

ASIA AND THE PACIFIC

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The region of Asia and the Pacific includes 30 countries and territories covered in the Minerals Yearbook, Volume III—International. The total land area of the region is approximately 29.9 million square kilometers (km²), which is 20% of the world's land area of 149 million km². The region had a population of about 3.5 billion, which was about 56% of the world's population of more than 6.2 billion people and was more than 12 times that of the United States. China and India, which were the world's two most populous countries, accounted for 67% of the regional population and 38% of the world's population. Japan had, after that of the United States, the world's second largest economy in 2002, and China had the world's fastest growing economy. Australia, China, and India dominated the region's mineral-resource sectors in exploration, mining, processing, and trade.

Australia was one of the world's significant minerals producers with large resources of bauxite, coal, cobalt, copper, diamond, gold, iron ore, lead, lithium, manganese, mineral sands, nickel, silver, tantalum, uranium, and zinc. China also was a significant world minerals producer with large resources of antimony, arsenic, barite, coal, copper, fluorite, gold, graphite, iron ore, magnesium, mineral sands, rare earths, silver, strontium, tin, tungsten, and zinc. India was a significant minerals producer with large resources of barite, bauxite, chromium, iron ore, manganese, rare-earth elements, and salt. Other important regional minerals producers with large resources were Indonesia (coal, copper, gold, nickel, and tin), Japan (iodine), Papua New Guinea (copper and gold), the Philippines (gold and nickel), and Thailand (feldspar and gypsum). Despite large regional resources of nonfuel minerals and mineral fuels in Australia, China, and India and in such Asian countries as Indonesia, Malaysia, and Mongolia, the regional markets for a wide variety of minerals and mineral fuels, which included coal and hydrocarbons, were insufficient. The Middle East and North America supplied a large portion of the Asia and the Pacific regional requirements for coal and hydrocarbons. North America and South America supplied a substantial portion of the regional raw material requirements for ferrous and nonferrous metals.

China and Japan were the two major markets for crude and processed minerals in the region. In terms of quantity, Japan was the largest consumer in the region. In terms of growth, China was the strongest consumer in the region. India, the Republic of Korea, Taiwan, and some of the countries in Southeast Asia, which included Indonesia, Malaysia, Singapore, Thailand, and Vietnam, were also important consumers in the region for such mineral products as ferrous and nonferrous metals and industrial minerals, especially cement.

To promote trade and investment in the region, the Asia-Pacific Economic Cooperation (APEC) organization was established in November 1989. APEC included all the members of the Association of Southeast Asian Nations (ASEAN) (Brunei, Indonesia, Malaysia, Philippines, Singapore, and Thailand), and Australia, Canada, Chile, China, Hong Kong, Japan, South Korea, Mexico, New Zealand, Papua New Guinea, Taiwan, and the United States. The APEC economies had an estimated combined gross domestic product (GDP) of about \$20 trillion and almost 50% of world trade in 2002.

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Estimates for production of major mineral commodities for 2003 and beyond have been based upon supply-side assumptions, such as announced plans for increased production/new capacity construction and bankable feasibility studies. No explicit consideration of any demand-side factors, such as price and economic growth, was made.

General Economic Conditions

In 2002, the economic performance of the region of Asia and the Pacific in terms of real GDP growth averaged about 3.6%, which was a decrease from the 2001 average of 5.5%. Within the region, the economic performance of such developing countries as Cambodia, China, Indonesia, Laos, and Vietnam were generally better than such developed countries as Australia and Japan and such newly industrializing economies as Hong Kong, Singapore, and Taiwan. Although China was one of the poorer countries with a low per capita gross national product (GNP), its real GDP growth in 2002 was the highest in the region. Although the richest economy with the highest per capita GNP in the region, Japan had a real GDP growth that was the fourth lowest in the region in 2002.

According to the Asian Development Bank, the Asian developing countries would continue to perform better than Asia's developed and newly industrializing countries. Among the developing countries, China's economy was projected to grow by 7.5% in 2003. Vietnam's economy was projected to grow by 2% in 2003. Among the newly industrializing countries, the Republic of Korea's economy was projected to grow by 5.8% in 2003, and Taiwan's economy was projected to grow by 4.0% in 2003. Among the Southeast Asian countries, Malaysia's economy was projected to grow by 5.0% in 2003; the Philippines' economy, by 4.5%; Thailand's economy, by 4.0%; Indonesia's economy, by 4.4%. The economies of the Pacific countries (excluding Australia and New Zealand) were projected to perform poorly, especially that of the Solomon Islands whose growth was projected to grow by only 2% in 2003. Papua New Guinea's economy was projected to increase by only 1.1% in 2003.

Investment Interest and Political Risk

In late 2002, Afghanistan received pledges for monetary grants from Italy, Japan, Norway, Sweden, and the United States through the International Monetary Fund.

The new depreciation tax write-off rates for plant and equipment used in the oil and gas sector that were recently passed by Australia's Federal Government will reduce lifetime taxes paid. The lower lifetime tax caps were designed to induce further investment from overseas in the country's capital-intensive energy-resource industry.

After completing an environmental and social impact assessment and a definitive feasibility study in 2001, Oxiana Resources NL of Australia began development of a \$45 million gold-copper project near the town of Sepon, Savannakhet Province, Laos; construction work was completed by the end of 2002. The gold-copper project was Laos' largest mining operation and the first with foreign capital and modern mining technology. The project was funded by \$15 million in equity and \$30 million in debt finance from the International Finance Corp., which was an affiliate of the World Bank.

Economic reforms in India included the relaxation of restrictions on foreign ownership and the privatization of industrial enterprises.

In North Korea, the Supreme Peoples Assembly enacted laws and regulations to attract capital from overseas. The ceiling for foreign ventures increased to as much as 80% from 50%. The Government set up free economic zones at Rajin-Seonbong near the border with Russia, the Sinuiju Special Administrative Region near the border with China, the Mount Geumgang Tourist Zone, and the Gaesong Industrial Complex. Wholly foreign-owned enterprises were permitted in the zones. Additionally, the Government scrapped the special currency for foreigners.

The Republic of Korea's Ministry of Finance and Economy proposed to reduce the corporate tax to the levels of Singapore and Hong Kong within the next few years. Korea's corporate tax rate was 15% for companies with annual tax taxable incomes below \$86,543 and 27% for those with incomes at or above 100 million won. It aimed to promote capital investments by domestic companies and to encourage foreign multinational corporations to set up operations in Korea. The Government planned to submit the corporate tax bill to the National Assembly in 2003. The Ministry also planned to change the regulation to allow foreign companies in special economic zones (SEZs) to outsource employees freely from any operations. Under the 2002 regulations, Korean companies could outsource employees in only 26 Government-designated operations for a period of 2 years. To create a favorable environment for foreign investments, companies that invest \$50 million or more in SEZs will pay no corporate or income taxes for 7 years and will receive a 50% reduction for 3 years.

The Mongolian Government introduced and passed the amendment of foreign investment law of Mongolia and submitted the amendment of mineral law to the Parliament for approval. The Asian Development Bank also provided a \$500,000 technical assistance grant to Mongolia and China for establishing an effective institutional framework to promote and coordinate economic cooperation between the two countries.

Legislation

In 2002, 10 years following Australia's High Court ruling in which the country's indigenous people were legally recognized as having rights to land and that these rights were based in the traditional laws and customs of these aboriginal people, the Federal and State Governments were still trying to find a way to uphold the rights of the indigenous people and to meet the needs of the explorationists and others in the minerals field who were seeking funding and other means to keep their endeavors operational.

In November 2002, the Federal Parliament's Joint Standing Committee on Treaties recommended ratification of the Timor Sea Treaty, which concerned the development of the oil reserves between Australia and East Timor.

Bangladesh had insufficient gas reserves to serve domestic and foreign markets. A seven-member committee formed by the Bangladesh Geological Society and the Bangladesh Economic Association objected to the export of Bangladeshi gas by pipeline to India. The National Committee on Gas Utilization

also recommended that the country retain its proven gas reserves for domestic use. Exports were to be allowed only if significant reserves were discovered.

To attract local and foreign investment in Cambodia's mining sector, the Law for Management and Mining of Mineral Resources was drafted in 1996 and approved by the Cabinet in 2000. The law was promulgated by the Government on July 13, 2001.

In 2002, the Chinese Government issued Regulations on Guiding the Directions of Foreign Investment and renewed the Categories for Guiding Foreign Investment in Industry.

The major steel companies in India asked the Government to retain import duties on steel, which ranged from 25% to 35%, at the present levels for at least 2 more years and to increase the import duty on old ships to 25% from 5% to ground the ship breaking industry. They also wanted the excise duty on steel items, such as rod and bar and galvanized sheets, to be reduced to 8% from 16% to promote construction. They wanted imports for the steel industry to be exempt from the additional 4% customs duty and the import duty on hot-rolled coils to be reduced to 15% from 25%.

Japan announced its intention to end its memberships in the International Lead and Zinc Study Group, the International Copper Study Group, and the International Nickel Study Group effective in 2004.

To protect the local iron and steel industry, the Government of Malaysia increased its tariff on imported hot- and cold-rolled coils and electrogalvanized and galvanized iron and steel pipes to 50% from 25% in March 2002. Exemptions, however, would be considered.

The Mongolian Government continued to follow its Action Program of the Government of Mongolia for 2000-04. The program emphasized stabilizing the macroeconomic situation, reducing Government spending while improving delivery, and restructuring the industrial sector by privatizing state-owned enterprises.

New Zealand's "crown minerals," which are based on the British legal system, are regulated by the New Zealand Crown Minerals Act 1991 and the Crown Minerals Amendment Act (No. 2), which was passed in 1997. Crown-owned minerals (meaning those owned on behalf of all New Zealanders) included all in-ground gold and silver in New Zealand. The Crown also owned approximately one-half of the in-ground coal; nonmetallic and other metallic minerals, which included uranium; industrial rocks and building stones; and all gas and petroleum.

In February, the Filipino Province of Mindoro Oriental legislated a 25-year moratorium on all major mining projects in the region. The ordinance established that no person or entity could engage in land clearing, prospecting, exploration, drilling, excavation, mining, or transport of mineral ores preparatory to all forms of mining operations until 2007.

In 2002, the Taiwan authorities introduced a new pollution control tax on 126 chemicals produced in or imported to the island. After 12 years of negotiations, Taiwan was granted approval to join the World Trade Organization (WTO) in November 2001 and became a member in January 2002.

Thailand's Minerals Act of 1967 controlled onshore and offshore exploration, mineral production, mineral trading, ore dressing, transport, and export of minerals except petroleum. The Minerals Act of 1967 was amended again in 2002 to bring the Act in line with modern international practices for underground mining that permit mining at depths of greater than 100 meters (m) below the surface without requiring the specific consent of the holder of the surface right.

Exploration

Exploration activity in much of the Asia and the Pacific region decreased in 2002 from 2001 levels. Data derived from the MEG's annual surveys suggest that the 2002 proposed budget for Australian exploration activity of about \$304 million was 13% lower than the \$49 million reported in their 2001 survey. Similarly, the 2002 budget for proposed Pacific region countries (excluding Australia)¹ of about \$85 million was about 36% lower than the corresponding 2001 exploration budget. Exploration activity in China and India, however, was expected to increase to provide domestic sources to meet the increasing mineral consumption of these countries.

Various estimates of recent Australian mineral exploration expenditures showed a period of declining activity. Exploration budget allocations reported by the MEG for Australia in 2002 showed a decline of 13% to \$304 million between 2001 and 2002, and the ABS estimated minerals exploration expenditures for fiscal year 2001-02 to be US\$336 million. The ABARE issued a report that showed a decline in mineral exploration in Australia between fiscal years 1996-97 and 2001-02 of 49%, which brought reported exploration to its lowest level since fiscal year 1978-79. The report attributed the downturn to reduced spending for gold and base metals, which together accounted for 72% of the Australian exploration expenditure in fiscal year 2001-02 as a result of demand-side impacts on the global business cycle, official gold sales by major banks since 1997, increased rationalization of exploration budgets by merged companies, and domestic land access restrictions.

According to the ABS, as reported by the Western Australia Department of Minerals and Petroleum Resources, gold accounted for 65% of Western Australia's mineral exploration expenditure of \$276 million in 2001. Exploration allocations for base-metal targets in Western Australia were reported to be \$39 million for the same period; diamond, \$16 million; iron ore, \$11 million; and mineral sands, \$4 million.

Between fiscal years 2000-01 and 2001-02, Australian mineral exploration expenditures varied significantly by sector. Exploration expenditures for mineral sands increased by almost 37%; expenditures for copper targets, 23%; and other than base metals, diamond, energy minerals, gold, and iron ore, about 18%. Expenditures for lead-zinc-silver exploration decreased by 39% in fiscal year 2001-02; nickel-cobalt targets, 28%; and gold, 13%. The Murray Basin region, which covered portions

¹The MEG included the following countries as part of the Pacific region: Fiji, Indonesia, Japan, Laos, Malaysia, New Caledonia, New Zealand, Papua New Guinea, Philippines, Solomon Islands, Vanuatu, and Vietnam.

of New South Wales, South Australia, and Victoria, was considered to be a medium-term replacement for mineral sands deposits that were being depleted. Development and subsequent production of the Wemen deposit in 2001 and the release of a joint Government and industry assessment of the potential of the region during 2000 increased exploration in the area.

On the basis of preliminary statistics of the ABS for fiscal year 2001-02, Western Australia accounted for 58% of Australian mineral exploration expenditures reported for the period. Companies also reported significant interest in exploring for minerals in Queensland (which was more than 14%), the Northern Territory (about 8%), and New South Wales (7.5%).

Across Australia, Native Title claims issues continued to be the dominant problem that affected exploration and mining. During 2002, several Indigenous Land Use Agreements were signed, and several court decisions on Native Title claims were handed down. An agreement that provided for the granting of mining leases in the Mount Cuthbert region of Queensland was signed by Matrix Metals Ltd., the Aboriginal Kalkadoon People, and the Government of Queensland. Another agreement by Hamersley Iron Pty. Ltd. Australia, Rio Tinto Plc., the Government of Western Australia, and the Eastern Guru People allowed for mineral exploration and subsequent mining in the Pilbara region of Western Australia. The Government of Western Australia invested almost \$1.9 million to speed up processing of mineral tenement applications on land under Native Title claim.

Other Australian Government activities affected mineral exploration in 2002. The Northern Territory Central Region Mineral Study, which compiled data from the Australian federal Government, the Northern Territory Government, and mining organizations, found the Tennant Creek area to be prospective for base metals, diamond, gold, manganese, mineral sands, and phosphate. In July, the Western Australian Government announced a policy of prohibiting the mining of uranium from any mining lease granted after June 22, 2002, and strictly controlling the mining of thorium. This policy was designed to allow for the extraction and sale of other associated minerals while preventing the use of thorium and uranium for nuclear purposes. In September, the Australian Government announced that it would adopt a Mineral Exploration Action Agenda to develop a clearly defined strategy for increasing mineral exploration activity.

In other countries of the Pacific region, budget allocations for mineral exploration obtained from the MEG's annual survey continued to decrease substantially (from \$133 million to \$85 million) in 2002 owing largely to civil unrest in the region but also compounded by reduced investor confidence and a perception of problems with Government policy related to regional autonomy laws. Spending allocations were about 5% of world exploration. Much of the activity in the region (excluding Southeast Asia) took place at sites of previous investment. In spite of regional unrest, aggressive drilling programs were reported in the Philippines at the Boyongan gold-copper deposit.

In 2002, exploration activity focused on areas within Indonesia and the Philippines and was mainly associated with established or developing mining areas. Activity was significant

in Papua New Guinea. Gold targets accounted for about 65% of all exploration in the Pacific region (excluding Australia); base-metal targets accounted for 27% of reported exploration activity in 2002.

The Noumea Accord of 1998 and the subsequent Organic Act of 1999 redefined the distribution of powers between the New Caledonian authorities and the French State. Several provisions under these laws require the redesign of financial legislation. The New Caledonian Congress was addressing these issues, and future legislation was pending.

Within Asia, base-metal and gold exploration focused on China and Mongolia. Mineral exploration in China has grown since the country opened its mining sector to foreign investment during the 1990s. About 30 foreign mining and exploration companies were reported to be active in China during the year. Of these, 17 were reported to have active exploration joint ventures and 19 were evaluating projects. Projects covered a wide variety of minerals. The discovery of the Turquoise Hill (Oyu Tolgai) copper-gold deposit in Mongolia ignited the search for minerals in the region.

Chinese mining laws and regulations that pertain to joint ventures with foreign mining companies continued to evolve slowly but positively from an international investment perspective. Reforms were continuing to stimulate investment in mineral development, which included the establishment of rules for exploration and development rights of foreign companies, submission and use of geologic data, and establishment of regulations that govern foreign investment in the rare-earth industry. About 30 foreign mineral companies were active in China in 2002.

In Indochina, several mineral exploration companies from Australia and Canada remained active in 2002. In Laos, Oxiana Resources completed its bankable feasibility study for the development of the Khanong copper deposit, which is located to the east of the Sepon gold-copper project. The deposit was under development in 2002 for production in 2003; estimated resources at Khanong totaled 26 million tons (Mt) at a grade of 4.1% copper. Pan Australian Resources NL of Australia focused its gold exploration at the Ban Houayxai, Phu Kham Gold Cap, and Long Chien Track of its Phu Bia Gold Project and reported an estimated resource of about 31 Mt (1 million troy ounces) of gold. In Thailand, Kingsgate Consolidated NL of Australia, through its wholly owned subsidiary Arkara Mining Ltd., focused its gold exploration at Prospect A, which is located about 1 kilometer (km) north of the Tawan Pit at the Chatree Mine, in 2002. The estimated gold and silver resources at Prospect A were 14,100 metric tons of ore at a grade of 1.6 grams per metric ton (g/t) gold and 20 g/t silver. This resulted in a 59% increase in total resources of the Chatree Mine, which started gold production in November 2001. In Vietnam, Olympus Pacific Minerals Inc. of Canada, in joint venture with Ivanhoe Mines Ltd., also of Canada, and Zedex Ltd. of New Zealand explored for gold in the high-grade gold zone at the Bai Dat and Bai Go sectors of the Phuoc Son Gold Project in 2002; the area is located about 140 km southwest of Danang in central Vietnam.

In India, approval by the Director General of Civil Aviation to conduct airborne geophysical surveys below 120 m was denied.

The Ministry of Coal and Mines had requested that a variance from the minimum height requirements be granted for such surveys. Recent changes in the Indian Government's national minerals policy has begun to allow exploration for previously 'reserved' minerals by the private sector. As a consequence, diamond exploration by such companies as Ashton Mining Ltd., BHP Billiton Ltd., De Beers Consolidated Mines Ltd., and Rio Tinto Ltd. has increased in India. The Government of the Pakistani Province of Balochistan implemented the National Minerals Policy through passage of the Balochistan Mineral Rules 2002, which created a more modern legal environment for mineral exploration and mining.

Commodity Overview

Metals

Bauxite and Aluminum.—Australia was the unchallenged world leader in the production of bauxite for the 32d consecutive year in 2002. Australia produced about one-third of the world's production of alumina, and its production of aluminum metal ranked fifth in the world for 2002. Privately owned Aldoga Aluminium Pty. Ltd. continued planning for its proposed \$1.5 million 450,000-metric-ton per-year (t/yr) aluminum smelter, which was to be built near Gladstone, Queensland. Comalco Ltd. began construction of its 1.4-million-ton-per-year (Mt/yr) alumina refinery at Gladstone. Australia's aluminum industry was the country's second largest commodity exporter, behind coal, when bauxite, alumina, and aluminum are all taken into account.

Aluminium Corp. of China Ltd. (Chalco) and Alcoa Inc. of the United States obtained approval from the China National Development and Reform Commission to proceed with their proposed 50-50 joint venture at the Pingguo Aluminum facility (a Chalco subsidiary) in the Guangxi Zhang Autonomous Region of South China. Pingguo's alumina expansion construction was expected to be completed in early 2003; the alumina output would increase to 850,000 t/yr. The aluminum smelting capacity was to expand to 380,000 t/yr from 130,000 t/y by 2006.

Additionally, Chalco signed a three-party agreement with Minmetals Nonferrous Metals Co. Ltd. and Guangxi Investment Ltd. that would establish a new company, Guangxi Guixi Huayin Aluminium Corp. Guangxi Guixi Huayin Aluminium was to mine bauxite and to construct a refinery and smelter in the Guixi (Bose) area in Guangxi Province. Initial output capacities were to be 800,000 t/yr of alumina and 250,000 t/yr of aluminum by 2006.

Western India has large bauxite reserves of high-quality gibbsitic material. The close proximity of the bauxite to port facilities and existing transport infrastructure greatly enhances its suitability for export. Exports of metallurgical-grade bauxite from India exceeded 2 Mt in 2002 and were expected to reach 4 Mt by 2002.

Virtually all Japan's primary aluminum requirements were met by imports, although some unwrought primary aluminum (about 0.3% of Japan's needs) was produced by Nippon Light Metal Co. Ltd.

Cadmium.—Japan was one of the top two producers and consumers of cadmium in the world. Cadmium was produced mainly as a byproduct of zinc refining operations that used mostly imported ore.

Copper.—Australia continued to be a major copper-producing country in 2002, and ranked fourth in the world following Chile, the United States, and Indonesia. Australia had large mining and smelting operations at Mount Isa in Queensland and at Olympic Dam in South Australia. Other significant copper mining operations were at Cadia Hill and Northparkes in New South Wales; Ernest Henry, Mount Gordon, and Osborne in Queensland; and Golden Grove and Nifty in Western Australia. The Mount Isa Mine was the leading copper producer in Australia.

Once again, China provided the brightest regional spot for the copper industry in which demand forged ahead and local copper raw materials were unable to keep pace. Chinese imports rose sharply with an increase of nearly 20%. Owing to economic expansion, China's copper production and consumption continued to grow rapidly. In 2002, China's copper consumption was estimated to be about 3.2 Mt and was expected to increase to about 4.0 Mt by 2005. Because the output of domestic copper mines could not meet the copper smelters' requirements, China had to import a large quantity of copper concentrates from Australia, Chile, and Mongolia. This trend should continue in the future because domestic copper smelters, such as Jiangxi Copper Co. Ltd. and Tongling Nonferrous Metals Co., were planning to expand their output capacities within a few years. The domestic supply of concentrate and refined copper was not expected to meet future demand; therefore, China was expected to become one of the leading copper-importing countries in the world.

In India, the Birla Group, Finolex Industries, Metdist/Phelps Dodge, and Sterlite Industries expressed interest in carrying out due diligence on the Swil copper smelter project for a 51% stake. The project would use a mixture of concentrates and secondary feed and have a smelting capacity of 70,000 t/yr of anode copper and a refining capacity of 50,000 t/yr of cathode copper. The project, whose cost had increased to \$238 million, was ready for trial runs in midyear and for commercial production in December.

Production of copper in 2002 in Indonesia continued its prosperous performance of 2001. Production at the large Grasberg copper-gold and Batu Hijau gold-copper mines increased by 17% and 7%, respectively, compared with that of 2001.

Japan announced its intention to end its membership in the International Copper Study Group in 2004. The intended withdrawal was criticized by Japan's metal producers because of the disadvantages that potentially would be placed on their enterprises. Japan was the world's leading importer of copper concentrate, although a small amount of byproduct copper was produced at the Toyoha Mine in Hokkaido Prefecture.

Two copper prospects in Southeast Asia were seeking financing—the 100,000-t/yr expansion of the Monywa solvent extraction-electrowinning operation in Burma and the 60,000-t/yr Sepon gold-copper prospect in Savannakhet Province in

southeastern Laos. Oxiana Resources planned to start work on the first stage at Sepon that would focus on gold; copper output was scheduled for 2005.

Shipping of concentrates from Papua New Guinea's huge Ok Tedi copper-gold mine was severely affected by low water levels in the Ok Tedi River, which were precipitated by dry El Niño conditions from September to December.

Gold and Silver.—Australia has about 8% of world economic gold resources, and ranked third in the world after the Republic of South Africa and the United States. In 2002, Australia remained the world's third leading producer of gold, again following South Africa and the United States, despite a decline in production for the fifth consecutive year. The Cannington underground mine in Queensland, Australia, was the leading single-mine silver producer in the world in 2002. In the Asia and the Pacific region, China and Indonesia ranked as the second and the third leading gold producers following Australia. For the past several years, total gold production in the region has increased slightly, and consumption has declined slightly. In 2002, gold consumption in the region accounted for about 45% of the world's total. India, the United States, and China ranked first, second, and third, respectively, in world gold consumption. Although foreign investment in China's gold sector remained hampered by some regulations, the prospects for investment and trade were considered to be bright as the deregulation process continues. Consequently, China may replace the United States to become the second leading gold-consuming country in the world in the near future.

Gold and some silver were the only metallic minerals recovered in Fiji in 2002 and were produced solely at Emperor Mines Ltd.'s Vatukoula Mine, which is often referred to as the "Emperor Mine."

In Japan, gold mine production was mainly by Sumitomo Metal Mining Co. Ltd. from its Hishikari Mine in Kagoshima Prefecture on Kyushu Island. The Toyoha Mine produced most of Japan's silver as a byproduct of lead and zinc mining operations in Hokkaido Prefecture.

Gold in New Zealand was mined at two large hard-rock mines—the Martha Hill Mine on the Coromandel Peninsula on North Island and the Macraes Mine near Dunedin on South Island. Alluvial gold was produced from three dredging operations on South Island—Grey River, Quinns Terrace, and Waikaka.

Papua New Guinea's producing gold mines centered on four large operations, one medium-sized mine, and a large small-scale sector that included mechanized alluvial gold mines and primitive individually operated manual gold panning-sluicing workings. Silver was a coproduct at the Misima Mine, which was one of the country's large mines, and at the intermediate-sized Tolukuma Mine in Central Province.

In the Solomon Islands, Sydney, Australia-based Delta Gold Ltd.'s Gold Ridge Mine, which had produced gold and silver at Gold Ridge (which is located 26 km east-southeast of the Solomon's capital at Honiara on Guadalcanal Island) until mid-2000, remained closed throughout 2001. This large-scale mine had been closed owing to civil unrest.

Iron and Steel.—Iron ore resources occur in all six Australian States and the Northern Territory. Nearly 95% of the reserves are in Western Australia; this includes about 90% in the Hamersley region, which is a major world iron ore province. In 2002, Australia ranked fourth following Ukraine, Russia, and China in iron ore reserves and third behind China and Brazil in iron ore production.

China, which was the leading iron and steel producer in the world in 2002, produced more than 20% of the world total. Domestic iron ore mines supplied only about 50% of the iron ore consumed by pig iron producers. Although large and small pig iron producers planned to either renovate their blast furnaces or add new blast furnaces at existing sites, iron ore output still was expected to decline slightly during the next several years. Therefore, imports of iron ore were expected to increase in the next several years, eventually moving China ahead of Japan to become the leading iron-ore-importing country. Together, Japan, China, and the Republic of Korea received about 55% of total world iron ore imports.

India's Rio Tinto Orissa Mining Ltd. continued to work on a large new iron ore mining project in the Gandhamardan-Malanjtoli area of the State of Orissa. Operations were scheduled to start in 2006, and the mine was expected to produce 25 Mt/yr during its fifth year of operation and, eventually, 50 Mt/yr. Kudremukh Iron Ore Co. Ltd. planned to open a new mine and beneficiation plant at Ongole in the State of Andhra Pradesh to produce from 1.5 to 2 Mt/yr of concentrates in 2004.

Japan relied on imports to meet virtually all the iron ore requirements of its iron and steel industry. For 2002, the major suppliers of iron ore to Japan were, in descending order, Australia, Brazil, India, South Africa, Philippines, and Chile.

Iron ore in the form of titanomagnetite-rich sands was mined in New Zealand at two sites along the western coast of North Island. All ore from the Taharoa ironsands site was exported to China and Japan, whereas the ironsands at Waikato North Head provided ore to BHP New Zealand Steel Ltd.'s 450,000-t/yr integrated steel plant, which was wholly owned by BHP Billiton Ltd.

Lead and Zinc.—Australia has the world's largest reserves of lead, which is about 17% of the world total; the country also ranked first in mine production in 2002. The Cannington underground mine in Queensland was the world's leading lead producer.

China's Yuguang Gold and Lead Group Co. completed the construction of its third lead smelter in 2002 and was constructing a lead refining plant, which was expected to be completed in 2003.

China was the leading zinc metal producer in the world. Dongshenmiao Lead and Zinc Mining Co. commissioned its 600,000-t/yr lead-zinc (ore throughput) mine in Nei Mongol Autonomous Region. The Regional Government was planning to build a 50,000-t/yr lead-zinc smelter nearby.

India's Indian Lead Co. Ltd. restarted production at its three shuttered secondary lead plants. Indian Lead was the country's leading secondary lead producer.

Although Japan mined ores that contained lead and zinc, most of the country's lead (almost 50%) and zinc (almost 80%) requirements were met by imported materials.

Nickel.—Australia ranked first in nickel reserves and was the second leading nickel miner in the world after Russia in 2002.

Primary refined nickel production in China increased to a new high of about 54,000 t in 2002; this was an increase of more than 8% compared with that of 2001.

New Caledonia has about one-seventh of the world's lateritic nickel resources. The nickel industry dominated the country's economy.

Platinum-Group Metals.—No Australian mines were primary producers of platinum-group metals (PGM), although minor production came from Western Australia's Eastern Goldfields at Kalgoorlie-Boulder and Kambalda as a byproduct of the nickel operations.

Jinchuan Nonferrous Metals Corp. was the leading PGM producer in China. Production capacity was being expanded to 1,500 kilograms per year (kg/yr) from 1,000 kg/yr by 2005. Japanese production of primary platinum was derived entirely from imported ore and concentrates.

Tin.—China was the leading tin-producing country in the world and exported about 60% of its total output. Chinese consumption was expected to increase slowly but steadily in the next several years because of the increase in demand for tin in the electronics sector. The Government tightened the export quota and urged tin producers to control output.

Indonesia's PT Timah Tbk. was the world's leading corporate tin producer in 2002.

Titanium.—Australia was one of the world's leading titanium producers. The titanium was produced from heavy mineral sands that contained ilmenite, leucoxene, and rutile. Most production was from Western Australia, and the major producers were Iluka Resources Ltd., Cable Sands (WA) Pty. Ltd., Ticon Ltd., and Kerr McGee Corp. of the United States.

Tungsten.—China was the leading tungsten-producing country in the world, and its output accounted for more than 80% of the world total. The Chinese Tungsten Industry Association proposed to curb tungsten mine production, and China's Ministry of Land and Resources was examining the proposition.

Industrial Minerals

Diamond.—Rio Tinto Ltd.'s Argyle Mine in the Kimberley region of Western Australia was Australia's and the world's leading diamond mine in terms of production. Argyle accounted for about 20% (32.6 million carats) of the world's diamond production by volume in 2002.

Phosphate Rock.—China was the leading phosphate-rock-producing country in the region. Owing to transportation

problems, a large quantity of phosphate rock from mines in the southwestern part of the country could not be delivered to fertilizer plants on the eastern coast. By 2005, the Government projected that phosphate fertilizer demand would exceed 10.5 Mt, but the phosphate fertilizer output capacity would be only 8.5 Mt.

Mineral Fuels

Coal.—In 2002, Australia again was the world's leading exporter of coal, as it has been for 18 consecutive years.

China ranked first in the world in coal production in 2002. Production of all types was a record high at almost 1.4 Mt.

Japan was the leading coal importer and one of the leading coal consumers in the world owing mostly to the large demand for coal by the cement, paper, and power generation industries.

Petroleum and Natural Gas.—In 2002, Western Australia and the adjacent Commonwealth offshore areas accounted for about 55% of Australia's total crude oil and condensate and all the country's liquefied natural gas (LNG). Australia produced about 70% of its crude oil requirements during 2002. Woodside Energy Ltd., which was the operator of the North West Shelf Venture (NWSV), was constructing a fourth LNG liquefaction train adjacent to existing facilities on the Burrup Peninsula in Western Australia. The NWSV consisted of the following equal participants: Australia LNG (MIMI) Pty., BHP Petroleum (North West Shelf) Pty. Ltd., BP Developments Australia Pty. Ltd., Chevron Australia Pty. Ltd., Japan Ltd., Shell Development (Australia) Pty. Ltd., and Woodside.

India's Oil and Natural Gas Corp. planned to develop a major hydrocarbon discovery in the deepwater region in the next 2 years. The discovery well was drilled in August 1999 in 900 m of water in the Krishna-Godavari offshore region.

Environment

Taiwan authorities introduced a new pollution control tax on 126 chemicals produced on or imported to the island. The tax rate ranged from \$0.35 to \$3.35 per metric ton. Arsenic, cyanide and lead, and mercury were at the highest tax rates. The tax will be used to clean up polluted water and soil. The chemical producers on the island strongly opposed the new tax; the Environmental Protection Administration of Taiwan, however, indicated that the petrochemical and refining sectors were responsible for a majority of the pollution cases. Industrial analysts believed that the new tax will add less than 1% to product costs. The new tax will have a greater impact on such large producers as Chinese Petrochemical Corp. and Formosa Petrochemical Co. Producers that invest in equipment for pollution control or prevention are entitled to a maximum 20% rebate on their total tax income or their total investment. Producers are required to pay in full initially, but the rebate amount will be refunded at a later date. To reduce pollution, the Taiwan authorities banned the use of plastic bags and polystyrene foam containers beginning in July 2002.

Trade Review

During the past two decades, China pursued a policy of free trade and economic cooperation with other countries of the world. After 15 years of negotiations, China officially became a member of the WTO at the start of 2002. Of the major countries and territories in the Asia and the Pacific region, only North Korea and the Republic of Korea have not become members of

the WTO. Export growth in Asia, which increased more rapidly in the second half of 2002, was particularly salient in Cambodia, China, India, the Republic of Korea, Malaysia, the Philippines, Taiwan, Thailand, and Vietnam. The value of Asian exports increased by almost 9.5% in 2002; the reversal from the nearly 7% decline in 2001 was substantial. The industrial countries remained by far the largest market for Asian exports, a market that strengthened significantly in 2002.

TABLE 1
ASIA AND THE PACIFIC: AREA AND POPULATION IN 2002

Country	Area ¹ (square kilometers)	Population ² (thousands)
Afghanistan	647,500	28,000
Australia	7,687,850	19,600
Bangladesh	144,000	136,000
Bhutan	47,000	828
Brunei	5,770	351
Burma	678,500	48,900
Cambodia	181,040	12,500
China	9,596,960	1,281,000
Fiji	18,270	832
Hong Kong	1,092	6,770
India	3,287,590	1,048,000
Indonesia	1,919,440	212,000
Japan	377,835	127,000
Korea, North	120,540	22,500
Korea, Republic of	98,480	47,600
Laos	236,800	5,530
Malaysia	329,750	24,300
Mongolia	1,565,000	2,450
Nepal	140,800	24,100
New Caledonia	19,060	220
New Zealand	268,680	3,870
Pakistan	803,940	145,000
Papua New Guinea	462,840	5,370
The Philippines	300,000	79,900
Singapore	692	4,160
Solomon Islands	28,450	443
Sri Lanka	65,610	19,000
Taiwan	35,980	22,500
Thailand	514,000	61,600
Vietnam	329,560	80,500
Total	29,913,029	3,470,824
World total	510,072,000	6,200,000

¹Source: U.S. Central Intelligence Agency World Factbook 2002.

²Source: World Bank 2003, World Development Indicators Database, July.

TABLE 2
ASIA AND THE PACIFIC: ECONOMY IN 2002^{1, 2, 3}

Country	Gross domestic product based on purchasing-power-parity (PPP)		Real gross domestic product growth (percentage)
	Total (million)	Per capita	
Afghanistan ⁴	19,000	700	NA
Australia	558,934	28,517	3.6
Bangladesh	182,521	1,342	4.9
Bhutan	1,847	2,231	7.7
Brunei	6,500	18,519	3.0
Burma	74,978	1,533	5.5
Cambodia	20,220	1,618	5.5
China	6,137,348	4,791	8.0
Fiji	4,180	5,024	4.4
Hong Kong	194,396	28,714	2.3
India	2,310,622	2,205	4.7
Indonesia	763,402	3,601	3.7
Japan	3,444,988	27,126	0.2
Korea, North ⁵	22,260	989	1.2
Korea, Republic of	858,517	18,036	6.3
Laos	9,228	1,669	5.9
Malaysia	216,157	8,895	4.1
Mongolia	4,287	1,750	3.9
Nepal	32,929	1,366	(0.5)
New Caledonia ⁶	4,670	21,227	NA
New Zealand	82,319	21,271	4.4
Pakistan	275,541	1,900	4.4
Papua New Guinea	12,006	2,236	(3.3)
The Philippines	331,349	4,147	4.4
Singapore	118,094	28,388	2.2
Solomon Islands	842	1,901	(2.0)
Sri Lanka	60,428	3,180	4.0
Taiwan	487,213	21,654	3.5
Thailand	461,434	7,491	5.3
Vietnam	177,953	2,211	5.8
Total	16,874,163	XX	XX
World total	48,442,960	XX	XX

NA Not available. XX Not applicable.

¹Includes data as of January 1, 2003. The gross domestic product listed may differ from that reported in individual country owing to differences in source or date of reporting.

²Figures in parentheses are negative.

³Source: International Monetary Fund, World Economic Outlook Database, September 2003.

⁴Source: Central Intelligence Agency World Factbook 2003.

⁵Source: Bank of Korea, Gross Domestic Product of North Korea in 2002.

⁶Source: World Bank, World Development Indicators Database, July 2003.

TABLE 3
ASIA AND THE PACIFIC: SELECTED EXPLORATION SITES IN 2002¹

Country	Type ²	Site	Commodity	Company	Resource ³	Exploration ⁴
Australia	F	Bowdens	Ag, Pb, Zn	Silver Standard Resources Inc.	60Moz Ag, 86kt Pb, 11.5kt Zn	Feasibility drilling.
Do.	F	Cowal	Au	Barrick Gold Corp.	2.76Moz Au	Do.
Do.	D	Pooncarie area	Heavy minerals	BeMax Resources NL	13Mt heavy minerals	Do.
Do.	P	Western Mineralization	Zn, Pb, Ag	Consolidated Broken Hill Ltd.	534kt Zn, 367kt Pb, 14Moz Ag	Extensive drilling.
Do.	F	Crakow	Au	Sedimentary Holdings Ltd.	754koz Au, 407koz Ag	Feasibility drilling.
Do.	E	Gympie goldfield	Au	Gympie Gold Ltd.	686koz Au	Extensive work program.
Do.	F	Roseby	Cu, Au	Universal Resources Ltd.	467kt Cu	Feasibility drilling.
Do.	F	Murray Basin/Mindarie	Heavy minerals	Southern Titanium NL	8.59Mt heavy minerals	Do.
Do.	P	Cornishman	Au	Troy Resources NL	323koz Au	Extensive drilling.
Do.	P	East Kundana	Au	Tribune Resources NL	Data not released	Do.
Do.	E	Glenview	Au	Hampton Hill Mining NL	Data not released	Extensive drilling.
Do.	D	Gloucester	Ruby	Cluff Resources NL	4.6Mcarat ruby	Extensive work program.
Do.	F	Kirkalocka	Au	Equigold NL	475koz Au	Feasibility drilling.
Do.	P	Meekatharra	Au	St. Barbara Mines Ltd.	Data not released	Do.
Do.	E	Mount Gibson	Au	Oroya Mining Ltd.	589koz Au	Extensive drilling.
Do.	F	Mungari East/Frog's Leg	Au	Dioro Exploration NL	786koz Au	Feasibility drilling.
Do.	F	Munni Munni	PGE, Au	Helix Resources Ltd.	2.05Moz PGE+Au	Do.
Do.	F	Panton	PGE, Au	Platinum Australia Ltd.	4.5Moz PGE+Au	Do.
Do.	E	Teutonic Bore/Jaguar	Cu, Zn, Ag	Inmet Mining Corp.	51kt Cu, 184kt Zn, 6.3Moz Ag	Extensive drilling.
Do.	P	Woodie Woodie	Mn	Consolidated Minerals Ltd.	5.1Mt Mn	Do.
Mongolia	E	Turquoise Hill (Oyu Tolgoi)	Au, Cu	Ivanhoe Mines Ltd.	13.7Moz Au, 3.1Mt Cu	Extensive drilling.
Philippines	E	Boyongan	Cu, Au	Philex Gold Inc.	8.3Moz Au, 1.59Mt Cu	Do.
Thailand	P	Chatree area (Prospect A)	Au, Ag	Kingsgate Consolidated Ltd.	1.8Moz Au, 13.6Moz Ag	Do.
Vietnam	E	Phuoc Son (Bai Dat and Bai Go)	Au, Ag, Pb, Zn	Olympus Pacific Minerals Inc.	147koz Au	Do.

¹Abbreviations used for commodities in this table include the following: Ag-silver; Au-gold; Cu-copper, Mn-manganese; Pb-lead; PGE-platinum-group elements; Zn-zinc. Abbreviations used for units of measure include the following: Moz-million troy ounces; Mt-million metric tons; koz-thousand troy ounces; kt-thousand metric tons; Mcarat-million carats.

²D-Approved for development; E-Active exploration; F-Feasibility work ongoing/completed; P-Exploration at producing site.

³Resources reported where available on the basis of data from various sources and reflect unverified public information reported by trade journals as reported in May 2003 Mining Engineering.

⁴Sites where extensive (greater than 10,000 meters) drilling or significant (more than \$4 million) expenditure have been reported.

TABLE 4
ASIA AND THE PACIFIC: PRODUCTION OF SELECTED COMMODITIES IN 2002¹

(Thousand metric tons unless otherwise specified)

Country	Metals													
	Aluminum		Copper		Gold, mine		Iron and steel		Lead		Iron		Steel, crude	
	Alumina	Bauxite	Metal ²	Mine output, Cu content	Refined, primary	Au content (kilograms)	Ore, gross weight	Pig	Steel, crude	Mine output, Pb content	Refined, primary	Ore, gross weight	Pig	Steel, crude
Afghanistans	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Australia	16,429	54,135	1,944	883	543	273,010	182,704	7,300	8,242	683	287	--	--	--
Bangladesh ^e	--	--	--	--	--	--	--	--	30	--	--	--	--	--
Bhutan	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Brunei	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Burma ^e	--	--	--	28	28	200	--	2	25	1	1	--	--	--
Cambodia	--	--	--	--	--	--	--	--	--	--	--	--	--	--
China ^e	5,450	11,000	4,400	560	1,300	192,000	231,000	170,750 ³	181,550 ³	600	1,100	--	--	--
Christmas Island	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fiji	--	--	--	--	--	3,731	--	--	--	--	--	--	--	--
Hong Kong	--	--	--	--	--	--	--	--	--	--	--	--	--	--
India ^e	2,800	9,274 ³	671 ³	34 ³	374	3,800 ³	80,000	22,000	28,814 ³	29	53	--	--	--
Indonesia	--	1,283	160 ^e	1,172	192	142,238	--	1,500	3,000 ^e	--	--	--	--	--
Japan	310	-- ^e	1,285	--	1,211	8,615	1 ^e	80,979	107,745	6	108	--	--	--
Korea, North ^e	--	--	--	13	14	2,000	4,100	800	1,000	60	75	--	--	--
Korea, Republic of	--	--	--	--	495	26,181	157	26,570	45,390	(4)	179	--	--	--
Laos ^e	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Malaysia	--	40	--	--	--	4,289	404	--	4,200 ^e	--	--	--	--	--
Mongolia	--	--	--	132	2	12,097	--	--	16	--	--	--	--	--
Nauru	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nepal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
New Caledonia	--	--	--	--	--	--	--	--	--	--	--	--	--	--
New Zealand ^e	--	--	357 ³	--	--	9,770	--	600	750	--	--	--	--	--
Pakistan ^e	--	10	--	204	--	70,000	--	1,600	500	--	--	--	--	--
Papua New Guinea ^e	--	--	--	18	144	65,200	--	--	530 ^e	--	--	--	--	--
Philippines	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Singapore	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Solomon Islands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sri Lanka	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Taiwan	--	--	--	--	--	--	--	10,524	18,255	--	--	--	--	--
Thailand	--	--	--	--	--	4,950	570	--	2,540	3	4	--	--	--
Vietnam ^e	--	--	--	--	--	3,000	--	--	340	1	--	--	--	--
Total	25,000	75,700	8,800	3,040	4,300	821,000	500,000	323,000	403,000	1,400	1,800	--	--	--
Share of 2002 world total	46.3%	53.5%	28.3%	22.3%	33.5%	31.9%	46.1%	56.0%	46.6%	47.2%	50.7%	--	--	--
Share of 2001 world total	45.7%	52.8%	26.5%	21.4%	33.1%	31.4%	46.3%	54.4%	44.6%	46.8%	47.2%	--	--	--
United States	4,340	NA	2,710	1,140	1,440	298,000	51,600	40,200	91,600	451	262	--	--	--
World total	54,000	141,000	31,100	13,700	12,800	2,570,000	1,080,000	577,000	865,000	2,930	3,570	--	--	--

See footnotes at end of table.

TABLE 4--Continued
 ASIA AND THE PACIFIC: PRODUCTION OF SELECTED COMMODITIES IN 2002¹
 (Thousand metric tons unless otherwise specified)

Country	Metals													
	Manganese ore,			Mercury,		Nickel			Tin, metric tons		Tungsten, mine output,		Zinc, metric tons	
	mine output	Hg content (metric tons)	Mine output, Ni content	Refined	Sn content	Mine output, primary	W content (metric tons)	Zn content	Mine output, Zn content	Metal ²	W content (metric tons)	Mine output, Zn content	Metal ²	
Afghanistan	--	--	--	--	--	--	--	--	--	--	--	--	--	
Australia	983	--	186	133	6,268	611	--	1,154,000	571,500	--	--	--	--	
Bangladesh ^e	--	--	--	--	--	--	--	--	--	--	--	--	--	
Bhutan	--	--	--	--	--	--	--	--	--	--	--	--	--	
Brunei	--	--	--	--	--	--	--	--	--	--	--	--	--	
Burma ^e	(4)	--	(4)	--	190	30	30	350	--	--	--	--	--	
Cambodia	--	--	--	--	--	--	--	--	--	--	--	--	--	
China ^e	900	495	55	54	80,000	93,000	49,500	1,550,000	2,100,000	--	--	--	--	
Christmas Island	--	--	--	--	--	--	--	--	--	--	--	--	--	
Fiji	--	--	--	--	--	--	--	--	--	--	--	--	--	
Hong Kong	--	--	--	--	--	--	--	--	--	--	--	--	--	
India ^e	630	--	--	--	--	--	--	130,000	220,000	--	--	--	--	
Indonesia	--	--	123	--	88,142	67,435	--	42,851	670,578	--	--	--	--	
Japan	--	--	--	83	--	659	600	100,000	100,000	--	--	--	--	
Korea, North ^e	--	--	--	--	--	--	--	99	510,000	--	--	--	--	
Korea, Republic of	--	--	30	--	--	--	--	1,300	--	--	--	--	--	
Laos ^e	--	--	--	--	350	--	--	--	--	--	--	--	--	
Malaysia	--	--	--	--	4,215	30,000 ^e	--	--	--	--	--	--	--	
Mongolia	--	--	--	--	--	--	35	--	--	--	--	--	--	
Nauru	--	--	--	--	--	--	--	--	--	--	--	--	--	
Nepal	--	--	--	--	--	--	--	--	--	--	--	--	--	
New Caledonia	--	--	--	--	--	--	--	--	--	--	--	--	--	
New Zealand ^e	--	--	60	--	--	--	--	--	--	--	--	--	--	
Pakistan ^e	--	--	--	--	--	--	--	--	--	--	--	--	--	
Papua New Guinea ^e	--	--	--	--	--	--	--	--	--	--	--	--	--	
Philippines	--	--	27	--	--	--	--	--	--	--	--	--	--	
Singapore	--	--	--	--	--	--	--	--	--	--	--	--	--	
Solomon Islands	--	--	--	--	--	--	--	--	--	--	--	--	--	
Sri Lanka	--	--	--	--	--	--	--	--	--	--	--	--	--	
Taiwan	--	--	--	11 ^e	--	--	--	--	--	--	--	--	--	
Thailand	--	--	--	--	1,130	17,548	30 ^e	33,600 ^e	72,502	--	--	--	--	
Vietnam ^e	--	--	--	--	4,000	1,400	--	10,000	--	--	--	--	--	
Total	2,500	495	481	281	180,000	210,000	50,200	3,020,000	4,300,000	--	--	--	--	
Share of 2002 world total	30.0%	41.4%	37.8%	33.5%	71.0%	76.9%	88.4%	36.1%	45.2%	--	--	--	--	
Share of 2001 world total	30.2%	41.4%	36.5%	32.4%	62.8%	76.7%	81.2%	40.6%	45.4%	--	--	--	--	
United States	--	NA	--	--	--	--	--	780,000	294,000	--	--	--	--	
World total	8,390	1,200	1,270	839	260,000	274,000	56,800	8,380,000	9,600,000	--	--	--	--	

See footnotes at end of table.

TABLE 4--Continued
ASIA AND THE PACIFIC: PRODUCTION OF SELECTED COMMODITIES IN 2002 ¹

(Thousand metric tons unless otherwise specified)

Country	Industrial minerals							Mineral fuels				Petroleum, crude (thousand 42-gallon barrels)
	Cement, hydraulic	Fluorspar (metric tons)	Graphite (metric tons)	Magnesite (metric tons)	Mica (metric tons)	Salt	Coal		Natural gas, dry (million cubic meters)			
							Anthracite	Bituminous				
Afghanistan	--	--	--	--	--	--	--	--	--	--	--	--
Australia	7,550 ^e	--	--	484	--	9,500	--	--	347,890	31,000 ^e	232,000 ^e	1,600
Bangladesh ^e	960	--	--	--	--	350 ^e	--	--	--	7,200	--	--
Bhutan	160 ^e	--	--	--	--	--	--	--	65 ^e	--	--	--
Brunei	230 ^e	--	--	--	--	--	--	--	--	10,100 ^e	72,000 ^e	4,920
Burma ^e	460	--	--	--	--	35 ^e	--	--	--	9,000	--	--
Cambodia	--	--	--	--	--	40	--	--	--	--	--	--
China ^e	704,720 ³	2,450,000	450,000	3,700	--	32,835 ³	200,000	1,140,000	--	32,000	1,240,000	--
Christmas Island	--	--	--	--	--	--	--	--	--	--	--	--
Fiji	100 ^e	--	--	--	--	--	--	--	--	--	--	--
Hong Kong	--	--	--	--	--	--	--	--	--	--	--	--
India ^e	100,000	1,000	130,000	380	3,500	14,503 ³	--	--	325,000	24,050	240,000	--
Indonesia	33,000 ^e	--	--	--	--	680 ^e	43	103,329	103,329	72,216	432,000	--
Japan	71,828	--	--	--	--	1,350	--	1,367	1,367	2,588	4,548	--
Korea, North	5,320	25,000	25,000	1,000	--	500	17,000	--	--	--	--	--
Korea, Republic of	55,514	--	94	--	29,870	800	3,318	--	--	--	--	--
Laos ^e	240	--	--	--	--	2	--	--	110	--	--	--
Malaysia	14,336	--	--	--	3,669	--	--	--	353	55,501	255,922	--
Mongolia	148	185,000	--	--	--	1	--	--	154	--	139	--
Nauru	--	--	--	--	--	--	--	--	--	--	--	--
Nepal	290 ^e	--	--	--	--	5	--	--	10	--	--	--
New Caledonia	100	--	--	--	--	--	--	--	--	--	--	--
New Zealand ^e	950	--	--	--	--	70	623 ³	3,592 ³	--	4,960	13,000	--
Pakistan ^e	10,300	1,000	--	4	--	1,620	--	3,700	--	23,000	23,000	--
Papua New Guinea ^e	--	--	--	--	--	600 ^e	--	--	1,662	1,450	20,000	--
Philippines	9,000 ^e	--	--	--	--	--	--	--	--	--	2,020	--
Singapore	--	--	--	--	--	--	--	--	--	--	--	--
Solomon Islands	--	--	--	--	--	--	--	--	--	--	--	--
Sri Lanka	1,018	--	3,619	--	1,161	74	--	--	--	--	--	--
Taiwan	19,363	--	--	--	6,595	57	--	--	--	887	321	--
Thailand	31,679	2,270	--	--	--	1,009	--	--	--	18,823	27,209	--
Vietnam ^e	19,500	3,000	--	--	--	600	15,900	--	--	1,790	137,000	--
Total	1,090,000	2,670,000	610,000	5,600	44,800	64,600	240,000	1,930,000	295,000	2,710,000	2,710,000	--
Share of 2002 world total	61.4%	56.9%	45.7%	44.7%	16.2%	32.5%	85.5%	52.8%	11.5%	10.0%	10.0%	--
Share of 2001 world total	60.5%	56.5%	45.8%	51.3%	33.8%	31.3%	82.7%	48.5%	11.0%	9.9%	9.9%	--
United States	91,300	--	--	W	81,100	40,300	1,130	916,000	538,000	2,100,000	2,100,000	--
World total	1,770,000	4,690,000	1,330,000	12,500	276,000	199,000	277,000	3,650,000	2,570,000	27,100,000	27,100,000	--

See footnotes at end of table.

TABLE 4--Continued
ASIA AND THE PACIFIC: PRODUCTION OF SELECTED COMMODITIES IN 2002¹

(Thousand metric tons unless otherwise specified)

⁵Estimated; estimated data, U.S. data, and world totals are rounded to no more than three significant digits. NA Not available. W Withheld to avoid disclosing company proprietary data; not included in world total. -- Zero or zero percent.

¹Totals may not add due to independent rounding. Percentages are calculated on unrounded data. Table includes data available as of October 2004.

²Primary and secondary production.

³Reported figure.

⁴Less than 1/2 unit.

TABLE 5
ASIA AND THE PACIFIC: HISTORIC AND PROJECTED BAUXITE MINE PRODUCTION, 1990-2007¹

(Thousand metric tons, gross weight)

Country	1990	1995	2000	2001	2002	2003 ^e	2005 ^e	2007 ^e
Australia	41,400	42,700	53,800	53,300	54,000	55,000	55,000	57,000
China ^e	2,400	5,000	9,000	9,800	11,000	13,000	15,000	19,000
India	4,850	5,240	7,560	7,860	9,270	9,000	9,000	9,000
Indonesia	1,210	899	1,150	1,237	1,283	1,250	1,200	1,200
Malaysia	398	184	123	64	40	40	40	65
Other	403	190	131	73	74	74	74	74
Total	50,700	54,200	71,800	72,300	75,700	78,000	80,000	86,000

^eEstimated.

¹Historic data, estimated data, and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 6
ASIA AND THE PACIFIC: HISTORIC AND PROJECTED PRIMARY ALUMINUM METAL PRODUCTION, 1990-2007¹

(Thousand metric tons)

Country	1990	1995	2000	2001	2002	2003 ^e	2005 ^e	2007 ^e
Australia	1,230	1,300	1,770	1,800	1,800	1,800	2,000	2,200
China ^e	847	1,750	2,800	3,370	4,400	5,300	6,000	6,400
India	433	537	644	624	671	675	675	700
Indonesia ^e	186	220	160	180	160	160	220	220
New Zealand	260	273	328	322	350	350	350	350
Other	34	18	7	7	7	7	7	7
Total	2,990	4,100	5,710	6,300	7,390	8,300	9,300	9,900

^eEstimated.

¹Historic data, estimated data, and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 7
ASIA AND THE PACIFIC: HISTORIC AND PROJECTED SECONDARY ALUMINUM METAL PRODUCTION, 1990-2007¹

(Thousand metric tons)

Country	1990	1995	2000	2001	2002	2003 ^e	2005 ^e	2007 ^e
China ^e	7	12	175	200	190	210	220	240
Japan	1,104	1,199	1,214	1,171	1,239	1,240	1,240	1,240
Other	100	100	100	100	100	100	100	100
Total	1,210	1,310	1,490	1,470	1,530	1,550	1,560	1,580

^eEstimated.

¹Historic data, estimated data, and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 8
ASIA AND THE PACIFIC: HISTORIC AND PROJECTED COPPER MINE PRODUCTION, 1990-2007¹

(Thousand metric tons of metal content)

Country	1990	1995	2000	2001	2002	2003 ^c	2005 ^c	2007 ^c
Australia	327	398	829	869	878	850	910	910
China ^c	285	445	593	587	568	590	600	600
India	58	47	32	32	34	34	35	35
Indonesia	164	444	1,010	1,048	1,171	1,150	1,200	1,250
Mongolia	124	122	125	134	132	130	130	130
Papua New Guinea	170	213	203	204	210	200	210	210
Other	239	152	171	60	60	60	150	210
Total	1,370	1,820	2,960	2,930	3,050	3,000	3,200	3,350

^cEstimated.

¹Historic data, estimated data, and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 9
ASIA AND THE PACIFIC: HISTORIC AND PROJECTED REFINED COPPER METAL PRODUCTION, 1990-2007¹

(Thousand metric tons)

Country	1990	1995	2000	2001	2002	2003 ^c	2005 ^c	2007 ^c
Australia	274	248	488	560	545	590	650	650
China ^c	560	1,080	1,370	1,520	1,650	1,750	2,000	2,300
India	42	40	243	328	374	425	500	525
Indonesia	--	--	158	213	192	224	240	240
Japan	1,010	1,190	1,440	1,430	1,400	1,430	1,450	1,540
Korea, Republic of	186	235	468	474	496	480	510	510
Other	160	185	180	209	209	210	465	580
Total	2,230	2,980	4,350	4,730	4,870	5,110	5,800	6,300

^cEstimated. -- Negligible or no production.

¹Historic data, estimated data, and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 10
ASIA AND THE PACIFIC: HISTORIC AND PROJECTED GOLD MINE PRODUCTION, 1990-2007¹

(Kilograms or metal content)

Country	1990	1995	2000	2001	2002	2003 ^c	2005 ^c	2007 ^c
Australia	244,000	254,000	269,000	285,000	280,000	275,000	270,000	270,000
China ^c	100,000	140,000	180,000	185,000	192,000	195,000	210,000	215,000
Indonesia	11,200	64,000	125,000	166,000	142,238	175,000	185,000	195,000
Japan	7,300	9,190	8,400	7,820	8,600	8,100	8,000	7,500
Mongolia	1,000	4,500	11,800	13,675	12,097	15,000	15,500	16,000
New Zealand	4,630	12,100	9,880	10,000	10,000	10,000	11,000	11,000
Papua New Guinea	31,900	51,700	74,500	67,000	69,000	70,000	71,000	72,000
Philippines	24,600	27,000	36,500	33,800	34,000	35,000	35,000	36,000
Other	9,940	19,000	16,300	14,100	15,100	21,400	20,900	20,700
Total	435,000	581,000	731,000	782,000	763,000	805,000	826,000	843,000

^cEstimated.

¹Historic data, estimated data, and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 11
ASIA AND THE PACIFIC: HISTORIC AND PROJECTED IRON ORE MINE PRODUCTION, 1990-2007¹

(Thousand metric tons of metal content)

Country	Average ore grade (% Fe)	1990	1995	2000	2001	2002	2003 ^c	2005 ^c	2007 ^c
Australia	62	69,800	88,700	107,000	113,000	114,000	116,000	125,000	135,000
China ^c	33	55,000	82,300	73,600	72,600	76,000	86,000	85,000	84,000
India	64	34,400	41,700	48,600	50,700	51,200	51,000	52,000	52,000
Korea, North ^c	30	4,700	2,000	1,100	1,200	1,150	1,300	1,500	1,500
New Zealand	30	1,300	1,320	1,510	1,520	450	450	450	450
Other	NA	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total	XX	166,000	217,000	233,000	240,000	244,000	256,000	265,000	274,000

NA Not available. XX Not applicable.

^cEstimated.

¹Historic data, estimated data, and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 12
ASIA AND THE PACIFIC: HISTORIC AND PROJECTED DIRECT REDUCED IRON AND PIG IRON PRODUCTION, 1990-2007¹

(Thousand metric tons)

Country	1990	1995	2000	2001	2002	2003 ^c	2005 ^c	2007 ^c
Australia	6,125	7,861	6,115	6,029	6,466	6,500	6,500	6,500
China	62,380	105,290	131,010	155,540	170,850	204,000	230,000	260,000
India	13,400	22,900	26,800	27,500	30,000	29,800	30,000	31,000
Japan	80,229	74,905	81,071	78,836	80,979	82,100	82,500	82,500
Korea, Republic of	15,339	22,344	24,938	25,898	26,570	27,500	28,000	28,000
Taiwan	5,474	6,056	9,971	10,316	10,524	10,500	10,500	11,000
Other	2,000	2,400	4,000	3,700	3,700	4,000	4,100	4,200
Total	185,000	242,000	284,000	308,000	329,000	364,000	392,000	423,000

^cEstimated.

¹Historic data, estimated data, and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 13
ASIA AND THE PACIFIC: HISTORIC AND PROJECTED CRUDE STEEL PRODUCTION, 1990-2007¹

(Thousand metric tons)

Country	1990	1995	2000	2001	2002	2003 ^c	2005 ^c	2007 ^c
Australia	6,670	8,450	7,300	7,080	7,000	7,100	7,500	8,000
China	66,100	95,400	129,000	152,000	182,000	200,000	220,000	235,000
India	15,000	22,800	26,900	27,300	28,800	28,200	28,500	29,000
Japan	110,000	102,000	106,000	103,000	108,000	111,000	110,000	110,000
Korea, Republic of	23,100	36,800	43,100	43,900	45,400	46,500	48,000	49,000
Malaysia	1,200	2,450	2,430	4,100	4,200	4,300	4,500	4,500
Taiwan	9,750	11,600	17,300	17,340	18,300	18,500	19,000	19,500
Thailand	685	2,134	2,100	2,127	2,540	2,400	2,400	2,400
Other	19,000	15,000	14,500	14,000	14,000	14,200	15,200	16,000
Total	252,000	297,000	349,000	371,000	410,000	432,000	455,000	473,000

^cEstimated.

¹Historic data, estimated data, and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 14
ASIA AND THE PACIFIC: HISTORIC AND PROJECTED LEAD MINE PRODUCTION, 1990-2007¹

(Metric tons of metal content)

Country	1990	1995	2000	2001	2002	2003 ^c	2005 ^c	2007 ^c
Australia	570,000	455,000	678,000	714,000	715,000	715,000	716,000	716,000
China ^c	315,000	520,000	660,000	676,000	641,000	650,000	670,000	680,000
India	23,200	34,000	28,900	27,000	25,000	26,000	26,000	27,000
Japan	18,700	9,660	8,835	4,977	5,723	5,660	5,500	5,000
Korea, North ^c	80,000	75,000	60,000	60,000	60,000	60,000	60,000	60,000
Thailand	22,230	9,680	15,600	500	3,200	--	--	--
Vietnam	--	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Other	21,500	7,100	6,300	3,000	3,000	3,000	3,000	3,000
Total	1,050,000	1,110,000	1,460,000	1,490,000	1,450,000	1,460,000	1,480,000	1,490,000

^cEstimated. --Zero.

¹Historic data, estimated data, and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 15
ASIA AND THE PACIFIC: HISTORIC AND PROJECTED PRIMARY REFINED LEAD PRODUCTION, 1990-2007¹

(Thousand metric tons)

Country	1990	1995	2000	2001	2002	2003 ^c	2005 ^c	2007 ^c
Australia	212	215	223	237	238	239	240	240
China ^c	260	458	998	984	1,100	1,150	1,200	1,300
India	29	62	70	74	53	55	60	60
Japan	205	148	130	127	108	105	96	96
Korea, North ^c	70	65	60	60	60	60	60	60
Korea, Republic of ^c	61	130	171	161	178	170	170	170
Other	7	10	4	5	2	2	2	2
Total	844	1,090	1,660	1,650	1,740	1,780	1,830	1,930

^cEstimated.

¹Historic data, estimated data, and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 16
ASIA AND THE PACIFIC: HISTORIC AND PROJECTED SECONDARY REFINED LEAD PRODUCTION, 1990-2007¹

(Thousand metric tons)

Country	1990	1995	2000	2001	2002	2003 ^c	2005 ^c	2007 ^c
Australia	17	26	28	33	30	40	32	32
China ^c	36	150	102	211	230	240	240	240
India	17	28	20	22	25	25	22	24
Japan	122	140	182	175	178	173	175	175
Korea, North ^c	6	15	15	15	15	15	15	15
Korea, Republic of ^c	45	55	10	10	10	10	10	10
Malaysia	16	34	35	42	40	40	42	42
Philippines	12	17	16	24	24	24	16	16
Thailand	11	11	24	27	40	40	23	23
Other	8	9	12	12	12	12	12	30
Total	290	485	444	571	604	620	590	610

^cEstimated.

¹Historic data, estimated data, and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 17
ASIA AND THE PACIFIC: HISTORIC AND PROJECTED NICKEL MINE PRODUCTION, 1990-2007¹

(Metric tons of metal content)

Country	1990	1995	2000	2001	2002	2003 ^c	2005 ^c	2007 ^c
Australia	67,800	102,700	166,500	205,000	207,000	215,000	220,000	230,000
China ^c	33,000	41,800	50,300	51,500	54,000	55,000	57,000	58,000
Indonesia	68,300	88,200	98,200	102,000	123,000	125,000	125,000	140,000
New Caledonia	85,100	120,000	129,000	118,000	99,700	112,000	124,000	125,000
Philippines	15,800	15,100	17,400	27,400	28,000	29,000	29,000	30,000
Total	270,000	368,000	461,000	504,000	512,000	536,000	555,000	583,000

^cEstimated.

¹Historic data, estimated data, and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 18
ASIA AND THE PACIFIC: HISTORIC AND PROJECTED PLATINUM ORE PRODUCTION, 1990-2007¹

(Kilograms of metal content)

Country	1990	1995	2000	2001	2002	2003 ^c	2005 ^c	2007 ^c
Australia	100	100	171	174	200	225	--	--
China ^c	260	300	650	700	740	750	790	850
Total	360	400	821	874	940	975	790	850

^cEstimated. -- Negligible or no production.

¹Historic data, estimated data, and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 19
ASIA AND THE PACIFIC: HISTORIC AND PROJECTED PALLADIUM ORE PRODUCTION, 1990-2007¹

(Kilograms of metal content)

Country	1990	1995	2000	2001	2002	2003 ^c	2005 ^c	2007 ^c
Australia	400	400	812	828	810	820	950	950
China ^c	130	170	350	400	420	430	470	500
Total	530	570	1,160	1,230	1,230	1,250	1,420	1,450

^cEstimated. -- Negligible or no production.

¹Historic data, estimated data, and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 20
ASIA AND THE PACIFIC: HISTORIC AND PROJECTED SILVER MINE PRODUCTION, 1990-2007¹

(Metric tons of metal content)

Country	1990	1995	2000	2001	2002	2003 ^c	2005 ^c	2007 ^c
Australia	1,170	939	2,060	1,970	2,000	2,100	2,400	2,500
China ^c	130	910	1,600	1,910	2,950	3,970	4,500	4,900
India	33	38	40	50	52	53	54	55
Indonesia	107	276	256	348	370	380	400	410
Japan	150	100	104	80	81	78	75	75
New Zealand	5	28	23	23	24	24	25	25
Papua New Guinea	115	65	79	69	70	71	71	72
Philippines	47	27	24	34	34	35	35	36
Other	40	18	29	30	30	32	33	35
Total	1,800	2,400	4,220	4,510	5,610	6,700	7,600	8,100

^cEstimated.

¹Historic data, estimated data, and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 21
ASIA AND THE PACIFIC: HISTORIC AND PROJECTED TIN MINE PRODUCTION, 1990-2007¹

(Metric tons of metal content)

Country	1990	1995	2000	2001	2002	2003 ^c	2005 ^c	2007 ^c
Australia	7,380	8,660	9,150	9,600	6,268	6,500	10,000	12,000
China ^c	42,000	61,900	99,400	95,000	62,000	75,000	85,000	85,000
Indonesia	30,200	46,100	51,600	62,000	88,000	70,000	62,000	64,000
Malaysia	28,500	6,400	6,310	4,970	4,200	3,500	3,500	3,500
Thailand	14,600	2,200	1,930	1,950	1,130	1,100	1,100	1,100
Vietnam	850	4,500	4,100	4,500	4,500	4,600	4,000	4,000
Total	124,000	130,000	172,000	178,000	166,000	161,000	166,000	170,000

^cEstimated.

¹Historic data, estimated data, and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 22
ASIA AND THE PACIFIC: HISTORIC AND PROJECTED REFINED TIN PRODUCTION, 1990-2007¹

(Metric tons)

Country	1990	1995	2000	2001	2002	2003 ^c	2005 ^c	2007 ^c
Australia	312	570	775	1,100	611	600	15,000	15,000
China ^c	35,000	67,700	112,000	105,000	82,000	100,000	100,000	100,000
Indonesia	30,400	38,600	46,400	53,500	67,455	65,000	63,000	66,000
Japan	816	630	593	668	659	660	650	650
Malaysia	49,100	39,400	26,200	30,400	30,887	18,000	32,000	32,000
Thailand	15,500	8,240	17,100	22,400	17,500	16,000	18,000	18,000
Vietnam	1,800	2,400	1,490	1,400	1,400	1,300	1,400	1,400
Total	133,000	158,000	205,000	214,000	201,000	200,000	230,000	230,000

^cEstimated.

¹Historic data, estimated data, and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 23
ASIA AND THE PACIFIC: HISTORIC AND PROJECTED ILMENITE MINE PRODUCTION, 1990-2007¹

(Thousand metric tons)

Country	1990	1995	2000	2001	2002	2003 ^e	2005 ^e	2007 ^e
Australia	1,616	1,980	2,146	2,019	2,092	2,095	3,000	3,000
China ^c	150	150	250	300	750	800	850	850
India	280	290	380	430	460	450	460	480
Malaysia	530	152	125	130	106	80	80	80
Vietnam	--	--	174	180	180	180	180	180
Other	100	90	90	90	90	90	90	90
Total	1,060	682	1,020	1,130	1,590	1,600	1,660	1,680

^eEstimated. -- Negligible or no production.

¹Historic data, estimated data, and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 24
ASIA AND THE PACIFIC: HISTORIC AND PROJECTED TUNGSTEN MINE PRODUCTION, 1990-2007¹

(Metric tons of metal content)

Country	1990	1995	2000	2001	2002	2003 ^e	2005 ^e	2007 ^e
China ^c	32,000	27,400	37,000	38,500	49,500	52,000	42,000	43,000
Korea, North ^c	1,000	900	500	500	600	600	600	600
Other	4,000	670	160	160	100	100	100	100
Total	37,000	29,000	37,700	39,200	50,200	52,700	43,000	44,000

^eEstimated. -- Negligible or no production.

¹Historic data, estimated data, and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 25
ASIA AND THE PACIFIC: HISTORIC AND PROJECTED ZINC MINE PRODUCTION, 1990-2007¹

(Thousand metric tons of metal content)

Country	1990	1995	2000	2001	2002	2003 ^e	2005 ^e	2007 ^e
Australia	933	937	1,419	1,517	1,462	1,600	1,600	1,600
China ^c	619	1,010	1,780	1,700	1,500	1,700	1,750	1,800
India	74	155	144	146	130	145	155	155
Japan	127	95	64	45	43	44	44	43
Korea, North ^c	230	150	100	100	100	100	100	100
Thailand	11	23	27	15	34	35	35	30
Other	34	22	34	42	42	42	41	40
Total	2,030	2,390	3,570	3,570	3,310	3,700	3,700	3,800

^eEstimated.

¹Historic data, estimated data, and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 26
ASIA AND THE PACIFIC: HISTORIC AND PROJECTED ZINC METAL PRODUCTION, 1990-2007¹

(Thousand metric tons)

Country	1990	1995	2000	2001	2002	2003 ^c	2005 ^c	2007 ^c
Australia	303	320	493	506	565	565	565	600
China ^c	550	1,080	1,980	2,040	2,100	2,230	2,400	2,500
India	79	171	201	230	220	230	235	235
Japan	732	711	699	684	674	675	685	685
Korea, North ^c	200	150	100	100	100	100	100	100
Korea, Republic of	248	279	591	503	600	645	685	685
Thailand	63	57	101	105	105	106	106	107
Total	2,180	2,770	4,170	4,170	4,360	4,600	4,800	4,900

^cEstimated.

¹Historic data, estimated data, and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 27
ASIA AND THE PACIFIC: HISTORIC AND PROJECTED DIAMOND PRODUCTION, 1990-2007¹

(Thousand carats)

Country (average % gem grade)	1990	1995	2000	2001	2002	2003 ^c	2005 ^c	2007 ^c
Australia	34,600	40,700	26,600	26,200	26,000	27,000	27,500	28,000
China ^c	1,000	1,130	1,150	1,180	1,190	1,200	1,250	1,300
India	15	21	16	17	17	18	18	20
Indonesia ^c	23	22	23	23	23	23	23	23
Total	35,600	41,900	27,800	27,400	27,200	28,200	28,800	29,300

^cEstimated.

¹Historic data, estimated data, and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 28
ASIA AND THE PACIFIC: HISTORIC AND PROJECTED PHOSPHATE ROCK PRODUCTION, 1990-2007¹

(Thousand metric tons of P₂O₅ content)

Country	1990	1995	2000	2001	2002	2003 ^c	2005 ^c	2007 ^c
Australia	--	1	225	438	482	545	550	550
China ^c	6,400	7,960	5,820	6,300	6,900	7,400	7,500	7,500
India	181	360	336	355	356	358	360	360
Philippines	3	8	109	113	110	113	115	115
Vietnam	96	178	236	225	230	230	230	230
Other	562	510	510	410	330	300	250	220
Total	7,240	9,020	7,010	7,400	7,930	8,400	8,500	8,400

^cEstimated. -- Negligible or no production.

¹Historic data, estimated data, and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 29
ASIA AND THE PACIFIC: HISTORIC AND PROJECTED SALABLE COAL PRODUCTION, 1990-2007¹

(Thousand metric tons)

Country	1990	1995	2000	2001	2002	2003 ^c	2005 ^c	2007 ^c
Australia	199,000	194,000	246,000	265,000	268,000	270,000	272,000	275,000
China ^c	1,010,000	1,310,000	957,000	1,200,000	1,390,000	1,760,000	1,850,000	2,000,000
India	226,000	290,000	335,000	344,000	349,000	350,000	360,000	370,000
Indonesia	10,000	40,000	77,200	92,500	103,000	100,000	105,000	110,000
Japan	7,980	6,260	3,130	3,200	1,000	950	950	--
Korea, North ^c	68,000	70,000	22,500	23,000	24,000	25,000	26,000	26,000
Korea, Republic of	17,200	5,720	4,170	3,820	3,500	3,400	3,400	3,400
Philippines	1,190	1,200	1,300	1,500	1,500	1,600	1,600	1,700
Thailand	14,200	18,419	17,714	19,617	19,602	19,600	19,600	19,600
Vietnam	4,020	8,350	11,609	12,962	15,900	16,500	16,500	17,000
Other	311	382	663	851	875	880	890	950
Total	1,350,000	1,680,000	1,370,000	1,650,000	1,850,000	2,220,000	2,320,000	2,500,000

^cEstimated. -- Negligible or no production.

¹Historic data, estimated data, and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 30
ASIA AND THE PACIFIC: HISTORIC AND PROJECTED NATURAL GAS PRODUCTION, 1990-2007¹

(Million cubic meters)

Country	1990	1995	2000	2001	2002	2003 ^c	2005 ^c	2007 ^c
Australia	20,700	29,700	30,800	30,000	31,000	32,000	32,000	35,000
Brunei	9,450	11,200	10,800	11,000	10,000	10,000	12,000	12,000
China	15,000	18,000	22,000	24,000	26,000	27,000	30,000	32,000
India	10,200	17,800	30,000	25,500	26,000	26,000	28,000	28,000
Indonesia	61,000	85,100	82,300	79,500	90,200	90,000	92,000	92,000
Malaysia	18,500	36,500	56,900	58,800	61,090	62,000	62,000	62,000
Thailand	7,210	11,400	20,190	19,637	20,451	20,500	20,500	20,500
Other	7,810	10,500	14,100	18,400	18,800	19,500	19,700	19,700
Total	150,000	220,000	267,000	267,000	284,000	287,000	296,000	301,000

^cEstimated.

¹Historic data, estimated data, and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 31
ASIA AND THE PACIFIC: HISTORIC AND PROJECTED CRUDE PETROLEUM PRODUCTION, 1990-2007¹

(Million 42-gallon barrels)

Country	1990	1995	2000	2001	2002	2003 ^c	2005 ^c	2007 ^c
Australia	211	185	264	231	225	230	230	230
China ^c	1,010	1,100	1,200	1,210	1,240	1,250	1,300	1,400
India	250	258	238	239	240	240	242	245
Indonesia	534	580	516	490	432	510	550	570
Malaysia	227	257	249	244	256	260	260	260
Vietnam	20	64	115	120	137	150	160	170
Other	50	64	72	73	74	74	75	75
Total	2,300	2,510	2,650	2,610	2,600	2,710	2,800	2,950

^cEstimated.

¹Historic data, estimated data, and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 32
 ASIA AND THE PACIFIC: HISTORIC AND PROJECTED URANIUM MINE PRODUCTION, 1990-2007¹

(Metric tons metal content)

Country	1990	1995	2000	2001	2002	2003 ^e	2005 ^e	2007 ^e
Australia	3,530	3,700	7,580	7,670	7,500	7,700	7,800	7,800
China ^e	100	500	1,000	1,000	1,000	1,000	1,300	1,500
Other	50	50	50	50	50	50	50	50
Total	3,680	4,250	8,630	8,720	8,550	8,750	9,200	9,400

^eEstimated. -- Negligible or no production.

¹Historic data, estimated data, and totals are rounded to no more than three significant digits; may not add to totals shown.