

THE MINERAL INDUSTRIES OF ASIA AND THE PACIFIC

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The countries of the Asia and Pacific region possess a large mineral-resource base and are significant suppliers of a variety of minerals to both regional and world markets. Both the developing and the industrialized countries of the region recognize that mineral-resource development is an important component of their future economic prosperity. Some more notable developing nations in the region were China, India, Indonesia, Papua New Guinea, the Philippines, and Vietnam. The industrial “tigers” of Asia—Hong Kong, Japan, the Republic of Korea, Singapore, and Taiwan—have few domestic mineral resources. Led by Japan, the economies of each are dependent on imported raw materials; important in regional and international commerce; and advanced, both economically and technologically. Mineral development progressed normally during the year throughout the region. Australia, China, and India dominated the commercial mineral exploitation of the region, with Indonesia and Mongolia becoming increasingly active in coal, copper, and gold extraction.

In 1996, the pace of economic growth in the region slowed compared with that of 1995. However, the region’s average economic growth remained about 4% to 5% higher than in the United States (2.4%) and the European Union (1.6%). The slower economic growth in the United States and the European Union affected trade in the region. The decline in electronics, particularly semiconductors, had a disproportionate effect on the exports of several countries—Malaysia, Singapore, and Thailand. The Asian tigers no longer can rely simply on producing more and cheaper products. They have transformed themselves into high-tech, high quality, and high efficiency producers. China, Indonesia, Thailand, Vietnam, and the countries of the Indian subcontinent have replaced the Asian tigers by becoming the present labor-intensive producers.

During 1996, the Asia Pacific Economic Cooperation forum moved from goal-setting activities to action-oriented activities directed towards free and open trade and investment in the region by 2020. The activities were based on the 3 pillars of trade and investment liberalization; trade and investment facilitation; and economic and technical cooperation. The activities focused on developing individual and collective initiatives to fulfill the 1995 Osaka Action Agenda.

Australia continued to be a major player in the international minerals marketplace. The Australian minerals industry, the largest primary sector of its economy, is heavily export-oriented, with about 80% of the value of production destined for international markets. It has known reserves of major minerals, which are adequate for both domestic demand and overseas marketing. Primarily due to export markets, Australia ranks

among the world’s leaders of alumina, bauxite, bismuth, copper, diamond, gold, iron ore, lead, lithium, manganese, mineral sands (titaniferous minerals and zircon), monazite (rare earths), nickel, salt, silver, tantalite (tantalum), tin, uranium, and zinc production.

The Australian Government announced in October proposed legislative amendments to its 3-year-old Native Title Act that would reduce the amount of time Aboriginal groups have to negotiate with mining companies on Native Title claims before allowing mining companies to proceed with exploration and prospecting without having to negotiate with the Aboriginal groups. The amendments also would increase the power of the Minister for Aboriginal Affairs to intervene in Native Title claims.

Australia gave notice in September to the Association of Tin Producing Countries (ATPC) that it would withdraw from the Association effective December 10. Although the decision was made following ATPC’s resolution in June to discontinue imposing production quotas, it also was in line with the Government’s policy of removing unnecessary Government involvement in the minerals industry, which has seen the removal of export controls on all minerals except uranium. However, the Government also ended in 1996 its 12-year-old policy of restricting uranium production to three sites, effectively enabling the industry to increase uranium exports.

China is the world leader in proven reserves of antimony, barite, ilmenite (titanium), magnesite (magnesium), molybdenum, rare earths, and tungsten. China also has large resources of low-grade iron ore and important resources of other mineral commodities, such as coal, Fluorspar, and graphite, based upon known production and export capabilities.

The Chinese Standing Committee of the 8th National People’s Congress approved the amendments to the Mineral Resources Law on August 29, 1996, that will take effect on January 1, 1997. The amendments strengthen the State-ownership status of China’s mineral resources, but allows local governments the authority and responsibility for directing the exploration and development of the mineral resources. The amendments also allow private enterprises and Sino-foreign joint-venture companies to participate in the exploration and development of mineral resources in China under the supervision of the State.

Also on August 29, the Committee approved the Coal Law that took effect on December 1, 1996. The Coal Law states that all coal resources are owned by the State, and this will not change because of changes in surface ownership or right-of-use of the lands where the coal is located. The State protects lawful

exploration and mining rights from any encroachment and ensures the operation against any interference or disruption in exploration areas or mining sites. Mining rights cannot be sold or leased. The Ministry of Coal Industry is responsible for administration and enforcement of the Coal Law.

The State Council approved the Ministry of Foreign Trade and Economic Co-operation to issue the Provisional Measures on the Establishment of Sino-Foreign Joint-Venture Trading Companies on a pilot basis that took effect on September 30, 1996. The regulations stipulate that the shares of the Chinese company in the registered capital of a joint-venture trading company shall not be less than 51%, and that of the foreign company shall be at least 25%. The legal representative of the joint venture must be appointed by the Chinese company. The pilot basis of the regulations represent a preview of the Chinese Government's plans to further expand its trade with other countries.

The Indian Government announced in October 1996 that applications for foreign investment in the minerals industry will be given automatic approval up to a limit of 50% equity in a particular project or company. However, in the case of diamonds and other precious stones, gold, and silver, the existing system of considering each application on a case-by-case basis will apply. The Foreign Investment Promotion Board was to consider these cases.

Hindalco Industries Ltd., India's largest private aluminum company, began in midyear boosting capacity at its 210,000-t/yr Renukoot Smelter in Uttar Pradesh State by 32,000 t. Hindalco also was considering building a new 250,000-t/yr smelter. India's aluminum production is about 530,000 t/yr, compared with its domestic demand of about 580,000 t/yr.

Mineral resource revenues were a major factor in the robust annual economic growth rate of Indonesia, which had one of the world's broadest resource bases, including bauxite, coal, copper, gold, natural gas and petroleum, nickel, and tin. P.T. Freeport Indonesia announced plans to increase its daily ore throughput and copper and gold production at the Grasberg Mine in Irian Jaya. A prefeasibility study supported its mine expansion from 125,000 to 200,000 t/d. By 1999, copper output would be raised from the current 499,000 to 680,000 t/yr and gold output from 51 to 62 t/yr. The company also announced an increase in ore reserves from 1.3 to 1.9 billion t. These reserves would yield 18.9 million t of copper, 1,660 t of gold, and 3,590 t of silver.

Fluor Daniel Asia Inc. withdrew from participation in the \$650-million copper smelter project at Gresik near Surabaya, Indonesia, and sold its 10% equity share in the project to its 2 partners. Chiyoda Corp. of Japan would carry out the engineering, procurement, and construction work. The project would use the Mitsubishi continuous copper smelting process. The partners in the project are Mitsubishi Materials Corp. of Japan with 75% and P.T. Freeport Indonesia, 25%.

The construction of Indonesia's first copper smelter began in July. The smelter was scheduled to begin operations in December 1998. It would produce 200,000 t/yr of refined copper and 592,000 t/yr of sulfuric acid as a by-product for a nearby fertilizer plant. P.T. Freeport Indonesia would supply

720,000 t/yr of copper concentrate.

Bre-X Minerals Ltd. of Canada's "find" of an epithermal gold deposit at Busang in East Kalimantan, Indonesia, was reported to have a resource averaging 3 g/t, containing about 1,400 t of gold. The company sought joint-venture partners to develop the deposit and Barrick Gold Corp. and Placer Dome Inc., both of Canada, were involved in the bids for participation in the project. Subsequently, under a joint-venture agreement, Bre-X Minerals would own 45% of the Busang deposit; two local partners, P.T. Askatindo Karya Minerals and P.T. Amsya Lyna, 30%; Freeport-McMoRan Copper & Gold, 15%; and the Government of Indonesia, 10%. In May 1997, however, tests of samples by Freeport-McMoRan showed that the deposit might contain only insignificant amounts of gold. An interim report prepared for Bre-X Minerals by Strathcona Mineral Services Ltd. of Canada indicated there was virtually no possibility of an economic gold deposit at Busang.

On June 13, 1996, Sumitomo Corp., a major Japanese trading company, announced that it incurred a \$1.8 billion loss as a result of unauthorized copper trading activity during the past ten years by a senior official in its nonferrous metals division. The huge copper trading loss was raised to \$2.6 billion in August 1996. The news had occupied the world's financial headlines and caused the copper price to drop to its 2-year low in mid-1996. It also sent the share prices of the major copper producers to a lower level in the second half of 1996.

In December 1996, 3 major Japanese copper producers announced plans to expand their domestic smelting capacities by 10% to 20% by the year 2000 to meet the growing demand for copper by the countries of Southeast Asia. Nippon Mining and Metal Co. Ltd. plans to increase the capacity of its Saganoseki Smelter in Oita to 400,000 t/yr from 350,000 t/yr. Mitsubishi Materials Corp. plans to increase the capacity of its Naoshima Smelter in Kagawa by 10% to 20% from 200,000 t/yr. Sumitomo Metal Mining Co. Ltd. plans to increase the capacity of its Toyo Smelter in Ehime by 20,000 to 40,000 t/yr from the current 210,000-t/yr level. Mitsui Mining and Smelting Co. Ltd. also was considering capacity expansion.

In 1996, several major Japanese copper producers increased their investments in mine development in Canada and Chile to secure the increasing raw materials requirements for their domestic smelters. Mitsubishi Materials and Furukawa Co. Ltd. participated in development of the Huckleberry Mine in Canada. Nippon Mining and Metal and Mitsui Mining and Smelting participated in the development of Chile's Collahuasi Mine. Nittetsu Mining Co. Ltd. participated in development of the Los Bronces Mine in Chile. These copper mine development projects are expected to come on-stream by 2000. Two major copper mine development projects with equity participation by Japanese copper producers that came on stream in 1995 are the Northparkes Mine in Australia and the La Candelaria Mine in Chile.

In June 1996, Mongolia held a general election to the National Parliament, the State Great Hural. The Democratic Union Coalition led by the Mongolian National Democratic Party defeated the ruling communist Mongolian People's Revolutionary Party. The new Government has consolidated the

former 14 Cabinet Ministries to nine. The former Ministry of Energy, Geology, and Mining was abolished. The former Ministry jurisdiction over fuel and energy was transferred to the newly established Ministry of Infrastructure. The jurisdiction over geology, mining, metallurgy, geological exploration, and mineral extraction was transferred to the Ministry of Agriculture and Industry. Under this Ministry, there are divisions of Geology and Mining, plus a Mine-Geological Regulation Agency.

Placer Dome Inc., a Canadian company, announced in September 1996 the surrender of its 40% interest in Marcopper Mining Corp., the operator of the Marcopper copper mine and mill on the central Philippine island of Marinduque. Operations at the mine site had been suspended on March 24 when the failure of a tailings pond allowed the discharge of about 4 million tons of material into the Boac River system and coastal areas of the island. As a result of this environmental accident and ensuing public outcry, the Philippine Government issued in December new environmental rules to the Philippine Mining Act of 1995. The revisions were designed to strengthen the mining laws with respect to environmental protection.

The Government's Asset Privatization Trust announced on May 7, 1996, that it was selling its Nonoc nickel mine, smelter, and refinery on Nonoc Island in the southern Philippines to Pacific Nickel Holdings Ltd., a consortium of Australian, British, Filipino, and Hong Kong investors. Pacific Nickel signed an agreement with the Government for acquisition of the refinery in September and rehabilitation started late in the year. However, at yearend Arboyne NL of Australia exercised its option that it acquired from Pacific Nickel in July 1995, to purchase the mine and refinery. Nickel production is expected to begin in 1998. The Nonoc facilities were foreclosed in 1986 by the then State-controlled Philippine National Bank after Nonoc Mining and Industrial Corp. failed to repay its loans.

Other significant resources are in many remaining countries of the Asia-Pacific region, including tin and associated titanium in Malaysia; copper, fluor spar, gold, and molybdenum in Mongolia; nickel in New Caledonia; gold and iron sands in New Zealand; magnesite in North Korea; copper in Papua New Guinea; chromite in the Philippines; and gemstones in Sri Lanka. Mineralization also may be in Burma (Myanmar), Cambodia, Laos, and Thailand; however, the mineral potential has not been evaluated fully in these areas. Overall, the region lacks large resources of petroleum; nevertheless, oil and gas occurs throughout the region, and commercial quantities are recovered in Australia, Brunei, Burma, China, India, Indonesia, and Malaysia. World-class-size coal deposits are in Australia, China, India, and Mongolia. There also is coal in Indonesia, which is becoming a major world exporter, New Zealand, North Korea, and Vietnam.

The Asia and Pacific region is a world-class producer of mined commodities and value-added mineral products. It produces more than 60% of the world's output of barite, ilmenite, iodine, refined tin, tungsten, and refined zinc. About 40% to 60% of the world's output of alumina, bauxite, cement, fluor spar, graphite, iron ore and pig iron, and refined nickel is from the area. In addition, the region accounts for 15% to 40%

of the world's production of alumina and aluminum metal, mined and refined copper, gold, mined and refined lead, magnesite, mined manganese, mined nickel, salt, steel, and mined zinc.

Australia, China, Japan, and the newly industrialized economies of Asia and the Pacific continue to have important roles in the consumption of minerals and materials. Japan is by far the largest single consumer of fuels, minerals, and metals in the region. Most of Japan's consumption of raw materials is for the manufacture of finished goods for both domestic consumption and export. China also is a large consumer of fuels, minerals, and metals, largely producing end-products for internal use. Per capita consumption of minerals continues to be very low in China.

During 1992 to 1996, consumption of aluminum, cadmium, copper, lead, nickel, and zinc in the Asia and Pacific region grew considerably owing to continuous economic growth in China and the Association of Southeast Asian Nations (ASEAN)—Brunei, Indonesia, Malaysia, Philippines, Singapore, and Thailand. In terms of quantity consumed, Japan ranked the highest, followed in order by China, the Republic of Korea, Taiwan, and India. However, in terms of demand growth rate, the ASEAN countries ranked the highest in the region. The high growth in demand for base metals by Indonesia, Malaysia, Singapore, and Thailand was attributable to the continuing growth of their economies and the investment in manufacturing plants in the ASEAN countries by Japan, the Republic of Korea, and Taiwan. The regional consumption of aluminum, cadmium, copper, lead, and zinc as a percent of the world total consumption of these metals also registered considerable increases in the 1992-96 period.

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TABLE 1
ASIA AND THE PACIFIC: PRODUCTION OF SELECTED MINERAL COMMODITIES, 1996

(Thousand metric tons unless otherwise specified)

Country	Aluminum			Barite	Cement	Coal		Copper		Fluorspar	Gold mine, Au content 1/	Graphite
	Bauxite	Alumina	Metal			Anthracite	Bituminous	Mine, Cu content	Refined, primary			
Afghanistan	--	--	--	2	116	--	185	5	--	--	--	--
Australia	43,100	13,318	1,371	11	6,500	--	253,400	525	314	--	289	--
Bangladesh	--	--	--	--	285	--	--	--	--	--	--	--
Bhutan	--	--	--	--	160	--	--	--	--	--	--	--
Brunei	--	--	--	--	--	--	--	--	--	--	--	--
Burma	--	--	--	26	515	--	35	6	--	--	(2/)	--
Cambodia	--	--	--	--	--	--	--	--	--	--	--	--
China	6,200	2,490	1,780	1,500	490,000	270,000	1,048,000	450	620	2,000	145	210
Fiji	--	--	--	--	92	--	--	--	--	--	5	--
Hong Kong	--	--	--	--	2,026	--	--	--	--	--	--	--
India	5,100	1,700	502	500	80,000	--	265,000	36	36	23	2	120
Indonesia	1,000	--	225	--	20,000	--	45,000	507	--	--	65	--
Japan	--	330	17	--	94,492	--	6,476	1	1,251	--	9	--
Korea, North	--	--	--	110	17,000	70,000	--	16	23	39	5	40
Korea, Republic of	--	--	--	(2/)	57,334	5,075	--	(2/)	246	(2/)	14	1
Laos	--	--	--	--	9	--	--	--	--	--	--	--
Malaysia	219	--	--	17	12,335	--	83	23	--	--	3	--
Mongolia	--	--	--	--	106	--	511	102	--	254	--	--
Nepal	--	--	--	--	343	--	--	--	--	--	--	--
New Caledonia	--	--	--	--	100	--	--	--	--	--	--	--
New Zealand	--	--	284	--	1,000	--	3,000	--	--	--	13	--
Pakistan	4	--	--	19	8,900	--	3,345	--	--	(2/)	--	--
Papua New Guinea	--	--	--	--	--	--	--	187	--	--	52	--
Philippines	--	--	--	500	10,000	--	1,300	40	203	--	20	--
Singapore	--	--	--	--	1,900	--	--	--	--	--	--	--
Sri Lanka	--	--	--	--	905	--	--	--	--	--	--	6
Taiwan	--	--	--	--	21,537	--	147	--	--	--	(2/)	--
Thailand	--	--	--	100	27,000	5	--	--	--	17	--	--
Vietnam	--	--	--	--	5,700	8	--	--	--	--	--	--
Total	55,623	17,838	4,179	2,785	858,355	345,088	1,626,482	1,898	2,693	2,333	622	377
Share of world total, percent	49 3/	42	20	62	58	94	49	17	27	56	28	59
United States	W	4,700	3,577	662	80,818	4,400 e/	879,000 e/	1,345	2,014	8	318	--

See footnotes at end of table.

TABLE 1--Continued
ASIA AND THE PACIFIC: PRODUCTION OF SELECTED MINERAL COMMODITIES, 1996

(Thousand metric tons unless otherwise specified)

Country	Iodine	Iron			Lead			Manganese mine, Mn content	Mercury mine, Hg content 1/	Mica	Nickel	
		Ore, gross weight	Pig	Steel, crude	Mine, Pb content	Refined, primary	Magnesite				Mine, Ni content	Refined 4/
Afghanistan	--	--	--	--	--	--	--	--	--	--	--	--
Australia	--	147,100	7,381	8,295	522	204	310	1,023	--	--	113	74
Bangladesh	--	--	--	37	--	--	--	--	--	--	--	--
Bhutan	--	--	--	--	--	--	--	--	--	--	--	--
Brunei	--	--	--	--	--	--	--	--	--	--	--	--
Burma	--	--	--	--	3	2	--	(2/)	--	--	(2/)	--
Cambodia	--	--	--	--	--	--	--	--	--	--	--	--
China	5	249,550	105,310	101,100	500	430	600	6,000	240	--	43	43
Fiji	--	--	--	--	--	--	--	--	--	--	--	--
Hong Kong	--	--	--	350	--	--	--	--	--	--	--	--
India	--	67,000	20,000	20,000	31	32	335	659	--	--	--	--
Indonesia	(2/)	335	--	3,400	--	--	--	--	--	--	90	49
Japan	6	3	74,597	98,801	8	141	--	(2/)	--	--	--	64
Korea, North	--	11,000	6,600	8,100	75	75	1,600	--	--	--	--	--
Korea, Republic of	--	221	23,010	38,903	5	89	--	--	--	36	--	--
Laos	--	--	--	--	--	--	--	--	--	--	--	--
Malaysia	--	325	--	3,030	--	--	--	--	--	6	--	--
Mongolia	--	--	--	--	--	--	--	--	--	--	--	--
Nepal	--	--	--	--	--	--	--	--	--	--	--	--
New Caledonia	--	--	--	--	--	--	--	--	--	--	142	10
New Zealand	--	2,400	--	900	--	--	--	--	--	--	--	--
Pakistan	--	--	1,500	416	--	--	3	--	--	--	--	--
Papua New Guinea	--	--	--	--	--	--	--	--	--	--	--	--
Philippines	--	--	--	500	--	--	1	10	--	--	15	--
Singapore	--	--	--	--	--	--	--	--	--	--	--	--
Sri Lanka	--	--	--	--	--	--	--	--	--	2	--	--
Taiwan	--	--	6,050	12,655	--	--	--	--	--	9	--	10
Thailand	--	50	--	2,000	21	--	--	2	--	--	--	--
Vietnam	--	--	--	320	--	--	--	--	--	--	--	--
Total	11	477,984	244,448	298,807	1,165	973	2,849	2,849	240	53	403	250
Share of world total, percent	84	46	46	39	40	34	31 3/	37	8 3/	24	37	60
United States	1	62,073	49,366	94,651	436	326	W	--	W	97	2	--

See footnotes at end of table.

TABLE 1--Continued
ASIA AND THE PACIFIC: PRODUCTION OF SELECTED MINERAL COMMODITIES, 1996

(Thousand metric tons unless otherwise specified)

Country	Petroleum crude 5/	Natural gas 6/	Salt	Tin 1/		Titanium		Tungsten mine, W content 1/	Zinc	
				Mine, Sn content	Refined, primary	Ilmenite	Rutile		Mine, Zn content	Refined, primary
Afghanistan	--	2,700	13	--	--	--	--	--	--	--
Australia	159	29,802	7,905	8,828	460	2,028	180	--	1,071	326
Bangladesh	1	6,100	350	--	--	--	--	--	--	--
Bhutan	--	--	--	--	--	--	--	--	--	--
Brunei	55	10,990	--	--	--	--	--	--	--	--
Burma	4	1,640	260	420	100	--	--	340	1	--
Cambodia	--	--	40	--	--	--	--	--	--	--
China	1,170	20,000	28,920	60,000	56,000	160	--	24,000	1,010	1,119
Fiji	--	--	--	--	--	--	--	--	--	--
Hong Kong	--	--	--	--	--	--	--	--	--	--
India	265	18,000	9,503	--	--	300	14	2	148	144
Indonesia	575	83,485	670	38,500	39,000	--	--	--	--	--
Japan	5	2,230	1,390	--	526	--	--	--	80	501
Korea, North	--	--	590	--	--	--	--	900	210	200
Korea, Republic of	--	--	770	--	--	--	--	--	8	287
Laos	--	--	8	(2/)	--	--	--	--	--	--
Malaysia	258	44,338	--	5,174	39,195	245	--	--	--	--
Mongolia	--	--	1	150	--	--	--	200	--	--
Nepal	--	--	7	--	--	--	--	--	--	--
New Caledonia	--	--	--	--	--	--	--	--	--	--
New Zealand	12	6	60	--	--	--	--	--	--	--
Pakistan	24	16,920	958	--	--	--	--	--	--	--
Papua New Guinea	--	--	--	--	--	--	--	--	--	--
Philippines	(2/)	--	550	--	--	--	--	--	--	--
Singapore	--	--	--	--	--	--	--	--	--	--
Sri Lanka	--	--	65	--	--	63	4	--	--	--
Taiwan	(2/)	874	233	--	--	--	--	--	--	--
Thailand	8	11,000	450	1,450	7,700	--	--	30	30	65
Vietnam	--	--	375	4,500	2,800	--	--	--	15	10
Total	2,536	248,085	53,118	119,022	145,781	2,796	198	25,472	2,573	2,652
Share of world total, percent	11	8	28	61	70	70 3/	48 3/	80 3/	35	65
United States	2,362	538,640	42,277	--	11,036	W	W	W	628	226

e/ Estimated. W Withheld to avoid disclosing company proprietary data.

1/ Metric tons.

2/ Less than 1/2 unit.

3/ Excludes U.S. production.

4/ Includes Ni content of intermediate products but excludes ferroalloy.

5/ Million 42-gallon barrels.

6/ Million cubic meters.

TABLE 2
ASIA AND THE PACIFIC: CONSUMPTION OF SELECTED METALS

(Thousand metric tons unless otherwise specified)

Country	Aluminum, primary		Cadmium 1/		Copper, refined		Lead, refined		Nickel		Tin, refined 1/		Zinc, slab	
	1992	1996	1992	1996	1992	1996	1992	1996	1992	1996	1992	1996	1992	1996
Australia	309	316	24	24	122	160	59	78	2	2	700	300	191	185
China	1,254	2,033	500	600	882	1,161	277	262	35	46	12,900	27,200	645	911
Hong Kong	46	91	(2/)	(2/)	12	37	1	1	(2/)	(2/)	5,200	--	7	6
India	414	576	500	446	98	125	60	80	13	13	1,300	1,200	140	192
Indonesia	95	151	(2/)	(2/)	52	93	57	91	(2/)	(2/)	1,600	1,600	56	87
Japan	2,272	2,474	5,527	6,527	1,411	1,480	401	334	148	179	31,000	26,900	784	718
Korea, Republic of	397	698	380	380	354	588	164	214	26	50	6,600	11,200	266	350
Malaysia	75	115	(2/)	(2/)	80	155	57	60	(2/)	(2/)	4,600	5,400	20	32
New Zealand	22	39	(2/)	(2/)	4	10	4	4	(2/)	(2/)	--	--	15	17
Philippines	26	36	(2/)	(2/)	18	45	25	26	(2/)	(2/)	100	300	36	44
Singapore	28	40	(2/)	(2/)	12	14	8	8	(2/)	(2/)	--	--	16	15
Taiwan	265	337	20	20	416	544	105	133	19	26	5,900	7,300	128	196
Thailand	147	222	(2/)	(2/)	89	155	50	62	(2/)	(2/)	3,600	6,000	78	87
Asia and the Pacific, unspecified	125	60	118	119	30	25	21	59	7	9	400	600	64	86
Total, Asia and the Pacific	5,475	7,188	7,069	8,116	3,580	4,592	1,289	1,412	250	325	73,900	88,000	2,446	2,926
Asia and the Pacific as a percent of world total	30	35	40	50	33	37	25	26	31	35	35	41	36	40
United States	4,617	5,400	3,721	1,701	2,176	2,629	1,241	1,472	119	143	35,200	36,400	1,035	1,210

1/ Metric tons.

2/ Included in Asia and the Pacific, unspecified.

Source: World Bureau of Metal Statistics. World Metal Statistics, July 1997.