MINING AND ENERGY

KEY POINTS

- With world class reserves in leading minerals, oil, petroleum, coal and gas, Indonesia's mining and oil sector generates significant exports and foreign currency. This helps buffer the economy against downturns and makes the sector critical to Indonesia sustaining economic growth.

- Four key challenges confront Indonesia's mining community: devolution, as most mines are in regional Indonesia; social stability in some regional areas; increased illegal mining; and new regulations on environmental standards. These challenges highlight the importance of strong relationships between mining firms, all three levels of government and local communities.

- Foreign companies contribute significantly to mining sector activity, with their investment exceeding US$10 billion in the last three decades. Australian firms account for about one third of this foreign investment.

- Australian firms are well placed to use their geographical proximity and mining expertise to help Indonesia develop its mineral resources. Opportunities include assessing resources, refining and distributing mineral output, and exporting mining related equipment, supplies and services.

- As in other sectors, potential investors should undertake thorough due diligence assessments. The need to modernise, improve management and create financial transparency may be major issues.

Australia's ongoing participation in Indonesia's mining sector contributes significantly to the bilateral commercial relationship. Indonesia is a major international producer of oil and gas, as well as several metallic minerals and coal; this contributes significantly to Indonesia's GDP and balance of payments, providing a major source of foreign currency.

The investment environment in the mining sector has changed rapidly since the financial crisis. Political devolution, for example, may make government more responsive to the needs of local investors, but generates uncertainty. Miners also have concerns about social stability in some regional areas, stringent new environmental requirements and illegal mining.

This chapter briefly surveys Indonesia's mineral resource endowments, outputs and exports, then analyses post crisis developments in the mining sector. After discussing the likely impact of new regulatory and fiscal measures on mining, it reviews Australian business opportunities in the sector.

KEY ROLE OF THE RESOURCES SECTOR

Indonesia enjoys world class reserves in leading minerals, coal, oil and gas. Sizeable reserves, as yet unproven, may lie in remote and less accessible eastern Indonesia. Proven oil reserves, mainly onshore, amount to 5 billion barrels. Oil production from new, smaller fields has increased over recent years, offsetting the decline of larger, more mature oil fields. Oil exploration is concentrated in the frontier regions, particularly eastern Indonesia (Energy Information Administration, 2000). Joint offshore petroleum cooperation areas between Indonesia and Australia offer mutually beneficial prospects. Indonesia's total proven natural gas reserves amount to 72.3 trillion cubic feet; the domestic gas market remains underdeveloped; and opportunities to provide a distribution network and pipeline infrastructure are likely to attract Australian interest (Energy Information Administration, 2000). Indonesia's significant coal reserves have a sulphur and ash content of less than 1 per cent and are close to major Asian markets. Copper and gold reserves also are substantial, and already attract significant investment.

The mining and oil sector contributes a large share of Indonesia's exports and foreign currency earnings, and provides an important buffer against economic downturns. Hence, the sector's health is critical to Indonesia's medium term economic outlook.

Mining during the Crisis

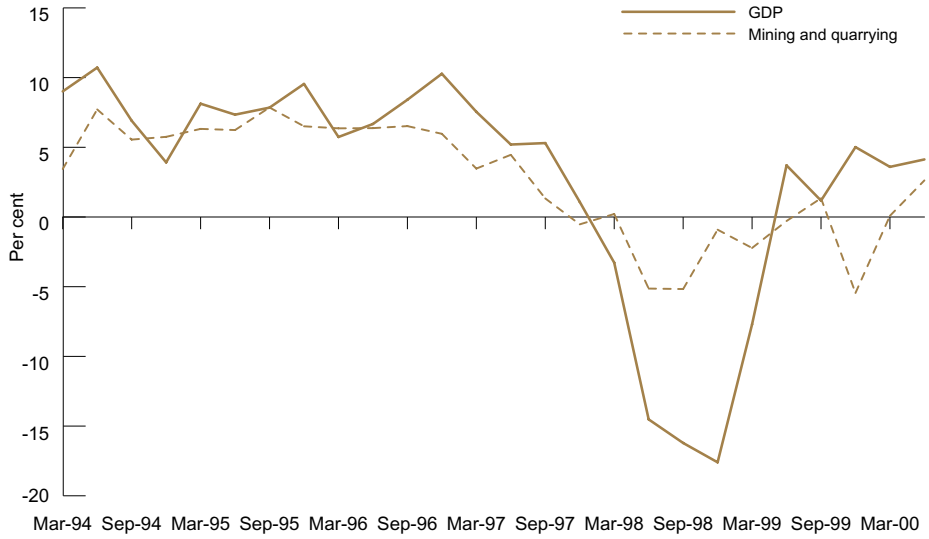
In 1998, the value of mining sector output declined by much less than GDP, somewhat buffering the economy from the crisis (Figure 9.1). The output value of non-oil and gas mining grew 38 per cent between 1997 and 1999, largely driven by export-oriented coal, gold, copper and silver production. Overall mining and energy sector output contracted mildly, because of a 6 per cent fall in oil and gas production, a response to low oil prices, and falling extractive quarrying due to reduced construction activity (Figure 9.2 and Appendix Table 9.1).

However, the output volume of most other minerals and precious metals has risen significantly since 1994 and continued to rise even during the crisis (Figure 9.2).

Figure 9.1

Mining Sector Largely Resists the Crisis

Growth of Real Mining Production and GDP, 1993-99

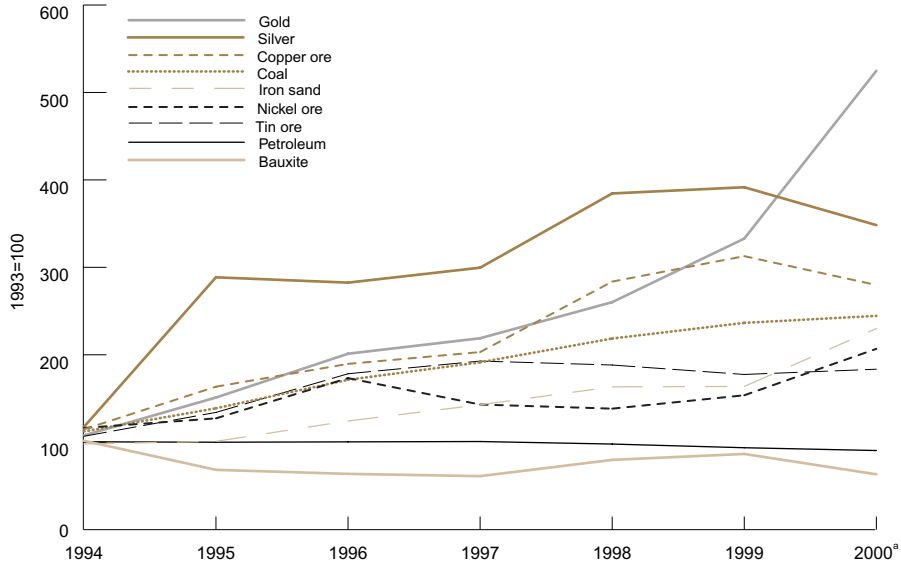


Source: CEIC , 2000.

Figure 9.2

Coal, Gold, Copper and Silver Dominate Output Advance

Production Growth of Selected Minerals and Energy Commodities



Note: a Is based on an average of January to April 2000 only.

Source: CEIC, 2000.

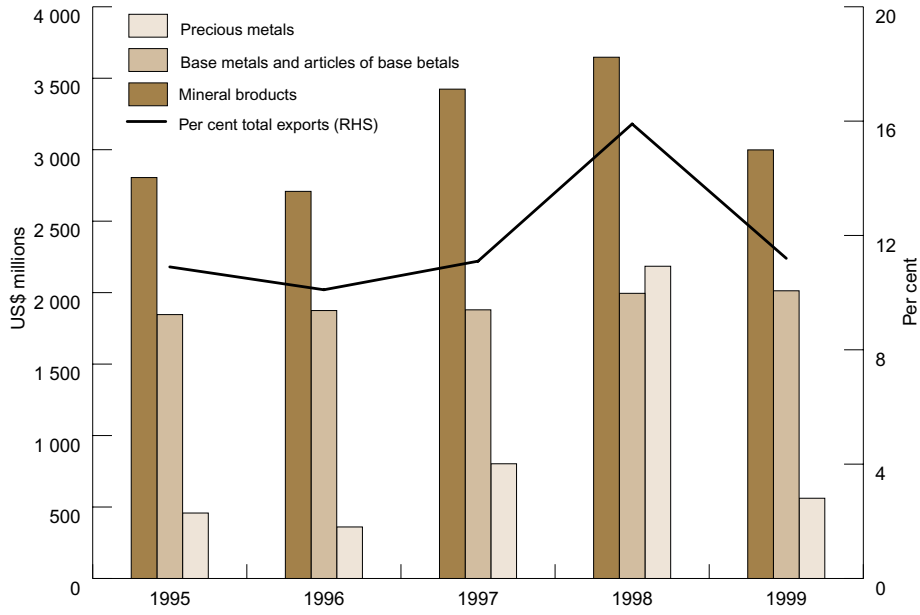
Exports

Since the crisis, mineral exports have remained relatively strong, underpinning mining sector output (Figure 9.3). Volumes of mineral exports rose more than their US dollar value because the US dollar prices of oil and most minerals fell during the crisis. Since commodity prices recovered in 1999 and 2000, export values also have risen.

Figure 9.3

Mining and Petroleum Exports Held up Well during the Crisis

Value of Mining, Petroleum and Other Exports, 1995-99



Source: PricewaterhouseCoopers, 2000.

RECENT DEVELOPMENTS

Four new developments are challenging the mining community. First, devolution is likely to have significant effects as most mines are in regional Indonesia.[1] Consequently, investors are encouraged to develop fresh strategies during the transition to a new, decentralised political system. Second, issues of social stability and security concern mine operators in several regions. Third, the increase in illegal mining since the crisis concerns both the Government and the mining community. Fourth, the Government has introduced stringent new regulations on environmental standards, some of which exceed international norms.

REGIONAL DEVOLUTION

Devolution eventually may improve the investment environment for miners. It offers the regions a greater share of mining revenues, ensuring local communities benefit more directly from mining activity. In future, local governments, rather than the central government may sign miners' contracts of work, potentially strengthening local support for miners (Millane, 2000). Devolution delegates the issuing of permits for mining investment and exploration to the regions; eventually this may reduce the cost of obtaining approval. It also requires local government to conduct environmental inspections (Department of Mines and Energy, 2000). Devolution may encourage regions to compete for new foreign investment, benefiting miners.

However, the transition to a new system of government is raising some concerns amongst miners. Miners are uncertain whether contracts of work drawn up between mining companies and the central government will remain relevant.[2] Devolution may reduce coordination between neighbouring districts, increasing administrative costs for mining projects encompassing more than one district. The central government is seeking to quell these concerns. New Ministry of Mines and Energy regulations establish procedures for provinces to issue mining permits for investment, exploration and production in areas lying within two or more districts and up to 12 miles offshore from their coasts. Initially, some regions may find it difficult to meet previous standards in issuing permits and inspecting environmental performance. If some regions are unable to control the environmental degradation associated with illegal mining, this could undermine public support for the operations of legitimate miners.

Some analysts also are concerned transparency issues at the local government level may increase risk (Transparency International, 2000). As the allocation of taxation responsibilities between central and local governments is not fully clarified, concerns exist local governments may seek to impose ad hoc taxes.

During the transition phase, investors should seek to strengthen relationships with all three levels of government and local communities. New firms should seek assistance from firms with established networks of contacts and information.

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1 Unlike manufacturing and service sectors, which mainly centre on Java, oil and natural gas are concentrated in Riau and Aceh, in Sumatra, and East Kalimantan, on the island of Borneo; copper is concentrated in Irian Jaya, which has one of the world's largest copper mines, PT Freeport Indonesia.

2 Some local interest groups are using the transition period to devolution to urge the rewriting of contracts of work with foreign mining companies.

CONTRACTS OF WORK

Indonesia's constitution stipulates the state owns all natural resources.[3] The Indonesian Government or state enterprises therefore retain exclusive authorisation rights for all stages of mining activity from survey, exploration, exploitation, production, refining, transport and marketing. Consequently, state enterprises are prominent in the mining and petroleum sectors.

Contracts of work evolved to attract private sector investment to resource development, originally for oil production, then minerals and coal mining. Like miners operating leases in other countries, private sector miners holding contracts of work can extract and sell minerals and energy resources from defined leases, and in return, pay levies including land rent and royalties. Successive generations of contracts increasingly have favoured the state and imposed more fiscal and other obligations on contractors.

Contracts of Work for Minerals

Individual contracts result from negotiations between the state and company, but ultimately are at the government's discretion. Contracts assign to the contractor full commercial and operational risks. Contractors relinquish rights to all areas examined during exploration and evaluation, and the government must receive the results of work done. Contractors must employ Indonesian nationals to the maximum extent possible and implement training programs. Companies also must include Indonesian capital as soon as production begins and commonly must transfer 51 per cent of company shares to Indonesian ownership after ten years. Contracts last 30 years but can be extended by mutual agreement. The contract defines royalties and rents payable, in addition to normal corporation and general sales taxes.

Source: Millane, 2000

Increasing demands for greater autonomy in many provinces where mines are located has given rise to civil unrest and some instances of violence, adversely affecting mining operations and the safety of workers. Although regional devolution may reduce some of these tensions, miners need to remain sensitive to these risks.

ILLEGAL MINING

The increase in illegal mining since the crisis is concerning the Government and the mining community alike. Illegal mining is most serious in the gold, coal and diamond sectors; estimates of its value vary widely, but in the case of gold, range from 12 to 33 per cent of output (Kuo, 1999). For example, in 1992, state mining company PT Aneka Tambang, Antam, reported large numbers of illegal miners had arrived and by 1998, they had halved output and exports from its Pongkor gold and silver mine (Millane, 2000; and Antam, 1998). BHP's subsidiary, PT Arutmin, in South Kalimantan, also suffers from large scale illegal mining.

3 Indonesian Constitution, Article 33, paragraph 3.

The Government is attempting to reduce illegal mining by warning against the purchase of illegal output and banning the use of government roads to transport illegally mined material. It also has introduced tough new environmental regulations in response to the damage caused by illegal operators. Emerging regional institutions could reduce the incidence of illegal mining over the medium term. New reforms redistributing mining royalties to regions also should increase incentives for district governments and their communities to eradicate illegal mining.

Mining companies can assist the Government reduce illegal mining by working with authorities to detect and eradicate illegal mining. Some miners are pooling their surveillance and security resources. Mining companies also should maintain good relationships with local communities and authorities, so they can actively deter illegal miners.

LARGE SCALE ILLEGAL MINING DEVALUES COAL RESOURCE

Illegal mining often is large scale. BHP's subsidiary, PT Arutmin, in South Kalimantan, is subject to illegal miners who use a fleet of 200 trucks and 16 excavators. They transport their output using a road and a jetty built across environmentally sensitive coastal marshlands. Illegal miners account for as much as 4 million of the 22 million tonnes of coal mined in South Kalimantan annually; this represents a loss of output worth A$92 million at current prices. Much of the province's illegal coal comes from the mine area PT Arutmin owns. Industry sources report an environment of intimidation and threats of violence.

Source: McBeth, 1999; and BHP, 2000.

NEW LEGISLATION

The Government is negotiating several important mining sector laws, including new environmental and contract laws. Mining companies should watch closely these developments.

New Environmental Laws

Public reaction to the damage caused by illegal miners has prompted tighter environmental legislation (Department of Mines and Energy, 2000). The Environmental Protection Agency, BAPEDAL, issued Decree PP18 in February 1999, imposing stricter standards on waste discharge. The 1999 forest law reserves large areas for water catchment and limits new mining activity in these areas. These new standards in some cases exceed international norms. The Government has provided assurances the law does not seek to restrict established exploration or mining agreements. Mining companies should improve contact with local environmental bodies, including non-government organisations, to reassure these groups about the firm's environmental credentials, and share information on environmental strategies.[4]

[4] In Indonesia, often mining occurs in rainforests with up to 180 cm of rainfall per year, so soil erosion, sediment, contamination of offsite water bodies and land reclamation for post-mining uses are important issues. Another environmental issue in coal mining is the loss of fine coal particulates; here loss of coal revenue and royalties can be up to 20 per cent of production, and mining can pollute water supplies (Hamilton, 1998).

ENVIRONMENTAL GOVERNANCE IN INDONESIA

The Ministry of Environment requires firms to prepare environmental impact assessments for activities which may affect the environment, and enforces environmental quality standards (Millane, 2000). However, under devolution, these responsibilities will be delegated to regional governments. The Bureau of Environment and Technology reviews, develops and coordinates environmental polices and regulations within the Ministry of Mines and Energy. The Directorate of Technical Mining, also within the ministry, inspects and enforces environmental policy. Both agencies will retain their roles after regional devolution.

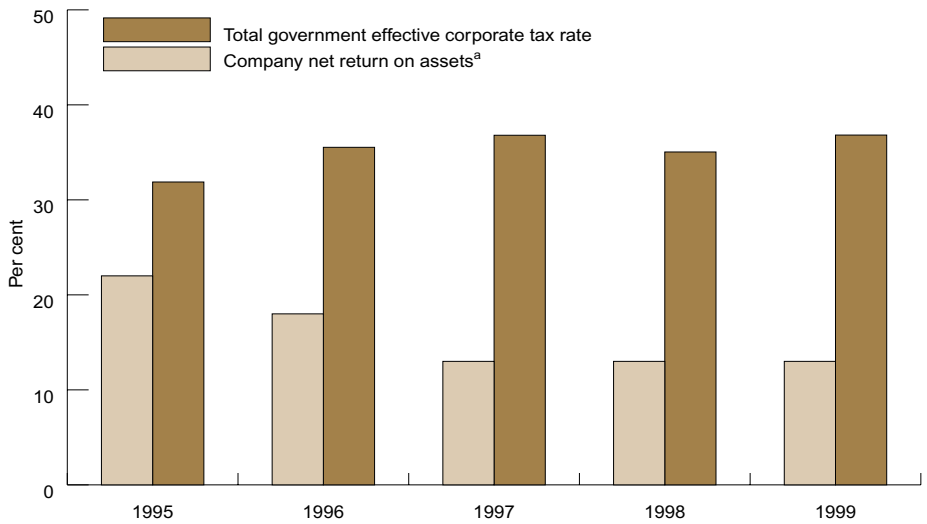
NEW TAXES AND ROYALTIES

Contracts of work signed since the financial crisis include higher royalty rates on key minerals, although in most cases, these continue to be offset by the lower costs of exploration and corporate tax rate in Indonesia (Figure 9.4 and Table 9.1). For example, under Regulation No. 13 of 2000, gold royalties rose to 3.75 per cent from between 1 and 1.5 per cent, and copper royalties rose to 4 per cent from 2 per cent. Indonesian investment guidelines provide a refund of the 10 per cent value added tax, VAT, paid on imported mining capital equipment. The Government is aware that some mining firms have expressed concern about difficulties in obtaining this refund (Aurora Gold, 1999). As devolution occurs, potential investors should watch carefully developments in taxation and royalties applied to mining revenues.

Figure 9.4

Effective Tax Rates Rise

Net Mining Return and Effective Government Tax Rate, 1994-98



Note: a Calculated as share of gross profit (after interest) paid as tax.

Source: PricewaterhouseCoopers, 2000.

Table 9.1

Indonesia Retains Competitiveness Despite Higher Royalties

International Comparison of Fiscal Regimes for Mining, 1998

Factor	Indonesia	Australia	Philippines	Chile	United States
Royalties on gold and copper	3.75 per cent (gold) 4 per cent (copper)	2.50 per cent	2.00 per cent	Nil	Nil
Exploration dead rent US$/ha/yr	0.35	0.30	1.30	2.90	Nil
Mining dead rent US$/ha/yr	1.50	10.00	1.30	2.90	Nil
Corporate tax rate	30 per cent	36 per cent	35 per cent	15 per cent	15 to 35 per cent

Source: *Jakarta Post*, 22 May 2000.

FOREIGN INVESTMENT

Foreign companies contribute significantly to mining sector activity, investing a cumulative US$10.8 billion over the last 30 years. Of this, US companies account for US$6.4 billion while Australian mining investment approvals to 31 May 2000 account for US$3.2 billion (34 per cent of total applications). US mining company, PT Freeport Indonesia, one of the largest foreign investors in Indonesia, accounts for the bulk of US investment in the mining sector (Millane, 2000).

Applications to invest in the mining sector, excluding oil and gas, have declined significantly since 1996 (Table 9.2). If this trend continues over the medium term, replacement investment may be insufficient to maintain current production levels. The Department of Mines and Energy reports foreign and domestic mining investment intentions falling sharply in 1999. Imports of surface mining equipment fell from US$815.4 million in 1997 to US$650.3 million in 1998, corroborating this. In 1999, oil and gas sector investments improved slightly, reflecting higher oil prices. However, foreign oil producers, who produce 95 per cent of petroleum output, increased their total investment to an estimated US$5.3 billion from US$4.3 billion in 1998 (Millane, 2000).

Table 9.2

Mining Investment Approvals Declining

Domestic and Foreign Investment in Mining, 1995-99

	1995	1996	1997	1998	1999
Domestic investment					
Non-metallic mining investment, Rp. billion	9 009	7 965	11 639	3 469	Less than 1 000
Mining share of domestic approvals	12.9 per cent	7.9 per cent	9.8 per cent	5.7 per cent	Less than 2 per cent
Foreign investment					
Mining approvals US$ million	Less than 415	2 487	1 457	237	200
Mining share of foreign investment approvals	Less than 1 per cent	8.3 per cent	4.3 per cent	1.7 per cent	1.5 per cent

Note: Capital Investment Coordinating Board investment data exclude the oil and gas and financial sectors.

Source: Capital Investment Coordinating Board, as quoted in Millane, 2000.

MOST AUSTRALIAN MINING MAJORS INVOLVED

Australia's largest mining investments in Indonesia include:

- Australia Kelian CRA
- PT Indo Muro Aurora (gold, silver)
- PT Multi Harapan Salim/Newhope (coal)
- PT Arutmin (BHP coal)
- PT Adaro (Newhope coal)
- PT Kaltim Prima (CRA/BP Amoco)
- PT Utah e Lakali (BHP coal)
- Lateritic nickel project on Gag Island (BHP nickel)
- Allied Indonesia Coalfields Pty Ltd (coal)
- Iluka Resources
- Lone Star Exploration
- Meekatharra Minerals Ltd.

AUSTINDO RESOURCES VENTURE WITH INDONESIAN PARTNERS

In 2000, Australia's Austindo Resources Corporation, ARX, formed a strategic relationship with the Austindo Group of Indonesia. ARX holds 63 per cent of a high grade epithermal gold vein system at Cibaliung, 150 km south-west of Jakarta in West Java, in a joint venture involving PT Aneka Tambang and International Antam Resources Ltd. ARX exploration inferred resources equal to 312 230 ounces of gold and 1.83 million ounces of silver; the company wants to confirm these results and explore possible extensions.

ARX has strengthened its capacity to manage government and community relations over recent years, improving its effectiveness in coping with new regional devolution laws. The company's strategic relationships within Indonesia help it manage its operations effectively.

Despite the crisis, ARX has maintained its focus on Indonesia, hoping to benefit from economic revival and recovering gold prices. The company expects Cibaliung to become a major new gold mine.

Source: Austindo Resources Corporation, 2000.

LONG TERM OUTLOOK FOR MINING

Australia's proximity to Indonesia and mining expertise position it well to assist Indonesia develop its mineral resources. Opportunities range from assessing resources through to refining and distributing mineral output, as well as supplying mining related equipment, supplies and services.

Exploration

Opportunities exist across the archipelago, particularly in the rugged eastern reaches. Australian expertise in identifying resources, mapping geology and collecting geophysical data, particularly in remote areas, suits these conditions.

Contracting and Support Services

Providing contracting and support services to other mining companies reduces exposure to risks associated with mining. Services include the design and construction of mines, materials handling, environmental engineering, infrastructure provision, and supply of mineral transport systems and mining equipment. Major Australian companies, including Theiss and Clough, have large contracts to operate mines, although they face stiff competition from US firms.

Training Requirements

Local partners and bureaucracies have rising human resource needs; these generate opportunities for providing training in mining technologies, mine operation and environmental monitoring.

Oil Sector Opportunities

The abolition of Pertamina's monopoly on oil production and liberalisation of oil refining and distribution offer substantial opportunities for Australia.[5] New arrangements proposed in 1999 allow the Department of Mines and Energy to award private companies oil production contracts which Pertamina currently undertakes.

Energy Reforms

In January 2000, after initial delays, the Government initiated a panel to oversee the reform of Pertamina, including installing new management. In September 2000, the Government reaffirmed its strong commitment to reform comprehensively the energy sector, submitting to the legislature two new laws to privatise and reform the electric power and the oil and natural gas sectors (Energy Information Administration, 2000; and International Monetary Fund, 2000).

Privatisation Opportunities

Privatisation may offer opportunities for Australians to acquire established mining enterprises. Australian mining investors could assist these firms with business management, technical and accountancy expertise.

Two state mining enterprises will be sold in 2000 or early 2001. PT Aneka Tambang, specialising in gold and nickel mining, currently is 65 per cent government owned. A further small share will be sold in 2000 or 2001, and eventually the balance will be sold. PT Tambang Batubara Bukit Asam, specialising in coal mining, currently is 100 per cent government owned, with a minority share earmarked for privatisation. Shares in both enterprises will be sold either through initial public offerings or by attracting a strategic partner. In addition, the remainder of mining company, Antam, partially floated on the Sydney stock exchange in August 1999, eventually will be sold under commitments to privatise the majority share of all state enterprises. A standby list of state mining enterprises for sale includes PT Tambang Timah (tin mining), currently 65 per cent government owned.

However, as in other state enterprise privatisations, potential investors should undertake thorough due diligence assessments of enterprises offered for privatisation. Minority ownership may constrain efforts to modernise and improve management, and financial transparency may be lacking. Investors may need to convert current exploration and mining titles to contracts of work, especially if they acquire majority foreign ownership.

[5] Pertamina, the state company responsible for distributing oil and gas throughout Indonesia, also is involved in crude oil production.

NEWCREST'S GOSOWONG PROJECT ON TARGET

Newcrest Mining Ltd set up a small office in Jakarta in 1991 and explored the Halmehera region in cooperation with local firm, PT Aneka Tambang. Newcrest holds 82.5 per cent of the joint venture. They discovered the Gosowong gold deposit in September 1993, and the Government approved a sixth generation contract of work in April 1997. Between September 1997 and November 1998, with a sound understanding of the application process and good communications with relevant government agencies, the venture acquired the necessary permits. Construction started late in 1998 and the plant was commissioned in July 1999.

The project achieved its targets despite the financial crisis of 1997-99, and exceptionally heavy rainfall during construction. The firm gave priority to recruiting and training local people, fostering local business development, and carefully managing environmental issues.

The Gosowong project's success demonstrates maintaining effective communication with all levels of government, as well as local community representatives, is invaluable.

Source: Carmichael and Corp, 1999.

SUPPORT NETWORKS FOR AUSTRALIAN MINERS

Austrade maintains a directory of Australian companies able to provide equipment and services to Indonesia's mining, quarrying and construction industries. Australian export promotion groups, Austmine and Austenergy, support firms seeking to export mining equipment, related supplies and services to Indonesia.

Austrade assigns a high priority to assisting export companies, visiting major mines, identifying new opportunities, and promoting Australian companies and expertise in the mining sector. Austrade and a range of mining companies participate in Indonesia's annual Mining Indonesia exhibition. The Australian Embassy in Jakarta also facilitates high level contact with relevant ministers and officials.

PROSPECTS

Mining is likely to remain an important sector in the Indonesian economy. New developments in governance and politics may promise a better environment for harnessing Indonesia's substantial mineral wealth. However, the transition to political devolution raises taxation, legal and governance issues for miners, creating uncertainty, and illegal mining problems are increasing. Investors need to remain alert to local developments and the interests of stakeholders.

Appendix Table 9.1

Coal, Gold, Copper and Silver Dominate Output Advance

Production Growth and Volumes of Selected Minerals and Petroleum, '000s tons

	1994	1995	1996	1997	1998	1999
Petroleum[a]	15992.9	15992.6	16179.5	15963.5	15843.8	14513.4
Tin ore concentrate	30.6	38.4	51.0	55.2	53.9	47.8
Copper ore concentrate	1095.8	1516.6	1758.9	1840.7	2640.0	2645.2
Nickel ore	2302.0	2513.3	3426.9	2829.9	2734.0	3245.3
Bauxite	1342.4	904.5	841.9	808.7	1055.6	1142.5
Coal	31238.5	41516.7	47338.6	52074.3	60320.8	69357.6
Iron sand concentrate	334.9	348.4	425.1	487.4	561.0	562.3
Gold[b]	42.6	62.8	83.6	90.0	124.0	129.0
Silver[b]	107.2	265.2	254.9	270.4	349.9	292.3

Note: a Thousands of barrels.
b Thousands of kilograms.

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