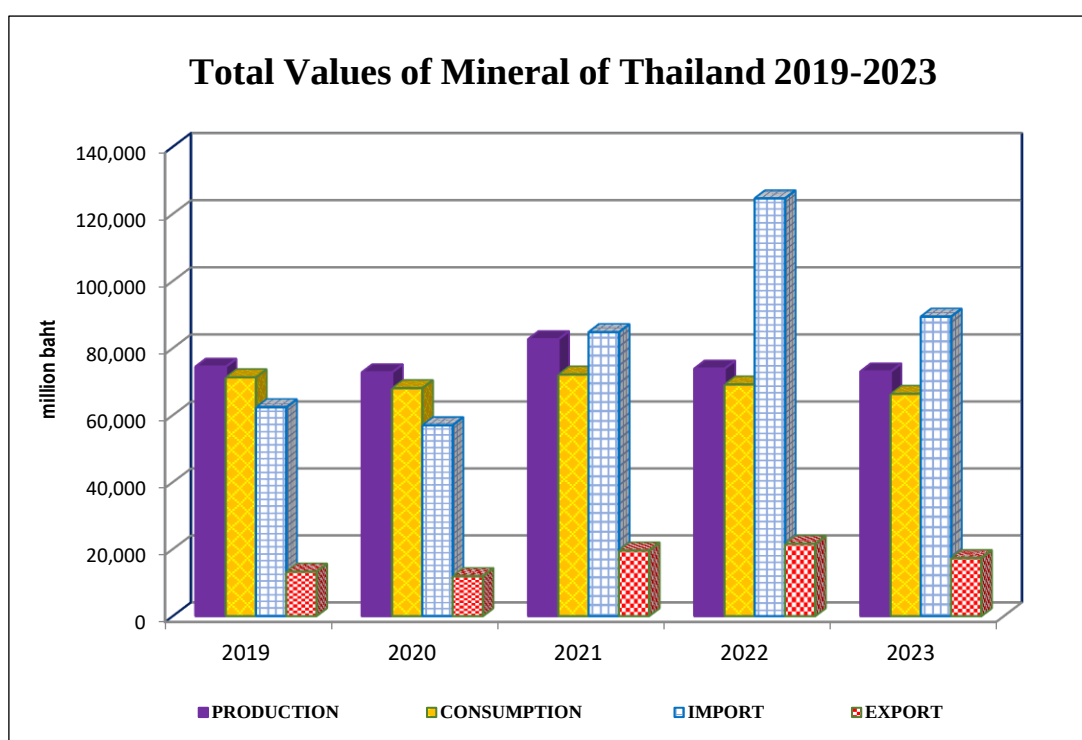


Mineral Statistics of Thailand

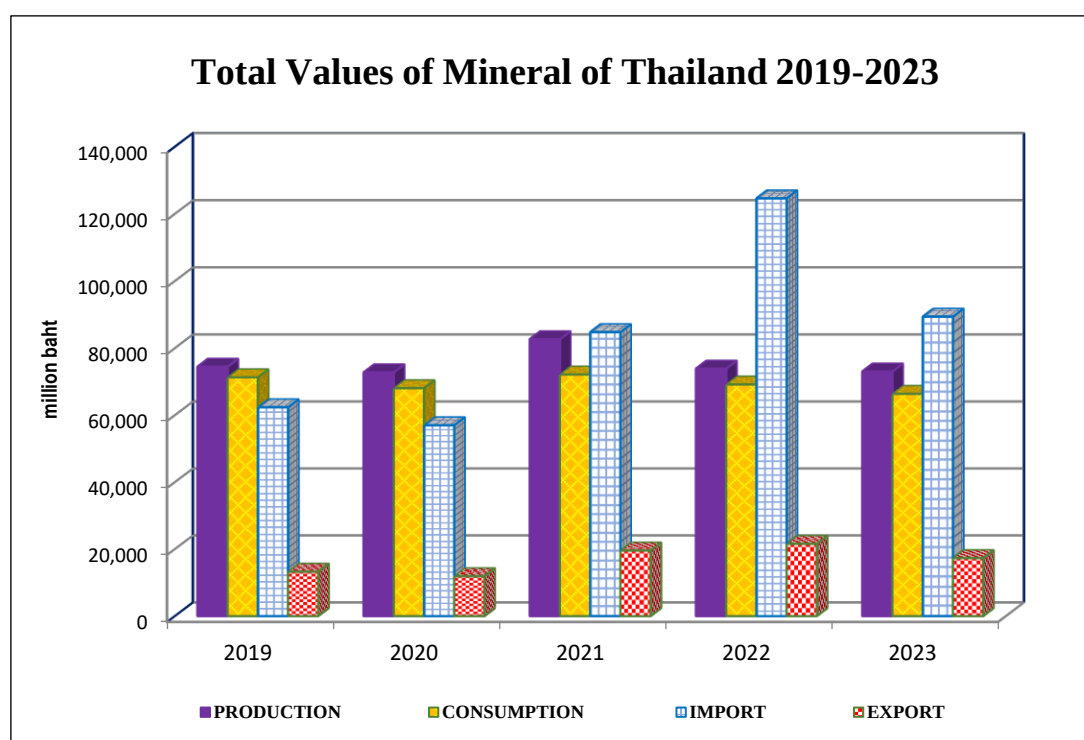
2019 – 2023



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

Mineral Statistics of Thailand

2019 – 2023



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

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ANDESITE

Tonnes

	2019	2020	2021	2022	2023
<u>Production</u>					
Northern Region					
Chiang Mai	52,626	562,221	837,155	761,439	514,162
Phetchabun	296,016	445,557	735,016	-	398,456
Nakhon Sawan	-	286,451	-	-	-
Uttaradit	268,964	656,960	-	53,982	275,501
Central Region					
Sara Buri	368,145	477,417	145,159	6,317	1,075,834
Rayong	-	-	-	-	348,077
Total Production	985,751	2,428,606	1,717,330	821,738	2,612,030
Value (Million Baht)	197.2	485.7	343.5	164.3	522.4
<u>Consumption</u>					
Total Consumption	1,349,235	2,177,153	1,558,114	859,080	2,466,200
Value (Million Baht)	269.8	435.4	311.6	171.8	493.2

ANHYDRITE

Tonnes

	2019	2020	2021	2022	2023
<u>Production</u>					
Northern Region					
Nakhon Sawan	-	8,000	12,400	1,430	13,395
Southern Region					
Nakhon Si Thammarat	91,585	117,600	117,200	148,900	157,825
Surat Thani	1,328,002	1,141,226	1,484,557	1,674,307	1,560,296
Total Production	1,419,587	1,266,826	1,614,157	1,824,637	1,731,516
Value (Million Baht)	838.8	740.7	949.7	1,157.9	1,111.9
<u>Export</u>					
Unground					
Asia					
Bangladesh	-	-	-	-	9,900
Cambodia	74,550	112,227	100,500	99,500	108,000
India	236,250	172,000	45,000	50,000	-
Indonesia	22,350	30,800	22,550	16,800	49,140
Japan	457,050	526,880	552,300	498,550	535,960
Korea, South	214,800	235,400	273,300	277,500	243,300
Malaysia	140,100	56,700	67,400	134,500	117,600
Myanmar	11,500	-	-	-	-
Vietnam	209,480	232,870	470,705	779,850	556,500
Total Export	1,366,080	1,366,877	1,531,755	1,856,700	1,620,400
Value (Million Baht)	797.8	813.1	932.9	1,241.1	1,138.1
<u>Consumption</u>					
Total Consumption	4,546	10,871	14,900	208,572	196,123
Value (Million Baht)	2.6	6.4	8.8	134.5	128.3
<u>Import¹</u>					
Total Import	0**	1	2	27	119
Value (Million Baht)	0.0*	0.0*	0.0*	0.4	1.8

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'

ANTHRACITE

	Tonnes				
	2019	2020	2021	2022	2023
<u>Import</u>¹					
Total Import	125,723	153,844	108,168	96,634	129,666
Value (Million Baht)	566.5	578.6	471.6	1,223.5	873.0

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

ANTIMONY

Tonnes

	2019	2020	2021	2022	2023
<u>Export</u>					
Ore					
Asia					
China	3,147	266	3,188	2,353	281
Hong Kong	-	-	-	-	71
Taiwan	-	-	-	-	10
Vietnam	477	461	631	252	25
Total Export	3,624	727	3,818	2,605	387
Value (Million Baht)	64.9	20.4	239.0	257.8	8.3
<u>Import</u>¹					
Total Import	3,989	1,361	5,794	3,680	76
Value (Million Baht)	60.5	52.8	634.1	513.5	14.1

0** denoting the amount of less than 0.1 tonnes

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

BALL CLAY

Tonnes

	2019	2020	2021	2022	2023
<u>Production</u>					
Northern Region					
Lampang	241,244	1,687	-	-	-
Phayao	-	-	16,800	30,000	290
Central Region					
Prachin Buri	-	1,500	3,095	4,000	-
Sara Buri	89,097	10,000	65,000	56,904	-
Southern Region					
Nakhon Si Thammarat	2,445	12,590	-	-	-
Total Production	332,786	25,777	84,895	90,904	290
Value (Million Baht)	183.0	14.2	46.7	50.0	0.2
<u>Export</u>					
Asia					
Bangladesh	596	140	2,844	19,597	12,607
Belgium	-	-	440	-	-
China	1,155	644	2,610	9,365	4,893
India	-	-	-	925	925
Indonesia	2,145	1,438	4,560	14,306	18,377
Japan	260	200	500	300	261
Korea (South)	-	-	-	420	660
Malaysia	5,832	4,978	5,573	10,230	9,318
Philippines	-	-	24	264	408
Saudi Arabia	-	-	-	-	100
Sri Lanka	-	-	24	-	-
Vietnam	2,870	1,633	2,137	14,452	10,570
Total Export	12,858	9,033	18,712	69,859	58,119
Value (Million Baht)	56.3	34.2	85.5	426.1	320.0

Tonnes

	2019	2020	2021	2022	2023
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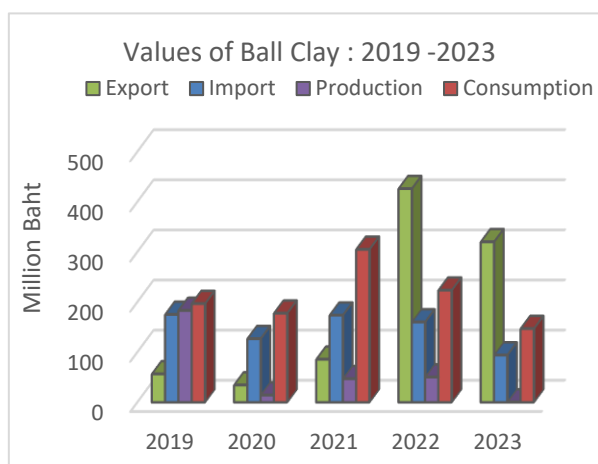
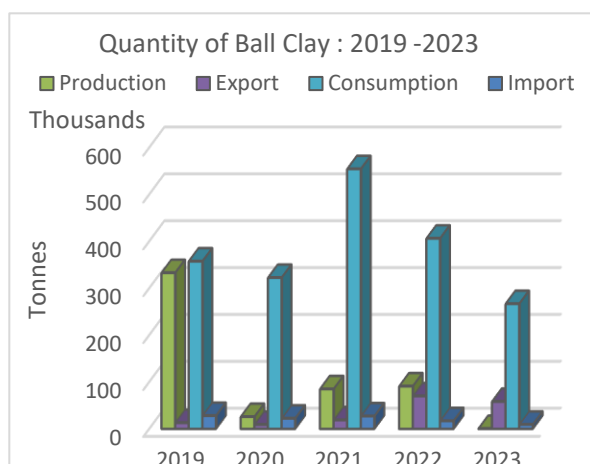
Consumption

Total Consumption	357,420	322,490	554,415	406,166	266,764
Value (Million Baht)	196.6	177.4	304.9	223.4	146.7

Import¹

Total Import	27,961	22,273	27,083	16,877	9,217
Value (Million Baht)	175.0	126.6	173.5	159.9	94.0

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



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

B A R I T E

Tonnes

	2019	2020	2021	2022	2023
<u>Production</u>					
1. Ground (Chemical grade)					
Northeastern Region					
Loei	1,757	1,260	1,218	963	766
Total Production	1,757	1,260	1,218	963	766
Value (Million Baht)	17.0	12.2	11.8	9.3	7.4
2. Ground (Drilling Mud grade)					
Northern Region					
Phrae	31,557	-	-	-	-
Total Production	31,557	-	-	-	-
Value (Million Baht)	147.4	-	-	-	-
3. Unground					
Northeastern Region					
Loei	-	3,404	2,770	546	10,000
Southern Region					
Nakhon Si Thammarat	330	17,730	1,000	5,000	19,918
Total Production	330	21,134	3,770	5,546	29,918
Value (Million Baht)	0.5	31.4	5.6	8.2	44.4

Tonnes

	2019	2020	2021	2022	2023
Export					
1. Ground (Chemical grade)					
Asia					
China	5	-	-	-	-
Japan	64	64	64	16	48
Korea, South	252	252	335	393	210
Malaysia	503	560	377	354	306
Saudi Arabia	-	-	20	-	-
Singapore	120	100	160	60	100
Taiwan	286	284	244	140	102
Australia / Oceania					
Australia	-	-	-	120	-
Total Export	1,230	1,260	1,200	1,083	766
Value (Million Baht)	12.3	14.2	12.8	12.9	9.0
2. Unground (Chemical grade)					
Asia					
China	-	-	-	-	120
Total Export	-	-	-	-	120
Value (Million Baht)	-	-	-	-	0.2
3. Ground (Drilling Mud grade)					
Asia					
Malaysia	-	-	-	1,140	-
Total Export	-	-	-	1,140	-
Value (Million Baht)	-	-	-	48.6	-

					Tonnes
	2019	2020	2021	2022	2023
<u>Consumption</u>					
1.Ground (Chemical grade	1,091	676	-	-	-
Value (Million Baht)	10.6	6.6	-	-	-
2.Ground (Drilling mud)	30,745	-	-	-	-
Value (Million Baht)	143.6	-	-	-	-
3. Unground	2,199	17,456	14,021	526	29,702
Value (Million Baht)	3.3	25.9	20.8	0.8	44.1
<u>Import</u>¹					
Total Import	161,560	128,380	89,981	110,749	143,181
Value (Million Baht)	274.1	221.7	178.1	230.9	313.7

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

B A S A L T

Tonnes

	2019	2020	2021	2022	2023
<u>Production</u>					
Northeastern Region					
Buri Ram	3,673,749	3,756,134	3,642,024	3,775,699	4,309,574
Nakhon Ratchasima	2,419,020	1,996,172	2,127,828	2,060,923	1,586,212
Si Sa Ket	664,489	391,258	-	248,285	182,088
Surin	2,237,881	3,139,350	3,300,022	3,088,977	3,112,718
Ubon Ratchathani	3,623,530	4,037,957	4,653,779	4,030,150	3,977,066
Central Region					
Lop Buri	67,687	305,207	328,267	184,548	144,077
Trat	-	48,250	-	-	-
Total Production	12,686,356	13,674,328	14,051,920	13,388,582	13,311,735
Value (Million Baht)	2,537.3	2,734.8	2,810.4	2,677.7	2,662.0
<u>Consumption</u>					
Total Consumption	12,165,737	14,390,606	14,451,214	13,645,310	12,485,731
Value (Million Baht)	2,433.1	2,878.1	2,890.2	2,729.1	2,497.1
<u>Import</u>¹					
Total Import	131,889	28,604	10,678	7,065	17,143
Value (Million Baht)	131.9	119.0	63.7	61.0	40.1

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

BENTONITE

	Tonnes				
	2019	2020	2021	2022	2023
<u>Import</u>¹					
Total Import	137,667	122,247	151,974	140,918	146,794
Value (Million Baht)	763.2	683.7	944.8	1,049.9	1,072.8

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

CALCITE

Tonnes

	2019	2020	2021	2022	2023
<u>Production</u>					
Central Region					
Lop Buri	1,440,030	1,430,044	1,639,588	1,397,580	1,290,130
Total Production	1,440,030	1,430,044	1,639,588	1,397,580	1,290,130
Value (Million Baht)	1,080.0	1,072.5	1,229.7	1,048.2	967.6
<u>Consumption</u>					
Total Consumption	1,448,141	1,398,348	1,561,578	1,323,299	1,307,738
Value (Million Baht)	1,086.1	1,048.8	1,171.2	992.5	980.8
<u>Import</u>¹					
Total Import	1	47	-	-	-
Value (Million Baht)	0.0*	0.0*	-	-	-

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

0.0* denoting the amount of less than 0.05 million baht

C E M E N T C L A Y

Tonnes

	2019	2020	2021	2022	2023
<u>Production</u>					
Northern Region					
Lampang	293,221	246,859	248,669	254,048	243,386
Northeastern Region					
Nakhon Ratchasima	828,315	665,465	1,054,257	825,829	574,740
Central Region					
Lop Buri	1,514,921	1,331,062	1,247,014	1,245,613	880,977
Phetchaburi	71,408	35,560	72,800	42,460	-
Prachin Buri	83,445	33,228	120,200	106,200	138,609
Sara Buri	4,193,131	4,377,696	3,654,748	1,828,425	4,290,727
Southern Region					
Krabi	425,000	425,000	400,000	324,908	252,475
Nakhon Si Thammarat	46,000	91,000	179,917	123,700	67,504
Total Production	7,455,441	7,205,870	6,977,605	4,751,182	6,448,417
Value (Million Baht)	670.9	648.5	627.9	427.6	580.4
<u>Consumption</u>					
Total Consumption	8,630,270	6,696,958	7,914,512	5,119,341	5,381,168
Value (Million Baht)	776.7	602.7	712.3	460.7	484.3

CERAMIC CLAY

Tonnes

	2019	2020	2021	2022	2023
<u>Production</u>					
Northeastern Region					
Chaiyaphum	262,000	181,000	361,400	391,800	211,200
Central Region					
Ang Thong	-	71,627	79,633	60,000	10,000
Lop Buri	41,000	86,000	240,000	200,000	235,000
Sara Buri	31,686	37,550	33,262	77,899	162,892
Sing Buri	43,400	27,500	30,000	90,000	-
Total Production	378,086	403,677	744,295	819,699	619,092
Value (Million Baht)	207.9	222.0	409.4	450.8	340.5
<u>Consumption</u>					
Total Consumption	478,769	516,770	607,943	620,094	700,829
Value (Million Baht)	263.3	284.2	334.4	341.1	385.5

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

	Tonnes				
	2019	2020	2021	2022	2023
<u>Import</u> (Columbite)¹					
Total Import	357	216	25	266	141
Value (Million Baht)	167.4	70.7	15.8	224.2	87.2

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

C O P P E R

Tonnes

	2019	2020	2021	2022	2023
<u>Import (ore)</u>¹					
Total Import	142	3,403	8,759	3,832	3,711
Value (Million Baht)	1.2	11.4	35.3	26.3	17.4

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

DICKITE

					Tonnes
	2019	2020	2021	2022	2023
<u>Production</u>					
Central Region					
Sara Buri	5,000	-	-	-	-
Total Production	5,000	-	-	-	-
Value (Million Baht)	3.0	-	-	-	-
<u>Consumption</u>					
Total Consumption	3,969	6,479	14,782	10,602	4,450
Value (Million Baht)	2.4	3.9	8.9	6.4	2.7

D O L O M I T E

Tonnes

	2019	2020	2021	2022	2023
<u>Production</u>					
Northern Region					
Phetchabun	2,270	39,879	261,400	2,500	3,500
Central Region					
Kanchanaburi	505,262	639,370	742,772	653,747	757,790
Ratchaburi	-	-	164,221	263,316	207,057
Southern Region					
Krabi	177,666	-	-	5,000	94,000
Phangnga	235,318	117,341	146,594	233,000	447,000
Songkhla	316,600	677,855	625,697	860,847	634,000
Surat Thani	1,316,103	2,046,889	1,457,156	1,405,906	1,351,954
Trang	297,625	251,400	560,100	505,400	536,500
Total Production	2,850,844	3,772,734	3,957,939	3,929,716	4,031,801
Value (Million Baht)	1,568.0	2,075.0	1,998.9	1,761.8	1,837.3

Export

1. Ground

Asia

Bangladesh	-	20	17	-	18
Cambodia	-	-	-	700	1,275
Laos	734	-	-	-	-
Philippines	80	118	190	195	980
Singapore	-	4	-	4	14

Total Export	814	142	207	899	2,287
Value (Million Baht)	0.8	0.8	1.1	2.2	5.6

2. Unground

Asia

Bangladesh	75	13,350	-	-	-
Cambodia	-	-	-	-	1,750
China	-	49,500	-	-	-
India	320,000	236,675	241,000	120,500	121,000
Indonesia	-	-	50,000	-	-
Japan	319,460	371,050	469,280	391,550	366,900
Jordan	-	-	-	-	-
Malaysia	342,050	515,785	513,500	454,700	480,550
Taiwan	141,000	205,670	196,500	191,503	306,525

South America

Chile	46,200	-	-	-	-
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Total Export	1,168,785	1,392,030	1,470,280	1,158,253	1,276,725
Value (Million Baht)	394.4	479.7	552.7	493.4	565.8

Tonnes

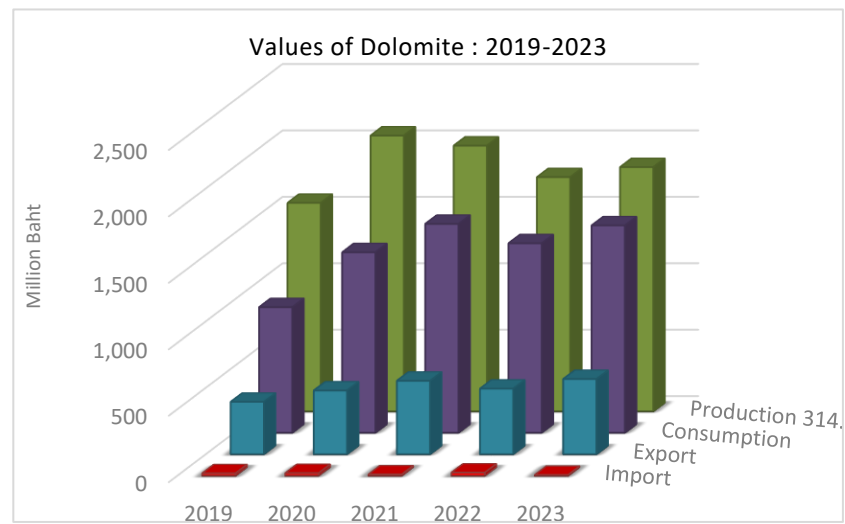
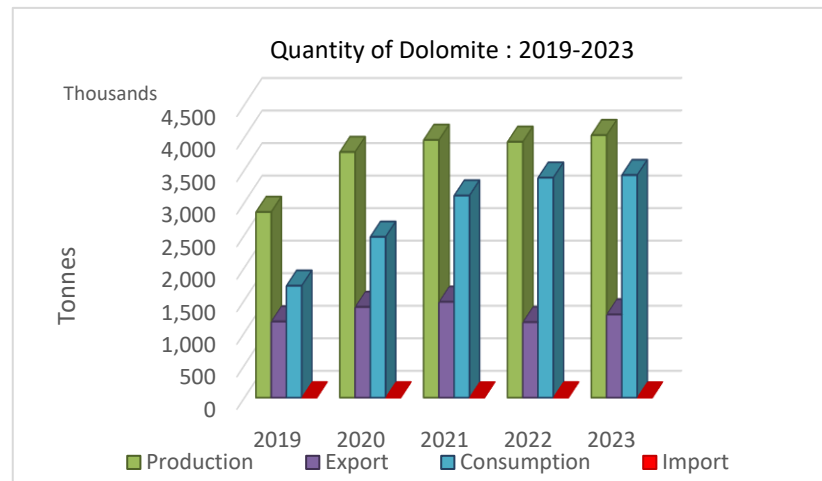
	2019	2020	2021	2022	2023
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Consumption

Total Consumption	1,718,019	2,469,086	3,104,023	3,377,935	3,418,517
Value (Million Baht)	944.9	1,358.0	1,572.0	1,425.7	1,560.4

Import¹

Total Import	1,349	1,232	602	1,798	424
Value (Million Baht)	18.4	19.5	9.5	23.5	5.7



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

D O L O M I T I C M A R L

Tonnes

	2019	2020	2021	2022	2023
<u>Production</u>					
Northern Region					
Phetchabun	1,585	-	1,500	-	-
Phrae	-	5,000	7,000	-	-
Central Region					
Suphan Buri	-	-	-	-	34,000
Total Production	1,585	5,000	8,500	-	34,000
Value (Million Baht)	0.6	1.8	2.9	-	11.9
<u>Consumption</u>					
Total Consumption	11,495	10,130	11,390	10,303	49,599
Value (Million Baht)	4.0	4.0	4.0	3.6	17.4

F E L D S P A R

Tonnes

	2019	2020	2021	2022	2023
--	------	------	------	------	------

Production

1. Sodium Feldspar (Ground)

Northern Region

Tak	-	6,204	5,100	48,807	-
Total Production	-	6,204	5,100	48,807	-
Value (Million Baht)	-	8.7	7.1	68.3	-

2. Sodium Feldspar (Unground)

Northern Region

Tak	254,172	237,638	339,088	436,062	499,576
-----	---------	---------	---------	---------	---------

Central Region

Kanchanaburi	2,000	800	-	-	-
Ratchaburi	142,030	266,318	61,270	44,081	87,960

Southern Region

Nakhon Si Thammarat	854,941	594,384	941,539	1,424,968	1,296,765
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Total Production	1,253,143	1,099,140	1,341,897	1,905,111	1,884,301
Value (Million Baht)	877.2	769.4	939.3	1,333.6	1,319.0

Export

1. Feldspar Sodium

Asia

Bangladesh	-	-	-	-	881,860
Indonesia	-	-	-	-	102,611
Malaysia	-	-	-	-	3,630
Philippines	-	-	-	-	96
Vietnam	-	-	-	-	11,300

Total Export	-	-	-	-	999,497
Value (Million Baht)	-	-	-	-	898.1

Tonnes

	2019	2020	2021	2022	2023
2. Feldspar Sodium (Ground)					
Asia					
Bangladesh	484,944	589,860	849,520	917,338	50,100
Cambodia	-	-	-	100	-
China	-	-	-	75	-
India	-	11,550	-	-	-
Indonesia	119,166	76,845	123,864	147,440	12,671
Malaysia	7,150	8,770	5,770	4,391	510
Myanmar	-	-	-	1,152	-
Philippines	240,240	1,764	216	96	-
U.A.E.	270,570	121,100	124,500	-	-
Vietnam	12,911	13,405	9,400	10,088	4,500
Australia / Oceania					
Australia	-	-	2	-	-
New Zealand	50	-	22	-	-
Total Export	1,135,031	823,294	1,113,294	1,080,680	67,781
Value (Million Baht)	1,396.7	637.1	888.3	1,041.8	63.9
<u>Consumption</u>					
1. Sodium Feldspar (Ground)	32,762	12,541	27,220	63,028	88
Value (Million Baht)	45.9	17.6	38.1	88.2	0.1
2. Sodium Feldspar (Unground)	857,771	634,231	495,876	2,146,650	1,797,631
Value (Million Baht)	600.4	444.0	347.1	1,502.7	1,258.3

	Tonnes				
	2019	2020	2021	2022	2023
<u>Import</u>¹					
1. Potassium, Sodium Feldspar	21,377	22,946	33,060	21,487	23,759
Value (Million Baht)	77.7	86.4	128.8	99.0	89.4
2. Other Feldspar	19,091	13,330	15,664	21,030	15,053
Value (Million Baht)	90.0	58.8	73.5	134.5	106.2

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

FLUORITE

Tonnes

	2019	2020	2021	2022	2023
<u>Production (Metallurgical grade)</u>					
Northern Region					
Lamphun	17,000	6,240	-	35,995	118,446
Mae Hong Son	-	-	2,600	3,228	4,120
Phrae	747	3,567	166	-	-
Central Region					
Kanchanaburi	-	-	7,000	20,020	65,000
Total Production	17,747	9,807	9,766	59,243	187,566
Value (Million Baht)	85.6	50.0	52.5	338.0	1,315.2
<u>Export (Metallurgical Grade)</u>					
Asia					
China	3,050	234	2,015	4,080	22,963
India	41,323	37,829	31,752	30,804	36,400
Indonesia	-	-	200	633	494
Korea, South	352	-	315	6,755	3,610
Malaysia	-	-	-	525	400
Vietnam	-	75	-	-	-
Europe					
Turkey	958	234	-	-	-
Total Export	45,683	38,372	34,282	42,797	63,867
Value (Million Baht)	256.3	226.7	176.3	413.8	544.5
<u>Consumption (Metallurgical Grade)</u>					
Total Consumption	200	-	6,998	2,250	7,500
Value (Million Baht)	1.0	-	36.0	10.8	54.0
<u>Import¹</u>					
Total Import	11,658	9,325	10,585	5,877	5,693
Value (Million Baht)	45.5	34.5	71.1	59.9	49.5

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

G A R N E T

Tonnes

	2019	2020	2021	2022	2023
<u>Export</u>					
Asia					
China	-	-	-	-	-
Hong Kong	-	-	-	-	-
Malaysia	164	-	-	-	-
Singapore	350	-	-	-	-
U.A.E.	25	-	-	-	-
North America					
U.S.A.	-	-	-	-	-
Total Export	539	-	-	-	-
Value (Million Baht)	2.7	-	-	-	-

GLASS SAND

Tonnes

	2019	2020	2021	2022	2023
<u>Production</u>					
Northeastern Region					
Bueng Kan	36,100	14,170	13,000	27,300	13,920
Roi Et	142,212	208,000	37,400	44,000	24,600
Central Region					
Cha Choeng Sao	155,000	145,000	165,421	171,500	164,000
Chanthaburi	82,850	175,635	152,785	232,340	111,195
Rayong	698,208	540,704	781,043	843,323	1,178,996
Southern Region					
Chumphon	133,662	160,400	109,165	106,040	111,267
Songkhla	-	-	63,800	-	-
Surat Thani	-	9,000	-	900	-
Total Production	1,248,032	1,252,909	1,322,614	1,425,403	1,603,978
Value (Million Baht)	1,235.6	1,240.4	1,309.4	1,411.1	1,587.9
<u>Consumption</u>					
Total Consumption	1,206,501	1,278,387	1,307,804	1,222,471	1,476,620
Value (Million Baht)	1,194.4	1,265.6	1,294.7	1,210.2	1,461.9
<u>Import</u>¹					
Total Import	150,830	86,004	94,258	215,748	131,557
Value (Million Baht)	446.1	340.0	632.2	1,202.7	1,113.1

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

G N E I S S

	Tonnes				
	2019	2020	2021	2022	2023
<u>Production</u>					
Central Region					
Prachuap Khiri Khan	-	-	-	-	-
Total Production	-	-	-	-	-
Value (Million Baht)	-	-	-	-	-

GRANITE

Tonnes

	2019	2020	2021	2022	2023
<u>Production</u>					
1. Dimension Stone*					
Northern Region					
Kamphaeng Phet	15,099	620	3,172	5,668	-
Tak	2,397	1,766	1,525	1,614	853
Northeastern Region					
Nakhon Ratchasima	17	-	-	-	-
Central Region					
Cha Choeng Sao	18	-	-	-	-
Prachuap Khiri Khan	1,137	-	-	-	148
Total Production	18,668	2,386	4,697	7,282	1,001
Value (Million Baht)	117.3	12.4	24.4	37.9	5.2
2. Industrial Rock					
Northern Region					
Chiang Rai	-	-	26,500	535,968	613,760
Phrae	-	558	-	11,727	5,226
Tak	-	2,000	-	-	-
Central Region					
Cha Chaeng Sao	470,011	406,516	348,851	355,972	406,096
Chon Buri	5,940,980	5,149,242	6,352,958	5,817,503	6,747,246
Kanchanaburi	-	140,660	12,116	-	-
Prachuap Khiri Khan	124,627	316,096	-	694,041	129,563
Rayong	1,685,424	2,064,000	1,463,000	2,563,200	5,222,110
Ratchaburi	196,076	44,424	164,471	149,739	92,000
Southern Region					
Nakhon Si Thammarat	40,380	97,563	29,744	50,427	109,362
Narathiwat	1,508,717	1,855,050	2,245,343	440,306	1,018,735
Phangnga	1,023,188	1,140,372	987,895	503,323	-
Songkhla	2,874,832	3,543,728	2,877,741	2,172,841	1,830,679
Total Production	13,864,234	14,760,209	14,508,620	13,295,046	16,174,776
Value (Million Baht)	2,772.8	2,952.0	2,901.7	2,659.0	3,235.0

* unit : cubic meter

Tonnes

	2019	2020	2021	2022	2023
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Export (Industrial Rock)**Asia**

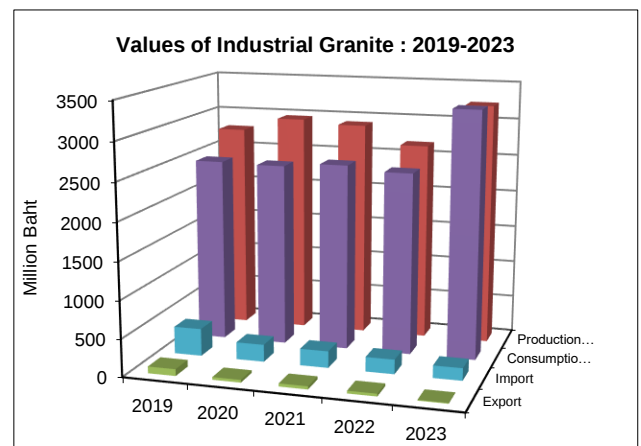
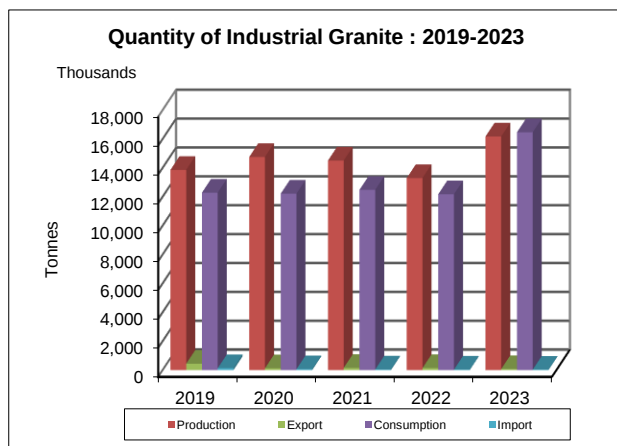
Singapore	444,261	128,400	153,900	140,000	72,000
Total Export	444,261	128,400	153,900	140,000	72,000
Value (Million Baht)	90.0	35.4	40.4	35.1	9.5

Consumption

1. Dimension Stone *	2,059	2,104	3,527	3,513	6,404
Value (Million Baht)	12.6	10.9	18.3	18.3	33.3
2. Industrial Rock	12,287,216	12,217,021	12,480,086	12,176,732	16,466,102
Value (Million Baht)	2,457.4	2,443.4	2,496.0	2,435.3	3,293.2

Import (Dimension Stone)¹

Total Import	133,251	64,418	44,904	32,689	31,545
Value (Million Baht)	366.4	229.9	222.1	194.0	165.3

*** unit : cubic meter**

GRAVEL

	Tonnes				
	2019	2020	2021	2022	2023
<u>Export</u> (Industrial Rock)					
Asia					
Malaysia	6	-	-	22	-
Singapore	264	48	48	-	-
Total Export	270	48	48	22	-
Value (Million Baht)	1.2	0.2	0.2	0.1	-

GRAYWACKE

Tonnes

	2019	2020	2021	2022	2023
<u>Production</u> (Industrial Rock)					
Central Region					
Chanthaburi	515,176	464,244	565,885	489,214	553,794
Trat	917,112	943,531	1,163,033	598,066	612,615
Total Production	1,432,288	1,407,775	1,728,918	1,087,280	1,166,409
Value (Million Baht)	286.5	281.6	345.8	217.5	233.3
<u>Consumption</u> (Industrial Rock)					
Total Consumption	1,414,867	1,402,537	1,418,417	1,068,125	612,994
Value (Million Baht)	283.0	280.5	283.7	213.6	122.6

G Y P S U M

Tonnes

	2019	2020	2021	2022	2023
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Production

Northern Region

Nakhon Sawan	4,004,497	4,045,482	4,425,073	3,957,538	3,613,080
Phichit	381,634	367,440	364,272	84,549	66,485

Southern Region

Nakhon Si Thammarat	1,645,184	1,077,370	1,228,819	850,030	790,102
Surat Thani	2,336,385	2,522,001	2,770,677	3,130,808	2,534,902

Total Production	8,367,700	8,012,293	8,788,841	8,022,925	7,004,569
Value (Million Baht)	4,903.7	4,677.2	5,156.5	5,044.5	4,517.8

Export

1. Ground

Asia

Cambodia	87,440	70,440	63,600	76,000	54,901
China	-	220	-	-	-
Japan	1,640	1,280	384	560	380
Malaysia	8,000	-	-	-	-
Taiwan	210	420	210	420	420

Total Export	97,290	72,360	64,194	76,980	55,701
Value (Million Baht)	63.6	48.6	44.8	54.2	40.9

2. Unground

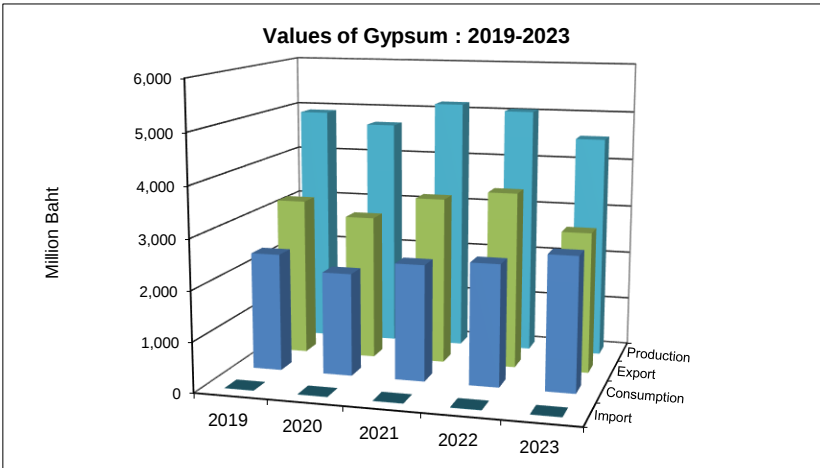
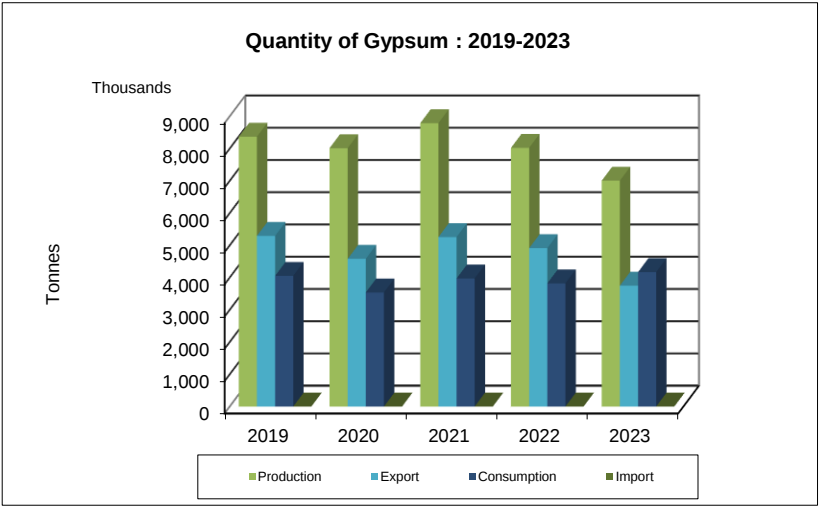
Australia / Oceania

Australia	8,800	8,800	-	9,900	9,900
Fiji	-	5,500	-	5,500	-
New Zealand	6,600	13,200	7,000	-	13,200

	Tonnes				
	2019	2020	2021	2022	2023
2. Unground (cont.)					
Asia					
Bangladesh	93,950	8,250	13,750	-	-
Brunei	-	8,800	20,680	10,010	9,680
Cambodia	233,000	177,000	235,800	189,000	162,000
China	349,950	450,600	314,150	293,936	266,970
Indonesia	1,196,838	1,124,925	1,391,418	1,494,214	916,909
Japan	1,069,520	969,390	779,744	619,948	706,710
Korea,South	45,500	30,000	20,000	20,800	27,000
Malaysia	1,027,330	965,030	1,137,264	1,233,370	1,138,900
Myanmar	120	-	-	-	-
Philippines	271,380	86,564	358,500	176,089	49,434
Sri Lanka	85,800	-	-	-	-
Taiwan	86,050	96,600	142,000	132,000	140,250
Vietnam	719,550	563,858	770,984	649,365	252,100
Total Export	5,194,388	4,508,517	5,191,290	4,834,132	3,693,053
Value(Million Baht)	3,141.1	2,878.6	3,336.7	3,514.6	2,803.1
<u>Consumption</u>					
Total Consumption	4,051,629	3,537,593	3,970,895	3,819,486	4,167,627
Value (Million Baht)	2,370.7	2,066.0	2,334.6	2,440.4	2,684.5
<u>Import</u>¹					
Total Import	340	288	296	425	164
Value (Million Baht)	6.6	5.9	6.1	9.1	4.0

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

2019	2020	2021	2022	2023
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ILMENITE

Tonnes

	2019	2020	2021	2022	2023
<u>Production</u>					
Southern Region					
Nakhon Si Thammarat	117	153	66	2	-
Total Production	117	153	66	2	-
Value (Million Baht)	1.1	1.5	0.5	0.01	-
<u>Export</u>					
Asia					
China	-	-	850	-	-
India	-	-	20,000	-	-
Korea,South	20	24	40	20	
Malaysia	-	-	679	1,359	595
Total Export	20	24	21,569	1,379	595
Value (Million Baht)	1.4	0.1	130.3	11.5	4.9
<u>Import</u>¹					
Total Import	1,400	421	572	-	-
Value (Million Baht)	17.7	5.0	23.6	-	-
Total Import (ore)	120	72	104	160	74
Value (Million Baht)	4.8	3.2	4.7	4.7	5.5

0.0* denoting the amount of less than 0.05 million baht

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

IRON

Tonnes

	2019	2020	2021	2022	2023
<u>Production</u>					
Central Region					
Kanchanaburi	-	-	11,800	8,000	10,900
Northern Region					
Nakhon Sawan	-	27,478	11,424	-	-
Northeastern Region					
Loei	17,660	85,761	228,570	182,000	336,388
Southern Region					
Nakhon Si Thammarat	-	-	73,120	-	-
Total Production	17,660	113,239	324,914	190,000	347,288
Value (Million Baht)	33.5	239.4	990.1	598.7	1,076.5
<u>Export</u>					
Asia					
China	216,643	204,639	383,842	162,931	549,466
Malaysia	-	-	-	-	9,750
Total Export	216,643	204,639	383,842	162,931	559,216
Value (Million Baht)	413.5	418.9	1,189.7	584.3	1,720.2
<u>Import¹</u>					
1.Iron Ore	712	675	2,741	2,965	8,260
Value (Million Baht)	7.6	6.1	20.1	35.7	39.5
2.Iron Pyrite	1,647	835	2,494	5,792	4,221
Value (Million Baht)	11.8	7.0	16.3	39.9	28.2
<u>Consumption</u>					
Total Consumption	192,441	61,151	228,809	100,673	151,994
Value (Million Baht)	435	138.2	653.7	341.1	461.0

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

KAOLIN

Tonnes

	2019	2020	2021	2022	2023
<u>Production</u>					
1. Kaolin (Filler)					
Northern Region					
Uttaradit	11,638	16,269	23,087	-	101,700
Total Production	11,638	16,269	23,087	-	101,700
Value (Million Baht)	22.1	30.9	43.9	-	193.2
2. Kaolin (Washed)					
Central Region					
Chanthaburi	1,270	795	955	842	960
Southern Region					
Narathiwat	6,148	6,865	4,920	5,955	3,512
Ranong	73,358	63,391	95,836	79,279	63,472
Total Production	80,776	71,051	101,711	86,076	67,944
Value (Million Baht)	77.5	68.2	97.6	82.6	65.2
3. Kaolin (Unwashed)					
Northern Region					
Lampang	266,840	332,066	443,338	384,794	154,381
Uttaradit	20,400	29,500	39,500	36,740	-
Central Region					
Kanchanaburi	249,314	151,784	196,950	262,354	259,742
Lop Buri	-	-	49,200	33,100	43,100
Prachin Buri	15,120	65,500	99,500	62,000	18,500
Southern Region					
Surat Thani	-	16,000	-	-	-
Total Production	551,674	594,850	828,488	778,988	475,723
Value (Million Baht)	212.4	229.0	318.9	299.9	183.2

Tonnes

	2019	2020	2021	2022	2023
<u>Export</u>					
1.Washed					
Asia					
Bangladesh	6,656	7,547	7,702	9,687	5,548
China	2,855	4,416	7,208	8,507	3,661
India	24	50	600	600	400
Indonesia	361	439	3,404	3,299	5,328
Japan	40	-	-	40	80
Malaysia	2,520	1,640	2,432	2,603	1,756
Philippines	624	960	912	936	744
Vietnam	4,431	3,627	6,590	7,194	4,248
Australia / Oceania					
Australia	-	-	1	-	-
Europe					
Belgium	-	408	-	-	-
Italy	2	-	-	-	-
Total Export	17,513	19,087	28,849	32,866	21,764
Value (Million Baht)	95.6	119.0	174.4	222.8	139.5
2. Kaolin (Filler)					
Asia					
China	-	20	-	-	-
Japan	-	-	50	-	-
Korea,South	120	39	39	39	39
Malaysia	-	-	29	-	-
Singapore	80	60	-	-	-
Taiwan	6	-	-	-	-
Vietnam	378	310	166	108	74
Europe					
Turkey	18	18	-	-	-
Total Export	602	447	284	147	113
Value (Million Baht)	3.7	3.1	2.0	1.5	1.2

Tonnes

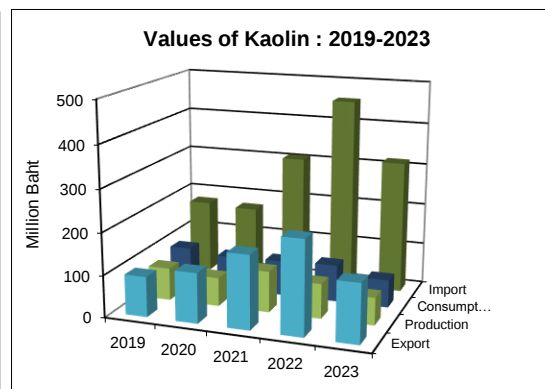
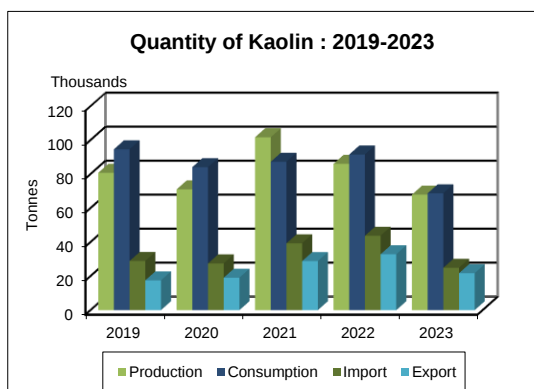
	2019	2020	2021	2022	2023
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Consumption

1. Washed	94,636	84,121	87,291	91,553	68,760
Value (Million Baht)	90.9	80.8	83.8	87.9	66
2. Unwashed	523,191	533,568	544,844	705,259	616,658
Value (Million Baht)	201.4	205.4	209.8	271.5	237.4
3. Filler	11,558	16,082	8,767	3,230	12,000
Value (Million Baht)	22	30.6	16.7	6.1	22.8

Import¹

1. Ceramic	28,916	27,496	39,336	43,763	24,925
Value (Million Baht)	176.0	170.5	307.2	455.7	315.6
2. Paper	5,818	9,597	8,629	10,378	10,331
Value (Million Baht)	58.2	89.7	88.6	135.7	116.0
3. Others	79,004	52,514	65,521	61,375	47,961
Value (Million Baht)	669.9	520.6	674.4	949.8	696.4



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

LEAD

Tonnes

	2019	2020	2021	2022	2023
<u>Import (Lead Ore)</u>¹					
Total Import	98	96	177	204	3,733
Value (Million Baht)	11.0	42.7	103.5	36.6	22.9

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'

LEUCOXENE

Tonnes

	2019	2020	2021	2022	2023
<u>Export</u>					
Asia					
China	-	2,000	-	-	-
India	9	-	1,274	165	416
Iran	-	224	-	-	-
Japan	21	-	-	-	40
Korea, South	80	-	-	-	-
Malaysia	50	50	25	-	-
Philippines	383	572	308	-	25
Singapore	-	60	100	-	-
U.A.E.	200	-	-	-	-
Europe					
Russia	275	-	-	-	-
Ukraine	175	-	-	-	-
Total Export	1,193	2,906	1,707	165	481
Value (Million Baht)	40.4	70.6	65.0	15.8	27.6
<u>Import</u>¹					
Total Import	5,760	401	1,020	1,518	2,014
Value (Million Baht)	225.4	16.1	50.6	109.5	143.6

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

L I G N I T E

Tonnes

	2019	2020	2021	2022	2023
<u>Production</u>					
Northern Region					
Lampang	14,071,710	13,250,574	14,221,573	13,641,283	12,713,628
Total Production	14,071,710	13,250,574	14,221,573	13,641,283	12,713,628
Value (Million Baht)	13,508.8	12,720.6	13,652.7	13,095.6	12,205.1
<u>Consumption</u>					
Total Consumption	13,973,815	13,404,786	14,166,312	14,124,565	12,970,902
Value (Million Baht)	13,414.9	12,868.6	13,599.7	13,559.6	12,452.1
<u>Import</u>¹					
Total Import	382,846	147,806	276,410	255,821	170,154
Value (Million Baht)	347.2	132.3	266.4	294.9	231.7

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

L I M E S T O N E

Tonnes

	2019	2020	2021	2022	2023
<u>Production</u>					
1. Cement Industry					
Northern Region					
Lampang	3,628,470	3,237,320	3,061,560	3,336,100	3,528,440
Nakhon Sawan	-	-	-	6,493	82,405
Northeastern Region					
Sa Kaeo	-	-	631	-	-
Central Region					
Phetchaburi	508,340	375,783	1,808,623	622,266	73,884
Sara Buri	54,144,189	53,845,831	65,156,662	44,855,143	42,223,030
Southern Region					
Nakhon Si Thammarat	6,992,762	7,739,671	6,069,046	6,568,575	4,442,200
Trang	-	-	-	-	-
Total Production	65,273,761	65,198,605	76,096,522	55,388,577	50,349,959
Value (Million Baht)	16,318.4	16,299.7	19,024.1	13,847.1	12,587.5
2. Other Industries					
Northern Region					
Lampang	1,049,308	886,749	1,086,664	1,032,979	1,068,277
Central Region					
Lop Buri	36,400	-	-	10,000	94,500
Sara Buri	7,823,372	6,335,438	7,678,007	6,533,891	6,786,149
Total Production	8,909,080	7,222,187	8,764,671	7,576,870	7,948,926
Value (Million Baht)	2,227.3	1,805.5	2,191.2	1,894.2	1,987.2
3. Dimension Stone					
Central Region					
Ratchaburi	2,076	-	-	-	-
Sara Buri	2,011	-	-	-	-
Total Production	4,087	-	-	-	-
Value (Million Baht)	8.2	-	-	-	-

0.0* denoting the amount of less than 0.05 million baht

	Tonnes				
	2019	2020	2021	2022	2023
4. Construction					
Northern Region					
Chiang Mai	1,397,111	2,226,635	2,021,606	2,031,547	2,826,820
Chiang Rai	1,445,839	1,277,368	1,698,800	1,781,850	2,062,277
Kamphaeng Phet	242,136	262,782	228,040	210,796	-
Lampang	3,376,264	1,299,582	1,845,919	2,029,000	1,939,663
Lamphun	1,257,516	1,095,316	1,117,695	758,674	871,667
Nakhon Sawan	2,874,657	3,561,180	2,364,959	2,992,232	3,581,571
Nan	554,167	1,189,116	941,014	837,113	1,089,470
Phayao	1,465,379	314,808	431,640	488,348	933,550
Phetchabun	2,630,089	2,538,407	2,845,773	4,468,092	1,437,637
Phitsanulok	-	-	246,293	316,471	307,358
Phrae	1,014,231	532,709	1,181,426	1,205,717	1,108,011
Sukhothai	1,848,062	2,114,075	1,873,118	2,175,611	2,465,669
Tak	863,620	1,118,683	959,398	1,188,650	1,383,342
Uthai Thani	264,375	476,287	346,233	385,696	244,288
Northeastern Region					
Khon Kaen	3,884,946	3,093,644	3,931,861	3,949,979	3,910,517
Loei	5,464,295	7,982,245	10,583,962	10,090,239	8,435,725
Nakhon Ratchasima	2,047,867	1,894,755	2,011,202	1,807,510	1,050,000
Nong Bua Lamphu	1,405,976	2,323,963	2,128,133	1,902,066	2,333,640
Udon Thani	215,536	366,784	683,833	1,136,794	815,771
Central Region					
Cha Choeng Sao	871,138	477,426	287,248	338,967	457,044
Chai Nat	124,800	133,761	281,570	-	22,996
Chanthaburi	160,616	704,832	772,136	750,064	813,376
Chon Buri	9,530,067	10,172,906	8,788,987	8,765,714	6,761,329
Kanchanaburi	2,266,507	1,199,094	914,080	1,556,344	1,287,015
Lop Buri	-	1,475,000	2,204,500	1,488,000	2,376,000
Phetchaburi	1,215,815	1,662,256	1,856,990	1,850,332	2,539,341
Prachin Buri	916,153	1,041,028	1,276,050	1,136,300	1,310,000
Prachuap Khiri Khar	962,547	1,135,028	1,228,910	1,217,726	1,007,373
Ratchaburi	4,605,151	4,437,278	4,330,038	5,241,215	4,277,669
Rayong	2,097,800	1,628,182	938,450	1,224,530	1,471,835
Sa Kaeo	289,854	268,700	493,418	30,317	-
Sara Buri	19,215,170	17,129,462	14,406,411	15,817,794	13,004,165
Suphan Buri	17,709,100	16,853,713	16,587,838	19,188,565	19,143,114

Tonnes

	2019	2020	2021	2022	2023
Southern Region					
Chumphon	1,504,413	848,279	1,458,176	964,363	1,676,773
Krabi	924,599	1,001,932	1,192,745	677,298	699,492
Nakhon Si Thammarat	5,909,035	6,200,119	6,898,622	6,672,040	6,166,281
Phangnga	729,875	1,130,074	591,159	284,000	646,841
Phatthalung	375,406	354,212	386,972	405,058	488,843
Satun	104,627	-	327,453	589,080	687,018
Songkhla	276,025	224,407	-	58,641	222,930
Surat Thani	2,038,865	2,834,317	3,151,744	3,244,916	2,722,889
Trang	570,467	499,658	369,126	371,795	393,060
Yala	1,207,467	1,003,339	1,110,975	1,599,989	750,831
Total Production	105,857,560	106,083,338	107,294,499	113,229,431	105,723,187
Value (Million Baht)	19,054.4	19,095.0	19,313.0	20,381.3	19,030.2

Export**1. Construction****Asia**

Bangladesh	377,430	246,875	684,710	842,939	368,900
Japan	-	-	0.2	0.4	-
Laos	-	-	-	61	-
Myanmar	-	12	-	9	-
Taiwan	-	-	264,441	91,462	22,001

Australia / Oceania

Australia	162	108	-	-	12,000
New Caledonia	46,062	20,100	27,150	55,000	-

Europe

France	0.2	-	-	-	-
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Total Export	423,654	267,095	976,301	989,471	402,901
Value (Million Baht)	187.1	118.4	443.0	523.6	203.1

	Tonnes				
	2019	2020	2021	2022	2023
2. Other Industries					
Asia					
Cambodia	180	606	1,347	490	230
China	-	-	279	-	-
India	36	-	-	-	-
Japan	-	1	-	-	-
Laos	100	2,380	409	379	97
Malaysia	15,256	-	-	-	-
Maldives	-	-	-	-	186
Myanmar	308	266	437	15	1,998
Vietnam	-	-	-	12	-
Australia / Oceania					
Australia	429	613	2,118	2,933	11,307
South America					
Chile	500	-	-	-	-
Total Export	16,809	3,865	4,589	3,829	13,818
Value (Million Baht)	30.9	8.4	14.1	13.4	40.0

Consumption

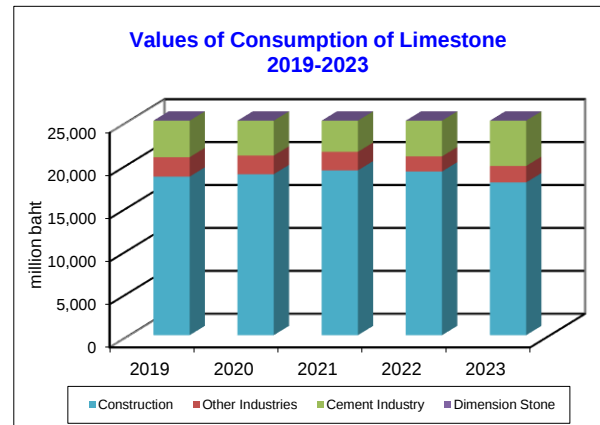
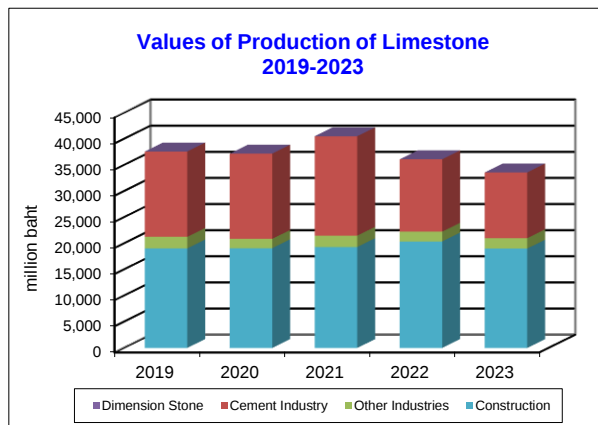
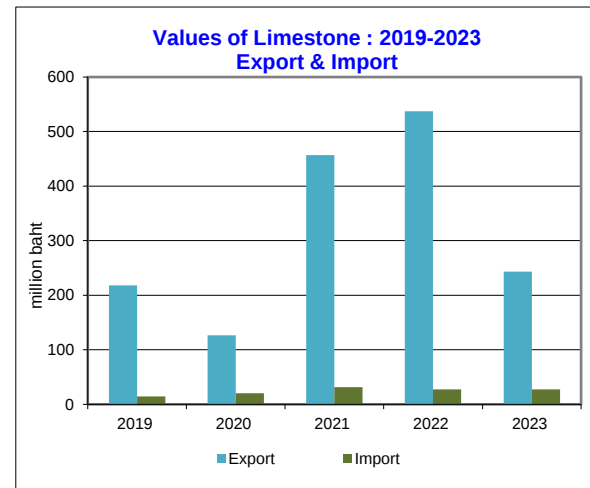
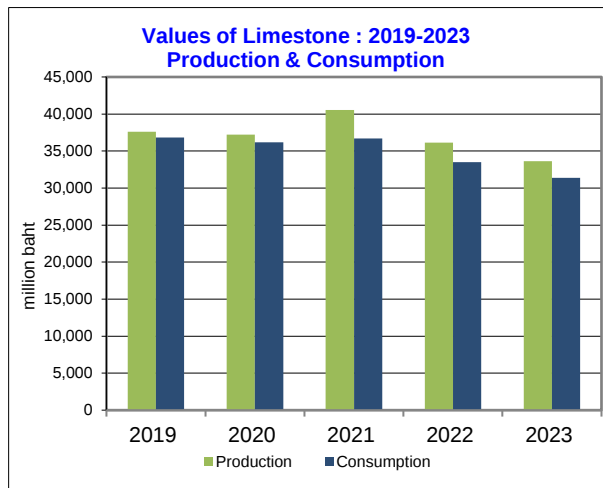
1. Cement Industry	64,324,112	60,942,224	61,305,081	50,583,555	46,664,193
Value (Million Baht)	16,081.0	15,235.6	15,326.3	12,645.9	11,666.0
2. Construction	102,670,780	104,245,512	106,695,518	105,999,470	98,897,645
Value (Million Baht)	18,480.7	18,764.2	19,205.2	19,079.9	17,801.6
3. Dimension Stone	4,536	-	848	-	-
Value (Million Baht)	9.1	-	3.8	-	-
4. Other Industries	9,042,913	8,675,260	8,644,824	7,037,099	7,662,689
Value (Million Baht)	2,260.7	2,168.8	2,161.2	1,759.3	1,915.7

Tonnes

2019 2020 2021 2022 2023

Import¹

Total Import	1,527	1,807	2,515	2,015	1,210
Value (Million Baht)	14.2	20.4	31.3	27.3	21.1



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

M A N G A N E S E

	Tonnes				
	2019	2020	2021	2022	2023
<u>Production</u> (Metallurgical grade)					
Northern Region					
Chiang Mai	4,800	1,400	-	660	600
Total Production	4,800	1,400	-	660	600
Value (Million Baht)	25.5	7.4	-	3.5	3.2
<u>Export</u> (Metallurgical grade)					
Asia					
China	144,199	95,807	25,896	14,771	17,150
Total Export	144,199	95,807	25,896	14,771	17,150
Value (Million Baht)	397.3	257.9	78.8	40.7	60.0
<u>Consumption</u>					
Total Consumption	2,016	884	1,200	1,150	-
Value (Million Baht)	10.7	4.7	6.4	6.1	-
<u>Import</u> (Manganese Ore)¹					
Total Import	135,616	73,199	21,709	20,569	20,789
Value (Million Baht)	203.8	117.8	40.1	39.1	47.8

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

	2019	2020	2021	2022	2023
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Production

1. Dimension Stone

Northern Region

Kamphaeng Phet	-	649	1,207	211	-
Lamphun	-	190	-	-	520
Nakhon Sawan	-	-	-	-	46,992

Northeastern Region

Nakhon Ratchasima	1,313	-	-	-	-
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Central Region

Sara Buri	10,913	5,304	3,082	2,892	5,163
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Total Production	12,226	6,143	4,289	3,103	52,675
Value (Million Baht)	55.3	29.2	20.4	14.7	250.2

2. Fragment

Northern Region

Kamphaeng Phet	245,784	174,260	224,263	138,769	-
Lamphun	-	2,280	-	-	-
Uttaradit	66,685	-	304,344	68,128	106,568

Total Production*	312,469	176,540	528,607	206,896	106,568
Value (Million Baht)	162.5	91.8	274.9	107.6	55.4

Cubic metre

	2019	2020	2021	2022	2023
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Consumption

1. Dimension Stone*	20,344*	20,773*	7,134*	5,123*	7,870*
Value (Million Baht)	91.5	98.7	33.9	24.3	37.4
2. Fragment*	2,561,204*	341,324*	484,143*	149,126*	446,700*
Value (Million Baht)	1,331.8	177.5	251.8	77.5	232.3

Import¹

Total Import	45,128	22,066	20,099	33,338	29,383
Value (Million Baht)	598.7	319.7	328.9	672.7	487.3

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

* Cubic Meter

M A R L

Tonnes

	2019	2020	2021	2022	2023
<u>Production</u>					
Northern Region					
Phrae	8,000	-	-	13,000	12,000
Central Region					
Sara Buri	26,575	3,000	4,200	4,500	29,600
Total Production	34,575	3,000	4,200	17,500	41,600
Value (Million Baht)	2.9	0.3	0.4	1.5	3.5
<u>Consumption</u>					
Total Consumption	26,259	19,374	28,572	53,889	76,894
Value (Million Baht)	2.2	1.6	2.4	4.6	6.5

M I C A

Tonnes

	2019	2020	2021	2022	2023
<u>Import</u>¹					
Total Import	5,835	5,118	7,072	5,569	5,166
Value (Million Baht)	150.7	130.1	180.4	174.3	166.2

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

MONAZITE

	Tonnes				
	2019	2020	2021	2022	2023
<u>Export</u>					
Asia					
China	108	42	3,374	10,080	4,898
Hong Kong	-	-	-	-	-
Malaysia	54	-	-	-	-
Vietnam	-	-	-	-	300
Total Export	162	42	3,374	10,080	5,198
Value (Million Baht)	13.4	3.1	523.8	2,923.9	1,236.7
<u>Import</u>¹					
Total Import	-	-	-	-	0*
Value (Million Baht)	-	-	-	-	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'

P E R L I T E

Tonnes

	2019	2020	2021	2022	2023
<u>Production</u>					
Central Region					
Lop Buri	15,000	3,500	3,500	2,500	2,500
Total Production	15,000	3,500	3,500	2,500	2,500
Value (Million Baht)	22.5	5.2	5.2	3.7	3.7
<u>Consumption</u>					
Total Consumption	5,000	3,000	3,666	4,150	2,950
Value (Million Baht)	7.5	4.5	5.5	6.2	4.4

P H O S P H A T E

	Tonnes				
	2019	2020	2021	2022	2023
<u>Import</u>¹					
1. Ground	-	-	-	9	11
Value (Million Baht)	-	-	-	1.4	1.5
2. Unground	1	1	1	2	-
Value (Million Baht)	0.5	0.8	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'

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

Tonnes

	2019	2020	2021	2022	2023
<u>Production</u>					
Central Region					
Sara Buri	6,500	31,522	26,030	30,369	32,484
Total Production	6,500	31,522	26,030	30,369	32,484
Value (Million Baht)	3.9	18.9	15.6	18.2	19.5
<u>Export</u>					
Asia					
China	-	-	14	-	-
Indonesia	1,680	1,752	3,144	2,536	1,913
Malaysia	150	-	-	5	-
Vietnam	1,360	3,192	3,020	2,780	1,960
Australia / Oceania					
New Zealand	25	-	-	-	-
Total Export	3,215	4,944	6,178	5,321	3,873
Value (Million Baht)	12.3	18.8	24.0	23.2	17.4
<u>Consumption</u>					
Total Consumption	33,061	27,559	26,172	31,794	32,356
Value (Million Baht)	19.8	16.5	15.7	19.1	19.4
<u>Import</u>¹					
Total Import	20	120	200	3,360	7,619
Value (Million Baht)	0.1	0.8	1.4	22.7	33.5

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

	2019	2020	2021	2022	2023
<u>Production</u>					
Central Region					
Kanchanaburi	14,000	31,500	5,000	-	-
Total Production	14,000	31,500	5,000	-	-
Value (Million Baht)	10.5	23.6	3.8	-	-
<u>Consumption</u>					
Unground	19,290	31,500	23,000	-	-
Value (Million Baht)	14.5	23.6	17.3	-	-
<u>Import</u>¹					
Total Import	18,576	19,855	75,122	109,729	199,407
Value (Million Baht)	130.2	155.2	637.6	1,152.3	2,063.3

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

RHYOLITE

Tonnes

	2019	2020	2021	2022	2023
<u>Production</u>					
Central Region					
Sara Buri	1,153,507	778,997	597,777	-	-
Total Production	1,153,507	778,997	597,777	-	-
Value (Million Baht)	173.0	116.8	89.7	-	-
<u>Consumption</u>					
Total Consumption	906,240	799,343	530,680	-	-
Value (Million Baht)	135.9	119.9	79.6	-	-

ROCK SALT

Tonnes

	2019	2020	2021	2022	2023
<u>Production</u>					
Northeastern Region					
Nakhon Ratchasima	1,580,390	1,439,877	1,563,970	1,737,090	1,392,649
Total Production	1,580,390	1,439,877	1,563,970	1,737,090	1,392,649
Value (Million Baht)	3,081.8	2,807.8	3,049.7	3,387.3	2,715.7
<u>Consumption</u>					
Total Consumption	1,528,522	1,465,622	1,556,196	1,748,267	1,733,759
Value (Million Baht)	2,980.6	2,858.0	3,034.6	3,409.1	3,380.8
<u>Import</u>¹					
Total Import	963	414	365	174	96
Value (Million Baht)	7.2	3.1	4.6	3.4	2.1

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

R U T I L E

Tonnes

	2019	2020	2021	2022	2023
<u>Export</u>					
Asia					
China	-	-	-	-	50
India	-	-	-	-	-
North America					
Mexico	29	-	-	-	-
Total Export	29	-	-	-	50
Value (Million Baht)	1.0	-	-	-	0.6
<u>Import</u>¹					
Total Import	4,937	4,687	2,001	2,777	2,732
Value (Million Baht)	210.5	214.6	113.4	222.0	202.8

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

S A N D S T O N E

Tonnes

	2019	2020	2021	2022	2023
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Production

1. Dimension Stone

Northeastern Region

Nakhon Ratchasima	-	-	640	950	-
Total Production	-	-	640	950	-
Value (Million Baht)	-	-	1.8	2.6	-

2. Industrial Rock

Northern Region

Lampang	-	-	-	28,408	-
Uttaradit	49,468	10,541	25,905	110,748	254,038

Northeastern Region

Bueng Kan	29,500	21,799	126,633	147,900	102,800
Mukda Han	23,985	-	-	-	-
Nakhon Phanom	352,422	239,760	234,618	157,310	145,254
Nakhon Ratchasima	550	680	40	-	-
Nong Khai	-	-	-	31,000	59,679
Ubon Ratchathani	501,063	774,551	504,335	710,818	544,944

Southern Region

Phangnga	252,100	149,398	150,200	37,620	-
Trang	-	21,060	89,856	70,200	50,794

Total Production	1,209,088	1,217,789	1,131,587	1,294,004	1,157,509
Value (Million Baht)	181.4	182.7	169.7	194.1	173.6

Consumption

1. Dimension Stone	705	-	680	350	-
Value (Million Baht)	0.8	-	1.9	1.0	-

2. Industrial Rock	1,140,380	995,425	1,157,139	1,383,636	910,972
Value (Million Baht)	171.1	149.3	173.6	207.5	136.6

	Tonnes				
	2019	2020	2021	2022	2023
<u>Import</u>¹					
Dimension Stone	8,097	1,882	650	784	962
Value (Million Baht)	12.5	5.6	7.9	10.9	16.5

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

S E R P E N T I N E

Tonnes

	2019	2020	2021	2022	2023
<u>Production (Industrial Rock)</u>					
Southern Region					
Narathiwat	117,473	5,013	-	35,000	125,000
Total Production	117,473	5,013	-	35,000	125,000
Value (Million Baht)	17.6	0.8	-	5.2	18.8
<u>Export (industrial rock)</u>					
Asia					
Taiwan	-	11,000	-	-	-
Total Export	-	11,000	-	-	-
Value (Million Baht)	-	7.7	-	-	-
<u>Consumption</u>					
Total Consumption	-	-	-	25,000	79,286
Value (Million Baht)	-	-	-	3.8	11.9
<u>Import¹</u>					
Dimension Stone	27	404	55	27	117
Value (Million Baht)	0.1	5.1	0.7	0.2	5.3

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

SHALE

Tonnes

	2019	2020	2021	2022	2023
<u>Production</u>					
Northern Region					
Lampang	10,300	6,500	5,000	108,125	76,519
Central Region					
Sara Buri	4,942,783	3,216,330	15,574,967	3,652,981	9,734,884
Southern Region					
Nakhon Si Thammarat	-	-	18,000	15,000	27,000
Total Production	4,953,083	3,222,830	15,597,967	3,776,106	9,838,403
Value (Million Baht)	1,238.3	805.7	3,899.5	944.0	2,459.6
<u>Consumption</u>					
Total Consumption	5,146,264	3,269,369	2,997,327	2,907,473	2,277,909
Value (Million Baht)	1,286.6	817.3	749.3	726.9	569.5

STRUVERITE

Tonnes

	2019	2020	2021	2022	2023
<u>Export</u>					
Asia					
China	-	31	-	-	-
Hong Kong	-	-	-	-	-
Total Export	-	31	-	-	-
Value (Million Baht)	-	7.9	-	-	-

T A L C

Tonnes

	2019	2020	2021	2022	2023
<u>Production</u>					
Northern Region					
Uttaradit	8,064	6,624	5,920	-	-
Total Production	8,064	6,624	5,920	-	-
Value (Million Baht)	4.8	4.0	3.6	-	-
<u>Consumption</u>					
Total Consumption	7,962	6,128	2,504	-	-
Value (Million Baht)	4.8	3.7	1.5	-	-
<u>Import</u>¹					
Total Import	145,985	119,903	143,640	134,829	105,566
Value (Million Baht)	1,627.7	1,219.7	1,645.9	1,731.7	1,317.4

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

T A N T A L U M

Tonnes

	2019	2020	2021	2022	2023
<u>Import (Tantalite)</u>¹					
Total Import	495	550	843	749	118
Value (Million Baht)	695.6	691.5	1,244.9	1,615.0	226.2

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

T I N

Tonnes

	2019	2020	2021	2022	2023
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Production

1. Production of Tin Concentrates by changwat

Northern Region

Chiang Mai	55	110	162	84	44
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Southern Region

Nakhon Si Thammarat	18	205	189	48	3.5
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Total Production	73	315	351	132	48
Value (Million Baht)	30.4	118.4	236.7	109.2	30.3

2. Production of Tin Concentrates by Mining Methods.

Open Pitting	73	315	351	132	48
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Total Production	73	315	351	132	48
Value (Million Baht)	30.4	118.4	236.7	109.2	30.3

3. Production of Primary Tin Metal

Total Production	10,956	11,265	12,062	9,490	9,145
Value (Million Baht)	6,385.6	6,008.2	11,078.1	10,444.0	8,268.9

	Tonnes				
	2019	2020	2021	2022	2023
<u>Export</u>					
1. Tin Metal					
Africa					
Egypt	-	-	-	15	-
Asia					
Bangladesh	220	55	-	220	35
Cambodia	1	-	1	-	-
China	100	525	-	-	875
Hong Kong	34	16	-	-	-
Israel	-	1	-	-	-
Japan	2,762	2,073	3,462	1,987	1,479
Korea, South	1,253	1,828	2,020	1,859	2,023
Malaysia	37	5	9	8	141
Pakistan	4	-	6	14	-
Philippines	13	27	38	9	6
Saudi Arabia	-	-	-	-	10
Singapore	36	17	30	-	-
Taiwan	547	812	724	392	331
U.A.E.	38	14	31	30	20
Vietnam	43	122	11	10	10
Australia / Oceania					
Australia	111	107	123	193	120
Europe					
Belgium	132	397	246	241	115
France	125	-	-	-	25
Germany	409	438	444	409	503
Italy	95	140	190	119	153
Netherlands	1,025	1,500	1,001	825	778
Portugal	-	1	-	-	-
Spain	900	875	275	-	-
Russia	-	1	-	-	-
Switzerland	-	0.1	-	0.1	-
Turkey	26	-	1	-	1
U.K.	317	380	533	435	261
North America					
U.S.A.	630	167	436	282	419
Canada	-	45	-	-	-
South America					
Ecuador	5	-	-	-	-
Total Export	8,862	9,547	9,580	7,047	7,305
Value (Million Baht)	5,411.1	5,373.6	10,048.1	8,523.8	6,869.5

Tonnes

	2019	2020	2021	2022	2023
2. Tin-Lead Alloy					
Asia					
Malaysia	0.2	-	-	-	-
Philippines	1.4	-	-	-	-
Total Export	2	-	-	-	-
Value (Million Baht)	1.1	-	-	-	-
3. Final Slag					
Europe					
Germany	1,716	797	321	2,414	408
Total Export	1,716	797	321	2,414	408
Value (Million Baht)	81.0	27.9	15.6	188.2	14.5
4. Bismuth Slime					
Asia					
Hong Kong	-	6	-	-	-
Japan	-	-	-	-	1
Korea, South	710	-	-	4	-
Total Export	710	6	-	4	1
Value (Million Baht)	10.6	25.6	-	16.1	7.3
5. Copper Dross					
Europe					
Belgium	21	-	-	-	-
Total Export	21	-	-	-	-
Value (Million Baht)	10.1	-	-	-	-

	Tonnes				
	2019	2020	2021	2022	2023
6. Hard Head					
Asia					
Bangladesh	341	48	-	-	-
Europe					
Belgium	341	608	891	1,278	434
Germany	-	-	-	-	146
Total Export	341	656	891	1,278	580
Value (Million Baht)	30.1	84.4	233.2	390.0	136.6
<u>Consumption</u>					
Primary Tin Metal	1,945	1,756	2,529	2,409	1,898
Value (Million Baht)	1,137.9	934.0	2,323.6	2,583.1	1,711.0
<u>Import</u>¹					
Tin ore	10,559	16,136	18,164	12,804	11,579
Value (Million Baht)	3,586.3	4,782.2	9,967.2	8,200.0	5,169.6

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

TR A V E R T I N E

Tonnes

	2019	2020	2021	2022	2023
<u>Production</u>					
Central Region					
Sara Buri	2,494	696	500	600	600
Total Production	2,494	696	500	600	600
Value (Million Baht)	8.5	3.1	2.2	2.7	2.7
<u>Consumption</u>					
Total Consumption	2,493	981	450	600	600
Value (Million Baht)	8.5	4.4	2.0	2.7	2.7

TUNGSTEN

Tonnes

	2019	2020	2021	2022	2023
<u>1. Wolfram</u>					
<u>Production</u>					
Northern Region					
Phrae	1	-	-	-	-
Total Production	1	-	-	-	-
Value (Million Baht)	0.4	-	-	-	-

Tonnes

	2019	2020	2021	2022	2023
<u>2. Scheelite</u>					
<u>Production</u>					
Northern Region					
Chiang Mai	41	110	113	116	63
Total Production	41	110	113	116	63
Value (Million Baht)	16.3	43.1	56.6	66.2	38.2
<u>Export</u>					
North America					
U.S.A.	36	-	-	144	134
Total Export	36	-	-	144	134
Value (Million Baht)	17.3	-	-	78.7	83.7

X E N O T I M E

	Tonnes				
	2019	2020	2021	2022	2023
<u>Export</u>					
Asia					
China	-	-	34	34	10
Total Export	-	-	34	34	10
Value (Million Baht)	-	-	2.5	2.5	1.6
<u>Import1</u>					
Total Import	-	-	-	25	-
Value (Million Baht)	-	-	-	0.2	-

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

Z I N C

Tonnes

	2019	2020	2021	2022	2023
<u>Export</u>					
1. Zinc Metal					
Asia					
Cambodia	0.1	-	0**	-	-
China	-	-	243	846	506
India	47	25	48	-	-
Indonesia	1	548	0.3	348.6	-
Laos	4	23	0.7	5	7
Malaysia	-	-	-	226	-
Myanmar	200	13	-	8	3
Singapore	-	-	0**	99	0**
Sri Lanka	0**	-	-	-	-
Taiwan	-	646	-	-	-
Vietnam	333	393	187	1,550	123
Europe					
Belgium	50	-	-	-	-
South America					
Colombia	8	-	-	-	-
Total Export	643	1,648	480	3,082	640
Value (Million Baht)	46.2	99.3	29.0	282.3	37.1

0** denoting the amount of less than 0.1 tonnes

	Tonnes				
	2019	2020	2021	2022	2023
2. Zinc Alloy					
Asia					
China	-	26	1,219	-	-
India	474	207	457	74	168
Indonesia	648	770	577	1,373	3,120
Laos	-	-	-	-	6
Malaysia	36	-	-	-	49
Taiwan	-	45	24	46	-
Total Export	1,158	1,048	2,277	1,493	3,344
Value (Million Baht)	93.8	72.7	193.2	184.5	312.5
<u>Import (Zinc Ore)¹</u>					
Total Import	3,414	3,265	7,673	16,595	11,301
Value (Million Baht)	12.6	12.1	23.6	88.3	56.2

0** denoting the amount of less than 0.1 tonnes

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

Z I R C O N

Tonnes

	2019	2020	2021	2022	2023
<u>Export</u>					
Asia					
China	2,104	-	-	-	100
Malaysia	-	84	-	-	-
Total Export	2,104	84	-	-	100
Value(Million Baht)	69.7	1.3	-	-	3.1
<u>Import (Zirconium Ore)¹</u>					
Total Import	6,416	8,368	19,034	5,224	6,438
Value (Million Baht)	324.4	366.6	567.7	428.2	491.0

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

NUMBER OF ACTIVE MINES BY KIND OF MINERALS

	2019	2020	2021	2022	2023
Andesite	3	3	2	2	3
Ball clay	3	2	3	3	3
Barite	6	5	6	3	3
Basalt (industrial rock)	39	39	38	35	27
Calcite	13	12	12	11	10
Cement clay	25	25	27	26	25
Ceramic clay	7	8	7	9	7
Dickite	0	0	0	1	1
Diatomite	0	0	0	0	1
Dolomite	16	18	14	11	13
Dolomitic Marl	0	0	0	0	1
Feldspar	13	12	12	12	11
Fluorite	2	2	4	6	6
Glass sand	18	20	22	28	28
Gneiss	1	0	0	0	0
Granite (dimension stone)	7	4	3	4	3
Granite (industrial rock)	28	28	29	25	27
Graywacke	1	3	1	2	2
Gypsum	35	37	35	37	33
Iron ore	5	6	6	6	4
Kaolin	15	18	18	15	16
Lignite	2	1	1	1	1
Limestone (cement)	14	13	13	14	14
Limestone (construction)	191	196	191	190	188
Limestone (dimension)	1	1	1	0	5
Limestone (others)	10	9	9	9	10
Manganese	2	2	1	3	1
Marble	12	8	7	5	5
Marl	4	4	4	5	5
Perlite	3	2	2	2	1

NUMBER OF ACTIVE MINES BY KIND OF MINERALS

	2019	2020	2021	2022	2023
Pyrophyllite	2	2	2	3	3
Quartz	2	1	1	0	0
Rhyolite (industrial rock)	1	1	1	0	0
Rock salt	6	7	7	7	6
Sand stone (dimension)	1	0	2	0	0
Sand stone (industrial rock)	10	10	11	11	7
Shale	6	6	6	5	5
Talc	1	1	1	0	0
Tin & Tin-Tungsten	2	2	2	2	2
Travertine	2	1	1	1	1
Wolfram	1	1	0	1	0
Total	510	510	502	495	478

NUMBER OF WORKERS EMPLOYED IN MINES
BY KIND OF MINERAL

	2019	2020	2021	2022	2023
Andesite	25	25	11	12	62
Ball clay	78	75	70	78	68
Barite	87	61	59	28	23
Basalt (industrial rock)	956	937	895	777	739
Calcite	182	153	272	149	136
Cement clay	347	271	289	330	323
Ceramic clay	93	143	127	145	89
Dolomite	257	332	275	231	230
Dolomitic Marl					4
Feldspar	188	194	206	218	223
Fluorite	53	67	193	119	252
Glass sand	117	125	157	153	150
Gneiss	8	-	-	-	-
Granite (dimension)	108	80	36	52	37
Granite (industrial rock)	705	759	770	846	922
Graywacke	14	55	14	14	23
Gypsum	692	997	812	1,052	678
Iron ore	73	130	113	138	73
Kaolin	204	201	207	191	209
Lignite	1,561	1,624	1,464	1,624	1,628
Limestone (cement)	1,099	1,054	775	851	878
Limestone (construction)	4,399	4,784	4,661	4,668	4,682
Limestone (dimension)	4	4	4	0	0
Limestone (others)	315	282	241	242	246
Manganese	24	12	5	9	7
Marble	264	179	100	62	105
Marl	25	21	7	20	21
Perlite	49	11	10	7	6

NUMBER OF WORKERS EMPLOYED IN MINES
BY KIND OF MINERAL

	2019	2020	2021	2022	2023
Pyrophyllite	7	7	7	13	13
Quartz	29	15	7	0	0
Rhyolite (industrial rock)	47	47	48	0	0
Rock salt	133	498	192	213	195
Sand stone (dimension)	7	0	17	5	0
Sand stone (industrial rock)	148	126	106	101	84
Shale	88	92	83	83	76
Talc	4	3	3	0	0
Tin & Tin-Tungsten	165	162	162	133	74
Travertine	14	5	8	10	10
Wolfram	71	59	0	0	0
Total	12,640	13,590	12,406	12,574	12,266

Mineral Production of Thailand 2019 - 2023

Quantity : Tonnes
Value : Million Baht

Mineral	2019		2020		2021		2022		2023	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Mineral Fuels and Energy</u>										
Lignite	14,071,710	13,508.8	13,250,574	12,720.6	14,221,573	13,652.7	13,641,283	13,095.6	12,713,628	12,205.1
Total		13,508.8		12,720.6		13,652.7		13,095.6		12,205.1
%		18.10		17.48		16.52		17.71		16.63
<u>Iron and Ferro Alloy</u>										
Iron ore	17,660	33.5	113,239	239.4	324,914	990.1	190,000	598.7	347,288	1,076.5
Manganese (metallurgical grade)	4,800	25.5	1,400	7.4	-	-	660	3.5	600	3.2
Tungsten										
- Scheelite	41	16.3	110	43.1	113	56.6	116	66.2	63	38.2
- Wolfram	1	0.4	-	-	-	-	-	-	-	-
Total		75.7		289.9		1,046.7		668.4		1,117.9
%		0.10		0.40		1.27		0.90		1.52
<u>Base Metals</u>										
Tin concentrates	73	30.5	315	118.4	351	236.6	132	109.2	48	30.3
Total		30.5		118.4		236.6		109.2		30.3
%		0.04		0.16		0.29		0.15		0.04
<u>Light Metals and Rare Earth</u>										
Ilmenite	117	1.1	153	1.5	66	0.5	2	0.0**	-	-
Total		1.1		1.5		0.5				
%		-		-		-		0.01		-

Mineral Production of Thailand 2019 - 2023

Quantity : Tonnes

Value : Million Baht

Mineral	2019		2020		2021		2022		2023	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Cement Industrial Minerals</u>										
Anhydrite	1,419,587	838.7	1,266,826	740.7	1,614,157	949.7	1,824,637	1,157.9	1,731,516	1,111.9
Cement Clay	7,455,441	671.0	7,205,870	648.5	6,974,405	627.7	4,748,682	427.4	6,448,417	580.4
Gypsum (unground)	8,367,700	4,903.7	8,012,293	4,677.2	8,788,841	5,156.5	8,022,925	5,044.5	7,004,569	4,517.8
Limestone	65,273,761	16,318.4	65,198,605	16,299.7	76,095,891	19,024.1	55,388,577	13,847.1	50,349,959	12,587.5
Marl	38,575	3.3	3,000	0.3	4,200	0.4	17,200	1.5	41,600	3.5
Shale	4,953,083	1,238.3	3,222,830	805.7	15,597,967	3,899.5	3,670,007	917.5	9,838,403	2,459.6
Total		23,973.4		23,172.1		29,657.9		21,395.9		21,260.7
%		32.13		31.84		35.89		28.98		28.97
<u>Ceramic Industrial Minerals</u>										
Ball clay	332,786	183.0	25,777	14.2	84,895	46.7	90,904	50.0	290	0.2
Ceramic Clay	378,086	208.0	403,677	222.0	744,295	409.4	817,466	449.6	619,092	340.5
Dolomite	2,941,685	1,617.9	3,772,735	2,075.0	3,957,939	1,998.8	3,929,716	1,761.8	4,031,801	1,837.3
Feldspar										
- Sodium (ground)	-	-	6,204	8.7	5,100	7.1	48,807	68.3	-	-
- Sodium (unground)	1,253,143	877.2	1,099,140	769.4	1,341,897	939.3	1,905,111	1,333.6	1,884,301	1,319.0
Glass sand	1,224,758	1,212.5	1,252,909	1,240.4	1,322,614	1,309.4	1,425,403	1,411.2	1,603,978	1,587.9
Kaolin										
- Filler	11,638	22.1	16,269	30.9	23,087	43.9	-	-	101,700	193.2
- Unwashed	960,194	369.7	594,850	229.0	828,488	318.9	778,988	299.9	475,723	183.2
- Washed	80,776	77.5	71,051	68.2	101,711	97.6	86,076	82.6	67,944	65.2
Quartz										
- Unground	55,341	41.5	31,500	23.6	5,000	3.8	-	-	-	-
Total		4,609.4		4,681.4		5,174.9		5,457.0		5,526.5
%		6.18		6.43		6.26		7.38		7.53

Mineral Production of Thailand 2019 - 2023

Quantity : Tonnes

Value : Million Baht

Mineral	2019		2020		2021		2022		2023	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Dimension Stone</u>										
Granite	18,668*	117.3	2,386*	12.4	4,697*	24.4	7,283*	37.9	1,001*	5.2
Limestone	4,087	8.2	-	-	-	-	-	-	-	-
Marble	12,226*	55.3	6,143*	29.2	4,289*	20.4	3,103*	14.7	52,675*	250.2
Sandstone	-	-	-	-	640	1.8	950	2.6	-	-
Serpentine	117,473	17.6	5,013	0.8	-	-	35,000	5.3	125,000	18.8
Travertine	2,494	8.5	696	3.1	500	2.3	600	2.7	600	2.7
Total		206.9		45.5		48.9		63.2		276.9
%		0.28		0.06		0.06		0.09		0.38
<u>Industrial Rock</u>										
Andesite	985,751	197.2	2,428,606	485.7	1,717,330	343.5	821,738	164.3	2,612,030	522.4
Basalt	13,482,817	2,696.6	13,674,328	2,734.8	14,051,920	2,810.4	13,411,993	2,682.4	13,311,735	2,662.0
Granite	13,819,507	2,763.9	14,760,209	2,952.0	14,508,620	2,901.7	13,295,045	2,659.0	16,174,776	3,235.0
Graywacke	1,432,288	286.5	1,407,775	281.6	1,728,918	345.8	1,087,280	217.5	1,166,409	233.3
Limestone	105,857,560	19,054.4	106,079,091	19,094.2	107,589,465	19,366.1	113,266,915	20,380.8	105,723,188	19,030.2
Marble (fragment)	312,469*	162.5	176,540*	91.8	528,607*	274.9	206,896*	107.6	106,568*	55.4
Perlite	15,000	22.5	3,500	5.3	3,500	5.3	2,500	3.8	2,500	3.8
Rhyolite	1,153,507	173.0	778,997	116.8	597,777	89.7	-	-	-	-
Sandstone	1,209,088	181.4	1,217,789	182.7	1,131,587	169.7	1,294,004	194.1	1,157,509	173.6
Total		25,538.0		25,944.9		26,307.1		26,409.5		25,915.7
%		34.23		35.65		31.83		35.72		35.30

Mineral Production of Thailand 2019 - 2023

Quantity : Tonnes

Value : Million Baht

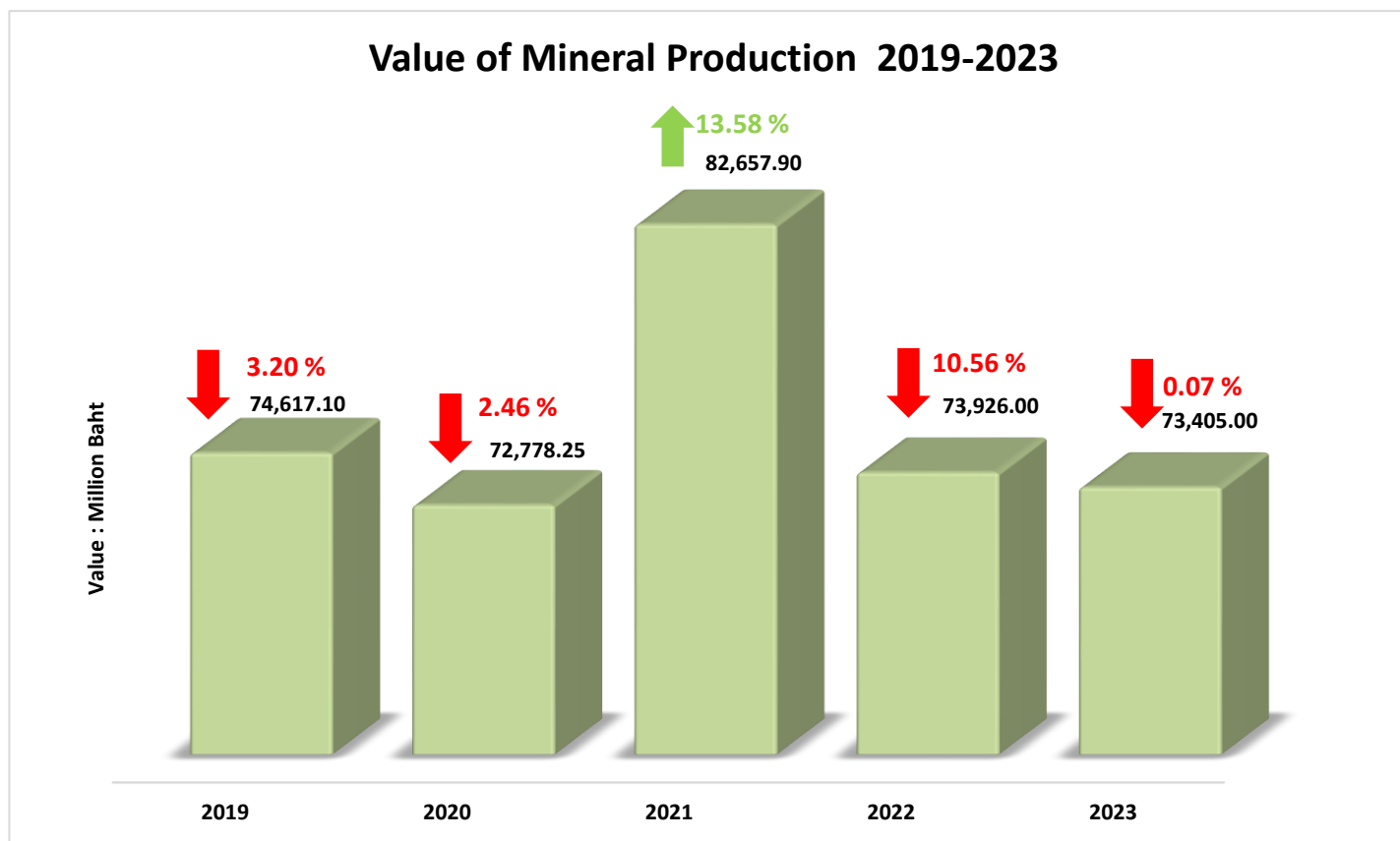
Mineral	2019		2020		2021		2022		2023	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Other Industrial Minerals										
Barite										
- Chemical grade (ground)	1,757	17.0	1,260	12.2	1,218	11.8	963	9.3	766	7.4
- Drilling mud (ground)	31,557	147.4	-	-	-	-	-	-	-	-
- Unground	330	0.5	21,134	31.4	3,770	5.6	5,546	8.2	29,918	44.4
Calcite	1,440,030	1,080.0	1,430,044	1,072.5	1,599,888	1,199.9	1,397,580	1,048.2	1,290,130	967.6
Dickite	5,000	3.0	-	-	-	-	-	-	-	-
Dolomitic Marl	1,585	0.6	5,000	1.8	8,500	2.9	-	-	34,000	11.9
Fluorite (metallurgical grade)	22,247	107.3	9,807	50.0	9,766	52.5	59,243	338.0	187,566	1,315.2
Limestone	8,909,080	2,227.3	7,222,187	1,805.5	8,764,671	2,191.2	7,576,870	1,894.2	7,948,926	1,987.2
Pyrophyllite	6,500	3.9	31,522	18.9	26,030	15.6	30,369	18.2	32,484	19.5
Rock salt	1,580,390	3,081.8	1,439,877	2,807.8	1,563,970	3,049.7	1,737,090	3,387.3	1,392,649	2,715.7
Talc (unground)	8,064	4.8	6,624	3.9	5,920	3.6	-	-	-	-
Total		6,673.6		5,804.0		6,532.8		6,703.4		7,068.9
%		8.94		7.97		7.94		9.07		9.63
Grand Total		74,466.0		72,778.3		82,657.9		73,902.2		73,405.0

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

Mineral Production of Thailand 2019 - 2023

Quantity : Tonnes
Value : Million Baht

Mineral	2019		2020		2021		2022		2023	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value



Mineral Export of Thailand 2019 - 2023

Quantity : Tonnes
Value : million Baht

Mineral	2019		2020		2021		2022		2023	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Iron and Ferro Alloy</u>										
Iron ore	216,643	413.5	204,639	418.9	383,842	1,189.7	162,931	584.3	559,216	1,720.2
Manganese (metallurgical grade)	144,199	397.3	95,807	257.8	25,896	78.8	14,771	40.7	17,150	60.0
Tungsten										
- Scheelite	36	17.3	-	-	202.0	94.2	144.0	78.7	134.0	83.7
- Wolfram	15	0.7	-	-	-	-	-	-	-	-
Total		828.8		676.7		1,362.7		703.7		1,863.9
%		6.26		5.68		6.96		3.26		10.76
<u>Base Metals</u>										
Antimony ore	3,624	64.9	727	20.4	3,818	239.0	2,605	257.8	387	8.3
Tin										
- Final slag	1,716	80.9	797	27.9	321	15.6	2,414	188.2	408	14.5
- Hard head	341	30.1	656	84.4	891	233.2	1,278	390.0	580	136.6
- Tin-lead alloy	2	1.1	-	-	-	-	-	-	-	-
- Tin metal	8,862	5,411.1	9,547	5,373.6	9,581	10,048.1	7,047	8,523.8	7,305	6,869.5
- Copper dross	21	10.1	-	-	-	-	-	-	-	-
- Bismuth Slime	710	10.6	6	25.6	-	-	4	16.1	1	7.3
Zinc										
- Zinc alloy	1,158	93.8	1,048	72.7	2,277	193.2	1,493	184.5	3,344	312.5
- Zinc metal	643	46.2	1,648	99.3	480	29.0	3,082	282.3	640	37.1
Total		5,748.8		5,703.9		10,758.1		9,842.7		7,385.8
%		43.39		47.90	-	54.97	-	45.64	-	42.63

Mineral Export of Thailand 2019 - 2023

Quantity : Tonnes
Value : million Baht

Mineral	2019		2020		2021		2022		2023	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Precious Metals and Precious Stone</u>										
Garnet	539	2.7	-	-	-	-	-	-	-	-
Total		2.7		-		-		-		-
%		0.02		-		-		-		-
<u>Light Metals and Rare Earth</u>										
Ilmenite	20	1.4	24	0.1	21,569	130.3	1,379	11.5	595	4.9
Leucoxene	1,193	40.4	2,906	70.6	1,707	65.0	165	15.8	481	27.6
Monazite	162	13.4	42	3.1	3,374	523.8	10,080	2,923.9	5,198	1,236.7
Rutile	29	1.0	-	-	-	-	-	-	50	0.6
Struverite	-	-	31	7.9	-	-	-	-	-	-
Xenotime	-	-	-	-	34	2.5	-	-	10	1.6
Zircon	2,104	69.7	84	1.3	-	-	-	-	100	3.1
Total		125.9		83.0		721.6		2,951.2		1,274.5
%		0.95		0.70		3.69		13.68		7.36
<u>Cement Industrial Minerals</u>										
Anhydrite	1,366,080	797.7	1,366,877	813.1	1,531,755	932.9	1,856,700	1,241.1	1,620,400	1,138.1
Gypsum										
- Ground	97,290	63.5	72,360	48.6	64,194	44.8	76,980	54.2	55,701	40.9
- Unground	5,194,388	3,141.1	4,508,517	2,878.6	5,191,290	3,336.7	4,834,132	3,514.6	3,693,053	2,803.1
Total		4,002.3		3,740.3		4,314.4		4,809.9		3,982.1
%		30.21		31.41		22.04		22.30		22.99

Mineral Export of Thailand 2019 - 2023

Quantity : Tonnes

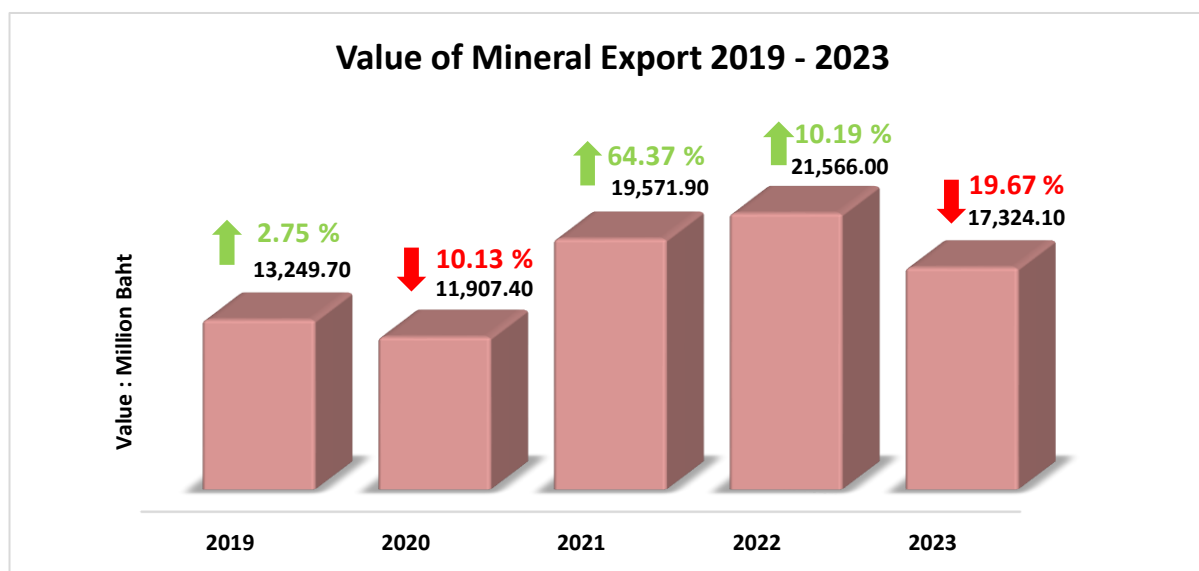
Value : million Baht

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Mineral Export of Thailand 2019 - 2023

Quantity : Tonnes
Value : million Baht

Mineral	2019		2020		2021		2022		2023	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Other Industrial Minerals (cont.)										
Diatomite	72	0.1	-	-	108	0.3	-	-	-	-
Fluorite (metallurgical grade)	45,683	256.3	38,372	226.7	34,282	176.3	42,797	413.8	63,867	544.5
Limestone (industrial rock-others)	16,809	30.9	3,865	8.4	4,589	14.1	3,829	13.4	13,819	40.0
Pyrophyllite	3,215	12.3	4,944	18.8	6,178	24.0	5,321	23.2	3,873	17.4
Serpentinite (industrial rock)	-	-	11,000	7.7	-	-	-	-	-	-
Total		315.4		275.8		227.5		511.9		611.1
%		2.38		2.32		1.16		2.37		3.53
Grand Total		13,249.7		11,907.4		19,571.9		21,566.0		17,324.1



Mineral Consumption of Thailand 2019 - 2023

Quantity : Tonnes

Value : Million Baht

Mineral	2019		2020		2021		2022		2023	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Mineral Fuels and Energy</u>										
Lignite	13,973,815	13,414.9	13,404,786	12,868.6	14,166,312	13,599.7	14,124,565	13,559.6	12,970,902	12,452.1
Total		13,414.9		12,868.6		13,599.7		13,559.6		12,452.1
%		18.81		18.91		18.86		19.61		18.00
<u>Iron and Ferro Alloy</u>										
Iron ore	192,441	434.9	61,151	138.2	228,809	653.7	100,673	341.1	151,994	461.0
Manganese (metallurgical grade)	2,016	10.7	884	4.7	1,200	6.4	1,150	6.1	-	-
Total		445.6		142.9		660.1		347.2		461.0
%		0.63		0.21		0.92		0.50		0.70
<u>Base Metals</u>										
Tin										
- Tin metal	1,945	1,137.9	1,756	934.0	2,529	2,323.6	2,409	2,583.1	1,898	1,711.0
Total		1,137.9		934.0		2,323.6		2,583.1		1,711.0
%		1.60		1.37		3.22		3.73		2.60
<u>Cement Industrial Minerals</u>										
Anhydrite	4,546	2.6	10,871	6.4	14,900	8.8	208,572	134.5	196,123	128.3
Cement clay	8,630,270	776.7	6,696,958	602.7	7,914,512	712.3	5,119,341	460.7	5,381,168	484.3
Gypsum (unground)	4,051,629	2,370.7	3,537,593	2,066.0	3,970,895	2,334.6	3,819,486	2,440.4	4,167,627	2,684.5
Limestone	64,324,112	16,081.0	60,942,224	15,235.6	61,305,081	15,326.3	50,583,555	12,645.9	46,664,193	11,666.0
Marl	26,259	2.2	19,374	1.6	28,572	2.4	53,889	4.6	76,894	6.5
Shale	5,146,264	1,286.6	3,269,369	817.3	2,997,327	749.3	2,907,473	726.9	2,277,909	569.5
Total		20,519.8		18,729.6		19,133.7		16,413.0		15,539.1
%		28.78		27.52		26.52		23.70		23.50

Mineral Consumption of Thailand 2019 - 2023

Quantity : Tonnes

Value : Million Baht

Mineral	2019		2020		2021		2022		2023	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Ceramic Industrial Minerals</u>										
Ball clay	357,420	196.6	322,490	177.4	554,415	304.9	406,166	223.4	266,764	146.7
Ceramic clay	478,769	263.3	516,770	284.2	607,943	334.4	620,094	341.1	700,829	385.5
Dolomite	1,718,019	944.9	2,469,086	1,358.0	3,104,023	1,572.0	3,377,935	1,425.7	3,418,517	1,560.4
Feldspar										
- Sodium (ground)	32,762	45.9	12,541	17.6	27,220	38.1	63,028	88.2	88	0.1
- Sodium (unground)	857,771	600.4	634,231	444.0	495,876	347.1	2,146,650	1,502.7	1,797,631	1,258.3
Glass sand	1,206,501	1,194.4	1,278,387	1,265.6	1,307,804	1,294.7	1,222,471	1,210.2	1,476,620	1,461.9
Kaolin										
- Filler	11,558	22.0	16,082	30.6	8,767	16.7	3,230	6.1	12,000	22.8
- Unwashed	523,191	201.4	533,568	205.4	544,844	209.8	705,259	271.5	616,658	237.4
- Washed	94,636	90.9	84,121	80.8	87,291	83.8	91,553	87.9	68,760	66.0
Quartz										
- Unground	19,290	14.5	31,500	23.6	23,000	17.3	-	-	-	-
Total		3,574.3		3,887.2		4,218.8		5,156.8		5,139.1
%		5.00		5.71		5.85		7.46		7.74
<u>Dimension Stone</u>										
Granite	2,059*	12.6	2,104*	10.9	3,527*	18.3	3,513*	18.3	6,404*	33.3
Limestone	4,536	9.1	-	-	848	3.8	-	-	-	-
Marble	20,344*	91.5	20,773*	98.7	7,134*	33.9	5,123*	24.3	7,870*	37.4
Sand stone	705	0.8	-	-	680	1.9	350	1.0	-	-
Serpentine	-	-	-	-	-	-	25,000	3.8	79,286	11.9
Travertine	2,493	8.5	981	4.4	450	2.0	600	2.7	600	2.7
Total		122.5		114.0		59.9		50.1		85.3
%		0.17		0.17		0.08		0.07		0.14

Mineral Consumption of Thailand 2019 - 2023

Quantity : Tonnes

Value : Million Baht

Mineral	2019		2020		2021		2022		2023	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Industrial Rock</u>										
Andesite	1,349,235	269.8	2,177,153	435.4	1,558,114	311.6	859,080	171.8	2,466,200	493.2
Basalt	12,165,737	2,433.1	14,390,606	2,878.1	14,451,214	2,890.2	13,645,310	2,729.1	12,485,731	2,497.1
Granite	12,287,216	2,457.4	12,217,021	2,443.4	12,480,086	2,496.0	12,176,732	2,435.3	16,466,102	3,293.2
Grawacke	1,414,867	283.0	1,402,537	280.5	1,418,417	283.7	1,068,125	213.6	612,994	122.6
Limestone	102,670,780	18,480.7	104,245,512	18,764.2	106,695,518	19,205.2	105,999,470	19,078.9	98,897,645	17,801.6
Marble (fragment)	2,561,204*	1,331.8	341,324*	177.5	484,143*	251.8	149,126*	77.5	446,700*	232.3
Perlite	5,000	7.5	3,000	4.5	3,666	5.5	4,150	6.2	2,950	4.4
Rhyolite	906,240	135.9	799,343	119.9	530,680	79.6	-	-	-	-
Sand stone	1,140,380	171.1	995,425	149.3	1,157,139	173.6	1,383,636	207.5	910,972	136.6
Total		25,570.3		25,252.8		25,697.2		24,919.9		24,581.0
%		35.87		37.10		35.59		35.95		37.10
<u>Other Industrial Minerals</u>										
Barite										
- Chemical grade (ground)	1,091	10.6	676	6.6	-	-	-	-	-	-
- Drilling mud (ground)	30,745	143.6	-	-	-	-	-	-	-	-
- Unground	2,199	3.3	17,456	25.9	14,021	20.8	526	0.8	29,702	44.1
Calcite	1,448,141	1,086.1	1,398,348	1,048.8	1,561,578	1,171.2	1,323,299	992.5	1,307,738	980.8
Diatomite	5,000	4.5	-	-	-	-	-	-	-	-
Dickite	3,969	2.4	6,479	3.9	14,782	8.9	10,602	6.4	4,450	2.7
Dolomitic Marl	11,495	4.0	10,130	3.5	11,390	4.0	10,303	3.6	49,599	17.4
Fluorite (metallurgical grade)	200	1.0	-	-	6,998	36.0	2,250	10.8	7,500	54.0

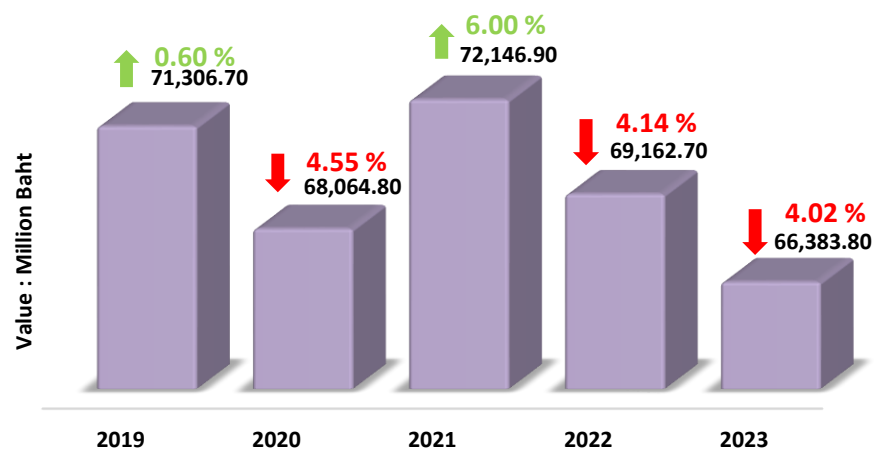
Mineral Consumption of Thailand 2019 - 2023

Quantity : Tonnes
Value : Million Baht

Mineral	2019		2020		2021		2022		2023	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Other Industrial Minerals (cont.)										
Limestone	9,042,913	2,260.7	8,675,260	2,168.8	8,644,824	2,161.2	7,037,099	1,759.3	7,662,689	1,915.7
Phosphate	-	-	-	-	-	-	-	-	-	-
Pyrophyllite	33,061	19.8	27,559	16.5	26,172	15.7	31,794	19.1	32,356	19.4
Rock salt	1,528,522	2,980.6	1,465,622	2,858.0	1,556,196	3,034.6	1,748,267	3,409.1	1,733,759	3,380.8
Talc (unground)	7,962	4.8	6,128	3.7	2,504	1.5	-	-	-	-
Total		6,521.4		6,135.7		6,453.9		6,201.6		6,414.9
%		9.15		9.01		8.95		8.98		9.70
Grand Total		71,306.7		68,064.8		72,146.9		69,162.7		66,383.8

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

Value of Mineral Consumption 2019-2023



Mineral Import of Thailand 2019 - 2023

Quantity : Tonnes
Value : Million Baht

Mineral	2019		2020		2021		2022		2023	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Mineral Fuels and Energy</u>										
Anthracite	125,723	566.5	153,844	578.6	108,168	471.6	96,634	1,223.5	129,666	873.0
Bituminous coal	8,146,105	21,748.6	8,201,652	19,369.4	8,655,017	23,808.7	6,052,971	27,309.1	6,058,718	23,608.1
Coal Solid Fuels from Coal	13,009,892	22,297.6	15,378,874	21,537.8	15,029,555	33,744.4	15,107,281	66,067.6	11,716,771	35,922.8
Coke	19,205	330.0	17,307	234.8	14,323	269.2	21,391	451.2	36,802	442.7
Lignite	382,846	347.2	147,806	132.3	276,410	266.4	255,821	294.9	170,154	231.7
Peat	18,164	132.8	20,748	161.0	27,742	257.5	26,906	260.5	25,002	234.2
Total		45,422.7		42,013.9		58,817.8		95,606.8		61,312.5
%		72.83		73.71		69.39		76.71		68.60
<u>Iron and Ferro Alloy</u>										
Chromite ore	1,289	19.8	1,583	16.3	1,450	15.9	1,809	28.5	1,162	17.4
Cobalt ore	0*	0.3	0*	0.2	0*	0.4	0*	0.4	0*	0.3
Columbite	357	167.4	216	70.7	25	15.8	266	224.2	141	87.2
Iron ore	712	7.6	675	6.1	2,741	20.1	2,965	35.7	8,260	39.5
Iron pyrites	1,647	11.8	835	7.0	2,494	16.3	5,792	39.9	4,221	28.2
Manganese ore	135,616	203.8	73,199	117.8	21,709	40.1	20,569	39.1	20,789	47.8
Molybdenite ore	14,946	2,562.5	9,247	1,330.7	6,100	1,727.6	6,416	2,609.0	13,027	8,206.7
Nickel ore	135	2.9	4	2.0	4	3.7	71	6.2	37	2.2
- Other tungsten	-	-	-	-	-	-	-	-	17	1.0
Total		2,976.1		1,550.8		1,839.9		2,983.0		8,430.3
%		4.77		2.72		2.17		2.39		9.43
<u>Base Metals</u>										
Aluminium ore	20,453	248.7	14,911	173.2	22,169	298.2	20,949	339.8	18,188	260.0
Antimony ore	3,989	60.5	1,361	52.8	5,794	634.1	3,680	513.5	76	14.1
Copper	142	1.2	3,403	11.4	8,759	35.3	3,832	26.3	3,711	17.4
Lead ore	98	11.0	96	42.7	177	103.5	204	36.6	3,733	22.9
Tin ore	10,559	3,586.3	16,136	4,782.2	18,164	9,967.2	12,804	8,200.0	11,579	5,169.6
Zinc ore	3,414	12.6	3,265	12.1	7,673	23.6	16,595	88.3	11,301	56.2
Total		3,920.3		5,074.4		11,061.9		9,204.5		5,540.2
%		6.29		8.90		13.05		7.39		6.20

Mineral Import of Thailand 2019 - 2023

Quantity : Tonnes
Value : Million Baht

Mineral	2019		2020		2021		2022		2023	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Precious Metals and Precious Stone</u>										
Emery	5,427	53.1	5,733	57.9	7,822	93.7	10,221	119.8	9,675	109.6
Silver ore	-	-	9.0	0.7	8.0	0.6	10.0	1.0	10.0	1.1
Total		53.1		58.6		94.3		120.8		110.7
%		0.09		0.10		0.11		0.10		0.12
<u>Light Metals and Rare Earth</u>										
Ilmenite ore	120	4.8	72	3.2	104	4.7	160	4.7	74	5.5
Monazite	-	-	-	-	-	-	-	-	0*	0.0*
Niobium and Vanadium ore	22,344	1,242.7	61,478	1,148.9	82,979	2,423.8	32,428	3,127.5	34,572	2,709.8
Titanium ore										
- Rutile	4,937	210.5	4,687	214.6	2,001	113.4	2,777	222.0	2,732	202.8
- Leucoxene	5,760	225.4	401	16.1	1,020	50.6	1,518	109.5	2,014	143.6
- Ilmenite	1,400	17.7	421	5.0	572	23.6	-	-	-	-
- Other Titanium ore	864	43.3	304	13.5	586	32.2	3,738	219.3	3,702	258.2
Tantalite	495	695.6	550	691.5	843	1,244.9	749	1,615.0	118	226.2
Zirconium ore	6,416	324.4	8,368	366.6	19,034	567.7	5,224	428.2	6,438	491.0
Total		2,764.4		2,459.4		4,460.9		5,726.2		4,037.1
%		4.43		4.32		5.26		4.59		4.52
<u>Cement Industrial Minerals</u>										
Anhydrite	0*	0.1	1	0.0*	2	0.0*	27	0.4	119	1.8
Gypsum	340	6.6	288	5.9	296	6.1	425	9.1	164	4.0
Limestone	1,527	14.2	1,807	20.4	2,515	31.3	2,015	27.3	1,210	21.1
Total		20.9		26.2		37.4		36.8		26.9
%		0.03		0.05		0.04		0.03		0.03

Mineral Import of Thailand 2019 - 2023

Quantity : Tonnes
Value : Million Baht

Mineral	2019		2020		2021		2022		2023	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Ceramic Industrial Minerals</u>										
Andalusite, Kyannite and Sillimanite	4,402	48.9	2,566	30.3	3,145	39.9	3,971	79.2	1,348	29.0
Attapulgitite	32	0.5	-	-	500	8.7	111	1.0	5	0.2
Ball Clay	27,961	175.0	22,273	126.6	27,083	173.5	16,877	159.9	9,217	94.0
Dolomite	1,349	18.4	1,232	19.5	602	9.5	1,798	23.5	424	5.7
Feldspar										
- Potassium, Sodium	21,377	77.7	22,946	86.4	33,060	128.8	21,487	99.0	23,759	89.4
- Other Feldspar	19,091	90.0	13,330	58.8	15,664	73.5	21,030	134.5	15,053	106.2
Kaolin										
- Ceramic	28,916	176.0	27,496	170.5	39,336	307.2	43,763	455.7	24,925	315.6
- Paper	5,818	58.2	9,597	89.7	8,629	88.6	10,378	135.7	10,331	116.0
- Others	79,004	669.9	52,514	520.6	65,521	674.4	61,375	949.8	47,961	696.4
Lucite, Nepheline and Nepheline Syenite	537	14.5	464	12.5	719	20.8	694	17.7	652	16.1
Mullite	2,040	34.0	1,727	27.1	2,847	47.4	2,622	55.1	2,232	44.0
Quartz	18,576	130.2	19,855	155.2	75,122	637.6	109,729	1,152.3	199,407	2,063.3
Silica sand (Glass sand)	150,830	446.1	86,004	340.0	94,258	632.2	215,748	1,202.7	131,557	1,113.1
Total		1,939.4		1,637.2		2,842.1		4,466.1		4,689.0
%		3.11		2.87		3.35		3.58		5.25
<u>Dimension Stone</u>										
Ecaussine	-	-	-	-	-	-	-	-	-	-
Granite	133,251	366.4	64,418	229.9	44,904	222.1	32,689	194.0	31,545	165.3
Marble	45,128	598.7	22,066	319.7	20,099	328.9	33,338	672.7	29,383	487.3
Sandstone	8,097	12.5	1,882	5.6	650	7.9	784	10.9	962	16.5
Serpentine	27	0.1	404	5.1	55	0.7	27	0.2	117	5.3
Slate	132	1.5	76	1.0	75	1.2	224	4.1	211	1.7
Travertine	-	-	-	-	-	-	-	-	-	-
Total		979.2		561.3		560.8		881.9		676.1
%		1.57		0.98		0.66		0.71		0.76

Mineral Import of Thailand 2019 - 2023

Quantity : Tonnes
Value : Million Baht

Mineral	2019		2020		2021		2022		2023	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<u>Industrial Rock</u>										
Basalt	131,889	131.9	28,604	119.0	10,678	63.7	7,065	61.0	17,143	40.1
Flint	484,595	115.5	330,123	65.7	495,061	99.8	634,529	119.8	434,665	87.1
Pumice stone	5,699	48.7	7,167	53.3	12,788	89.6	9,292	73.3	6,583	50.1
Vermiculite, Perlite and Chlorites	3,736	37.1	3,957	44.3	4,281	47.0	6,103	52.8	3,435	32.9
Total		333.2		282.3		300.1		306.9		210.2
%		0.54		0.50		0.35		0.25		0.24
<u>Other Industrial Minerals</u>										
Apatite (ground)	875	3.9	3,321	9.8	3,313	9.1	4,042	17.7	2,657	12.1
Asbestos	40,171	512.2	35,072	457.7	32,640	466.5	34,422	709.2	37,051	867.0
Barite	161,560	274.1	128,380	221.7	89,981	178.1	110,749	230.9	143,181	313.7
Bentonite	137,667	763.2	122,247	683.7	151,974	944.8	140,918	1,049.9	146,794	1,072.8
Calcite	1	0.0*	47	0.0*	-	-	-	-	-	-
Chalk	45	0.8	58	0.9	46	0.8	33	0.8	38	0.8
Epsomite	58	0.5	77	0.8	63	0.6	397	3.3	42	0.6
Fireclay	1,248	12.8	836	11.9	1,152	14.8	761	11.2	1,421	28.6
Fluorite	11,658	45.5	9,325	34.5	10,585	71.1	5,877	59.9	5,693	49.5
Graphite	6,626	147.2	6,509	102.2	6,195	149.6	3,538	135.9	3,234	122.5
Kieserite	3,082	17.9	3,956	17.8	10,273	55.8	5,940	55.1	2,755	12.8
Magnesite	2,346	31.1	1,559	16.7	3,909	55.5	2,600	36.3	4,253	48.7
Mica	5,835	150.7	5,118	130.1	7,072	180.4	5,569	174.3	5,166	166.2
Orpiment	1,136	7.2	1,023	7.6	1,375	11.3	1,130	10.0	1,156	8.8
Phosphate										
- Ground	-	-	-	-	-	-	9	1.4	11	1.5
- Unground	1	0.5	1	0.8	1	0.0*	2	0.0*	-	-
Potash	-	-	-	-	-	-	-	-	-	-
Pyrophyllite	20	0.1	120	0.8	200	1.4	3,360	22.7	7,619	33.5
Rock salt	963	7.0	414	3.1	365	4.6	174	3.4	96	2.1

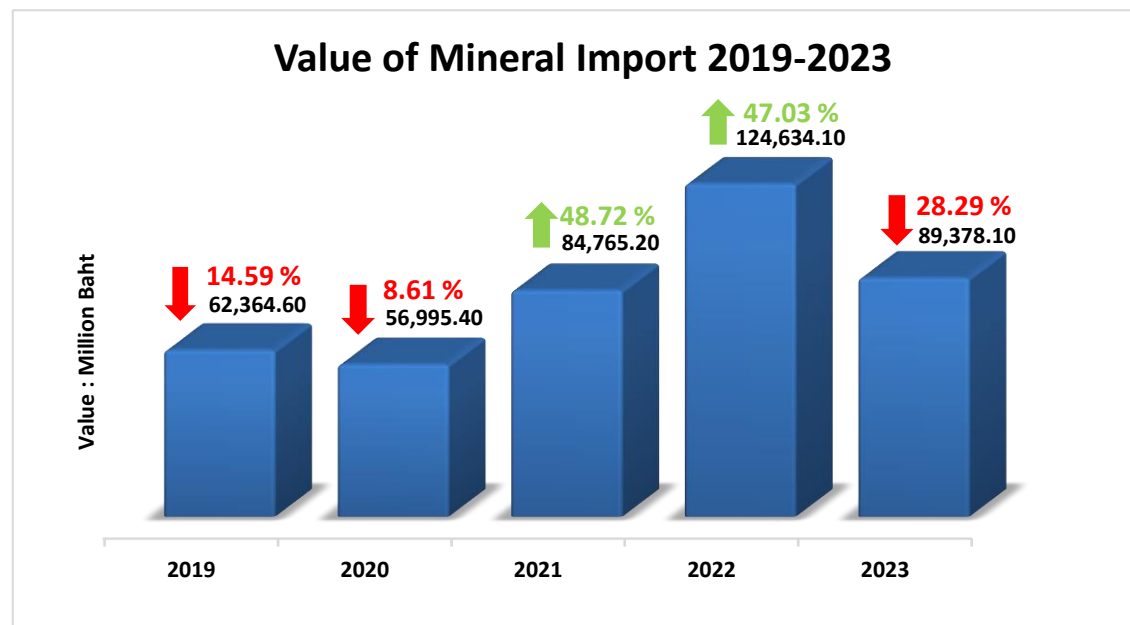
Mineral Import of Thailand 2019 - 2023

Quantity : Tonnes
Value : Million Baht

Mineral	2019		2020		2021		2022		2023	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Other Industrial Minerals (cont.)										
Steatite	855	12.7	756	11.0	1,166	17.6	811	14.8	276	4.8
Sulphur	70,509	338.1	118,976	399.8	125,410	940.8	79,280	1,030.4	39,432	279.7
Talc	145,985	1,627.7	119,903	1,219.7	143,640	1,645.9	134,829	1,731.7	105,566	1,317.4
Witherite	125	2.1	50	0.7	75	1.3	75	2.0	100	2.0
Xenotime	-	-	-	-	-	-	25	0.2	-	-
Total		3,955.3		3,331.3		4,750.0		5,301.1		4,345.1
%		6.34		5.85		5.60		4.25		4.86
Grand Total		62,364.6		56,995.4		84,765.2		124,634.1		89,378.1

:- 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 2019-2023

unit: Thousand Baht

Mineral	2019	2020	2021	2022	2023
Andesite (Industrial rock)	11,707.34	16,084.77	16,338.63	15,166.07	10,132.43
Andesite (Industrial rock-construction)	-	-	-	-	5,621.70
Anhydrite	56,235.23	56,376.10	64,415.52	81,615.78	76,855.25
Ball clay	8,606.01	7,488.53	12,759.44	10,333.91	6,681.01
Barite					
- Chemical grade (ground)	1,058.15	1,216.10	754.85	812.51	755.82
- Drilling mud (ground)	2,947.42	-	-	-	-
- Unground	154.47	1,772.56	235.84	32.44	2,208.02
Basalt (Industrial rock)	99,841.78	117,737.85	118,695.45	109,857.99	106,259.57
Calcite	44,968.78	42,206.40	47,694.39	44,194.77	43,176.58
Cement clay	34,609.45	21,995.29	22,436.08	26,593.92	51,455.44
Ceramic clay	11,323.03	11,424.58	13,700.04	13,720.06	15,632.65
Diatomite	93.24	-	4.86	-	10.80
Dickite (Invention grade)	-	-	0.77	0.77	1.28
Dickite (Industrial grade)	-	222.00	141.84	401.76	628.90
Dolomite	99,881.80	104,528.45	118,453.16	114,715.46	109,690.62
Dolomitic Marl	172.39	158.28	179.90	357.39	1,632.78
Feldspar					
- Sodium	-	-	-	1,971.70	404.72
- Sodium (ground)	1,283.81	1,550.72	2,206.15	1,190.29	7.94
- Sodium (unground)	51,371.58	50,410.23	61,042.09	74,737.96	69,974.75
Fluorite	17,213.32	13,812.05	13,230.23	19,757.16	29,481.35

Mineral Royalty of Thailand 2019-2023

unit: Thousand Baht

Mineral	2019	2020	2021	2022	2023
Gold Metal	-	-	-	187.37	226,369.81
Garnet	88.20	67.20	16.80	-	16.80
Glass sand	54,895.62	52,228.24	52,682.65	53,685.78	53,586.32
Gneiss (Dimension stone)	78.80	1,165.49	50.00	-	-
Granite					
- Dimension stone	2,235.95	1,745.81	2,486.55	753.20	714.47
- Industrial rock-construction	111,883.96	107,552.91	116,654.25	114,844.83	143,550.56
Graywacke (Industrial rock)	11,416.95	12,065.30	11,726.91	14,446.69	9,411.69
Gypsum	307,174.29	255,591.10	290,963.97	307,815.21	255,335.08
Ilmenite	-	-	-	652.89	519.40
Iron Ore	25,453.75	38,426.66	65,797.94	40,005.29	131,662.32
Kaolin					
- Filler	1,311.51	1,475.41	1,682.03	1,420.23	1,244.63
- Unwashed	8,093.26	8,717.32	10,050.86	11,553.62	6,709.30
- Washed	4,344.13	4,251.06	4,976.59	5,115.96	3,765.29
- Washed < 75mm	-	1,159.68	1,870.00	2,107.60	3,751.35
Lignite	536,594.50	515,329.24	543,986.39	542,988.31	494,243.60
Limestone					
- Dimension stone	252.79	-	188.60	-	-
- Industrial rock-construction	760,944.89	756,834.92	786,325.64	794,064.75	785,309.70
- Industrial rock-cement	1,250,658.31	1,219,342.76	1,198,888.05	1,182,334.33	1,029,734.87
- Industrial rock-others	90,774.29	84,745.27	99,720.57	88,680.11	89,278.46

Mineral Royalty of Thailand 2019-2023

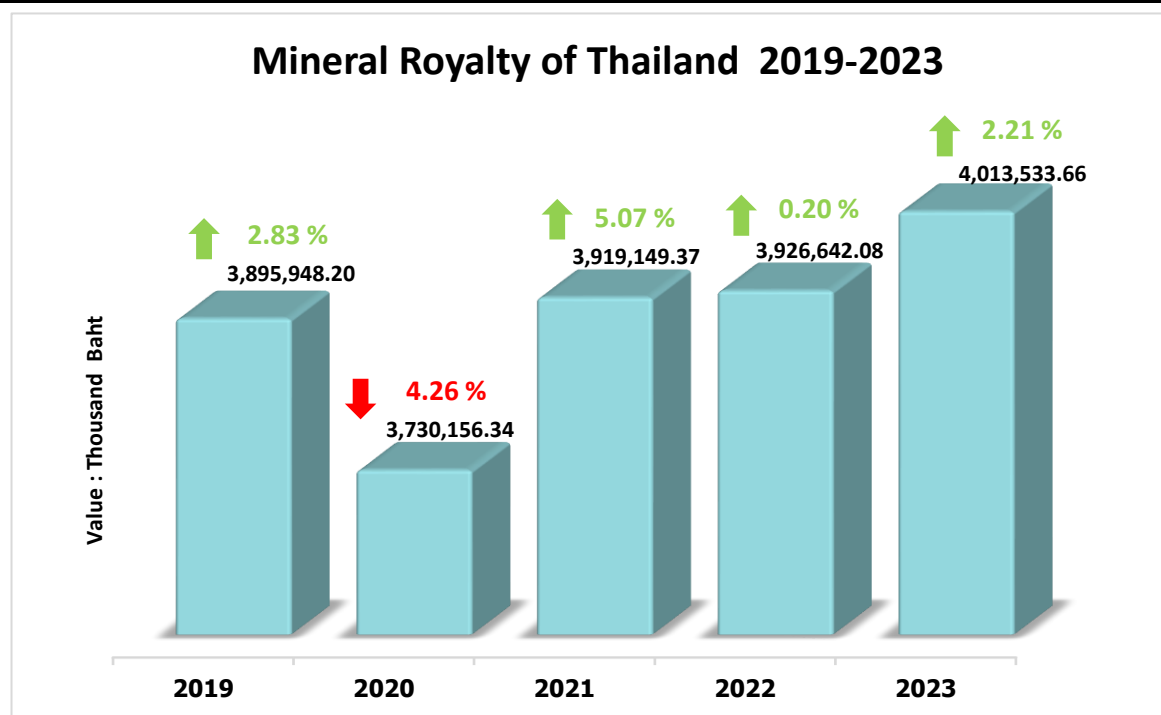
unit: Thousand Baht

Mineral	2019	2020	2021	2022	2023
Manganese (Metallurgical grade)	2,898.74	4,071.60	3,034.13	2,316.22	1,092.48
Marble					
- Dimension stone	2,323.82	998.01	3,556.31	3,609.64	2,800.31
- Fragment	31,419.38	20,383.07	15,077.96	7,438.34	8,373.51
Marl	171.36	25.16	29.24	10.54	-
Monazite	516.32	-	-	-	534.94
Other Industrial Stone	6,452.70	5,427.38	3,922.56	3,424.54	1,616.20
Perlite (Industrial rock)	312.00	180.00	225.00	276.00	186.00
Pyrophyllite					
- Industrial grade	794.02	684.79	910.08	732.34	832.70
- Invention grade	5.19	-	-	-	-
Quartz	1,140.84	1,847.64	889.02	368.01	430.35
Rock salt	121,030.34	113,330.26	121,108.34	137,043.58	133,505.97
Rutile	-	-	-	-	103.85
Sand Stone (Industrial rock)	6,692.27	5,859.75	6,579.61	6,670.08	9,442.82
Sand Stone (Dimension stone)	47.61	13.39	30.25	27.64	37.43
Sand Stone (Industrial rock-construction)	-	-	-	-	120.00
Scheelite	995.72	1,018.91	5,043.57	8,604.73	4,737.14
Shale (Industrial rock-cement)	98,949.62	58,753.61	51,612.73	64,198.79	49,298.15
Shale (Industrial rock-other)	-	30.00	200.00	270.00	360.00
Silt Stone (Industrial rock-construction)	-	-	-	-	3,026.45
Silver Metal	-	-	-	-	26,513.75
Struverite	776.60	-	-	-	-

Mineral Royalty of Thailand 2019-2023

unit: Thousand Baht

Mineral	2019	2020	2021	2022	2023
Talc	193.54	158.98	145.15	117.50	39.17
Tin	11,965.33	9,229.59	25,529.55	15,330.32	3,937.09
- Copper slag	-	-	830.11	-	-
Travertine (Dimension)	674.64	180.00	54.00	108.00	56.41
Wolfram	720.75	-	-	-	-
Xenotime	-	72.11	-	-	68.64
Zircon	198.38	209.80	22.79	-	605.04
Total	3,895,948.16	3,730,156.33	3,919,157.44	3,926,662.38	4,013,533.66



Total Values of Mineral of Thailand 2019-2023

Million Baht

	2019	2020	2021	2022	2023
PRODUCTION	74,466.0	72,778.3	82,657.9	73,902.2	73,045.0
CONSUMPTION	71,306.7	68,064.8	72,146.9	69,162.7	66,383.8
IMPORT	62,364.6	56,995.4	84,765.2	124,634.1	89,378.1
EXPORT	13,249.7	11,907.4	19,571.9	21,566.0	17,324.1

