	101,971,834	18,354.9
Marble (fragment)	484,202*	157.4	639,259*	207.8	1,027,183*	333.8	1,003,472*	469.6	762,762*	396.6
Perlite	14,293	10.1	54,100	38.2	17,200	14.7	15,690	23.5	5,800	8.7
Quartzite	263,353	27.7	93,241	9.8	91,164	10.0	16,320	3.3	164,383	32.9
Rhyolite	1,244,388	130.7	837,314	87.9	893,249	98.3	833,793	125.1	696,503	104.5
Sandstone	381,089	38.1	249,078	24.9	335,260	35.8	836,574	125.5	369,530	55.4
Total		12,147.1		12,867.5		14,925.9		23,804.6		23,860.6
%		20.00		20.05		23.46		27.13		30.86
<u>Other Industrial Minerals</u>										
Barite										
- Chemical grade (ground)	3,889	22.8	4,425	25.9	4,075	23.8	2,232	13.8	1,563	14.8
- Drilling mud (ground)	40,693	158.5	48,540	189.1	127,591	496.9	155,799	606.8	105,000	489.3
- Unground	62,855	93.3	81,996	121.8	38,955	57.8	65,070	96.6	41,391	61.5
Bentonite	150	0.1	-	-	-	-	-	-	-	-
Calcite	841,746	165.8	991,981	195.4	1,281,765	610.8	1,452,235	1,089.2	1,456,747	1,092.6
Fluorite (metallurgical grade)	2,432	14.1	4,590	30.7	15,095	112.4	20,100	120.2	5,500	26.8
Limestone	6,103,618	732.4	5,881,632	705.8	6,723,692	917.9	6,465,749	1,616.4	7,509,199	1,877.3

Mineral Production of Thailand 2013 - 2017

Quantity : Tonnes
Value : Million Baht

Mineral	2013		2014		2015		2016		2017	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Other Industrial Minerals (cont.)										
Phosphate	350	0.1	500	0.2	-	-	-	-	8,000	3.3
Pyrophyllite	26,820	9.4	49,100	19.9	45,500	27.3	96,800	58.1	54,000	32.4
Rock salt	1,300,156	1,430.2	1,381,067	1,519.2	1,385,911	2,148.6	1,390,548	2,711.6	1,497,223	2,919.6
Talc (unground)	7,880	4.7	8,208	4.9	6,768	4.1	7,126	4.3	7,436	4.5
Total		2,631.4		2,812.9		4,399.6		6,317.0		6,522.1
%		4.33		4.38		6.91		7.20		8.44
Grand Total		60,724.3		64,182.7		63,630.2		87,746.4		77,319.7

*:- * = Cubic Meter :- 0.0** = denoting the amount of less than 0.05 million baht*

[illegible]

Mineral Export of Thailand 2013 - 2017

Quantity : Tonnes
Value : Million Baht

Mineral	2013		2014		2015		2016		2017	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Base Metals</u>										
Zinc										
- Zinc alloy	42	2.2	-	-	193	12.3	382	26.1	1,050	92.7
- Zinc metal	1,086	87.7	2,569	199.4	1,030	69.8	3,284	220.6	799	68.1
Total		13,754.6		9,585.8		4,565.7		5,529.9		5,663.0
%		49.13		38.72		26.18		27.46		44.04
<u>Precious Metals and Precious Stone</u>										
Garnet	162	0.7	216	1.1	-	-	-	-	6,868	43.5
Gold metal (unit : gram)	4,418,889	6,105.7	4,513,594	5,946.4	3,305,225	4,210.4	4,292,946	6,039.9	-	-
Silver metal (unit : gram)	32,381,264	747.5	31,045,916	618.4	21,047,075	366.0	35,953,635	712.5	-	-
Total		6,853.9		6,565.9		4,576.4		6,752.4		43.5
%		24.48		26.52		26.25		33.53		0.34
<u>Light Metals and Rare Earth</u>										
Columbite-tantalite	-	-	50	7.1	-	-	-	-	-	-
Ilmenite	1,273	5.1	147	1.3	320	2.0	276	2.4	-	-
Leucoxene	1,729	46.3	1,447	35.9	2,293	54.4	5,985	148.8	3,994	127.6
Monazite	210	9.3	3,150	147.2	1,260	61.0	2,620	110.9	2,150	216.4
Rutile	410	14.4	194	5.6	432	15.3	226	7.7	965	21.2
Struverite	147	27.1	87	16.7	64	12.6	100	20.7	298	65.2
Xenotime	-	-	-	-	-	-	-	-	30	1.5
Zircon	8,681	277.8	10,738	273.7	7,857	197.8	9,030	250.4	7,439	237.1
Total		380.0		487.5		343.1		540.9		669.0
%		1.36		1.97		1.97		2.68		5.20

Mineral Export of Thailand 2013 - 2017

Quantity : Tonnes
Value : Million Baht

Mineral	2013		2014		2015		2016		2017	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Cement Industrial Minerals</u>										
Anhydrite	1,171,407	611.4	1,111,151	630.0	1,034,970	674.3	1,350,250	880.2	1,449,160	896.2
Gypsum										
- Ground	4,106	15.8	3,211	11.2	1,612	6.4	1,435	6.1	6,880	11.1
- Unground	8,186,862	4,342.0	9,041,755	5,092.7	7,821,617	5,011.3	6,460,030	4,329.6	5,731,950	3,663.7
Total		4,969.2		5,733.9		5,692.0		5,215.9		4,571.0
%		17.75		23.16		32.64		25.90		35.54
<u>Ceramic Industrial Minerals</u>										
Ball clay	19,733	87.7	23,514	100.6	26,461	120.6	13,338	63.9	13,850	61.1
Dolomite										
- Ground	3,129	0.9	4,434	1.1	-	-	4,640	7.4	820	0.2
- Unground	866,630	292.5	1,247,850	469.9	1,213,054	469.3	1,261,885	547.4	1,080,416	487.2
Feldspar										
- Potassium (ground)	-	-	30	0.1	-	-	-	-	-	-
- Potassium (unground)									37,350	30.7
- Sodium (ground)	735,693	596.0	883,072	770.5	770,117	707.9	638,497	569.4	660,876	579.5
Kaolin										
- Filler	400	2.5	-	-	-	-	66	0.5	136	1.2
- Washed	11,489	53.1	13,312	69.8	12,070	67.7	13,785	82.1	17,340	100.8
Total		1,032.7		1,412.0		1,365.5		1,270.7		1,260.7
%		3.69		5.70		7.83		6.31		9.80

Mineral Export of Thailand 2013 - 2017

Quantity : Tonnes
Value : Million Baht

Mineral	2013		2014		2015		2016		2017	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Industrial Rock</u>										
Granite (industrial rock)	331,474	85.9	505,714	140.8	458,800	111.3	149,995	36.1	419,320	93.3
Gravel (industrial rock)	626	2.4	573	2.8	419	2.4	144	0.8	528	2.4
Limestone (industrial rock-construction)	475,446	185.9	823,086	296.6	606,353	251.1	611,270	271.0	546,023	219.6
Total		274.2		440.2		364.8		307.9		315.3
%		0.98		1.78		2.09		1.53		2.45
<u>Other Industrial Minerals</u>										
Barite										
- Chemical grade (ground)	5,535	43.3	6,690	52.5	6,745	84.9	16,506	94.2	3,094	22.8
- Drilling mud (ground)	-	-	1,512	8.5	15,844	68.4	26,541	69.9	9,939	53.8
- Unground	-	-	40	0.2	2,666	4.0	6,331	31.8	3,674	18.8
Fluorite (metallurgical grade)	2,570	13.8	4,875	35.4	22,470	121.8	32,174	174.2	20,723	111.5
Limestone (industrial rock-others)	2,016	7.0	1,734	3.6	825	1.8	387	1.6	14,905	28.3
Pyrophyllite	5,896	17.5	2,760	9.3	1,260	4.4	852	3.2	2,762	9.7
Total		81.6		109.5		285.3		374.9		244.9
%		0.29		0.44		1.64		1.86		1.91
Grand Total		27,994.5		24,756.5		17,436.0		20,140.0		12,860.2

Mineral Consumption of Thailand 2013 - 2017

Quantity : Tonnes
Value : Million Baht

Mineral	2013		2014		2015		2016		2017	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Mineral Fuels and Energy</u>										
Lignite	18,926,159	18,169.1	18,457,189	17,718.9	15,369,157	14,754.4	16,869,269	16,194.5	16,240,637	15,591.0
Total		18,169.1		17,718.9		14,754.4		16,194.5		15,591.0
%		35.44		33.22		27.06		20.75		20.26
<u>Iron and Ferro Alloy</u>										
Manganese (metallurgical grade)	3,575	18.2	5,760	28.5	684	2.8	2,566	10.6	30	0.2
Total		18.2		13.5		2.8		10.6		0.2
%		0.04		0.03		0.01		0.01		-
<u>Base Metals</u>										
Antimony ore	-	-	-	-	-	-	2	0.1	-	-
Tin										
- Tin metal	3,012	2,044.3	3,257	2,313.0	2,930	1,613.0	3,132	1,976.2	3,564	2,430.6
- Tin-lead alloy	-	-	-	-	-	-	-	-	-	-
Zinc										
- Zinc alloy	32,493	2,134.8	29,833	2,379.2	26,791	2,084.6	23,697	1,908.9	17,675	1,877.1
- Zinc metal	33,168	2,039.5	28,638	2,079.0	27,662	1,947.5	33,063	2,390.7	14,604	1,430.2
Total		6,218.6		6,771.2		5,645.1		6,275.9		5,737.9
%		12.13		12.70		10.35		8.04		7.46
<u>Cement Industrial Minerals</u>										
Anhydrite	-	-	142	0.1	-	-	-	-	102	0.1
Cement clay	3,762,027	338.6	4,548,240	416.6	4,760,412	428.4	4,278,942	385.1	3,142,781	282.9
Gypsum (unground)	3,990,108	2,052.4	3,883,504	2,250.2	3,792,611	2,382.3	4,077,140	2,707.2	3,798,078	2,449.5

Mineral Consumption of Thailand 2013 - 2017

Quantity : Tonnes
Value : Million Baht

Mineral	2013		2014		2015		2016		2017	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Cement Industrial Minerals (cont.)</u>										
Limestone	65,731,000	7,887.7	66,468,509	7,976.2	68,188,880	9,343.5	70,790,395	17,697.6	73,124,917	18,281.2
Marl	13,300	1.1	3,000	0.3	4,900	0.4	5,000	0.4	10,600	0.9
Shale	4,028,571	503.6	5,313,821	664.2	5,996,646	850.5	7,615,048	1,903.8	6,527,217	1,631.8
Total		10,783.4		11,307.6		13,005.1		22,694.1		22,646.4
%		21.04		21.20		23.85		29.08		29.42
<u>Ceramic Industrial Minerals</u>										
Ball clay	328,729	180.8	295,379	162.5	261,677	143.9	915,326	503.4	153,677	84.5
Ceramic clay	138,723	76.3	220,093	121.1	373,642	205.5	361,182	198.7	341,762	187.9
Dolomite	1,163,580	407.3	1,328,785	465.1	1,525,810	699.4	2,263,982	1,245.2	2,195,261	1,207.4
Feldspar										
- Potassium (unground)	1,856	3.1	9,950	15.3	14,200	24.1	1,185	2.0	-	-
- Sodium (ground)	172,043	240.8	212,094	296.9	54,530	76.3	24,080	33.7	16,254	22.8
- Sodium (unground)	100,401	70.3	155,867	109.1	159,779	111.8	229,618	160.7	496,357	347.4
Glass sand	568,904	199.1	1,059,202	370.7	991,337	658.6	918,481	909.3	1,383,058	1,369.2
Kaolin										
- Unwashed	564,731	217.4	661,055	254.5	532,137	204.9	849,767	327.2	326,956	125.9
- Washed	143,966	128.8	140,619	134.9	127,965	122.8	113,947	109.4	115,224	110.6
Quartz										
- Ground	2,737	2.1	3,093	2.3	3,366	2.5	-	-	-	-
- Unground	66,560	49.9	160,147	120.1	70,350	52.8	20,320	15.2	30,011	22.5
Total		1,575.9		2,052.5		2,302.6		3,504.8		3,478.2
%		3.07		3.85		4.22		4.49		4.52

Mineral Consumption of Thailand 2013 - 2017

Quantity : Tonnes
Value : Million Baht

Mineral	2013		2014		2015		2016		2017	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Dimension Stone</u>										
Gneiss	125	0.5	-	-	70	0.3	5	0.0**	-	-
Granite	4,210*	24.8	3,339*	19.7	4,977*	28.4	4,718*	27.4	3,873*	25.2
Limestone	135	0.3	60	0.1	24	0.1	-	-	43	0.1
Marble	7,420*	28.9	7,338*	28.6	12,752*	101.3	11,400*	46.7	12,381*	50.8
Sand stone	2,415	1.7	357	0.2	4,510	3.1	560	0.4	1,260	0.9
Serpentine	-	-	-	-	400	0.0**	-	-	-	-
Travertine	-	-	1,103	2.2	2,200	4.4	3,600	7.2	1,990	3.9
Total		56.2		50.8		137.6		81.7		80.9
%		0.11		0.10		0.25		0.11		0.10
<u>Industrial Rock</u>										
Andesite	1,018,830	137.5	974,721	131.6	837,262	121.6	789,284	157.9	890,965	178.2
Basalt	10,223,704	1,380.2	13,980,299	1,887.3	12,055,712	1,734.7	12,927,838	2,585.6	12,822,093	2,564.4
Granite	7,601,333	1,026.2	6,807,192	918.9	7,893,062	1,142.9	8,392,556	1,678.5	8,926,182	1,785.2
Grawacke	801,281	84.1	1,018,120	106.9	942,630	107.7	819,237	163.8	1,546,315	309.3
Limestone	86,494,047	9,081.9	89,267,612	9,373.1	95,625,701	11,034.3	98,770,644	17,778.7	98,991,214	17,818.4
Marble (fragment)	509,688*	165.6	621,327*	201.9	1,016,419*	330.3	1,003,471*	469.6	769,531*	400.2
Perlite	14,293	10.1	12,200	8.6	12,200	10.6	12,190	18.3	7,300	10.9
Quartzite	249,985	26.2	95,665	10.0	98,208	11.0	20,424	4.1	174,096	34.8
Rhyolite	861,707	90.5	818,859	86.0	869,788	96.5	797,212	119.6	735,682	110.4
Sand stone	316,637	31.7	259,635	26.0	331,271	35.2	814,095	122.1	362,027	54.3
Total		12,034.0		12,750.3		14,624.8		23,098.2		23,266.1
%		23.48		23.91		26.82		29.59		30.23

Mineral Consumption of Thailand 2013 - 2017

Quantity : Tonnes
Value : Million Baht

Mineral	2013		2014		2015		2016		2017	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Other Industrial Minerals</u>										
Barite										
- Drilling mud (ground)	21,707	84.5	48,540	189.1	88,061	343.0	155,179	604.4	105,000	489.3
- Unground	-	-	1,270	1.9	18,050	26.8	37,017	54.9	22,320	33.1
Bentonite	150	0.1	-	-	-	-	-	-	-	-
Calcite	839,246	165.3	975,020	192.1	1,357,864	634.1	1,504,067	1,128.1	1,443,368	1,082.5
Fluorite (metallurgical grade)	48	0.3	60	0.4	-	-	204	1.2	1,640	7.9
Limestone	5,816,898	698.0	6,262,694	751.5	6,568,305	900.4	6,970,446	1,742.6	6,514,668	1,628.7
Phosphate	264	0.1	500	0.2	-	-	120	0.1	8,370	3.5
Pyrophyllite	26,000	9.1	34,900	13.6	45,488	27.3	71,220	42.7	67,816	40.7
Rock salt	1,312,516	1,443.8	1,372,904	1,510.2	1,397,168	2,124.5	1,339,851	2,612.7	1,475,405	2,877.0
Talc (unground)	7,465	4.5	8,123	4.9	6,765	4.1	8,382	5.0	7,312	4.4
Total		2,405.7		2,663.9		4,058.5		6,191.7		6,167.1
%		4.69		4.99		7.44		7.93		8.01
Grand Total		51,261.1		53,334.0		54,532.6		78,051.4		76,967.8

:- * = Cubic Meter :- 0.0** = denoting the amount of less than 0.05 million baht

Mineral Import of Thailand 2013 - 2017

Quantity : Tonnes

Value : Million Baht

Mineral	2013		2014		2015		2016		2017	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Mineral Fuels and Energy</u>										
Anthracite	101,683	570.0	184,231	833.9	166,002	667.6	181,673	777.4	138,649	573.2
Bituminous coal	8,308,880	21,464.0	10,731,867	28,802.4	10,617,077	25,968.2	10,172,204	23,061.7	9,903,771	25,517.0
Coal Solid Fuels from Coal	9,559,821	19,086.6	9,931,740	17,664.0	11,083,001	18,241.0	11,335,865	17,816.0	12,135,732	23,170.2
Coke	39,090	515.7	39,102	504.5	23,462	286.3	30,079	338.5	32,747	448.9
Lignite	4,870	24.8	35,502	50.5	30,366	46.0	91,721	120.1	198,926	209.4
Peat	9,182	79.7	10,662	96.7	12,441	105.4	15,975	133.6	20,844	177.7
Total		41,740.8		47,952.0		45,314.5		42,247.3		50,096.4
%		75.19		75.59		73.11		73.00		75.77
<u>Iron and Ferro Alloy</u>										
Chromite ore	2,739	40.1	2,473	35.0	2,177	27.9	2,268	28.7	2,298	37.7
Cobalt ore	-	-	-	-	0*	0.0*	-	-	0.3	0.2
Columbite	117	88.5	10	5.5	319	143.1	25	9.8	291	107.4
Iron ore	5,774	41.6	4,422	35.3	1,567	11.0	2,768	13.0	-	-
Iron pyrites	278	3.2	310	4.7	330	4.6	321	5.0	265	4.1
Manganese ore	18,017	38.3	18,518	37.3	18,562	41.1	21,027	37.5	36,428	60.5
Molybdenite ore	7,144	426.1	13,594	1,660.1	11,007	755.5	11,293	967.0	13,599	916.4
Nickel ore	-	-	5	3.4	0.1	0.1	7.1	2.6	2	0.9
Tungsten										
- Scheelite	0*	0.0*	-	-	-	-	-	-	-	-
- Wolfram	5	1.3	3	0.8	-	-	-	-	-	-
- Other tungsten	-	-	-	-	0.4	0.8	0*	0.0*	553	4.8
Total		639.1		1,782.1		984.1		1,063.6		1,132.0
%		1.15		2.81		1.59		1.84		1.71

Mineral Import of Thailand 2013 - 2017

Quantity : Tonnes

Value : Million Baht

Mineral	2013		2014		2015		2016		2017	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Base Metals</u>										
Aluminium ore	42,327	317.9	40,667	305.7	24,157	251.4	33,712	264.5	24,325	271.3
Antimony ore	8,215	217.4	4,392	145.0	6,134	378.4	4,143	90.3	2,184	63.2
Copper	6,666	37.3	9,502	56.8	18,818	815.4	19,868	619.9	299	3.9
Lead ore	0*	0.0*	20	0.3	1	0.0*	42	0.7	85	1.3
Tin ore	648	280.3	5,851	2,385.5	5,742	1,731.6	7,870	2,738.3	10,877	4,237.0
Zinc ore	119,896	2,451.5	41,747	999.0	82,710	1,902.7	32,306	757.3	0.1	0.0*
Total		3,304.4		3,892.3		5,079.5		4,471.0		4,576.7
%		5.95		6.14		8.20		7.73		6.92
<u>Precious Metals and Precious Stone</u>										
Emery	7,093	74.4	17,953	173.3	20,363	185.0	7,725	76.5	5,908	66.9
Silver ore	12	1.2	12	1.2	12	1.3	11	0.7	19	1.3
Total		75.6		174.5		186.3		77.2		68.2
%		0.14		0.27		0.30		0.13		0.10
<u>Light Metals and Rare Earth</u>										
Ilmenite ore	78	4.0	198	7.0	99	3.2	222	6.8	150	4.9
Niobium and Vanadium ore	12,810	1,656.3	14,050	1,084.7	13,605	1,100.0	16,278	1,657.7	6,771	1,137.3
Titanium ore										
- Rutile	3,991	220.3	6,799	241.1	5,220	169.5	4,108	129.8	2,423	75.9
- Leucoxene	2,540	128.4	1,700	59.0	2,798	97.4	2,960	96.9	4,382	145.1
- Ilmenite	900	17.2	1,160	18.1	1,040	15.7	1,040	15.0	960	13.5
- Other Titanium ore	1,161	15.0	2,064	25.5	1,704	22.8	26	0.7	21	0.7

Mineral Import of Thailand 2013 - 2017

Quantity : Tonnes

Value : Million Baht

Mineral	2013		2014		2015		2016		2017	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Light Metals and Rare Earth (cont.)</u>										
Tantalite	42	77.0	182	356.2	387	693.0	208	360.8	658	904.5
Thorium ore	-	-	-	-	-	-	-	-	0.1	0.2
Xenotime	-	-	-	-	40	0.5	-	-	-	-
Zirconium ore	35,696	506.8	51,545	629.1	81,932	958.0	40,659	521.1	38,529	586.0
Total		2,625.0		2,420.7		3,060.1		2,788.8		2,868.1
%		4.73		3.82		4.94		4.82		4.34
<u>Cement Industrial Minerals</u>										
Anhydrite	19	0.5	-	-	-	-	0*	0.0*	-	-
Gypsum	488	8.3	456	7.3	258	5.5	227	3.8	214	4.4
Limestone	3,057	3.3	3,046	3.9	2,844	7.6	76,654	27.5	374,399	93.7
Total		12.1		11.2		13.1		31.3		98.1
%		0.02		0.02		0.02		0.05		0.15
<u>Ceramic Industrial Minerals</u>										
Andalusite, Kyannite and Sillimanite	4,744	53.9	2,726	34.3	2,926	32.6	5,849	64.5	4,324	46.5
Attapulgit	20	0.8	276	7.5	186	7.3	152	6.4	163	5.5
Ball Clay	6,932	29.5	9,710	40.3	8,246	43.0	16,815	98.3	25,594	156.9
Dolomite	853	9.5	3,137	59.9	1,495	21.6	785	7.9	1,078	25.6
Feldspar										
- Potassium	30,395	94.6	36,000	117.6	34,389	116.2	27,416	97.9	-	-
- Sodium	5,871	20.9	2,807	11.6	1,645	7.0	2,051	8.7	-	-
- Other Feldspar	5,612	35.9	8,275	53.6	14,403	84.0	7,658	57.1	-	-

Mineral Import of Thailand 2013 - 2017

Quantity : Tonnes

Value : Million Baht

Mineral	2013		2014		2015		2016		2017	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Ceramic Industrial Minerals (cont.)</u>										
Kaolin										
- Ceramic	17,240	133.2	68,240	182.7	73,587	181.5	23,810	193.3	20,539	174.4
- Paper	3,166	29.6	7,486	74.7	3,600	39.5	4,371	49.8	4,781	51.8
- Others	69,061	639.9	66,833	697.6	65,872	675.7	73,499	729.1	68,343	658.5
Lucite, Nepheline and Nepheline Syer	1,464	13.7	1,338	13.7	414	5.9	409	12.4	556	16.5
Mullite	2,115	29.2	1,898	28.9	1,961	30.1	1,959	34.0	2,548	44.6
Quartz	3,248	17.7	5,920	39.4	9,978	95.2	15,578	137.4	37,216	229.2
Silica sand	110,329	234.9	165,366	299.3	144,273	250.3	143,315	277.3	190,852	380.1
Total		1,343.3		1,661.1		1,589.9		1,774.1		1,789.6
%		2.42		2.62		2.57		3.06		2.70
<u>Dimension Stone</u>										
Ecaussine	2,858	36.6	1,023	9.9	-	-	-	-	0*	0.0*
Granite	132,200	491.9	128,227	525.1	112,695	492.4	114,134	465.4	98,569	373.4
Marble	37,128	348.0	38,279	387.6	55,610	565.7	60,462	588.8	59,121	720.1
Sandstone	220	2.6	823	11.6	6,847	12.1	14,182	11.2	14,871	16.1
Slate	117	0.8	150	1.0	94	1.3	188	2.2	51	0.5
Travertine	0*	0.0*	17	0.2	-	-	0*	0.0*	-	-
Total		879.9		935.4		1,071.5		1,067.6		1,110.1
%		1.58		1.47		1.73		1.84		1.68

Mineral Import of Thailand 2013 - 2017

Quantity : Tonnes

Value : Million Baht

Mineral	2013		2014		2015		2016		2017	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Industrial Rock</u>										
Basalt	25,392	163.8	25,937	166.5	25,122	199.5	40,860	298.3	90,726	235.0
Flint	1,345	10.9	30,663	18.9	31,214	13.3	19,705	14.1	303,909	90.3
Pumice stone	5,475	58.4	5,035	51.6	5,005	49.7	4,727	53.2	4,829	48.0
Vermiculite, Perlite and Chlorites	3,859	34.5	4,617	48.3	4,831	43.9	5,239	55.0	4,827	45.5
Total		267.6		285.3		306.4		420.6		418.8
%		0.48		0.45		0.49		0.73		0.63
<u>Other Industrial Minerals</u>										
Apatite (ground)	1,292	6.5	1,427	6.2	448	2.7	1,110	4.4	2,066	7.6
Asbestos	53,130	826.9	42,625	684.0	36,513	659.2	33,898	527.3	41,060	616.2
Barite	67,537	285.9	65,089	201.4	98,358	183.6	86,651	163.0	81,133	177.1
Bentonite	103,195	639.0	101,284	665.3	104,547	717.4	107,644	758.0	120,287	776.6
Calcite	60	0.2	41	0.2	-	-	30	0.1	216	0.5
Chalk	67	1.4	81	2.5	96	5.4	76	1.3	41	1.1
Fireclay	618	10.6	553	6.6	484	8.2	1,756	19.1	1,975	18.2
Fluorite	578	12.1	545	12.1	498	8.7	1,517	10.3	2,962	22.3
Graphite	2,121	118.1	3,300	119.7	4,435	113.9	5,359	132.9	6,767	141.5
Kieserite	10,444	59.0	4,848	27.8	10,496	63.0	5,853	30.4	8,425	35.0
Magnesite	7,073	92.5	7,146	81.0	3,456	42.5	3,232	37.5	4,303	42.0
Mica	4,504	119.6	4,392	122.2	5,501	167.2	5,979	176.2	5,828	180.0
Orpiment	163	1.0	0.1	0.0*	166.0	1.2	14.4	0.7	15.0	0.7

Mineral Import of Thailand 2013 - 2017

Quantity : Tonnes

Value : Million Baht

Mineral	2013		2014		2015		2016		2017	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Other Industrial Minerals (cont.)										
Phosphate										
- Ground	0*	0.0*	1	0.0*	0.1	0.0*	0*	0.0*	0*	0.0*
- Unground	-	-	-	-	0*	0.0*	250	1.2	1	0.2
Pyrophyllite	42	0.7	1	0.5	0.1	0.0*	-	-	-	-
Steatite	927	12.0	805	15.2	491	12.2	495	14.8	1,501	22.3
Sulphur	137,587	685.0	115,426	715.5	122,771	759.3	96,241	405.3	56,255	274.4
Talc	143,049	1,751.1	137,228	1,662.8	134,349	1,625.0	137,350	1,646.5	140,289	1,634.2
Witherite	325	4.3	191	2.6	193	2.7	253	3.8	125	2.1
Total		4,625.9		4,325.6		4,372.2		3,932.8		3,952.0
%		8.33		6.82		7.05		6.80		6.00
Grand Total		55,513.7		63,440.2		61,977.6		57,874.3		66,110.0

:- 0* denoting the amount of less than 0.1 metric tonnes :- 0.0* denoting the amount of less than 0.05 million baht

data from 'www.customs.go.th'

Mineral Royalty of Thailand 2013-2017

unit: Thousand Baht

Mineral	2013	2014	2015	2016	2017
Andesite (Industrial rock)	5,178.40	6,013.60	6,864.31	11,329.83	10,984.60
Anhydrite	20,339.39	24,734.44	26,341.59	36,694.07	35,320.16
Antimony	265.88	96.82	-	4.62	-
Ball clay	7,493.89	7,830.38	6,631.75	22,556.50	3,915.36
Barite					
- Chemical grade (ground)	629.90	505.73	479.07	473.23	413.99
- Drilling mud (ground)	1,939.09	4,221.71	10,326.50	12,988.19	7,753.64
- Unground	6,062.26	6,068.60	4,971.62	6,462.05	3,894.90
Basalt (Industrial rock)	62,089.98	75,277.86	72,376.31	111,903.52	107,278.62
Bentonite	3.60	-	260.40	-	-
Calcite	7,102.49	7,920.97	23,180.86	46,154.47	47,516.31
Cement clay	10,609.27	16,138.34	18,613.16	21,009.58	17,631.17
Ceramic clay	2,676.63	5,806.53	8,686.48	7,863.02	7,614.24
Copper Metal	0.04	1,315.19	-	-	-
Dolomite	32,503.50	42,889.31	55,665.70	65,082.80	68,208.39
Dolomitic Marl	-	-	6.37	5.73	14.70
Feldspar					
- Potassium (ground)	145.92	192.96	133.44	110.88	50.88
- Potassium (unground)	784.49	676.60	967.37	21.15	-
- Sodium (ground)	10,936.02	13,184.47	6,857.79	8,142.04	7,356.54
- Sodium (unground)	20,932.59	26,398.65	32,808.32	20,935.57	34,775.97
Final Slag	-	423.37	-	61.04	58.36
Fluorite	8,364.24	18,424.02	16,346.67	19,421.87	8,396.30
Garnet	12.00	-	-	-	-
Glass sand	8,866.81	14,539.25	30,455.43	46,758.85	65,396.63
Gneiss (Dimension stone)	25.60	224.80	17.60	5.92	19.20
Gold Metal	521,187.64	485,845.66	333,447.48	519,865.28	-

Mineral Royalty of Thailand 2013-2017

unit: Thousand Baht

Mineral	2013	2014	2015	2016	2017
Granite					
- Dimension stone	777.48	970.58	1,083.11	1,605.07	1,062.20
- Industrial rock-construction	45,681.69	41,886.29	49,055.74	74,615.55	76,453.35
- Industrial rock-ceramic	-	-	-	448.00	-
Graywacke	3,119.61	3,782.60	4,173.10	7,891.04	12,146.72
Gypsum	255,417.03	302,309.40	297,944.55	274,757.14	246,463.94
Ilmenite	63.61	18.28	-	-	955.00
Iron Ore	24,369.89	24,901.21	789.81	327.60	2,169.30
Kaolin					
- Filler	1,269.98	874.76	1,055.49	2,091.85	2,097.60
- Unwashed	9,458.11	10,503.75	8,130.59	11,976.61	4,695.77
- Washed	5,752.76	4,873.44	5,427.58	4,944.95	4,430.05
Lead	-	-	-	-	74.22
Lignite	726,748.80	708,759.88	588,546.59	647,780.02	623,642.07
Limestone					
- Dimension stone	1.20	-	-	-	-
- Industrial rock-construction	387,773.22	403,815.00	462,674.05	761,127.29	759,963.57
- Industrial rock-cement	520,648.24	600,813.37	662,104.02	1,240,760.86	1,280,736.45
- Industrial rock-others	30,120.18	36,234.68	40,472.13	65,755.48	69,499.65
Manganese (Metallurgical grade)	1,208.95	720.25	78.77	867.18	390.68
Marble					
- Dimension stone	1,174.48	1,867.52	2,173.48	1,720.28	4,062.51
- Fragment	6,891.69	7,126.04	10,939.57	18,598.38	14,444.54
Marl	348.16	564.16	288.66	142.80	322.32
Monazite	156.49	-	-	359.17	138.43
Other Stone	-	321.42	635.64	70.20	218.48
Perlite (Industrial rock)	403.63	390.05	419.70	986.40	2,988.00

Mineral Royalty of Thailand 2013-2017

unit: Thousand Baht

Mineral	2013	2014	2015	2016	2017
Phosphate	101.62	6.32	4.49	9.65	137.45
Potash	-	-	-	-	1.23
Pyrophyllite	424.54	610.61	1,091.71	1,800.48	1,682.40
Quartz	2,352.32	4,862.61	2,221.05	830.76	1,413.45
Quartzite	828.81	401.79	435.41	163.39	1,392.77
Rhyolite (Industrial rock)	3,619.17	595.44	1,238.46	4,747.28	4,601.95
Rock salt	58,124.00	61,160.00	85,000.60	104,910.00	116,050.39
Rutile	-	-	-	-	70.67
Sand Stone					
- Dimension stone	59.10	7.96	191.45	112.22	265.17
- Industrial rock	1,573.68	1,455.69	3,127.68	7,393.38	2,253.35
Serpentine (Industrial rock)	-	-	1.68	-	-
Scheelite	1,057.83	777.93	994.40	1,331.81	2,400.03
Shale (Industrial rock-cement)	35,305.14	50,276.73	65,474.54	156,182.64	111,038.62
Silver Metal	74,529.53	61,863.29	36,533.86	71,630.57	-
Struverite	1,530.00	542.21	-	987.90	1,294.94
Talc	186.62	196.99	165.89	171.02	167.04
Tin	7,679.80	7,746.66	3,162.83	5,330.61	34,138.93
Travertine (Dimension)	-	182.32	208.83	304.68	360.17
Wolfram	203.75	139.31	60.98	791.40	-
Xenotime	72.72	45.45	-	-	-
Zinc Metal	32,314.07	54,954.52	48,694.39	70,710.64	25,990.89
Zircon	-	20.49	-	265.67	100.13
Total	2,969,497.56	3,155,308.29	3,040,039.00	4,502,350.18	3,836,914.39

Total Values of Mineral of Thailand 2013-2017

Million Baht

	2013	2014	2015	2016	2017
PRODUCTION	60,724.3	64,182.7	63,630.3	87,746.5	77,319.7
CONSUMPTION	51,261.1	53,334.0	54,532.6	78,051.4	76,967.8
IMPORT	55,513.7	63,440.2	61,977.6	57,874.3	66,110.0
EXPORT	27,994.5	24,756.4	17,436.0	20,140.0	12,860.2

