

Statistics Report

No. ICTC 1/2019

Mineral Statistics of Thailand
2014 - 2018

Statistics Group
Information and Communication Technology Center
Department of Primary Industries and Mines

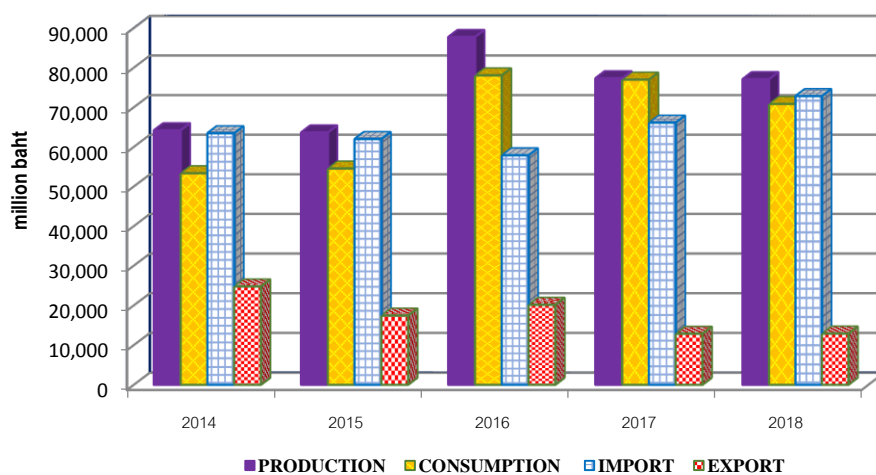
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Mineral Statistics of Thailand

2014 - 2018

Total Values of Mineral of Thailand 2014-2018



Statistics Group

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A N D E S I T E

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
Northern Region					
Chiang Mai	-	-	-	217,466	484,820
Phetchabun	421,168	301,800	339,368	398,200	459,584
Uttaradit	388,810	370,648	295,983	265,593	320,559
Central Region					
Sara Buri	142,537	200,574	179,764	293,595	-
Total Production	952,515	873,022	815,115	1,174,854	1,264,963
Value (Million Baht)	128.6	126.7	163.0	234.9	253.0
<u>Consumption</u>					
Total Consumption	974,721	837,262	789,284	890,965	1,040,277
Value (Million Baht)	131.6	121.6	157.9	178.2	208.1

ANHYDRITE

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
Northern Region					
Nakhon Sawan	-	-	-	18,000	-
Southern Region					
Nakhon Si Thammarat	7,260	49,700	91,690	93,050	142,150
Surat Thani	969,558	826,324	1,248,523	1,281,643	1,375,078
Total Production	976,818	876,024	1,340,213	1,392,693	1,517,228
Value (Million Baht)	565.5	552.6	889.9	896.1	904.2
<u>Export</u>					
Unground					
Asia					
Cambodia	-	-	-	-	1,100
India	35,000	50,000	100,000	139,500	164,757
Indonesia	-	2,000	33,900	28,750	29,000
Japan	547,940	426,710	511,550	544,860	641,900
Korea, South	391,111	316,450	365,200	349,550	257,950
Malaysia	135,100	168,550	170,400	182,300	241,000
Philippines	2,000	-	-	-	-
Vietnam	-	71,200	169,200	204,200	192,500
Australia / Oceania					
Australia	-	60	-	-	-
Total Export	1,111,151	1,034,970	1,350,250	1,449,160	1,528,207
Value (Million Baht)	630.0	674.3	880.2	896.2	913.3
<u>Consumption</u>					
Total Consumption	142	-	-	102	-
Value (Million Baht)	0.1	-	-	0.1	-
<u>Import¹</u>					
Total Import	-	-	0**	-	0**
Value (Million Baht)	-	-	0.0*	-	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'

A N T H R A C I T E

	Tonnes				
	2014	2015	2016	2017	2018
<u>Import</u>¹					
Total Import	184,231	166,002	181,673	138,649	173,288
Value (Million Baht)	833.9	667.6	777.4	573.2	760.8

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

ANTIMONY

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
Northern Region					
Phrae Ore	-	-	32	-	-
Total Production Ore	-	-	32	-	-
Value (Million Baht) Ore	-	-	0.9	-	-
<u>Export</u>					
Ore					
Asia					
China	2,023	648	752	1,386	888
Hong Kong	25	-	-	-	-
India	-	-	70	13	-
Japan	-	0**	-	0.2	0.1
Malaysia	-	-	-	-	-
Myanmar	0.2	-	40	-	-
Taiwan	38	42	43	-	0**
Vietnam	1,425	2,825	3,001	0**	1,108
Australia / Oceania					
Australia	-	-	-	0**	-
Europe					
Belgium	25	-	-	-	-
Netherlands	-	195	-	-	26
U.K.	-	-	-	-	0**
Total Export	3,536	3,710	3,906	1,399	2,022
Value (Million Baht)	107.4	208.9	95.4	21.6	86.8
<u>Consumption</u>					
Total Consumption	-	-	2	-	-
Value (Million Baht)	-	-	0.1	-	-
<u>Import</u>¹					
Total Import	4,392	6,134	4,143	2,184	1,914
Value (Million Baht)	145.0	378.4	90.3	63.2	54.5

0** denoting the amount of less than 0.1 tonnes

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

BALL CLAY

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
Northern Region					
Chiang Rai	-	-	-	-	-
Lampang	-	-	65,701	87,678	490,837
Central Region					
Prachin Buri	112	-	-	-	-
Sara Buri	120,500	78,800	68,000	66,000	84,948
Southern Region					
Nakhon Si Thammarat	2,470	2,445	2,945	3,415	3,780
Total Production	123,082	81,245	136,646	157,093	579,565
Value (Million Baht)	67.7	44.7	75.2	86.4	318.8
<u>Export</u>					
Asia					
Bangladesh	2,354	154	-	1,330	2,908
China	2,660	3,510	1,490	1,552	2,680
India	2,520	3,973	1,344	3	24
Indonesia	-	1,486	-	1,782	4,112
Iran	-	60	-	-	-
Japan	-	-	-	20	200
Malaysia	7,060	9,318	6,904	6,020	7,845
Vietnam	8,920	7,960	3,600	3,143	4,084
Total Export	23,514	26,461	13,338	13,850	21,853
Value (Million Baht)	100.5	120.6	64.0	61.1	97.9

	Tonnes				
	2014	2015	2016	2017	2018
<u>Consumption</u>					
Total Consumption	295,379	261,677	915,326	153,677	284,563
Value (Million Baht)	162.5	143.9	503.4	84.5	156.5
<u>Import¹</u>					
Total Import	9,710	8,246	16,815	25,594	24,895
Value (Million Baht)	40.3	43.0	98.3	156.9	149.5

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

B A R I T E

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
1. Ground (Chemical grade)					
Northeastern Region					
Loei	4,425	4,075	2,232	1,563	1,647
Total Production	4,425	4,075	2,232	1,563	1,647
Value (Million Baht)	25.9	23.8	13.8	14.8	16.0
2. Ground (Drilling Mud grade)					
Northern Region					
Phrae	48,540	127,591	155,799	105,000	52,694
Total Production	48,540	127,591	155,799	105,000	52,694
Value (Million Baht)	189.1	497.0	606.8	489.3	246.1
3. Unground					
Southern Region					
Nakhon Si Thammarat	81,996	38,995	65,070	41,391	13,149
Total Production	81,996	38,995	65,070	41,391	13,149
Value (Million Baht)	121.8	57.8	96.6	61.5	19.5
<u>Export</u>					
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				
	2014	2015	2016	2017	2018
2. Ground (Chemical grade)					
Africa					
Egypt	22	22	-	-	-
South Africa	-	10	-	-	-
Asia					
Brunei	-	510	3,519	-	-
China	4	-	-	-	-
Hong Kong	80	60	44	40	-
India	21	-	-	-	-
Indonesia	1,049	806	-	-	-
Japan	454	369	225	177	80
Jordan	88	22	22	22	40
Korea, South	147	168	93	105	252
Malaysia	2,404	2,023	11,404	2,202	803
Singapore	220	228	183	120	140
Taiwan	377	489	189	308	391
U.A.E.	176	-	288	-	-
Vietnam	832	910	323	72	-
Australia / Oceania					
Australia	768	1,104	216	48	24
New Zealand	48	24	-	-	-
Total Export	6,690	6,745	16,506	3,094	1,731
Value (Million Baht)	52.5	84.9	94.2	22.9	18.4
3. Ground (Drilling Mud grade)					
Asia					
Brunei	-	2,000	-	4,002	4,002
Indonesia	-	-	2,091	-	1,000
Korea, South	-	282	-	2	-
Kuwait	-	-	2,000	-	-
Malaysia	756	11,658	-	2,884	450
Myanmar	-	1,000	-	-	-
Saudi Arabia	-	-	22,450	-	-
Singapore	756	904	-	3,051	-
Total Export	1,512	15,844	26,541	9,939	5,452
Value (Million Baht)	8.5	68.4	70.0	53.8	32.8

	2014	2015	2016	2017	2018
					Tonnes
<u>Consumption</u>					
1. Ground (Drilling mud)	48,540	88,061	155,179	10,500	54,221
Value (Million Baht)	189.1	343.0	604.4	489.3	253.2
2. Unground	1,270	18,050	37,017	22,320	4,522
Value (Million Baht)	1.9	26.8	54.9	33.1	6.7
<u>Import</u>¹					
Total Import	65,089	98,358	86,651	81,133	90,092
Value (Million Baht)	201.4	183.6	163.0	177.1	197.0

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

B A S A L T

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
 Northeastern Region					
Buri Ram	4,517,885	4,289,522	4,466,448	4,057,082	4,849,318
Nakhon Ratchasima	1,694,692	1,554,918	1,989,920	2,035,267	1,868,623
Si Sa Ket	-	83,320	316,580	577,300	919,286
Surin	5,919,373	4,415,255	3,986,076	2,733,650	2,169,304
Ubon Ratchathani	1,998,660	2,442,666	2,615,568	3,140,813	4,226,687
 Central Region					
Lop Buri	-	84,640	168,358	227,973	268,362
Trat	2,000	6,728	4,492	-	-
Total Production	14,132,610	12,877,048	13,547,442	12,772,085	14,301,581
Value (Million Baht)	1,907.9	1,851.2	2,709.5	2,554.4	2,860.3
<u>Consumption</u>					
Total Consumption	13,980,299	12,055,712	12,927,838	12,822,093	12,486,969
Value (Million Baht)	1,887.3	1,734.7	2,585.6	2,564.4	2,497.4
<u>Import</u>¹					
Total Import	25,937	25,122	40,860	90,726	201,574
Value (Million Baht)	166.5	199.5	298.3	235.0	177.7

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

BENTONITE

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
Central Region					
Lop Buri	-	-	-	-	-
Total Production	-	-	-	-	-
Value (Million Baht)	-	-	-	-	-
<u>Consumption</u>					
Total Consumption	-	-	-	-	-
Value (Million Baht)	-	-	-	-	-
<u>Import¹</u>					
Total Import	101,283	104,547	107,644	120,287	127,807
Value (Million Baht)	665.3	717.4	758.0	776.6	776.4

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

CALCITE

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
Northern Region					
Lamphun	-	-	-	-	-
Northeastern Region					
Nakhon Ratchasima	21,417	-	-	-	-
Central Region					
Lop Buri	970,564	1,281,765	1,452,235	1,456,747	1,467,822
Total Production	991,981	1,281,765	1,452,235	1,456,747	1,467,822
Value (Million Baht)	195.4	610.8	1,089.2	1,092.6	1,100.9
<u>Consumption</u>					
Total Consumption	975,020	1,357,864	1,504,067	1,443,368	1,408,695
Value (Million Baht)	192.1	634.1	1,128.1	1,082.5	1,056.5
<u>Import¹</u>					
Total Import	41	-	30	216	304
Value (Million Baht)	0.2	-	0.1	0.5	0.6

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

CEMENT CLAY

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
Northern Region					
Lampang	81,258	230,591	297,776	302,554	220,406
Nakhon Sawan	20,000	20,000	40,000	38,550	-
Northeastern Region					
Nakhon Ratchasima	872,665	1,180,754	710,897	533,673	866,383
Central Region					
Lop Buri	280,510	857,160	1,086,932	1,053,093	982,712
Phetchaburi	-	-	150,734	5,000	27,980
Prachin Buri	9,000	43,000	125,540	110,072	38,893
Sara Buri	1,963,455	2,077,178	1,597,999	1,833,851	3,363,467
Southern Region					
Krabi	897,128	384,000	497,000	330,000	301,642
Nakhon Si Thammarat	-	-	-	95,000	36,325
Total Production	4,124,016	4,792,683	4,506,878	4,301,793	5,837,807
Value (Million Baht)	371.2	431.3	405.6	387.2	525.4
<u>Consumption</u>					
Total Consumption	4,548,240	4,760,412	4,278,942	3,142,781	5,786,258
Value (Million Baht)	416.6	428.4	385.1	282.9	520.8

C E R A M I C C L A Y

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
 Northeastern Region					
Chaiyaphum	221,500	304,800	266,000	252,850	309,000
 Central Region					
Lop Buri	-	102,000	36,100	45,800	121,000
Sara Buri	91,463	107,244	69,586	49,332	31,653
Sing Buri	-	-	-	10,000	24,200
Total Production	312,963	514,044	371,686	357,982	485,853
Value (Million Baht)	172.1	282.7	204.4	196.9	267.2
<u>Consumption</u>					
Total Consumption	220,093	373,642	361,182	341,762	337,964
Value (Million Baht)	121.1	205.5	198.7	187.9	185.9

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

Tonnes

	2014	2015	2016	2017	2018
<u>Export</u>					
Asia					
China	50	-	-	-	-
Total Export	50	-	-	-	-
Value (Million Baht)	7.1	-	-	-	-
<u>Import (Columbite)</u>¹					
Total Import	10	319	25	291	377
Value (Million Baht)	5.5	143.1	9.8	107.4	209.0

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

C O P P E R

Tonnes

	2014	2015	2016	2017	2018
<u>Production (Metal)</u>					
Northeastern Region					
Loei	229	-	-	-	-
Total Production	229	-	-	-	-
Value (Million Baht)	52.3	-	-	-	-
<u>Export (Metal)</u>					
Asia					
Hong Kong	229	-	-	-	-
Total Export	229	-	-	-	-
Value (Million Baht)	52.3	-	-	-	-
<u>Import (ore)¹</u>					
Total Import	9,502	18,818	19,868	299	384
Value (Million Baht)	56.8	815.4	619.9	3.9	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

	2014	2015	2016	2017	2018
<u>Production</u>					
Northern Region					
Phetchabun	14,190	14,000	6,600	2,640	23,431
Phrae	4,792	3,717	25,600	-	-
Central Region					
Kanchanaburi	59,368	266,091	184,572	402,606	269,465
Southern Region					
Krabi	153,514	603,667	1,045,086	631,691	984,506
Phangnga	150,615	179,577	202,579	237,288	206,621
Songkhla	285,800	259,137	501,922	341,500	326,590
Surat Thani	1,608,207	845,665	698,500	1,005,611	1,310,172
Trang	195,000	261,000	370,000	367,000	319,408
Total Production	2,471,486	2,432,853	3,034,860	2,988,336	3,440,193
Value (Million Baht)	865.0	1,090.0	1,669.2	1,643.6	1,892.1
<u>Export</u>					
1. Ground					
Asia					
Bangladesh	1,354	-	55	-	40
Cambodia	-	-	4,585	-	-
Malaysia	-	-	-	-	-
Myanmar	1,500	-	-	-	-
Philippines	1,580	-	-	820	-
Total Export	4,434	-	4,640	820	40
Value (Million Baht)	1.1	-	7.4	0.2	0.4

Tonnes

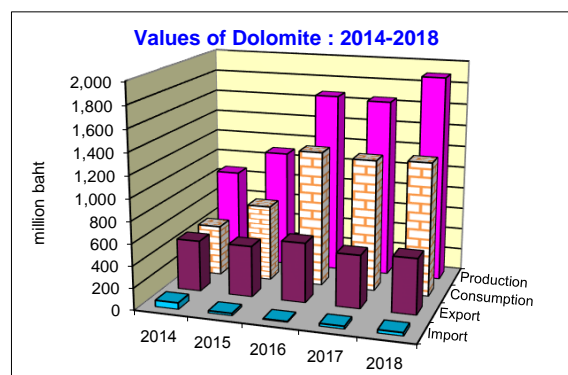
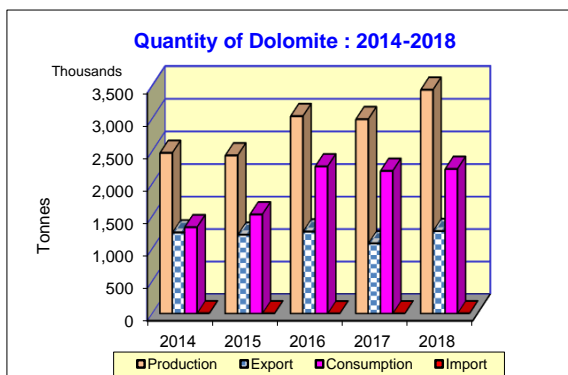
	2014	2015	2016	2017	2018
2. Unground					
Asia					
Bangladesh	-	2,120	-	-	-
India	588,415	497,134	438,870	458,461	425,500
Indonesia	8,300	-	35,000	7,500	-
Japan	553,750	537,900	565,850	458,150	360,500
Jordan	-	-	-	-	33,200
Malaysia	7,385	40,250	-	-	222,200
Taiwan	90,000	135,650	222,165	156,305	182,000
South America					
Chile	-	-	-	-	46,200
Total Export	1,247,850	1,213,054	1,261,885	1,080,416	1,269,600
Value (Million Baht)	469.9	469.3	547.4	487.2	508.7

Consumption

Total Consumption	1,328,785	1,525,810	2,263,982	2,195,261	2,225,240
Value (Million Baht)	465.1	699.4	1,245.2	1,207.4	1,223.9

Import¹

Total Import	3,137	1,495	785	1,078	1,549
Value (Million Baht)	59.9	21.6	7.9	25.6	30.5



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

DOLOMITIC MARL

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
Northern Region					
Phrae	-	-	-	-	6,920
Total Production	-	-	-	-	6,920
Value (Million Baht)	-	-	-	-	2.4
<u>Consumption</u>					
Total Consumption	-	-	-	-	10,634
Value (Million Baht)	-	-	-	-	3.7

F E L D S P A R

Tonnes

	2014	2015	2016	2017	2018
Production					
1. Potassium Feldspar (Unground)					
Central Region					
Kanchanaburi	11,000	400	-	-	-
Prachuap Khiri Khan	-	-	-	-	-
Southern Region					
Nakhon Si Thammarat	4,220	2,420	3,200	-	-
Total Production	15,220	2,820	3,200	-	-
Value (Million Baht)	25.9	4.8	5.4	-	-
2. Sodium Feldspar (Unground)					
Northern Region					
Tak	273,346	250,943	252,723	269,849	204,340
Central Region					
Kanchanaburi	900	5,096	5,260	11,550	2,900
Ratchaburi	92,402	126,017	158,864	188,596	118,200
Southern Region					
Nakhon Si Thammarat	1,031,560	947,040	747,100	915,930	792,363
Total Production	1,398,208	1,329,096	1,163,947	1,385,925	1,117,803
Value (Million Baht)	978.7	930.4	814.8	970.1	782.5
Export					
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	-

	2014	2015	2016	2017	2018
					Tonnes
3. Sodium Feldspar (Ground)					
Asia					
Bangladesh	126,722	207,670	263,972	375,940	404,286
China	-	-	-	-	-
India	25,700	33,000	22,072	-	-
Indonesia	171,716	177,812	100,884	72,292	94,672
Malaysia	98,910	101,190	64,180	70,730	66,970
Myanmar	-	-	-	-	-
Saudi Arabia	15,000	-	-	-	-
Singapore	-	18,500	-	-	-
Sri Lanka	-	-	-	1	-
U.A.E.	369,500	198,900	153,480	116,288	104,400
Vietnam	46,574	33,045	33,909	25,625	29,585
Europe					
Belgium	28,950	-	-	-	-
Total Export	883,072	770,117	638,497	660,876	699,913
Value (Million Baht)	770.5	707.9	569.4	579.5	593.4
<u>Consumption</u>					
1. Potassium Feldspar (Unground)	9,950	14,200	1,185	-	-
Value (Million Baht)	15.3	24.1	2.0	-	-
2. Sodium Feldspar (Ground)	212,094	54,530	24,080	16,254	32,598
Value (Million Baht)	296.9	76.3	33.7	22.8	45.6
3. Sodium Feldspar (Unground)	155,867	159,779	229,618	496,357	441,345
Value (Million Baht)	109.1	111.8	160.7	347.4	308.9

	Tonnes				
	2014	2015	2016	2017	2018
<u>Import</u>¹					
1. Potassium Feldspar	36,000	34,389	27,416	-	-
Value (Million Baht)	117.6	116.2	97.9	-	-
2. Sodium Feldspar	2,807	1,645	2,051	-	-
Value (Million Baht)	11.6	7.0	8.7	-	-
3. Other Feldspar	8,275	14,403	7,568	-	-
Value (Million Baht)	53.6	84.0	57.1	-	-

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

FLUORITE

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
Northern Region					
Lamphun	4,590	14,495	18,800	-	10,500
Phrae	-	600	1,100	2,500	6,200
Central Region					
Kanchanaburi	-	-	200	3,000	-
Total Production	4,590	15,095	20,100	5,500	16,700
Value (Million Baht)	30.7	112.4	120.2	26.8	81.0
<u>Export (Metallurgical Grade)</u>					
Asia					
China	-	550	5,124	520	1,080
Hong Kong	325	-	-	-	-
India	3,090	20,613	24,541	19,163	36,968
Indonesia	200	80	60	-	-
Korea, North	-	330	-	-	-
Korea, South	410	22	-	-	154
Malaysia	-	-	-	-	95
Singapore	-	25	-	-	-
Taiwan	850	-	150	-	-
Europe					
Turkey	-	850	1,819	1,040	182
Ukraine	-	-	480	-	-
Total Export	4,875	22,470	32,174	20,723	38,479
Value (Million Baht)	35.4	121.8	174.2	111.5	186.2
<u>Consumption</u>					
Total Consumption	60	-	204	1,640	500
Value (Million Baht)	0.4	-	1.2	7.9	2.4
<u>Import</u>¹					
Total Import	545	498	1517	2962	1994
Value (Million Baht)	12.1	8.7	10.3	22.3	16.2

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

G A R N E T

	Tonnes				
	2014	2015	2016	2017	2018
<u>Export</u>					
Asia					
China	-	-	-	-	900
Hong Kong	-	-	-	-	2,380
Europe					
Ukraine	216	-	-	378	-
North America					
U.S.A.	-	-	-	6,490	1,320
Total Export	216	-	-	6,868	4,600
Value (Million Baht)	1.1	-	-	43.5	46.5

GLASS SAND

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
 Northeastern Region					
Bueng Kan	1,887	23,289	43,000	60,000	44,101
Roi Et	5,950	45,900	122,850	140,850	126,000
 Central Region					
Cha Choeng Sao	190,000	215,000	120,000	132,990	186,531
Chanthaburi	240,110	193,560	207,675	102,995	92,305
Rayong	559,843	600,632	518,345	933,460	1,003,579
 Southern Region					
Chumphon	136,116	113,231	90,829	386,013	104,702
Total Production	1,133,906	1,191,612	1,102,699	1,756,308	1,557,218
Value (Million Baht)	396.9	838.3	1,091.7	1,738.7	1,541.6
<u>Consumption</u>					
Total Consumption	1,059,202	991,337	918,481	1,383,058	1,529,709
Value (Million Baht)	370.7	658.6	909.3	1,369.2	1,514.4
<u>Import</u>¹					
Total Import	165,366	144,273	143,315	190,852	156,550
Value (Million Baht)	299.3	250.3	277.3	380.1	477.9

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

G N E I S S

	Tonnes				
	2014	2015	2016	2017	2018
<u>Production</u>					
Central Region					
Prachuap Khiri Khan	-	-	-	485	1,930
Total Production	-	-	-	485	1,930
Value (Million Baht)	-	-	-	1.9	7.7
<u>Consumption</u>					
Total Consumption	-	70	5	-	-
Value (Million Baht)	-	0.3	0.0*	-	-

0.0* denoting the amount of less than 0.05 million baht

G O L D

	2014	2015	2016	2017	2018
					Gram
<hr/>					
<u>Production (Metal)</u>					
Northern Region					
Phetchabun	4,114,053	3,305,225	4,185,795	-	-
Phichit	311,815	-	107,151	-	-
Northeastern Region					
Loei	87,726	-	-	-	-
Total Production	4,513,594	3,305,225	4,292,946	-	-
Value (Million Baht)	5,946.4	4,210.4	6,039.9	-	-
<u>Export (Metal)</u>					
Asia					
Hong Kong	4,513,594	3,305,225	4,292,946	-	-
Total Export	4,513,594	3,305,225	4,292,946	-	-
Value (Million Baht)	5,946.4	4,210.4	6,039.9	-	-

G R A N I T E

Tonnes

	2014	2015	2016	2017	2018
Production					
1. Dimension Stone*					
Northern Region					
Kamphaeng Phet	-	707	115	-	-
Nakhon Sawan	82	-	-	-	-
Tak	2,136	3,673	3,859	2,802	1,263
Central Region					
Cha Choeng Sao	58	179	47	20	51
Prachuap Khiri Khan	700	600	1,503	2,545	-
Total Production	2,976	5,159	5,524	5,367	1,314
Value (Million Baht)	17.6	29.9	32.0	34.9	8.3
2. Industrial Rock					
Northern Region					
Tak	199,571	190,764	179,478	52,316	-
Central Region					
Cha Chaeng Sao	222,200	291,500	422,700	315,525	469,001
Chon Buri	3,348,695	2,787,910	3,326,592	4,402,015	4,803,684
Kanchanaburi	-	161,000	477,440	40,000	-
Prachuap Khiri Khan	31,738	80,993	168,552	151,964	153,532
Rayong	997,000	1,539,286	1,507,400	1,114,888	1,263,752
Southern Region					
Narathiwat	1,130,395	1,222,374	1,179,675	1,240,983	1,509,184
Phangnga	609,607	639,619	667,966	652,946	777,316
Songkhla	1,051,406	1,161,055	1,528,942	1,065,354	2,304,526
Total Production	7,590,612	8,074,501	9,458,745	9,035,991	11,280,995
Value (Million Baht)	1,024.7	1,162.3	1,891.7	1,807.2	2,256.2

* unit : cubic meter

Tonnes

	2014	2015	2016	2017	2018
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Export (Industrial Rock)**Asia**

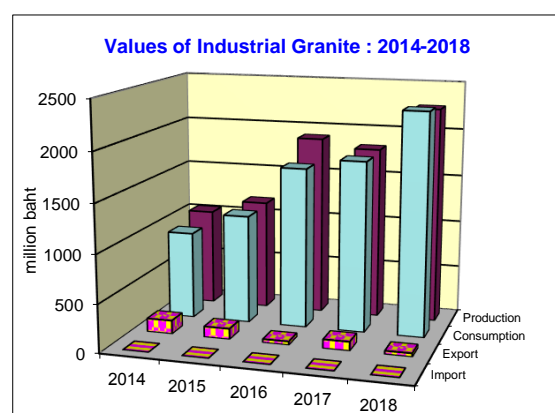
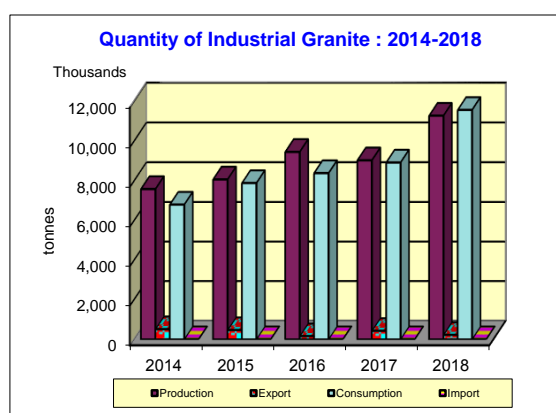
Myanmar	5	-	-	-	-
Singapore	505,710	458,800	149,995	419,320	212,100
Total Export	505,715	458,800	149,995	419,320	212,100
Value (Million Baht)	140.7	111.3	36.1	93.3	35.9

Consumption

1. Dimension Stone *	3,339	4,977	4,718	3,873	1,352
Value (Million Baht)	19.7	28.4	27.4	25.2	8.5
2. Industrial Rock	6,807,192	7,893,062	8,392,556	8,926,182	11,570,394
Value (Million Baht)	918.9	1,142.9	1,678.5	1,785.2	2,314.1

Import (Dimension Stone)¹

Total Import	128,227	112,695	114,134	98,569	82,568
Value (Million Baht)	525.1	492.4	465.4	373.4	351.3



* unit : cubic meter

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

G R A V E L

	Tonnes				
	2014	2015	2016	2017	2018
<u>Export (Industrial Rock)</u>					
Asia					
Malaysia	45	155	-	-	34
Qatar	-	-	-	-	-
Singapore	528	264	144	528	216
Total Export	573	419	144	528	250
Value (Million Baht)	2.8	2.4	0.8	2.4	1.0

G R A Y W A C K E

Tonnes

	2014	2015	2016	2017	2018
<u>Production (Industrial Rock)</u>					
Central Region					
Chanthaburi	338,634	340,461	374,223	606,930	543,335
Trat	716,187	642,570	681,126	1,000,766	733,031
Total Production	1,054,821	983,031	1,055,349	1,607,696	1,276,366
Value (Million Baht)	110.8	112.5	211.1	321.5	255.3
<u>Consumption (Industrial Rock)</u>					
Total Consumption	1,018,120	942,630	819,237	1,546,315	1,343,459
Value (Million Baht)	106.9	107.7	163.8	309.3	268.7

G Y P S U M

Tonnes

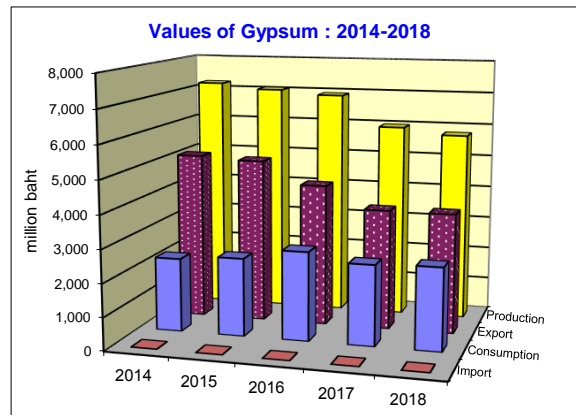
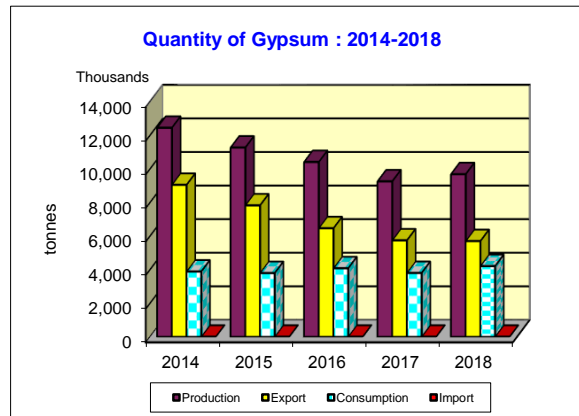
	2014	2015	2016	2017	2018
<u>Production</u>					
Northern Region					
Nakhon Sawan	3,688,369	3,704,056	3,838,830	3,939,135	3,868,573
Phichit	453,102	400,246	503,703	529,482	560,545
Southern Region					
Nakhon Si Thammarat	1,472,991	2,033,928	1,326,727	1,360,870	1,992,072
Surat Thani	6,830,638	5,128,914	4,737,338	3,424,464	3,259,239
Total Production	12,445,100	11,267,144	10,406,598	9,253,951	9,680,429
Value (Million Baht)	7,205.1	7,040.4	6,910.0	5,960.7	5,767.1
<u>Export</u>					
1. Ground					
Asia					
Cambodia	-	-	-	-	60,630
China	220	-	-	110	220
India	-	-	-	-	60
Japan	1,560	1,360	1,120	1,340	1,280
Malaysia	-	-	-	5,000	-
Myanmar	528	-	-	-	-
Taiwan	903	252	315	430	430
Total Export	3,211	1,612	1,435	6,880	62,620
Value (Million Baht)	11.2	6.4	6.1	11.1	45.1
2. Underground					
Africa					
Reunion (La Reunion)	11,000	-	22,000	11,000	22,000
Mozambique	-	-	-	5,000	-
Australia / Oceania					
Australia	221,600	83,600	9,900	-	8,800
Fiji	14,000	-	-	-	-
New Zealand	-	-	-	5,500	7,000
Europe					
Turkey	-	-	-	19,000	-

	Tonnes				
	2014	2015	2016	2017	2018
2. Unground (cont.)					
Asia					
Bangladesh	567,268	191,094	175,800	55,450	34,650
Brunei	8,800	-	-	17,600	17,600
Cambodia	80,600	122,100	158,300	183,100	264,600
China	87,210	158,425	185,010	396,960	417,490
India	91,650	-	-	-	-
Indonesia	2,008,490	2,100,013	1,695,900	1,377,910	1,487,025
Japan	1,426,345	941,092	777,010	842,920	885,310
Korea,South	145,880	81,500	110,000	54,000	15,000
Malaysia	1,360,885	1,487,015	1,159,470	1,010,740	959,410
Myanmar	-	11,000	-	11,000	-
Nepal	-	-	-	-	-
Philippines	727,287	490,212	410,600	411,450	436,450
Singapore	-	4,600	-	11,000	11,000
Sri Lanka	101,000	195,600	156,750	91,250	89,100
Taiwan	186,550	106,600	-	27,500	83,600
Vietnam	2,003,190	1,848,766	1,599,290	1,200,570	894,810
Total Export	9,041,755	7,821,617	6,460,030	5,731,950	5,633,845
Value(Million Baht)	5,092.7	5,011.3	4,329.6	3,663.7	3,622.9
<u>Consumption</u>					
Total Consumption	3,883,504	3,792,611	4,077,140	3,798,078	4,207,417
Value (Million Baht)	2,250.2	2,382.3	2,707.2	2,449.5	2,506.2
<u>Import</u>¹					
Total Import	456	258	227	214	267
Value (Million Baht)	7.3	5.5	3.8	4.4	5.4

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

Tonnes

2014 2015 2016 2017 2018



ILMENITE

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
Southern Region					
Nakhon Si Thammarat	-	-	-	8	41
Total Production	-	-	-	8	41
Value (Million Baht)	-	-	-	0.1	0.4
<u>Export</u>					
Asia					
Bangladesh	60	200	100	-	-
Korea,South	-	20	22	-	-
Malaysia	21	100	-	-	-
Philippines	66	-	154	-	8
Total Export	147	320	276	-	8
Value (Million Baht)	1.3	2.0	2.4	-	0.1
<u>Import</u>¹					
Total Import	1,358	1,139	1,262	1,110	1,132
Value (Million Baht)	25.1	18.9	21.8	18.4	18.4

0.0* denoting the amount of less than 0.05 million baht

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

I R O N

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
Northern Region					
Nakhon Sawan	66,650	-	-	-	-
Phetchabun	-	-	-	-	-
Northeastern Region					
Loei	185,488	9,683	-	135	-
Central Region					
Cha Choeng Sao	12,000	-	-	-	-
Chon Buri	250	-	-	-	-
Southern Region					
Nakhon Si Thammarat	83,530	6,800	-	-	-
Total Production	347,918	16,483	-	135	-
Value (Million Baht)	739.7	30.4	-	0.2	-
<u>Export</u>					
Asia					
China	167,011	15,770	57,668	9,178	37,582
Hong Kong	-	-	-	-	-
India	-	-	-	-	-
Indonesia	-	-	-	-	-
Japan	80	-	-	-	-
Myanmar	264	-	-	-	-
Total Export	167,355	15,770	57,668	9,178	37,582
Value (Million Baht)	312.7	33.7	61.3	18.6	73.4
<u>Import¹</u>					
1.Iron Ore	4,422	1,567	2,768	-	-
Value (Million Baht)	35.3	11.0	13.0	-	-
2.Iron Pyrite	310	330	321	265	442
Value (Million Baht)	4.7	4.6	5.0	4.1	7.4

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

K A O L I N

Tonnes

	2014	2015	2016	2017	2018
Production					
1. Kaolin (Filler)					
Northern Region					
Uttaradit	-	-	-	-	13,771
Total Production	-	-	-	-	13,771
Value (Million Baht)	-	-	-	-	26.2
2. Kaolin (Washed)					
Northern Region					
Lampang	18,540	1,708	175	-	-
Central Region					
Chanthaburi	940	1,125	1,665	1,480	1,255
Southern Region					
Narathiwat	6,680	6,252	5,673	5,265	5,080
Ranong	97,461	93,678	94,105	95,914	90,331
Total Production	123,621	102,763	101,618	102,659	96,666
Value (Million Baht)	118.7	98.7	97.6	98.6	92.8
3. Kaolin (Unwashed)					
Northern Region					
Lampang	425,829	333,181	397,159	225,300	206,704
Uthai Thani	-	-	-	-	-
Uttaradit	13,000	2,400	32,940	34,650	25,600
Central Region					
Chanthaburi	11,800	25,565	13,444	11,930	90
Kanchanaburi	227,000	272,800	366,257	101,400	165,850
Lop Buri	48,000	-	-	-	-
Phetchaburi	17,200	-	-	-	-
Prachin Buri	13,084	21,250	20,593	28,170	4,981
Southern Region					
Surat Thani	-	-	-	-	-
Total Production	755,913	655,196	830,393	401,450	403,225
Value (Million Baht)	291.0	252.3	319.7	154.6	155.2

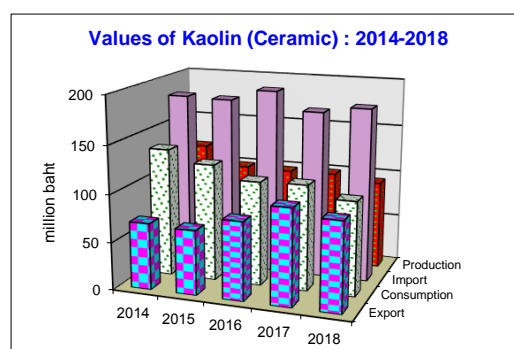
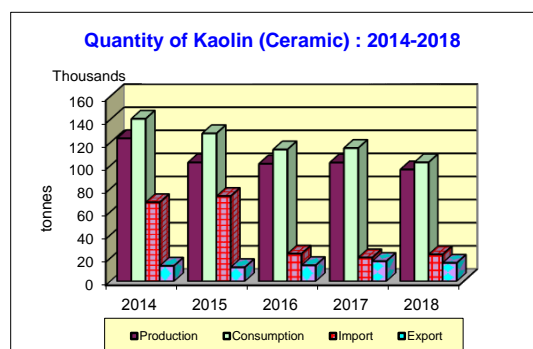
	Tonnes				
	2014	2015	2016	2017	2018
Export					
1. Washed					
Asia					
Bangladesh	1,606	1,812	2,492	4,316	3,844
China	966	457	2,472	3,769	3,762
India	769	1,005	620	1,366	1,149
Indonesia	840	436	48	48	314
Iran	7	36	-	282	-
Japan	-	-	-	42	59
Korea,South	24	-	20	20	30
Malaysia	3,621	3,546	2,985	2,145	2,249
Pakistan	40	-	-	-	-
Philippines	648	744	676	336	600
Singapore	-	16	26	-	-
Taiwan	790	-	-	-	-
Vietnam	4,001	4,018	4,440	5,016	3,843
Europe					
Turkey	-	-	6	-	-
Total Export	13,312	12,070	13,785	17,340	15,850
Value (Million Baht)	69.8	67.7	82.1	100.8	93.2
2. Kaolin (Filler)					
Asia					
China	-	-	-	-	20
Korea,South	-	-	-	-	24
Singapore	-	-	48	106	98
Vietnam	-	-	-	-	100
Europe					
Turkey	-	-	18	30	42
Total Export	-	-	66	136	284
Value (Million Baht)	-	-	0.5	1.2	2.7

Tonnes

	2014	2015	2016	2017	2018
Consumption					
1. Washed	140,619	127,965	113,947	115,224	102,802
Value (Million Baht)	134.9	122.8	109.4	110.6	98.7
2. Unwashed	661,055	532,137	849,767	326,956	334,578
Value (Million Baht)	254.5	204.9	327.2	125.9	128.8
3. Filler	-	-	-	-	13,818
Value (Million Baht)	-	-	-	-	26.3

Import¹

1. Ceramic	68,239	73,587	23,810	20,539	23,250
Value (Million Baht)	182.7	181.5	193.3	174.4	181.0
2. Paper	7,486	3,600	4,371	4,781	4,875
Value (Million Baht)	74.7	39.5	49.8	51.8	49.6
3. Others	66,833	65,872	73,499	68,343	92,688
Value (Million Baht)	697.6	675.7	729.1	658.5	777.4



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

L E A D

Tonnes

	2014	2015	2016	2017	2018
<u>Import (Lead Ore)¹</u>					
Total Import	20	1	42	85	104
Value (Million Baht)	0.3	0.0*	0.7	1.3	5.9

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'

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	Tonnes				
	2014	2015	2016	2017	2018
<u>Export</u>					
Africa					
Tunisia	-	-	125	-	-
Asia					
China	-	21	-	250	-
India	200	932	1,600	1,450	-
Indonesia	278	300	-	-	-
Japan	42	84	-	-	-
Hong Kong	-	-	-	-	869
Korea, South	359	102	450	160	-
Malaysia	484	75	425	595	40
Philippines	22	286	1,320	934	369
Singapore	-	-	-	80	-
Vietnam	-	-	201	-	-
Europe					
Italy	-	26	-	-	-
Russia	-	-	300	-	-
Turkey	62	389	1,342	350	-
Ukraine	-	54	150	175	-
North America					
Brazil	-	24	72	-	-
Total Export	1,447	2,293	5,985	3,994	1,278
Value (Million Baht)	35.9	54.4	148.8	127.6	45.8
<u>Import</u>¹					
Total Import	1,700	2,798	2,960	4,382	5,080
Value (Million Baht)	59.0	97.4	96.9	145.1	184.4

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

LIGNITE

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
Northern Region					
Lampang	17,828,910	15,150,549	16,978,601	16,258,637	14,851,950
Lamphun	9,640	-	-	-	-
Tak	152,812	-	-	-	-
Total Production	17,991,362	15,150,549	16,978,601	16,258,637	14,851,950
Value (Million Baht)	17,271.7	14,544.5	16,299.5	15,608.3	14,257.9
<u>Consumption</u>					
Total Consumption	18,457,189	15,369,157	16,869,269	16,240,637	14,417,889
Value (Million Baht)	17,718.9	14,754.4	16,194.5	15,591.0	13,841.2
<u>Import¹</u>					
Total Import	35,502	30,366	91,721	198,926	245,458
Value (Million Baht)	50.5	46.0	120.1	209.4	231.2

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

L I M E S T O N E

	Tonnes				
	2014	2015	2016	2017	2018
<u>Production</u>					
1. Cement Industry					
Northern Region					
Lampang	2,774,218	2,630,045	2,560,891	3,832,460	1,320,000
Nakhon Sawan	558,062	699,320	680,879	617,680	233,662
Northeastern Region					
Nakhon Ratchasima	51,053	95,923	69,051	-	-
Central Region					
Phetchaburi	621,775	653,209	746,733	456,615	496,984
Sara Buri	60,521,082	61,794,681	59,859,201	57,836,801	55,825,324
Southern Region					
Nakhon Si Thammarat	6,414,718	7,398,104	6,505,696	5,280,291	6,288,717
Trang	-	-	-	-	137,816
Total Production	70,940,908	73,271,282	70,422,450	68,023,847	64,302,502
Value (Million Baht)	8,512.9	9,968.8	17,605.6	17,006.0	16,075.6
2. Other Industries					
Northern Region					
Lampang	1,142,687	1,427,421	1,370,122	1,372,448	1,127,326
Northeastern Region					
Nakhon Ratchasima	92,907	-	-	-	158,892
Central Region					
Sara Buri	4,646,038	5,296,271	5,095,627	6,147,107	7,975,114
Total Production	5,881,632	6,723,692	6,465,749	7,519,555	9,261,332
Value (Million Baht)	705.8	918.0	1,616.4	1,879.9	2,315.3
3. Dimension Stone					
Central Region					
Sara Buri	60	24	-	43	3,765
Total Production	60	24	-	43	3,765
Value (Million Baht)	0.1	0.0*	-	0.1	7.5

0.0* denoting the amount of less than 0.05 million baht

	Tonnes				
	2014	2015	2016	2017	2018
4. Construction					
Northern Region					
Chiang Mai	2,141,495	2,428,100	2,811,000	2,052,226	2,963,568
Chiang Rai	1,571,420	1,707,741	1,860,356	1,800,681	2,936,630
Kamphaeng Phet	768,098	742,597	311,196	250,344	263,400
Lampang	1,183,500	1,469,609	1,820,615	1,945,597	2,875,072
Lamphun	886,189	899,940	1,220,152	1,083,664	1,179,038
Nakhon Sawan	2,507,685	2,756,196	2,738,069	2,736,363	2,711,728
Nan	302,050	460,667	469,065	461,142	720,685
Phayao	904,497	965,134	631,456	18,592	344,072
Phetchabun	1,952,090	2,273,161	2,414,606	2,066,838	2,481,138
Phitsanulok	272,373	286,819	313,475	359,299	162,414
Phrae	327,854	449,846	578,550	704,054	1,199,335
Sukhothai	1,921,731	2,454,544	2,142,379	2,334,670	2,527,894
Tak	832,664	1,256,462	1,055,459	1,361,693	1,086,942
Uthai Thani	179,214	191,092	198,516	329,207	261,023
Northeastern Region					
Khon Kaen	2,826,484	2,492,399	2,418,741	1,730,783	3,269,698
Loei	3,971,675	4,795,833	5,042,611	7,245,121	7,986,729
Nakhon Ratchasima	2,207,586	2,020,135	2,403,586	1,879,779	1,732,757
Nong Bua Lamphu	900,365	984,872	1,166,225	1,774,304	2,417,411
Udon Thani	427,840	418,128	340,296	206,608	-
Central Region					
Cha Choeng Sao	-	-	-	31,726	389,073
Chai Nat	137,496	179,797	113,161	111,565	139,976
Chanthaburi	246,140	411,100	367,400	407,000	888,283
Chon Buri	11,339,203	12,414,194	12,875,789	9,162,843	9,640,328
Kanchanaburi	1,751,714	2,099,642	2,211,319	1,592,862	2,029,787
Lop Buri	541,000	734,000	1,963,512	3,182,592	-
Phetchaburi	1,284,264	1,690,830	1,555,925	1,366,120	1,532,706
Prachin Buri	454,170	662,684	676,000	1,104,000	817,247
Prachuap Khiri Khan	1,256,700	1,451,884	1,727,811	1,390,574	1,206,558
Ratchaburi	4,213,401	4,874,536	4,322,729	4,679,812	4,213,329
Rayong	538,254	529,469	583,974	1,406,190	1,681,877
Sa Kaeo	300,553	318,031	179,685	285,699	289,688
Sara Buri	14,449,942	15,189,241	15,980,362	15,871,414	14,980,768
Suphan Buri	14,381,758	13,720,231	14,487,887	15,285,450	16,914,919

	Tonnes				
	2014	2015	2016	2017	2018
Southern Region					
Chumphon	1,287,708	1,451,184	1,765,925	1,741,660	1,546,697
Krabi	611,173	567,864	567,470	604,944	482,887
Nakhon Si Thammarat	3,657,949	4,094,317	4,269,814	4,768,693	5,091,528
Phangnga	610,848	567,233	623,558	674,172	919,089
Phatthalung	218,608	562,063	33,120	442,980	409,419
Satun	887,939	914,084	902,484	983,182	783,788
Songkhla	357,938	331,674	411,122	216,160	231,830
Surat Thani	2,706,632	3,256,902	3,303,451	3,664,434	3,683,045
Trang	689,818	552,648	611,700	601,450	567,315
Yala	819,856	1,037,609	986,249	1,043,741	1,470,848
Total Production	88,827,874	96,664,493	100,456,800	100,960,229	107,030,517
Value (Million Baht)	9,326.9	11,184.1	18,082.2	18,172.8	19,265.5
Export					
1. Construction					
Africa					
Mozambique	-	-	15,040	-	-
Asia					
Bangladesh	293,692	192,910	238,131	392,460	150,945
Cambodia	20	6,000	-	-	37,000
India	284,367	147,918	120,085	-	-
Indonesia	18,850	9,100	-	-	-
Malaysia	5,000	-	-	-	5,000
Myanmar	-	-	-	-	6
Taiwan	80,800	134,300	125,147	141,060	5,000
Australia / Oceania					
Australia	-	-	-	1,476	31
New Caledonia	140,350	116,125	112,867	11,007	40,014
Europe					
Italy	7	-	-	-	-
South America					
Chile	-	-	-	20	-
Total Export	823,086	606,353	611,270	546,023	237,996
Value (Million Baht)	296.6	251.1	271.0	219.6	236.4

	Tonnes				
	2014	2015	2016	2017	2018
2. Other Industries					
Asia					
Cambodia	-	20	40	-	52
China	-	-	-	2,916	1,785
India	-	150	-	-	-
Jordan	-	-	-	-	-
Korea, South	-	270	-	-	-
Laos	309	45	241	-	20
Malaysia	-	-	-	11,843	772
Myanmar	945	74	106	101	125
Singapore	-	-	-	-	6
Taiwan	-	-	-	32	-
Vietnam	-	-	-	-	-
Australia / Oceania					
Australia	480	266	-	13	316
South America					
Chile	-	-	-	-	425
Colombia	-	-	-	-	150
Total Export	1,734	825	387	14,905	3,652
Value (Million Baht)	3.6	1.8	1.6	28.3	8.7

Consumption

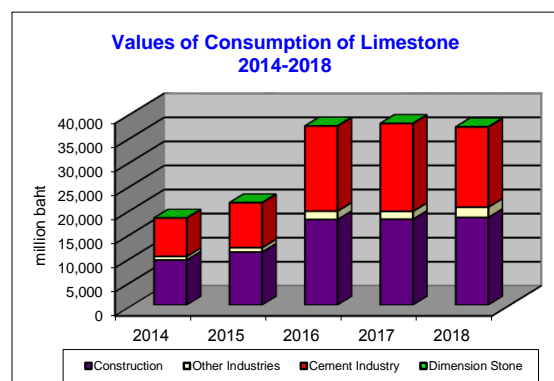
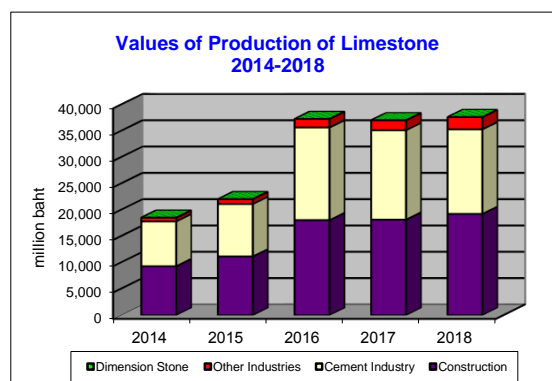
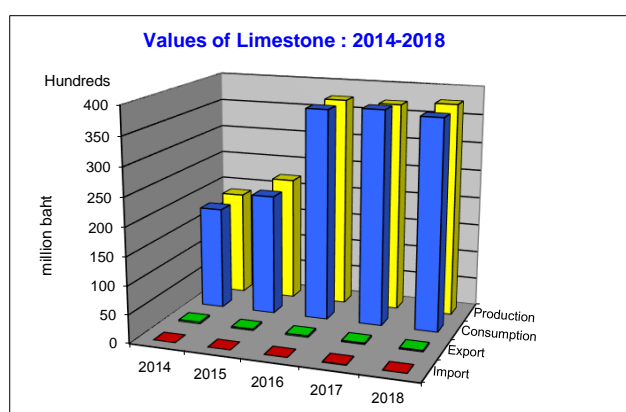
1. Cement Industry	66,468,509	68,188,880	70,790,395	73,124,917	66,707,813
Value (Million Baht)	7,976.2	9,343.5	17,697.6	18,281.2	16,677.0
2. Construction	89,267,612	95,625,701	98,770,644	99,130,978	101,259,686
Value (Million Baht)	9,373.1	11,034.3	17,778.7	17,843.6	18,226.7
3. Dimension Stone	60	24	-	43	1,549
Value (Million Baht)	0.1	0.1	-	0.1	3.1
4. Other Industries	6,262,694	6,568,305	6,970,446	6,514,668	8,487,771
Value (Million Baht)	751.5	900.4	1,742.6	1,628.7	2,121.9

Tonnes

	2014	2015	2016	2017	2018
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Import¹

Total Import	3,046	2,844	76,654	374,399	4,054
Value (Million Baht)	3.9	7.6	27.5	93.7	10.9



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

M A N G A N E S E

	Tonnes				
	2014	2015	2016	2017	2018
<u>Production (Metallurgical grade)</u>					
Northern Region					
Chiang Mai	500	4,000	400	3,520	500
Chiang Rai	13,830	-	-	-	-
Central Region					
Sa Kaeo	-	5,000	8,750	4,500	-
Southern Region					
Narathiwat	-	-	-	-	3,500
Total Production	14,330	9,000	9,150	8,020	4,000
Value (Million Baht)	70.5	39.6	24.1	37.5	21.2
<u>Export (Metallurgical grade)</u>					
Asia					
Bangladesh	-	132,277	-	-	-
China	30,368	12,714	31,954	39,963	73,638
Hong Kong	-	-	-	-	0**
Indonesia	-	-	-	0**	-
Singapore	-	-	-	-	0**
Africa					
Kenya	-	-	-	-	0.1
Total Export	30,368	144,991	31,954	39,963	73,638
Value (Million Baht)	96.1	199.0	79.5	78.7	115.0
<u>Consumption</u>					
Total Consumption	5,760	684	2,566	30	2,310
Value (Million Baht)	28.5	2.8	10.6	0.2	12.3
<u>Import (Manganese Ore)¹</u>					
Total Import	18,518	18,562	21,027	36,428	71,362
Value (Million Baht)	37.3	41.1	37.5	60.5	108.0

0** denoting the amount of less than 0.1 tonnes

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

MARBLE

Cubic metre

	2014	2015	2016	2017	2018
Production					
1. Dimension Stone					
Northern Region					
Kamphaeng Phet	-	945	1,675	1,164	-
Sukhothai	38	-	-	200	331
Uthai Thani	1,437	175	-	-	-
Northeastern Region					
Nakhon Ratchasima	600	700	550	600	1,063
Central Region					
Sara Buri	9,048	10,531	9,879	14,692	6,286
Total Production	11,123	12,351	12,104	16,656	7,681
Value (Million Baht)	43.4	98.1	49.6	68.3	34.6
2. Fragment					
Northern Region					
Kamphaeng Phet	18,849	203,678	334,882	243,578	278,735
Lamphun	-	-	-	-	-
Nakhon Sawan	126,848	205,848	-	-	-
Uttaradit	493,562	617,657	668,590	519,184	916,706
Northeastern Region					
Nakhon Ratchasima	-	-	-	-	-
Central Region					
Lop Buri	-	-	-	-	-
Total Production	639,259	1,027,183	1,003,472	762,762	1,195,441
Value (Million Baht)	207.8	333.8	469.6	396.6	621.6

Cubic metre

	2014	2015	2016	2017	2018
<u>Consumption</u>					
1. Dimension Stone	7,338	12,752	11,400	12,381	7,131
Value (Million Baht)	28.6	101.3	46.7	50.8	32.1
2. Fragment	621,327	1,016,419	1,003,471	769,531	1,283,400
Value (Million Baht)	201.9	330.3	469.6	400.2	667.4
<u>Import¹</u>					
Total Import	38,279	55,610	60,462	59,121	54,231
Value (Million Baht)	387.6	565.7	588.8	720.1	669.2

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

MARL

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
Northern Region					
Phrae	-	-	-	2,000	-
Central Region					
Sara Buri	1,200	-	-	6,200	28,707
Total Production	1,200	-	-	8,200	28,707
Value (Million Baht)	0.1	-	-	0.7	2.4
<u>Consumption</u>					
Total Consumption	3,000	4,900	5,000	10,600	41,451
Value (Million Baht)	0.3	0.4	0.4	0.9	3.5

M I C A

Tonnes

	2014	2015	2016	2017	2018
<u>Import</u>¹					
Total Import	4,392	5,501	5,979	5,828	6,162
Value (Million Baht)	122.2	167.2	176.2	180.0	164.8

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

MONAZITE

	Tonnes				
	2014	2015	2016	2017	2018
<u>Export</u>					
Asia					
China	3,150	1,260	2,620	2,150	655
Hong Kong	-	-	-	-	210
Total Export	3,150	1,260	2,620	2,150	865
Value (Million Baht)	147.1	61.0	111.0	216.4	85.7

P E R L I T E

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
Central Region					
Lop Buri	54,100	17,200	15,690	5,800	5,600
Total Production	54,100	17,200	15,690	5,800	5,600
Value (Million Baht)	38.2	14.7	23.5	8.7	8.4
<u>Consumption</u>					
Total Consumption	12,200	12,200	12,190	7,300	5,500
Value (Million Baht)	8.6	10.6	18.3	10.9	8.3

P H O S P H A T E

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
Northern Region					
Central Region					
Kanchanaburi	500	-	-	8,000	-
Phetchaburi	-	-	-	-	-
Total Production	500	-	-	8,000	-
Value (Million Baht)	0.2	-	-	3.3	-
<u>Consumption</u>					
Total Consumption	500	-	120	8,370	590
Value (Million Baht)	0.2	-	0.0*	3.5	0.2
<u>Import</u>¹					
1. Ground	1	0.1	0**	0**	0**
Value (Million Baht)	0.0*	0.0*	0.0*	0.0*	0.0**
2. Unground	-	0**	250	1	1
Value (Million Baht)	-	0.0*	1.2	0.2	0.5

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'

PYROPHYLLITE

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
Central Region					
Sara Buri	49,100	45,500	96,800	54,000	50,920
Total Production	49,100	45,500	96,800	54,000	50,920
Value (Million Baht)	19.9	27.3	58.1	32.4	30.6
<u>Export</u>					
Asia					
China	100	-	-	-	-
Indonesia	480	800	352	2,022	1,426
Japan	-	-	-	-	-
Malaysia	-	20	20	20	-
Sri Lanka	-	-	-	40	-
Vietnam	2,180	440	480	680	180
Total Export	2,760	1,260	852	2,762	1,606
Value (Million Baht)	9.3	4.4	3.2	9.7	6.3
<u>Consumption</u>					
Total Consumption	34,900	45,488	71,220	67,816	32,374
Value (Million Baht)	13.6	27.3	42.7	40.7	19.4
<u>Import</u>¹					
Total Import	1	0.1	-	-	140
Value (Million Baht)	0.5	0.0*	-	-	0.9

0.0* denoting the amount of less than 0.05 million baht

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

QUARTZ

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
1. Ground					
Northern Region					
Tak	3,250	3,006	-	-	-
Total Production	3,250	3,006	-	-	-
Value (Million Baht)	2.4	2.3	-	-	-
2. Unground					
Central Region					
Kanchanaburi	88,940	84,980	20,340	6,200	66,802
Prachuap Khiri Khan	9,400	9,500	13,500	5,500	1,000
Total Production	98,340	94,480	33,840	11,700	67,802
Value (Million Baht)	73.8	70.9	25.4	8.8	50.9
3. Quartzite (Industrial Rock)					
Southern Region					
Songkhla	93,241	91,164	16,320	164,383	-
Total Production	93,241	91,164	16,320	164,383	-
Value (Million Baht)	9.8	10.0	3.3	32.9	-
<u>Consumption</u>					
1. Ground	3,093	3,366	-	-	-
Value (Million Baht)	2.3	2.5	-	-	-
2. Unground	160,147	70,350	20,320	30,011	15,818
Value (Million Baht)	120.1	52.8	15.2	22.5	11.9
3. Quartzite (Industrial Rock)	95,665	98,208	20,424	174,096	-
Value (Million Baht)	10.0	11.0	4.1	34.8	-
<u>Import</u>¹					
Total Import	5,920	9,978	15,578	37,216	16,867
Value (Million Baht)	39.4	95.2	137.4	229.2	143.3

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

RHYOLITE

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
Central Region					
Sara Buri	837,314	893,249	833,793	696,503	637,499
Total Production	837,314	893,249	833,793	696,503	637,499
Value (Million Baht)	87.9	98.3	125.1	104.5	95.6
<u>Consumption</u>					
Total Consumption	818,859	869,788	797,212	735,682	658,032
Value (Million Baht)	86.0	96.5	119.6	110.4	98.7

ROCK SALT

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
Northeastern Region					
Nakhon Ratchasima	1,381,067	1,385,911	1,390,548	1,497,223	1,487,364
Total Production	1,381,067	1,385,911	1,390,548	1,497,223	1,487,364
Value (Million Baht)	1,519.2	2,148.6	2,711.6	2,919.6	2,900.4
<u>Consumption</u>					
Total Consumption	1,372,904	1,397,168	1,339,851	1,475,405	1,491,766
Value (Million Baht)	1,510.2	2,124.5	2,612.7	2,877.0	2,908.9

R U T I L E

Tonnes

	2014	2015	2016	2017	2018
<u>Export</u>					
Asia					
China	-	-	-	425	100
India	-	-	78	390	264
Iran	-	-	-	-	-
Europe					
Belgium	-	24	-	-	-
Russia	-	408	-	-	-
Spain	-	-	-	50	-
Turkey	-	-	-	100	-
Ukraine	194	-	-	-	-
North America					
Mexico	-	-	48	-	-
South America					
Brazil	-	-	52	-	-
Colombia	-	-	48	-	-
Total Export	194	432	226	965	364
Value (Million Baht)	5.6	15.3	7.7	21.2	7.8
<u>Import</u>¹					
Total Import	6,799	5,220	4,108	2,423	2,278
Value (Million Baht)	241.1	169.5	129.8	75.9	82.8

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

S A N D S T O N E

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
1. Dimension Stone					
Northeastern Region					
Nakhon Ratchasima	357	4,540	560	2,460	826
Total Production	357	4,540	560	2,460	826
Value (Million Baht)	0.2	3.1	0.4	1.7	0.6
2. Industrial Rock					
Northern Region					
Uttaradit	61,835	168,555	155,356	80,651	61,008
Northeastern Region					
Mukda Han	-	-	-	75,557	25,500
Nakhon Phanom	-	-	446,882	-	236,898
Ubon Ratchathani	-	-	-	-	303,934
Central Region					
Ratchaburi	-	-	-	5,000	-
Southern Region					
Phangnga	147,516	160,507	234,336	208,322	135,189
Satun	39,727	6,198	-	-	-
Total Production	249,078	335,260	836,574	369,530	762,529
Value (Million Baht)	24.9	35.8	125.5	55.4	114.4
<u>Export (industrial rock)</u>					
Asia					
Bangladesh	-	-	-	-	5,000
Total Export	-	-	-	-	5,000
Value (Million Baht)	-	-	-	-	2.0
<u>Consumption</u>					
1. Dimension Stone					
Value (Million Baht)	0.2	3.1	0.4	0.9	0.7
2. Industrial Rock					
Value (Million Baht)	26.0	35.2	122.1	54.3	83.2

	Tonnes				
	2014	2015	2016	2017	2018
<u>Import</u>¹					
Dimension Stone	823	6,847	14,182	14,871	8,023
Value (Million Baht)	11.6	12.1	11.2	16.1	17.9

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

S E R P E N T I N E

	2014	2015	2016	2017	Tonnes
<u>Production (Industrial Rock)</u>					
Southern Region					
Narathiwat	-	400	-	-	26,215
Total Production	-	400	-	-	26,215
Value (Million Baht)	-	0.0*	-	-	4.0
<u>Consumption (Industrial Rock)</u>					
Total Consumption	-	400	-	-	11,892
Value (Million Baht)	-	0.0*	-	-	1.8

0.0* denoting the amount of less than 0.05 million baht

S H A L E

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
Northern Region					
Lampang	-	2,000	18,750	-	-
Central Region					
Sara Buri	5,408,521	6,275,143	7,571,322	6,505,772	6,715,747
Total Production	5,408,521	6,277,143	7,590,072	6,505,772	6,715,747
Value (Million Baht)	676.1	893.4	1,897.5	1,626.4	1,678.9
<u>Consumption</u>					
Total Consumption	5,313,821	5,996,646	7,615,048	6,527,217	5,015,765
Value (Million Baht)	664.2	850.5	1,903.8	1,631.8	1,253.9

SILVER

	2014	2015	2016	2017	2018
					Gram
<u>Production</u>					
Northern Region					
Phetchabun	28,495,328	21,047,075	34,350,652	-	-
Phichit	2,457,823	-	1,602,983	-	-
Northeastern Region					
Loei	92,765	-	-	-	-
Total Production	31,045,916	21,047,075	35,953,635	-	-
Value (Million Baht)	618.4	366.0	712.5	-	-
<u>Export</u>					
Asia					
Hong Kong	31,045,916	21,047,075	35,953,635	-	-
Total Export	31,045,916	21,047,075	35,953,635	-	-
Value (Million Baht)	618.4	366.0	712.5	-	-
<u>Import</u>¹					
Total Import	12	12	11	19	8
Value (Million Baht)	1.2	1.3	0.7	1.3	0.7

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

STRUVERITE

Tonnes

	2014	2015	2016	2017	2018
Export					
Asia					
China	87	64	100	248	128
Hong Kong	-	-	-	50	-
Total Export	87	64	100	298	128
Value (Million Baht)	16.7	12.6	20.7	65.2	41.3

T A L C

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
Northern Region					
Uttaradit	8,208	6,768	7,126	7,436	7,756
Total Production	8,208	6,768	7,126	7,436	7,756
Value (Million Baht)	4.9	4.1	4.3	4.5	4.7
<u>Consumption</u>					
Total Consumption	8,123	6,765	8,382	7,312	7,844
Value (Million Baht)	4.9	4.1	5.0	4.4	4.7
<u>Import</u>¹					
Total Import	137,228	134,349	137,350	140,289	141,898
Value (Million Baht)	1,662.8	1,625.0	1,646.5	1,634.2	1,643.5

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

TANTALUM

Tonnes

	2014	2015	2016	2017	2018
<u>Import (Tantalite)¹</u>					
Total Import	182	387	208	658	685
Value (Million Baht)	356.2	693.0	360.8	904.5	1,188.0

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

TIN

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
1. Production of Tin Concentrates by changwat					
Northern Region					
Chiang Mai	100	39	41	36	57
Central Region					
Kanchanaburi	31	11	13	-	-
Southern Region					
Nakhon Si Thammarat	-	-	21	502	16
Ranong	25	22	17	3	2
Total Production	156	72	92	541	75
Value (Million Baht)	80.0	28.4	43.8	265.0	35.0
2. Production of Tin Concentrates by Mining Methods.					
Open Pitting	131	50	75	538	73
Dulang Washing	25	22	17	3	2
Total Production	156	72	92	541	75
Value (Million Baht)	80.0	28.4	43.8	265.0	35.0
3. Percentage of Tin Production by Mining Methods.					
Open Pitting	84.0	69.3	81.7	99.5	98.0
Dulang Washing	16.0	30.7	18.3	0.5	2.0
4. Production of Primary Tin Metal					
Total Production	16,494	10,616	10,807	10,588	10,721
Value (Million Baht)	11,831.1	5,784.9	6,847.1	7,208.2	5,826.2

	Tonnes				
	2014	2015	2016	2017	2018
Export					
1. Tin Metal					
Africa					
Egypt	4	-	-	6	6
Asia					
Bangladesh	35	10	-	-	10
China	170	280	304	9	-
Hong Kong	61	12	43	37	79
India	45	1	30	-	-
Israel	-	-	-	-	-
Japan	5,774	3,609	2,965	3,348	2,795
Korea, South	3,835	1,854	2,073	1,514	1,568
Malaysia	89	1	28	6	2
Pakistan	5	5	6	5	154
Philippines	9	6	7	2	6
Singapore	62	23	42	63	56
Sri Lanka	-	-	-	-	1
Taiwan	191	193	486	312	557
U.A.E.	-	-	1	-	24
Vietnam	172	-	2	-	-
Australia / Oceania					
Australia	138	88	76	65	99
New Zealand	5	-	-	-	-
Europe					
Austria	-	-	-	2	2
Belgium	272	252	146	214	157
Bosnia & Herzegovina	-	1	-	-	-
France	25	-	5	25	150
Germany	74	385	443	494	460
Iceland	50	-	-	-	-
Italy	125	26	150	300	50
Netherlands	2,037	346	205	350	525
Russia	-	-	-	-	-
Spain	-	25	75	25	595
Turkey	-	-	25	51	-
U.K.	596	320	316	361	322
North America					
U.S.A.	115	62	396	425	494
Total Export	13,890	7,499	7,824	7,614	8,112
Value (Million Baht)	9,150.3	4,271.2	4,989.2	5,345.5	5,424.9

	Tonnes				
	2014	2015	2016	2017	2018
2. Tin-Lead Alloy					
Asia					
India	-	0.3	1	-	-
Korea, South	-	-	-	0.2	0.5
Malaysia	2	4	1	-	0.3
Philippines	-	-	2	4	0.5
Europe					
Belgium	-	-	-	24	11
Spain	-	-	-	-	0.1
Total Export	2	4	4	28	12
Value (Million Baht)	1.0	2.0	2.0	13.6	5.2
3. Final Slag					
Asia					
China	113	-	705	315	-
Europe					
Germany	-	-	313	642	526
Total Export	113	-	1,018	957	526
Value (Million Baht)	18.5	-	36.4	47.9	42.9
4. Bismuth Slime					
Asia					
Korea, South	-	-	-	-	3
Malaysia	-	-	-	1	-
Total Export	-	-	-	1	3
Value (Million Baht)	-	-	-	1.7	4.6
5. Tin Slime					
Asia					
Malaysia	-	0.5	-	-	-
Total Export	-	0.5	-	-	-
Value (Million Baht)	-	0.7	-	-	-
6. Copper Dross					
Europe					
Belgium	8	-	59	-	12
Total Export	8	-	59	-	12
Value (Million Baht)	3.4	-	23.2	-	4.8

	Tonnes				
	2014	2015	2016	2017	2018
7. Copper Powder					
Asia					
Philippines	-	-	-	0.5	-
Total Export	-	-	-	0.5	-
Value (Million Baht)	-	-	-	0.4	-
8. Hard Head					
Asia					
Singapore	13	-	-	-	-
Europe					
Belgium	145	-	421	192	138
Total Export	158	-	421	192	138
Value (Million Baht)	53.3	-	137.0	70.9	21.7
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	3,257	2,930	3,132	3,564	2,545
Value (Million Baht)	2,313.0	1,613.0	1,976.2	2,430.6	1,545.2
<u>Import</u>¹					
Tin ore	5,851	5,742	7,870	10,877	12,261
Value (Million Baht)	2,385.5	1,731.6	2,738.3	4,237.0	4,494.3

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

T R A V E R T I N E

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
Central Region					
Sara Buri	5,103	1,350	2,600	1,969	949
Total Production	5,103	1,350	2,600	1,969	949
Value (Million Baht)	10.2	2.7	5.2	3.9	1.9
<u>Consumption</u>					
Total Consumption	1,103	2,200	3,600	1,990	1,326
Value (Million Baht)	2.2	4.4	7.2	3.9	2.7
<u>Import</u>¹					
Total Import	17.0	-	0**	-	-
Value (Million Baht)	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

	2014	2015	2016	2017	2018
<u>1. Wolfram</u>					
<u>Production</u>					
Northern Region					
Phrae	36	-	-	32	79
Central Region					
Kanchanaburi	10	19	15	-	-
Total Production	46	19	15	32	79
Value (Million Baht)	4.6	3.5	4.9	10.0	24.9
<u>Export</u>					
Asia					
China	-	-	-	-	-
Europe					
Virgin Islands	16	-	-	-	-
Total Export	16	-	-	-	-
Value (Million Baht)	1.1	-	-	-	-
<u>Import¹</u>					
Total Import	3	-	-	-	-
Value (Million Baht)	0.8	-	-	-	-

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

	Tonnes				
	2014	2015	2016	2017	2018
<u>2. Scheelite</u>					
<u>Production</u>					
Northern Region					
Chiang Mai	127	42	42	82	48
Total Production	127	42	42	82	48
Value (Million Baht)	12.6	5.9	11.8	26.6	15.2
<u>Export</u>					
Europe					
Austria	21	-	-	-	-
North America					
U.S.A.	97	18	18	40	66
Total Export	118	18	18	40	66
Value (Million Baht)	11.8	10.5	6.6	14.1	30.2
<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

	2014	2015	2016	2017	2018
<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'

ZINC

Tonnes

	2014	2015	2016	2017	2018
<u>Production</u>					
Northern Region					
Tak	226,893	181,025	175,632	7,877	-
Total Production	226,893	181,025	175,632	7,877	-
Value (Million Baht)	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	25	-	0**	2	33
China	-	0.1	-	-	-
India	627	83	2,575	432	79
Indonesia	28	102	205	14	11
Laos	3	14	91	12	28
Malaysia	504	280	2	3	65
Myanmar	144	72	96	32	-
Saudi Arabia	-	126	-	-	-
Singapore	1,010	0.2	-	1	0.5
Sri Lanka	-	-	0.2	0.2	0**
Taiwan	-	-	182	66	2,076
Vietnam	0.2	2	31	38	31
Total Export	2,569	1,030	3,284	799	2,324
Value (Million Baht)	199.4	69.8	220.6	68.1	234.1

0** denoting the amount of less than 0.1 tonnes

	Tonnes				
	2014	2015	2016	2017	2018
2. Zinc Alloy					
Asia					
Cambodia	-	0**	-	-	-
China	-	-	-	77	-
India	-	-	177	329	699
Indonesia	-	193	145	503	265
Japan	-	-	0.1	-	-
Malaysia	-	-	26	19	-
Pakistan	-	-	-	0**	-
Taiwan	-	-	-	114	24
Vietnam	-	-	-	8	-
Australia / Oceania					
Australia	-	-	-	-	-
Europe					
Belgium	-	-	34	-	-
Total Export	-	193	382	1,050	987
Value (Million Baht)	-	12.3	26.1	92.7	83.4
<u>Consumption</u>					
1. Zinc Alloy	29,833	26,791	23,697	17,675	-
Value (Million Baht)	2,379.2	2,084.6	1,908.9	1,877.1	-
2. Zinc Metal	28,638	27,662	33,063	14,604	-
Value (Million Baht)	2,079.0	1,947.5	2,390.7	1,430.2	-
<u>Import (Zinc Ore)¹</u>					
Total Import	41,747	82,710	32,306	0.1	318.0
Value (Million Baht)	999.0	1,902.7	757.3	0.0*	2.6

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'

ZIRCON

	Tonnes				
	2014	2015	2016	2017	2018
<u>Export</u>					
Asia					
China	9,175	6,235	6,500	5,723	1,400
Hong Kong	-	-	-	-	2,200
India	1,479	1,596	2,106	1,716	25
Japan	-	2	-	-	-
Malaysia	84	-	-	-	-
U.A.E.	-	-	104	-	-
Vietnam	-	24	120	-	-
Australia / Oceania					
Australia	-	-	-	-	78
Europe					
Spain	-	-	176	-	-
South America					
Brazil	-	-	24	-	-
Total Export	10,738	7,857	9,030	7,439	3,703
Value(Million Baht)	273.7	197.8	250.4	237.1	135.7
<u>Import (Zirconium Ore)¹</u>					
Total Import	51,545	81,932	40,659	38,529	43,565
Value (Million Baht)	629.1	958.0	521.1	586.0	906.3

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

NUMBER OF ACTIVE MINES

	2014	2015	2016	2017	2018
Andesite	3	3	3	3	3
Antimony	-	-	-	1	-
Ball clay	5	4	4	3	3
Barite	6	6	7	6	5
Basalt (industrial rock)	32	36	39	41	41
Bentonite	-	-	-	-	-
Calcite	7	7	6	9	13
Cement clay	16	20	23	27	28
Ceramic clay	4	6	6	7	7
Dolomite	20	21	17	17	19
Dolomitic Marl	-	-	-	-	1
Feldspar	20	20	18	16	14
Fluorite	2	2	3	3	3
Glass sand	11	11	14	16	18
Gneiss	1	1	1	1	1
Gold	4	4	4	1	-
Granite (dimension stone)	22	22	19	15	12
Granite (industrial rock)	18	20	19	21	24
Graywacke	1	1	1	1	1
Gypsum	44	47	50	52	45
Iron	15	12	5	6	5
Kaolin	27	29	25	20	18
Lignite	6	5	3	2	3
Limestone (cement)	17	17	14	13	13
Limestone (construction)	196	201	198	193	198
Limestone (dimension)	3	3	3	3	1
Limestone (others)	15	16	15	17	12
Manganese	4	3	3	3	2
Marble	17	19	17	15	14
Marl	3	4	4	4	4
Perlite	3	3	4	3	4
Phosphate	1	1	1	1	-

NUMBER OF ACTIVE MINES

	2014	2015	2016	2017	2018
Pyrophyllite	3	3	2	2	2
Quartz	7	7	8	7	4
Rhyolite (industrial rock)	1	1	1	1	1
Rock salt	3	3	3	4	5
Sand stone (dimension)	9	10	10	3	1
Sand stone (industrial rock)	3	3	4	5	9
Shale	6	6	6	5	6
Talc	2	1	1	1	1
Tin*	3	3	4	2	2
Travertine	2	2	2	2	2
Wolfram	1	1	1	1	1
Zinc	1	1	1	1	-
Total	564	585	569	554	546

* Including tin-tungsten mines

NUMBER OF WORKERS EMPLOYED IN MINES

	2014	2015	2016	2017	2018
Andesite	30	30	30	30	29
Antimony	-	-	-	5	-
Ball clay	351	344	120	80	80
Barite	131	130	137	98	105
Basalt (industrial rock)	686	704	674	694	982
Bentonite	-	-	-	-	-
Calcite	76	74	52	76	155
Cement clay	340	410	426	429	316
Ceramic clay	47	68	67	79	117
Dolomite	262	302	304	315	296
Dolomitic Marl	-	-	-	-	15
Feldspar	288	263	254	224	247
Fluorite	74	35	71	70	177
Glass sand	73	98	123	139	124
Gneiss	7	7	7	7	7
Gold	427	329	333	-	-
Granite (dimension)	224	251	220	184	126
Granite (industrial rock)	500	600	720	771	612
Graywacke	28	28	28	28	16
Gypsum	865	902	972	972	900
Iron	380	213	50	65	85
Kaolin	326	322	263	198	209
Lignite	1,884	1,560	1,649	1,648	1,641
Limestone (cement)	874	873	868	916	1,046
Limestone (construction)	3,947	4,101	3,986	3,891	4,241
Limestone (dimension)	15	6	6	6	4
Limestone (others)	351	432	501	456	302
Manganese	41	26	32	25	24
Marble	312	317	238	213	274
Marl	22	27	33	34	18
Perlite	69	73	65	54	55
Phosphate	60	60	67	43	-

NUMBER OF WORKERS EMPLOYED IN MINES

	2014	2015	2016	2017	2018
Pyrophyllite	31	29	25	15	7
Quartz	110	107	98	79	79
Rhyolite (industrial rock)	43	43	43	43	47
Rock salt	128	124	128	131	133
Sand stone (dimension)	51	53	54	20	6
Sand stone (industrial rock)	56	56	60	70	107
Shale	113	153	149	109	100
Talc	26	9	6	6	2
Tin*	256	234	213	133	185
Travertine	10	8	5	17	15
Wolfram	57	9	14	51	46
Zinc	231	225	148	65	-
Dulang Washer	148	131	120	160	63
Total	13,950	13,766	13,359	12,649	12,993

* Including workers employed in tin-tungsten mines

Mineral Production of Thailand 2014 - 2018

*Quantity : Tonnes
Value : Million Baht*

Mineral	2014		2015		2016		2017		2018	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Mineral Fuels and Energy</u>										
Lignite	17,991,362	17,271.7	15,150,549	14,544.5	16,978,601	16,299.5	16,258,637	15,608.3	14,851,950	14,257.9
Total		17,271.7		14,544.5		16,299.5		15,608.3		14,257.9
%		26.91		22.86		18.58		20.22		18.53
<u>Iron and Ferro Alloy</u>										
Iron ore	347,918	739.7	16,483	30.4	-	-	135	0.2	-	-
Manganese (metallurgical grade)	14,330	70.5	9,000	39.6	9,150	24.1	8,020	38.9	4,000	21.2
Tungsten										
- Scheelite	127	12.6	42	5.9	42	11.8	82	26.6	48	15.2
- Wolfram	46	4.6	19	3.5	15	4.9	32	10.0	79	24.9
Total		827.4		79.4		40.8		75.7		61.3
%		1.29		0.13		0.05		0.10		0.08
<u>Base Metals</u>										
Antimony ore	-	-	-	-	32	0.9	-	-	-	-
Copper metal	229	52.3	-	-	-	-	-	-	-	-
Tin concentrates	156	80.0	72	28.3	92	43.8	541	264.8	75	35.1
Zinc ore	226,893	3,312.5	181,025	2,440.8	175,632	2,388.2	7,877	158.5	-	-
Total		3,444.8		2,469.1		2,432.9		423.3		35.1
%		5.37		3.88		2.77		0.55		0.05

Mineral Production of Thailand 2014 - 2018

*Quantity : Tonnes
Value : Million Baht*

Mineral	2014		2015		2016		2017		2018	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Precious Metals and Precious Stone</u>										
Gold metal (unit : gram)	4,513,594	5,946.4	3,305,225	4,210.4	4,292,946	6,039.9	-	-	-	-
Silver metal (unit : gram)	31,045,916	618.4	21,047,075	366.0	35,953,635	712.5	-	-	-	-
Total		6,564.8		4,576.4		6,752.4		-		-
%		10.23		7.19		7.69		-		-
<u>Light Metals and Rare Earth</u>										
Ilmenite	-	-	-	-	-	-	8	0.1	41	0.4
Total		-		-		-		0.1		0.4
%		-		-		-		-		-
<u>Cement Industrial Minerals</u>										
Anhydrite	976,818	565.5	876,024	552.6	1,340,213	889.9	1,392,693	896.1	1,517,228	904.2
Cement Clay	4,124,016	371.2	4,792,683	431.3	4,506,878	405.6	4,301,793	387.2	5,837,807	525.4
Gypsum (unground)	12,445,100	7,205.1	11,267,144	7,040.4	10,460,598	6,910.0	9,253,951	5,960.7	9,680,429	5,767.1
Limestone	70,940,908	8,512.9	73,271,282	9,968.8	70,422,450	17,605.6	68,023,847	17,006.0	64,302,502	16,075.6
Marl	1,200	0.1	-	-	-	-	8,200	0.7	28,707	2.4
Shale	5,408,521	676.1	6,277,143	893.4	7,590,072	1,897.5	6,505,772	1,626.4	6,715,747	1,678.9
Total		17,330.9		18,886.5		27,708.6		25,877.1		24,953.6
%		27.00		29.68		31.58		33.52		32.43
<u>Ceramic Industrial Minerals</u>										
Ball clay	123,082	67.7	81,245	44.7	136,646	75.2	157,093	86.4	579,565	318.8
Ceramic Clay	312,963	172.1	514,044	282.7	371,686	204.4	357,982	196.9	485,853	267.2
Dolomite	2,471,486	865.0	2,432,853	1,089.9	3,034,860	1,669.2	2,988,336	1,643.6	3,440,193	1,892.1

Mineral Production of Thailand 2014 - 2018

Quantity : Tonnes

Value : Million Baht

Mineral	2014		2015		2016		2017		2018	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Ceramic Industrial Minerals</u>										
Feldspar										
- Potassium (unground)	14,220	24.2	2,820	4.8	3,200	5.4	-	-	-	-
- Sodium (unground)	1,399,208	979.4	1,329,096	930.4	1,163,947	814.8	1,385,925	970.1	1,117,803	782.5
Glass sand	1,133,906	396.9	1,191,612	838.3	1,102,699	1,091.7	1,756,308	1,738.7	1,557,218	1,541.6
Kaolin										
- Filler	-	-	-	-	-	-	-	-	13,771	26.2
- Unwashed	755,913	291.0	655,196	252.3	830,393	319.7	401,450	154.6	403,225	155.2
- Washed	123,621	118.7	102,763	98.7	101,618	97.6	102,659	98.6	96,666	92.8
Quartz										
- Ground	3,250	2.4	3,006	2.3	-	-	-	-	-	-
- Unground	98,340	73.8	94,480	70.9	33,840	25.4	11,700	8.8	67,802	50.9
Total		2,991.2		3,615.0		4,303.4		4,897.7		5,127.3
%		4.66		5.68		4.90		6.34		6.66
<u>Dimension Stone</u>										
Gneiss	-	-	-	-	-	-	485	1.9	1,930	7.7
Granite	2,976*	17.6	5,159*	29.8	5,524*	32.0	5,367*	34.9	1,314*	8.3
Limestone	60	0.1	24	0.1	-	-	43	0.1	3,765	7.5
Marble	11,123*	43.4	12,351*	98.1	12,104*	49.6	16,656*	68.3	7,681*	34.6

Mineral Production of Thailand 2014 - 2018

Quantity : Tonnes

Value : Million Baht

Mineral	2014		2015		2016		2017		2018	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Dimension Stone</u>										
Sandstone	357	0.2	4,540	3.1	560	0.4	2,460	1.7	826	0.6
Serpentine	-	-	400	0.0**	-	-	-	-	26,215	3.9
Travertine	5,103	10.2	1,350	2.7	2,600	5.2	1,969	3.9	949	1.9
Total		71.5		133.8		87.2		110.8		64.5
%		0.11		0.21		0.10		0.14		0.08
<u>Industrial Rock</u>										
Andesite	952,515	128.6	873,022	126.7	815,115	163.0	1,174,854	234.9	1,264,963	252.9
Basalt	14,132,610	1,907.9	12,877,048	1,851.2	13,547,442	2,709.5	12,772,085	2,554.4	14,301,581	2,860.3
Granite	7,590,612	1,024.7	8,074,501	1,162.3	9,458,745	1,891.8	9,035,991	1,807.2	11,280,995	2,256.2
Graywacke	1,054,821	110.8	983,031	112.5	1,055,349	211.1	1,607,696	321.5	1,276,366	255.3
Limestone	88,827,874	9,326.9	96,631,193	11,180.6	100,456,800	18,082.2	100,960,229	18,172.8	107,030,517	19,265.5
Marble (fragment)	639,259*	207.8	1,027,183*	333.8	1,003,472*	469.6	762,762*	396.6	1,195,441*	621.6
Perlite	54,100	38.2	17,200	14.7	15,690	23.5	5,800	8.7	5,600	8.4
Quartzite	93,241	9.8	91,164	10.0	16,320	3.3	164,383	32.9	-	-
Rhyolite	837,314	87.9	893,249	98.3	833,793	125.1	696,503	104.5	637,499	95.6
Sandstone	249,078	24.9	335,260	35.8	836,574	125.5	369,530	55.4	762,529	114.4
Total		12,867.5		14,925.9		23,804.6		23,688.9		25,730.2
%		20.05		23.46		27.13		30.68		33.44

Mineral Production of Thailand 2014 - 2018

Quantity : Tonnes
Value : Million Baht

Mineral	2014		2015		2016		2017		2018	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Other Industrial Minerals										
Barite										
- Chemical grade (ground)	4,425	25.9	4,075	23.8	2,232	13.8	1,563	14.8	1,647	15.9
- Drilling mud (ground)	48,540	189.1	127,591	496.9	155,799	606.8	105,000	489.3	52,694	246.1
- Unground	81,996	121.8	38,955	57.8	65,070	96.6	41,391	61.5	13,149	19.5
Bentonite	-	-	-	-	-	-	-	-	-	-
Calcite	991,981	195.4	1,281,765	610.8	1,452,235	1,089.2	1,456,747	1,092.6	1,467,822	1,100.9
Dolomitic Marl				-		-		-	6,920	2.4
Fluorite (metallurgical grade)	4,590	30.7	15,095	112.4	20,100	120.2	5,500	26.8	16,700	81.0
Limestone	5,881,632	705.8	6,723,692	917.9	6,465,749	1,616.4	7,519,555	1,879.9	9,261,332	2,315.3
Phosphate	500	0.2	-	-	-	-	8,000	3.3	-	-
Pyrophyllite	49,100	19.9	45,500	27.3	96,800	58.1	54,000	32.4	50,920	30.6
Rock salt	1,381,067	1,519.2	1,385,911	2,148.6	1,390,548	2,711.6	1,497,223	2,919.6	1,487,364	2,900.4
Talc (unground)	8,208	4.9	6,768	4.1	7,126	4.3	7,436	4.5	7,756	4.7
Total		2,812.9		4,399.6		6,317.0		6,524.7		6,716.8
%		4.38		6.91		7.20		8.45		8.73
Grand Total		64,182.7		63,630.2		87,746.4		77,206.6		76,947.1

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

Mineral Export of Thailand 2014 - 2018

*Quantity : Tonnes
Value : Million Baht*

Mineral	2014		2015		2016		2017		2018	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Iron and Ferro Alloy</u>										
Iron ore	167,355	312.7	15,770	33.7	57,668	61.3	9,178	18.6	37,582	73.4
Manganese (metallurgical grade)	30,368	96.1	144,991	199.0	31,954	79.5	39,963	78.7	73,638	115.0
Tungsten										
- Scheelite	119	11.8	18	10.5	18	6.6	40	14.1	66	30.2
- Wolfram	16	1.1	-	-	-	-	-	-	-	-
Total		421.7		243.2		147.4		111.4		218.6
%		1.71		1.40		0.73		0.86		1.70
<u>Base Metals</u>										
Antimony ore	3,536	107.4	3,710	208.9	3,906	95.4	1,399	21.6	2,022	86.8
Copper metal	229	52.4	-	-	-	-	-	-	-	-
Tin										
- Final slag	113	18.5	-	-	1,018	36.4	957	47.8	526	42.9
- Hard head	158	53.3	-	-	421	137.0	192	70.8	138	21.7
- Metallic residue	-	-	-	-	-	-	-	-	-	-
- Tin-lead alloy	2	1.0	5	2.0	4	2.0	28	13.6	12	5.2
- Tin metal	13,890	9,150.4	7,499	4,271.2	7,824	4,989.2	7,614	5,345.5	8,112	5,424.9
- Tin slime	-	-	1	0.7	-	-	-	-	-	-
- Tin dross	-	-	2	0.8	-	-	2	0.8	-	-
- Copper dross	8	3.4	-	-	59	23.2	-	-	12	4.8
- Copper powder	-	-	-	-	-	-	1	0.4	-	-
- Bismuth Slime	-	-	-	-	-	-	1	1.7	3	4.6

Mineral Export of Thailand 2014 - 2018

*Quantity : Tonnes
Value : Million Baht*

Mineral	2014		2015		2016		2017		2018	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Base Metals</u>										
Zinc										
- Zinc alloy	-	-	193	12.3	382	26.1	1,050	92.7	987	83.4
- Zinc metal	2,569	199.4	1,030	69.8	3,284	220.6	799	68.1	2,324	234.1
Total		9,585.8		4,565.7		5,529.9		5,663.0		5,908.4
%		38.72		26.18		27.46		43.97		45.82
<u>Precious Metals and Precious Stone</u>										
Garnet	216	1.1	-	-	-	-	6,868	43.5	4,600	46.5
Gold metal (unit : gram)	4,513,594	5,946.4	3,305,225	4,210.4	4,292,946	6,039.9	-	-	-	-
Silver metal (unit : gram)	31,045,916	618.4	21,047,075	366.0	35,953,635	712.5	-	-	-	-
Total		6,565.9		4,576.4		6,752.4		43.5		46.5
%		26.52		26.25		33.53		0.34		0.36
<u>Light Metals and Rare Earth</u>										
Columbite-tantalite	50	7.1	-	-	-	-	-	-	-	-
Ilmenite	147	1.3	320	2.0	276	2.4	-	-	8	0.1
Leucosene	1,447	35.9	2,293	54.4	5,985	148.8	3,994	127.6	1,278	45.8
Monazite	3,150	147.2	1,260	61.0	2,620	110.9	2,150	216.4	865	85.7
Rutile	194	5.6	432	15.3	226	7.7	965	21.2	364	7.8
Struverite	87	16.7	64	12.6	100	20.7	298	65.2	128	41.3
Xenotime	-	-	-	-	-	-	30	1.5	-	-
Zircon	10,738	273.7	7,857	197.8	9,030	250.4	7,439	237.1	3,703	135.7
Total		487.5		343.1		540.9		669.0		316.4
%		1.97		1.97		2.68		5.20		2.45

Mineral Export of Thailand 2014 - 2018

*Quantity : Tonnes
Value : Million Baht*

Mineral	2014		2015		2016		2017		2018	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Cement Industrial Minerals</u>										
Anhydrite	1,111,151	630.0	1,034,970	674.3	1,350,250	880.2	1,449,160	896.2	1,528,207	913.3
Gypsum										
- Ground	3,211	11.2	1,612	6.4	1,435	6.1	6,880	11.1	62,620	45.1
- Unground	9,041,755	5,092.7	7,821,617	5,011.3	6,460,030	4,329.6	5,731,950	3,663.7	5,633,845	3,622.8
Total		5,733.9		5,692.0		5,215.9		4,571.0		4,581.2
%		23.16		32.64		25.90		35.49		35.53
<u>Ceramic Industrial Minerals</u>										
Ball clay	23,514	100.6	26,461	120.6	13,338	63.9	13,850	61.1	21,853	97.9
Dolomite										
- Ground	4,434	1.1	-	-	4,640	7.4	820	0.2	40	0.4
- Unground	1,247,850	469.9	1,213,054	469.3	1,261,885	547.4	1,080,416	487.2	1,269,600	508.7
Feldspar										
- Potassium (ground)	30	0.1	-	-	-	-	-	-	-	-
- Potassium (unground)							37,350	30.7	-	-
- Sodium (ground)	883,072	770.5	770,117	707.9	638,497	569.4	660,876	579.5	699,913	593.4
Kaolin										
- Filler	-	-	-	-	66	0.5	136	1.2	284	2.7
- Washed	13,312	69.8	12,070	67.7	13,785	82.1	17,340	100.8	15,850	93.2
Total		1,412.0		1,365.5		1,270.7		1,260.7		1,296.3
%		5.70		7.83		6.31		9.79		10.05

Mineral Export of Thailand 2014 - 2018

*Quantity : Tonnes
Value : Million Baht*

Mineral	2014		2015		2016		2017		2018	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Industrial Rock</u>										
Granite (industrial rock)	505,714	140.8	458,800	111.3	149,995	36.1	419,320	93.3	212,100	35.8
Gravel (industrial rock)	573	2.8	419	2.4	144	0.8	528	2.4	250	1.0
Limestone (industrial rock-construction)	823,086	296.6	606,353	251.1	611,270	271.0	546,023	219.6	237,996	236.4
Sand stone (industrial rock)	-	-	-	-	-	-	-	-	5,000	2.0
Total		440.2		364.8		307.9		315.3		275.2
%		1.78		2.09		1.53		2.45		2.13
<u>Other Industrial Minerals</u>										
Barite										
- Chemical grade (ground)	6,690	52.5	6,745	84.9	16,506	94.2	3,094	22.8	1,731	18.4
- Drilling mud (ground)	1,512	8.5	15,844	68.4	26,541	69.9	9,939	53.8	5,452	32.8
- Unground	40	0.2	2,666	4.0	6,331	31.8	3,674	18.8	-	-
Fluorite (metallurgical grade)	4,875	35.4	22,470	121.8	32,174	174.2	20,723	111.5	38,479	186.2
Limestone (industrial rock-others)	1,734	3.6	825	1.8	387	1.6	14,905	28.3	3,652	8.7
Pyrophyllite	2,760	9.3	1,260	4.4	852	3.2	2,762	9.7	1,606	6.3
Total		109.5		285.3		374.9		244.9		252.4
%		0.44		1.64		1.86		1.90		1.96
Grand Total		24,756.5		17,436.0		20,140.0		12,878.8		12,895.0

Mineral Consumption of Thailand 2014 - 2018

Quantity : Tonnes
Value : Million Baht

Mineral	2014		2015		2016		2017		2018	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Mineral Fuels and Energy</u>										
Lignite	18,457,189	17,718.9	15,369,157	14,754.4	16,869,269	16,194.5	16,240,637	15,591.0	14,417,889	13,841.2
Total		17,718.9		14,754.4		16,194.5		15,591.0		13,841.2
%		33.22		27.06		20.75		20.26		19.53
<u>Iron and Ferro Alloy</u>										
Manganese (metallurgical grade)	5,760	28.5	684	2.8	2,566	10.6	30	0.2	2,310	12.3
Total		28.5		2.8		10.6		0.2		12.3
%		0.03		0.01		0.01		-		0.02
<u>Base Metals</u>										
Antimony ore	-	-	-	-	2	0.1	-	-	-	-
Tin										
- Tin metal	3,257	2,313.0	2,930	1,613.0	3,132	1,976.2	3,564	2,430.6	2,545	1,545.2
- Tin-lead alloy	-	-	-	-	-	-	-	-	-	-
Zinc										
- Zinc alloy	29,833	2,379.2	26,791	2,084.6	23,697	1,908.9	17,675	1,877.1	-	-
- Zinc metal	28,638	2,079.0	27,662	1,947.5	33,063	2,390.7	14,604	1,430.2	-	-
Total		6,771.2		5,645.1		6,275.9		5,737.9		1,545.2
%		12.70		10.35		8.04		7.46		2.18
<u>Cement Industrial Minerals</u>										
Anhydrite	142	0.1	-	-	-	-	102	0.1	-	-
Cement clay	4,548,240	416.6	4,760,412	428.4	4,278,942	385.1	3,142,781	282.8	5,786,258	520.8
Gypsum (unground)	3,883,504	2,250.2	3,792,611	2,382.3	4,077,140	2,707.2	3,798,078	2,449.5	4,207,417	2,506.2

Mineral Consumption of Thailand 2014 - 2018

*Quantity : Tonnes
Value : Million Baht*

Mineral	2014		2015		2016		2017		2018	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Cement Industrial Minerals (cont.)										
Limestone	66,468,509	7,976.2	68,188,880	9,343.5	70,790,395	17,697.6	73,124,917	18,281.2	66,707,813	16,677.0
Marl	3,000	0.3	4,900	0.4	5,000	0.4	10,600	0.9	41,451	3.5
Shale	5,313,821	664.2	5,996,646	850.5	7,615,048	1,903.8	6,527,217	1,631.8	5,015,765	1,253.9
Total		11,307.6		13,005.1		22,694.1		22,646.3		20,961.4
%		21.20		23.85		29.08		29.42		29.58
Ceramic Industrial Minerals										
Ball clay	295,379	162.5	261,677	143.9	915,326	503.4	153,677	84.5	284,563	156.5
Ceramic clay	220,093	121.1	373,642	205.5	361,182	198.7	341,762	187.9	337,964	185.9
Dolomite	1,328,785	465.1	1,525,810	699.4	2,263,982	1,245.2	2,195,261	1,207.4	2,225,240	1,223.9
Feldspar										
- Potassium (unground)	9,950	15.3	14,200	24.1	1,185	2.0	-	-	-	-
- Sodium (ground)	212,094	296.9	54,530	76.3	24,080	33.7	16,254	22.8	32,598	45.6
- Sodium (unground)	155,867	109.1	159,779	111.8	229,618	160.7	496,357	347.4	441,345	308.9
Glass sand	1,059,202	370.7	991,337	658.6	918,481	909.3	1,383,058	1,369.2	1,529,709	1,514.4
Kaolin										
- Filler	-	-	-	-	-	-	-	-	13,818	26.3
- Unwashed	661,055	254.5	532,137	204.9	849,767	327.2	326,956	125.9	344,578	128.8
- Washed	140,619	134.9	127,965	122.8	113,947	109.4	115,224	110.6	102,802	98.7
Quartz										
- Ground	3,093	2.3	3,366	2.5	-	-	-	-	-	-
- Unground	160,147	120.1	70,350	52.8	20,320	15.2	30,011	22.5	15,818	11.9
Total		2,052.5		2,302.6		3,504.8		3,478.2		3,700.9
%		3.85		4.22		4.49		4.52		5.22

Mineral Consumption of Thailand 2014 - 2018

*Quantity : Tonnes
Value : Million Baht*

Mineral	2014		2015		2016		2017		2018	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Dimension Stone</u>										
Gneiss	-	-	70	0.3	5	0.0**	-	-	-	-
Granite	3,339*	19.7	4,977*	28.4	4,718*	27.4	3,873*	25.2	1,352*	8.5
Limestone	60	0.1	24	0.1	-	-	43	0.1	1,549	3.1
Marble	7,338*	28.6	12,752*	101.3	11,400*	46.7	12,381*	50.8	7,131*	32.1
Sand stone	357	0.2	4,510	3.1	560	0.4	1,260	0.9	1,035	0.7
Serpentine	-	-	400	0.0**	-	-	-	-	11,892	1.8
Travertine	1,103	2.2	2,200	4.4	3,600	7.2	1,990	3.9	1,326	2.7
Total		50.8		137.6		81.7		80.9		48.9
%		0.10		0.25		0.11		0.10		0.07
<u>Industrial Rock</u>										
Andesite	974,721	131.6	837,262	121.6	789,284	157.9	890,965	178.2	1,040,277	208.1
Basalt	13,980,299	1,887.3	12,055,712	1,734.7	12,927,838	2,585.6	12,822,093	2,564.4	12,486,969	2,497.4
Granite	6,807,192	918.9	7,893,062	1,142.9	8,392,556	1,678.5	8,926,182	1,785.2	11,570,394	2,314.1
Grawacke	1,018,120	106.9	942,630	107.7	819,237	163.8	1,546,315	309.3	1,343,459	268.7
Limestone	89,267,612	9,373.1	95,625,701	11,034.3	98,770,644	17,778.7	99,130,978	17,843.6	101,259,686	18,226.7
Marble (fragment)	621,327*	201.9	1,016,419*	330.3	1,003,471*	469.6	769,531*	400.2	1,283,400*	667.4
Perlite	12,200	8.6	12,200	10.6	12,190	18.3	7,300	10.9	5,500	8.3
Quartzite	95,665	10.0	98,208	11.0	20,424	4.1	174,096	34.8	-	-
Rhyolite	818,859	86.0	869,788	96.5	797,212	119.6	735,682	110.4	658,032	98.7
Sand stone	259,635	26.0	331,271	35.2	814,095	122.1	362,027	54.3	554,836	83.2
Total		12,750.3		14,624.8		23,098.2		23,291.3		24,372.6
%		23.91		26.82		29.59		30.23		34.40

Mineral Consumption of Thailand 2014 - 2018

Quantity : Tonnes
Value : Million Baht

Mineral	2014		2015		2016		2017		2018	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Other Industrial Minerals										
Barite										
- Drilling mud (ground)	48,540	189.1	88,061	343.0	155,179	604.4	105,000	489.3	54,221	253.2
- Unground	1,270	1.9	18,050	26.8	37,017	54.9	22,320	33.1	4,522	6.7
Bentonite	-	-	-	-	-	-	-	-	-	-
Calcite	975,020	192.1	1,357,864	634.1	1,504,067	1,128.1	1,443,368	1,082.5	1,408,695	1,056.5
Dolomitic Marl	-	-	-	-	-	-	-	-	10,634	3.7
Fluorite (metallurgical grade)	60	0.4	-	-	204	1.2	1,640	7.9	500	2.4
Limestone	6,262,694	751.5	6,568,305	900.4	6,970,446	1,742.6	6,514,668	1,628.7	8,487,771	2,121.9
Phosphate	500	0.2	-	-	120	0.1	8,370	3.5	590	0.2
Pyrophyllite	34,900	13.6	45,488	27.3	71,220	42.7	67,816	40.7	32,374	19.4
Rock salt	1,372,904	1,510.2	1,397,168	2,124.5	1,339,851	2,612.7	1,475,405	2,877.0	1,491,766	2,908.9
Talc (unground)	8,123	4.9	6,765	4.1	8,382	5.0	7,312	4.4	7,844	4.7
Total		2,663.9		4,058.5		6,191.7		6,167.1		6,377.6
%		4.99		7.44		7.93		8.01		9.00
Grand Total		53,334.0		54,532.6		78,051.4		76,992.9		70,860.1

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

Mineral Import of Thailand 2014 - 2018

*Quantity : Tonnes
Value : Million Baht*

Mineral	2014		2015		2016		2017		2018	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Mineral Fuels and Energy</u>										
Anthracite	184,231	833.9	166,002	667.6	181,673	777.4	138,649	573.2	173,288	760.8
Bituminous coal	10,731,867	28,802.4	10,617,077	25,968.2	10,172,204	23,061.7	9,903,771	25,517.0	7,877,106	21,389.1
Coal Solid Fuels from Coal	9,931,740	17,664.0	11,083,001	18,241.0	11,335,865	17,816.0	12,135,732	23,170.2	16,781,738	31,069.9
Coke	39,102	504.5	23,462	286.3	30,079	338.5	32,747	448.9	18,049	335.3
Lignite	35,502	50.5	30,366	46.0	91,721	120.1	198,926	209.4	245,458	231.2
Peat	10,662	96.7	12,441	105.4	15,975	133.6	20,844	177.7	17,369	148.2
Total		47,952.0		45,314.5		42,247.3		50,096.4		53,934.4
%		75.59		73.11		73.00		75.77		74.07
<u>Iron and Ferro Alloy</u>										
Chromite ore	2,473	35.0	2,177	27.9	2,268	28.7	2,298	37.7	2,352	48.8
Cobalt ore	-	-	0*	0.0*	-	-	0.3	0.2	0*	0.2
Columbite	10	5.5	319	143.1	25	9.8	291	107.4	377	209.0
Iron ore	4,422	35.3	1,567	11.0	2,768	13.0	-	-	-	-
Iron pyrites	310	4.7	330	4.6	321	5.0	265	4.1	442	7.4
Manganese ore	18,518	37.3	18,562	41.1	21,027	37.5	36,428	60.5	71,362	108.0
Molybdenite ore	13,594	1,660.1	11,007	755.5	11,293	967.0	13,599	916.4	12,385	1,810.4
Nickel ore	5	3.4	0.1	0.1	7.1	2.6	2	0.9	2	1.2
Tungsten										
- Scheelite	-	-	-	-	-	-	-	-	-	-
- Wolfram	3	0.8	-	-	-	-	-	-	-	-
- Other tungsten	-	-	0.4	0.8	0*	0.0*	553	4.8	-	-
Total		1,782.1		984.1		1,063.6		1,132.0		2,184.8
%		2.81		1.59		1.84		1.71		3.00

Mineral Import of Thailand 2014 - 2018

*Quantity : Tonnes
Value : Million Baht*

Mineral	2014		2015		2016		2017		2018	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Base Metals</u>										
Aluminium ore	40,667	305.7	24,157	251.4	33,712	264.5	24,325	271.3	22,213	288.9
Antimony ore	4,392	145.0	6,134	378.4	4,143	90.3	2,184	63.2	1,914	54.5
Copper	9,502	56.8	18,818	815.4	19,868	619.9	299	3.9	384	3.9
Lead ore	20	0.3	1	0.0*	42	0.7	85	1.3	104	5.9
Tin ore	5,851	2,385.5	5,742	1,731.6	7,870	2,738.3	10,877	4,237.0	12,261	4,494.3
Zinc ore	41,747	999.0	82,710	1,902.7	32,306	757.3	0.1	0.0*	318	2.6
Total		3,892.3		5,079.5		4,471.0		4,576.7		4,850.0
%		6.14		8.20		7.73		6.92		6.66
<u>Precious Metals and Precious Stone</u>										
Emery	17,953	173.3	20,363	185.0	7,725	76.5	5,908	66.9	6,578	66.8
Silver ore	12	1.2	12	1.3	11	0.7	19	1.3	8	0.7
Total		174.5		186.3		77.2		68.2		67.5
%		0.27		0.30		0.13		0.10		0.09
<u>Light Metals and Rare Earth</u>										
Ilmenite ore	198	7.0	99	3.2	222	6.8	150	4.9	112	4.1
Niobium and Vanadium ore	14,050	1,084.7	13,605	1,100.0	16,278	1,657.7	6,771	1,137.3	21,771	2,086.3
Titanium ore										
- Rutile	6,799	241.1	5,220	169.5	4,108	129.8	2,423	75.9	2,278	82.8
- Leucoxene	1,700	59.0	2,798	97.4	2,960	96.9	4,382	145.1	5,080	184.4
- Ilmenite	1,160	18.1	1,040	15.7	1,040	15.0	960	13.5	1,020	14.3
- Other Titanium ore	2,064	25.5	1,704	22.8	26	0.7	21	0.7	5	0.2

Mineral Import of Thailand 2014 - 2018

*Quantity : Tonnes
Value : Million Baht*

Mineral	2014		2015		2016		2017		2018	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Light Metals and Rare Earth (cont.)</u>										
Tantalite	182	356.2	387	693.0	208	360.8	658	904.5	685	1,188.0
Thorium ore	-	-	-	-	-	-	0.1	0.2	-	-
Xenotime	-	-	40	0.5	-	-	-	-	-	-
Zirconium ore	51,545	629.1	81,932	958.0	40,659	521.1	38,529	586.0	43,565	906.3
Total		2,420.7		3,060.1		2,788.8		2,868.1		4,466.4
%		3.82		4.94		4.82		4.34		6.13
<u>Cement Industrial Minerals</u>										
Anhydrite	-	-	-	-	0*	0.0*	-	-	0*	0.0*
Gypsum	456	7.3	258	5.5	227	3.8	214	4.4	267	5.4
Limestone	3,046	3.9	2,844	7.6	76,654	27.5	374,399	93.7	4,054	10.9
Total		11.2		13.1		31.3		98.1		16.3
%		0.02		0.02		0.05		0.15		0.02
<u>Ceramic Industrial Minerals</u>										
Andalusite, Kyannite and Sillimanite	2,726	34.3	2,926	32.6	5,849	64.5	4,324	46.5	3,196	38.6
Attapulgit	276	7.5	186	7.3	152	6.4	163	5.5	86	2.9
Ball Clay	9,710	40.3	8,246	43.0	16,815	98.3	25,594	156.9	24,895	149.5
Dolomite	3,137	59.9	1,495	21.6	785	7.9	1,078	25.6	1,549	30.5
Feldspar										
- Potassium	36,000	117.6	34,389	116.2	27,416	97.9	-	-	-	-
- Sodium	2,807	11.6	1,645	7.0	2,051	8.7	-	-	-	-
- Other Feldspar	8,275	53.6	14,403	84.0	7,658	57.1	-	-	-	-

Mineral Import of Thailand 2014 - 2018

*Quantity : Tonnes
Value : Million Baht*

Mineral	2014		2015		2016		2017		2018	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Ceramic Industrial Minerals (cont.)</u>										
Kaolin										
- Ceramic	68,240	182.7	73,587	181.5	23,810	193.3	20,539	174.4	23,250	181.0
- Paper	7,486	74.7	3,600	39.5	4,371	49.8	4,781	51.8	4,875	49.6
- Others	66,833	697.6	65,872	675.7	73,499	729.1	68,343	658.5	92,688	777.4
Lucite, Nepheline and Nepheline Syen	1,338	13.7	414	5.9	409	12.4	556	16.5	740	24.6
Mullite	1,898	28.9	1,961	30.1	1,959	34.0	2,548	44.6	2,623	50.8
Quartz	5,920	39.4	9,978	95.2	15,578	137.4	37,216	229.2	16,867	143.3
Silica sand	165,366	299.3	144,273	250.3	143,315	277.3	190,852	380.1	156,550	477.9
Total		1,661.1		1,589.9		1,774.1		1,789.6		1,926.2
%		2.62		2.57		3.06		2.70		2.65
<u>Dimension Stone</u>										
Ecaussine	1,023	9.9	-	-	-	-	0*	0.0*	3	3.5
Granite	128,227	525.1	112,695	492.4	114,134	465.4	98,569	373.4	82,568	351.3
Marble	38,279	387.6	55,610	565.7	60,462	588.8	59,121	720.1	54,231	669.2
Sandstone	823	11.6	6,847	12.1	14,182	11.2	14,871	16.1	8,023	17.9
Slate	150	1.0	94	1.3	188	2.2	51	0.5	116	1.7
Travertine	17	0.2	-	-	0*	0.0*	-	-	-	-
Total		935.4		1,071.5		1,067.6		1,110.1		1,043.6
%		1.47		1.73		1.84		1.68		1.43

Mineral Import of Thailand 2014 - 2018

*Quantity : Tonnes
Value : Million Baht*

Mineral	2014		2015		2016		2017		2018	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Industrial Rock</u>										
Basalt	25,937	166.5	25,122	199.5	40,860	298.3	90,726	235.0	201,574	177.7
Flint	30,663	18.9	31,214	13.3	19,705	14.1	303,909	90.3	414,793	111.7
Pumice stone	5,035	51.6	5,005	49.7	4,727	53.2	4,829	48.0	6,332	55.9
Vermiculite, Perlite and Chlorites	4,617	48.3	4,831	43.9	5,239	55.0	4,827	45.5	4,286	41.3
Total		285.3		306.4		420.6		418.8		386.6
%		0.45		0.49		0.73		0.63		0.53
<u>Other Industrial Minerals</u>										
Apatite (ground)	1,427	6.2	448	2.7	1,110	4.4	2,066	7.6	1,695	7.3
Asbestos	42,625	684.0	36,513	659.2	33,898	527.3	41,060	616.2	40,453	574.6
Barite	65,089	201.4	98,358	183.6	86,651	163.0	81,133	177.1	90,092	197.0
Bentonite	101,284	665.3	104,547	717.4	107,644	758.0	120,287	776.6	127,807	776.4
Calcite	41	0.2	-	-	30	0.1	216	0.5	304	0.6
Chalk	81	2.5	96	5.4	76	1.3	41	1.1	58	1.1
Epsomite	-	-	-	-	-	-	-	-	49	0.4
Fireclay	553	6.6	484	8.2	1,756	19.1	1,975	18.2	1,709	16.5
Fluorite	545	12.1	498	8.7	1,517	10.3	2,962	22.3	1,994	16.2
Graphite	3,300	119.7	4,435	113.9	5,359	132.9	6,767	141.5	4,571	127.1
Kieserite	4,848	27.8	10,496	63.0	5,853	30.4	8,425	35.0	4,451	25.2
Magnesite	7,146	81.0	3,456	42.5	3,232	37.5	4,303	42.0	3,396	36.7
Mica	4,392	122.2	5,501	167.2	5,979	176.2	5,828	180.0	6,162	164.8
Orpiment	0.1	0.0*	166.0	1.2	14.4	0.7	15.0	0.7	706	4.0

Mineral Import of Thailand 2014 - 2018

*Quantity : Tonnes
Value : Million Baht*

Mineral	2014		2015		2016		2017		2018	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Other Industrial Minerals (cont.)										
Phosphate										
- Ground	1	0.0*	0.1	0.0*	0*	0.0*	0*	0.0*	0*	0.0*
- Unground	-	-	0*	0.0*	250	1.2	1	0.2	1	0.5
Pyrophyllite	1	0.5	0.1	0.0*	-	-	-	-	140.0	0.9
Steatite	805	15.2	491	12.2	495	14.8	1,501	22.3	1,269	19.5
Sulphur	115,426	715.5	122,771	759.3	96,241	405.3	56,255	274.4	51,049	330.5
Talc	137,228	1,662.8	134,349	1,625.0	137,350	1,646.5	140,289	1,634.2	141,898	1,643.5
Witherite	191	2.6	193	2.7	253	3.8	125	2.1	75	1.3
Total		4,325.6		4,372.2		3,932.8		3,952.0		3,944.1
%		6.82		7.05		6.80		6.00		5.42
Grand Total		63,440.2		61,977.6		57,874.3		66,110.0		72,819.8

:- 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 2014-2018

unit: Thousand Baht

Mineral	2014	2015	2016	2017	2018
Andesite (Industrial rock)	6,013.60	6,864.31	11,329.83	10,984.60	13,141.55
Anhydrite	24,734.44	26,341.59	36,694.07	35,320.16	41,973.14
Antimony	96.82	-	4.62	-	-
Ball clay	7,830.38	6,631.75	22,556.50	3,915.36	8,270.38
Barite					
- Chemical grade (ground)	505.73	479.07	473.23	413.99	725.59
- Drilling mud (ground)	4,221.71	10,326.50	12,988.19	7,753.64	5,660.69
- Unground	6,068.60	4,971.62	6,462.05	3,894.90	3,147.50
Basalt (Industrial rock)	75,054.01	72,376.31	111,903.52	107,278.62	108,960.63
Bentonite	-	260.40	-	-	-
Calcite	7,920.97	23,180.86	46,154.47	47,516.31	46,329.00
Cement clay	16,138.34	18,613.16	21,009.58	17,631.17	22,216.41
Ceramic clay	5,806.53	8,686.48	7,863.02	7,614.24	7,474.90
Copper Metal	1,315.19	-	-	-	-
Dolomite	42,889.31	55,665.70	65,082.80	68,208.39	92,772.92
Dolomitic Marl	-	6.37	5.73	14.70	128.83
Feldspar					
- Potassium (ground)	192.96	133.44	110.88	50.88	38.54
- Potassium (unground)	676.60	967.37	21.15	-	-
- Sodium (ground)	13,184.47	6,857.79	8,142.04	7,356.54	5,298.94
- Sodium (unground)	26,398.65	32,808.32	20,935.57	34,775.97	36,442.42
Final Slag	423.37	-	61.04	58.36	-
Fluorite	18,424.02	16,346.67	19,421.87	8,396.30	13,517.19
Garnet	-	-	-	-	-
Glass sand	14,539.25	30,455.43	46,758.85	65,396.63	55,784.18
Gneiss (Dimension stone)	224.80	17.60	5.92	19.20	126.40
Gold Metal	485,845.66	333,447.48	519,865.28	-	-

Mineral Royalty of Thailand 2014-2018

unit: Thousand Baht

Mineral	2014	2015	2016	2017	2018
Granite					
- Dimension stone	970.58	1,083.11	1,605.07	1,062.20	1,380.47
- Industrial rock-construction	41,886.29	49,055.74	74,615.55	76,453.35	103,165.54
- Industrial rock-ceramic	-	-	448.00	-	320.00
Graywacke	0.00	916.44	7,891.04	12,146.72	9,539.60
Gypsum	302,309.40	297,944.55	274,757.14	246,463.94	253,447.10
Ilmenite	18.28	-	-	955.00	555.05
Iron Ore	24,901.21	789.81	327.60	2,169.30	2,286.48
Kaolin					
- Filler	874.76	1,055.49	2,091.85	2,097.60	1,425.23
- Unwashed	10,503.75	8,130.59	11,976.61	4,695.77	5,380.49
- Washed	4,873.44	5,427.58	4,944.95	4,430.05	4,177.75
Lead	-	-	-	74.22	5,621.31
Lignite	708,759.88	588,546.59	647,780.02	623,642.07	553,646.94
Limestone					
- Dimension stone	-	-	-	3.44	212.54
- Industrial rock-construction	403,815.00	462,674.06	761,127.29	759,963.57	783,810.18
- Industrial rock-cement	600,813.37	662,104.02	1,240,760.86	1,280,736.45	1,235,989.97
- Industrial rock-others	36,234.68	40,472.13	65,755.48	69,499.65	93,388.89
Manganese (Metallurgical grade)	720.25	78.77	867.18	390.68	614.70
Marble					
- Dimension stone	1,867.52	2,173.48	1,720.28	4,062.51	1,991.98
- Fragment	7,126.04	10,939.57	18,598.38	14,444.54	19,205.55
Marl	564.16	288.66	142.80	322.32	202.30
Monazite	-	-	359.17	138.43	112.44
Other Stone	5,101.25	5,519.56	4,817.48	4,964.44	5,823.50
Perlite (Industrial rock)	390.05	419.70	986.40	2,988.00	330.00

Mineral Royalty of Thailand 2014-2018

unit: Thousand Baht

Mineral	2014	2015	2016	2017	2018
Phosphate	6.32	4.49	9.65	137.45	4.83
Potash	-	-	-	1.23	-
Pyrophyllite	610.61	1,091.71	1,800.48	1,682.40	816.72
Quartz	4,862.61	2,221.05	830.76	1,413.45	1,464.19
Quartzite	0.00	48.29	163.39	1,392.77	-
Rock salt	61,160.00	85,000.60	104,910.00	116,050.39	117,956.20
Rutile	-	-	-	70.67	215.46
Sand Stone					
- Dimension stone	7.96	191.45	112.22	265.17	343.47
- Industrial rock	1,455.69	3,127.68	7,393.38	2,253.35	5,993.86
Serpentine (Industrial rock)	-	-	-	-	-
Scheelite	777.93	994.40	1,331.81	2,400.03	3,520.44
Shale (Industrial rock-cement)	50,276.73	65,474.54	156,182.64	111,038.62	99,621.74
Silver Metal	61,863.29	36,533.86	71,630.57	-	-
Struverite	542.21	-	987.90	1,294.94	984.15
Talc	196.99	165.89	171.02	167.04	185.47
Tin	7,746.66	3,162.83	5,330.61	34,138.93	11,320.77
Travertine (Dimension)	182.32	208.83	304.68	356.73	385.38
Wolfram	139.31	60.98	791.40	-	960.99
Xenotime	45.45	-	-	-	-
Zinc Metal	54,954.52	48,694.39	70,710.64	25,990.89	-
Zircon	20.49	-	265.67	100.13	226.72
Total	3,155,084.44	3,040,038.99	4,502,350.18	3,837,058.39	3,788,637.63

Total Values of Mineral of Thailand 2014-2018

Million Baht

	2014	2015	2016	2017	2018
PRODUCTION	64,182.7	63,630.3	87,746.5	77,206.6	76,947.1
CONSUMPTION	53,334.0	54,532.6	78,051.4	76,992.9	70,860.1
IMPORT	63,440.2	61,977.6	57,874.3	66,110.0	72,819.8
EXPORT	24,756.4	17,436.0	20,140.0	12,878.8	12,895.0

