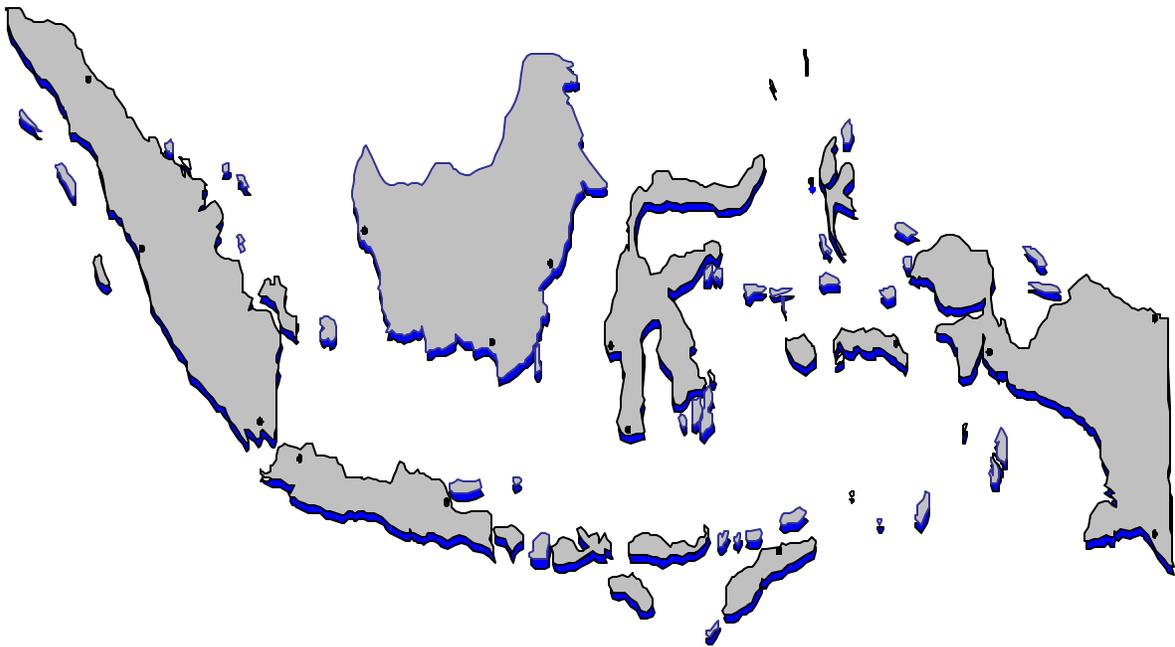


COAL REPORT

Indonesia

2000



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Embassy of the United States of America
Jakarta

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GLOSSARY

CCC	Coal Cooperation Contract
CCOW	Coal Contract of Work
COW	Contract of Work
DWT	Dead Weight Ton
IBT	Indonesia Bulk Terminal
GOI	Government of Indonesia
HV	Heat Value
KP	Kuasa Pertambangan (Mining Authorization)
KPC	Kaltim Prima Coal
MOU	Memorandum of Understanding
MW	Megawatts
MT	Metric Ton
MT/Y	Metric Ton/year
PCI	Pulverized Coal Injection
PD	Presidential Decree
PLN	Perusahaan Listrik Negara (State Electricity Company)
PTBA (State	Perusahaan Tambang Batubara Bukit Asam Coal Company)
TBI	Terminal Batubara Indah (a Coal Loading Terminal)
TBCT	Tanjung Bara Coal Terminal

Exchange rates used:

1998 - Rp 10,447/US dollar

1999 - Rp 7,976/US dollar

Despite a slump in coal prices, 1999 was a good year for Indonesia's coal industry as production and exports continued to grow and set new records.

Almost all major coal producers maintained revenue by increasing output and exports. Production grew significantly to 73.6 million metric tons (MT) from 61 million MT in 1998. Export tonnages jumped to 55.2 million MT in 1999 from 46.9 million MT in 1998. Approximately 70 percent of this amount was shipped to Asian markets. Domestic coal utilization also jumped 25 percent to 18.8 million MT in 1999 from 15.1 million MT in 1998.

Looking forward, the Ministry of Energy and Mineral Resources (formerly the Ministry of Mines and Energy until renamed in August 2000) set coal production targets of 84.5 million MT in 2000, 105.3 million MT in 2002 and 109.6 million MT in 2003. With coal production increasing rapidly from only 340,000 MT in 1980, Indonesia is now one of the world's largest coal producers. The electricity sector's increased usage of coal, extensive exploration activities, infrastructure development, and international marketing efforts contributed to this significant growth.

The share of coal in the country's energy mix rose from 8.0 percent in 1993 to 17.5 percent in 1999, primarily due to the development of large coal-fired power plants which now provide 4,660 megawatts (MW) of electric generation capacity. This sector consumes about 85 percent of domestic coal production. Public electric utility Perusahaan Listrik Negara (PLN) prefers coal as an energy source due to its relatively low price compared with oil and natural gas.

Coal mining firm PT Arutmin signed the first Coal Cooperation Contract (CCC) in 1981. Other CCC's followed, including 14 in 1998 and 25 in 1999, to make a total of 137 contracts up to the present. The Government revised the contractual agreement terms several times. The latest revision, introduced in 1998, changed contract arrangements to a royalty-based Coal Contract of Work (CCOW). Existing contracts have also been amended based on the new CCOW. Currently, the Government is formulating the 4th generation CCOW in anticipation of ceding greater autonomy to regional administrations.

Fifteen coal contractors (including three contractors which entered commercial production in 1998/99) produce 76 percent of Indonesia's total coal production. Kaltim Prima Coal and Adaro Indonesia are the largest coal producers.

Although the long-term view is bright, there are some troubling aspects entering the new millennium. Several coal mining companies, particularly those solely dependent on the domestic market, have been affected by the postponement or suspension of coal power projects as a result of the economic downturn. New legislation regarding regional autonomy and fiscal decentralization which will be implemented in 2001 has created additional uncertainty. *End of summary.*

COAL RESOURCES

Resources

Indonesia has significant coal resources. The Directorate of Coal, Ministry of Energy and Mineral Resources, has identified 38.8 billion MT of coal deposits, of which 11.5 billion MT are classified as measured resources and 27.3 billion MT as indicated, inferred and hypothetical resources, with 5.4 billion MT classified as commercially exploitable reserves. Major coal resource areas are Kalimantan and Sumatra, estimated at 21.1 billion MT and 17.8 billion MT, respectively. Coal deposits in Sumatra are located largely in the area surrounding Tanjung Enim, South Sumatra. These deposits are mined by state-owned coal company Perusahaan Tambang Batubara Bukit Asam (PTBA).

Kalimantan has higher quality coal deposits. Coal contractors operating in Kalimantan have the rights to exploit a total of 6.5 billion MT of measured reserves. Kaltim Prima Coal possesses the largest measured reserves estimated at 1.3 billion MT, followed by Arutmin Indonesia and Adaro Indonesia with one billion MT each.

Quality

Indonesia's coal deposits are relatively young with the majority ranked as lignite (59%), sub-bituminous (27%), and bituminous (14%). Anthracite accounts for less than 0.5% of Indonesia's coal deposits. Lignite is currently considered uneconomic for export due to its high moisture content (above 30 percent) and consequent

calorific value below 5000 kcal/kg. Officials hope, however, eventually to utilize lignite for mine-mouth power plants and for coal briquettes.

The coal mined in Indonesia generally has heat values ranging between 5,000 and 7,000 kcal/kg, with low ash and sulfur levels. The average sulfur content of commercially produced Indonesian coals is below 1.0 percent. Kaltim Prima and Ombilin coals (including production from the nearby Allied Indo mine) are regarded in the region as being of high quality, both in terms of heat value and low sulfur content. PT Arutmin and PT Tanito Harum's coal in Kalimantan also contains relatively high heat value.

Although much Indonesian coal has a high moisture content, producers hope to market it as blending coal. For example, the Adaro mine has shipped coal to a U.S. coal mine for blending to satisfy strict U.S. pollution standards. On average, Indonesian steaming coals are close in quality to South African coals.

Table 1: Indonesian Coal Resources
(Million MT)

Company	Resources			Mineable Reserves
	Measured	Indicated	Total	
PTBA	1,902	4,657	6,559	2,804
Contractors	8,998	22,185	31,183	2,054
Others	584	442	1,026	504
TOTAL	11,484	27,284	38,768	5,362

Source: Directorate of Coal

Coal bed methane

The Minister of Energy and Mineral Resources has authorized the Directorate General of Oil and Gas (MIGAS) to develop coal bed methane (CBM) in Indonesia. PT Caltex Pacific Indonesia has submitted a scenario for CBM development in South Sumatra. Caltex plans to utilize CBM for enhanced oil recovery (EOR) projects. Given Indonesia's large coal resources, CBM is potentially important as a cheap alternative energy resource. A study identified 10 coal basins in Indonesia with CBM potential of 336 TCF of gas in place.

Table 2: CBM Resources (TCF)

Basin	Prospective area (km ²)	CBM Resources
Kalimantan		
Barito	15,000	75
Berau	2,000	10
Kurai	10,000	50
N. Tarakan	6,500	20
Pasir	1,000	3
Sumatra		
Central Sumatra	15,000	50
South Sumatra	20,000	120
Bengkulu	3,000	5
Java		
Jatibarang	500	1
Sulawesi		
Sengkang	1,000	2
Total	74,000	336

PRODUCTION AND EXPORTS

Production - Another record year

Coal production increased by over 20 percent in 1999, reaching 73.6 million MT compared to 61 million MT in 1998. The fifteen private coal companies operating under CCOW produced 57.6 million MT. The four top private producers, Kaltim Prima Coal, Adaro Indonesia, Arutmin and Kideco Jaya Agung, alone produced 14 million MT, 13.6 million MT, 8.7 million MT and 7.3 million MT respectively (total of 43.6 million MT). State-owned coal company Perusahaan Tambang Batubara Bukit Asam (PTBA) produced 11.2 million MT from two mining operations in Sumatra. Over 75 percent of Indonesian coal production originated from East Kalimantan and the remainder from South and West Sumatra. Five producers operating under second generation CCOW in Kalimantan, with a total output of 3.6 million MT/year, entered commercial production in 1998 and 1999.

Open-cut mines provide about 99 percent of Indonesian coal production. There are only three underground mines -- at PTBA's Ombilin operation in West Sumatra and two small domestic private mines in Kalimantan. Most mines use conventional truck and shovel mining methods. Excavators with buckets of 2-3 cubic meters are generally used to remove coal, which is hauled in 20-30 ton trucks. Only Kaltim Prima's large-scale operation uses trucks of up to 135 MT capacity and shovels of up to 20 cubic meter capacity.

Future production

Despite current low coal prices and slack domestic market conditions, the Indonesian coal industry is still expected to expand due to growing worldwide demand. Only a few years ago, the Government had also projected domestic demand for electricity to rise and coal production to increase steeply. Officials note that, although producers still have the potential to produce above its estimates, GOI projections were adjusted downward after the government rescheduled nine of 14 private coal-fired power plant projects. The GOI now forecasts production to grow to 84.5 million MT in 2000, 105.3 million MT in 2002 and 109.6 million MT in 2003. Actual output will be determined by future market conditions.

Exports exceed target

Indonesia achieved an impressive growth rate in coal exports, from only six million MT in 1991 to 55.2 million MT in 1999. The GOI set export targets of 63.3 million MT in 2000, 77.5 million MT in 2002 and 79.7 million MT in 2003. (Officials noted that year 2000 exports might not reach the target because of KPC's period of shutdown forced by labor problems.) This rapid growth resulted from extensive marketing efforts, including Indonesia coal producers' willingness to set coal prices at competitive levels to gain international market share. In 1999, Indonesia earned US\$1.3 billion by exporting 75 percent of total coal production. Asia purchased 39.0 million MT (70 percent) of Indonesia's

coal, including 11 million MT (20 percent of total export value) by ASEAN countries. Kaltim Prima Coal is the largest exporter, shipping 13.4 million MT in 1999, followed by Adaro Indonesia (10 million MT), Arutmin (7.1 million MT), and Kideco Jaya Agung (6.4 million MT). Exports of Indonesia's "enviro-coal" (0.1 percent sulfur and 0.1 percent ash) from the Adaro mine on Kalimantan to the United States increased to 1.1 million MT in 1999 from 240,000 MT in 1994. Taiwan Power contracted to buy 500,000 MT/year through 2003 from two private Indonesian companies, Kaltim Prima Coal and Tanito Harum. PTBA has also won an international tender to supply 500,000 MT of coal/year to a power plant in Taiwan.

Indonesia has 19 coal export terminals with a combined loading capacity of over 75 million MT/year. Most of the terminals are classified as small and medium capacity (5,000 - 6,000

Table 3: Estimates of Coal Production and Exports (Million MT)

Year	Production	Exports
2000	84.5	63.3
2001	96.1	70.2
2002	105.3	77.5
2003	109.6	79.7

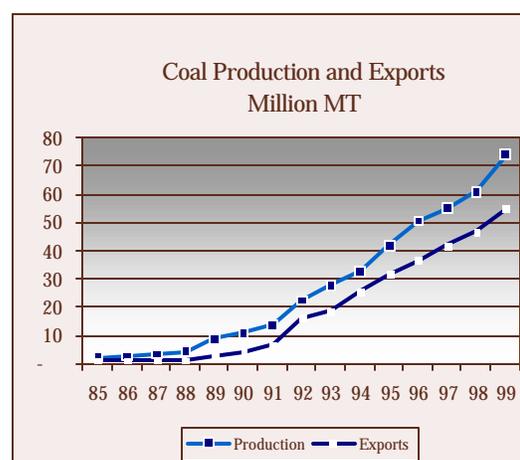
Source: Directorate of Coal

deadweight tons -- DWT) while four terminals classified as large capacity (150,000 – 200,000 DWT) are located in East and South Kalimantan.

Coal marketing

Indonesia's coal producers market coal to most customers under a long-term purchase contract. The coal price stipulated in each contract, which is currently hovering below US\$20/MT, is subject to renegotiation every year based on the changing world price of coal. Producers generally employ the most widely used coal price reference - - "the Japanese benchmark" -- in their pricing calculations. The cost of producing coal in Indonesia currently stands at about \$13-\$14/MT.

Some Indonesian coal producers, particularly those dependent on existing power plants for their sales, are seeking to expand export markets.



DOMESTIC DEMAND AND UTILIZATION

Domestic demand continues to rise

Despite the weakness of the Indonesian economy, the Government estimates domestic coal demand will increase to over 32 million MT per year within the next five years due to the operation of coal-fired power plants and utilization of fuel briquette coal by households and industry. In 1999, domestic demand rose 21.4 percent to 18.8 million MT from 15.4 million MT in 1998. Of this amount, PTBA supplied 9.6 million MT, coal contractors supplied 8.5 million MT, and private mines and cooperatives supplied the balance. Power plants and the cement industry are the major coal consumers, together accounting for 77 percent of total demand.

Coal-fired power plants

Coal-fired power plants are expected to supply about 45% of total energy production in the year 2000 compared to natural gas' share of 21% and oil's of 18%. Fuel consumption by steam coal-fired power plants in Indonesia is expected to increase from 14.7 million MT in 1999 to 27.8 million MT by 2005. State electricity utility Perusahaan Listrik Negara (PLN) is the biggest coal consumer, utilizing 12.4 million MT of coal in 1999 and 11 million MT in 1998 to fuel its coal power plants, which produce 4,330 MW of power. In 1999, PLN consumed 8.2 million MT of coal for its Suralaya units I-VII (3,200 MW), 2.2 million MT for Paiton units I-II

(800 MW), and 4 million MT for other plants (Bukit Asam [130MW], Ombilin [100 MW] and Sijantang [100 MW]).

PLN prefers to use coal over other more expensive fuels for its power generation. Production cost per KWh of coal steam power plants averages US 1.4 cents. This average is lower than the US 1.9 cents for oil steam power plants, US 2.2 cents for oil combined cycle power plants, and US 2.5 cents for natural gas combined cycle power plants.

Additional domestic demand will come from independent power projects (IPP's), such as Paiton Swasta I (2x615 MW), Paiton Swasta II (2x610 MW) and Tanjung Jati B (2x660 MW). The Governments of Indonesia and Malaysia signed a memorandum of understanding (MOU) in 1999 for the joint development of a 1,200 MW power station at Cerenti, Riau Province, which will utilize lignite resources to supply the Sumatra and Malaysian markets. Some mine-mouth power stations are also planned in Sumatra and Kalimantan, particularly in areas with large reserves of lignite. These plants will require a total of 2.8 million MT/year of coal. If all planned coal-fired power plants become fully operational, total coal power plant installed capacity will reach 12,100 MW by 2003/04, requiring about 42 million MT of coal per year. Factoring in delayed power plant projects, however, the Government revised its coal demand projection for power generation to 56 million MT by 2010.

In September 1997, in response to the drastic need to reduce budgetary outlays, the Government reconsidered a number of projects being undertaken by or in conjunction with state-owned enterprises, including PLN. Under Presidential Decree 39 of 1997, the GOI allowed only seven power projects to continue, of which five were coal-fired projects.

Cement plants

Because of the economic crisis, coal utilization by cement plants declined to only 2 million MT in 1999 from 3 million MT in 1997. This fell far short of the Government's initial assumption that Indonesia's 15 cement plants would require 5 million MT of coal in 1999 (rising to 10 million MT in 2008 due to planned expansions of cement plants).

Coal briquettes below target

Coal briquettes have been intensively promoted as an alternative to subsidized kerosene in the last few years. PTBA has assessed that out of the 120 million people living in Java, about 70 percent could potentially use coal briquettes. Demand for coal briquettes could thus reach 17 million MT per year if kerosene were completely replaced. The assessment appears far too optimistic as replacement of kerosene use is very difficult. PTBA and the private companies plan to produce two million MT of coal briquettes in 2000. Currently, PTBA operates two small coal briquette plants in Tanjung Enim, South Sumatra with combined capacity of 15,000 MT/year and a 120,000 MT/year capacity plant in Gresik, East Java. In addition, PTBA plans to develop five large plants in various locations (Serang, Cilacap, Semarang,

Cirebon, and Pasuruan), with a combined capacity of 600,000 MT/year and several smaller plants in Tanjung Enim, South Sumatra with total capacity of 30,000 MT/year. NEDO of Japan completed construction of a 5 MT/hour pilot plant in Tanjung Enim, South Sumatra. The government has received 42 applications from the private sector for establishing coal briquette plants.

Table 4: Estimates of Domestic Demand (Million MT)

Demand	2000	2001	2002	2003
Total domestic	21.2	25.9	27.8	29.9
- Power plants	13.9	17.7	18.9	20.1
- Cement plants	3.8	4.4	4.8	5.4
- Other	3.5	3.8	4.1	4.4

Source: Directorate of Coal

ENVIRONMENT

Environmental damage

Coal mining operations are accused of inflicting considerable environmental damage. Coal mining is estimated to have disturbed over 70,000 hectares (Ha) of ground. In some areas, fluid waste was discharged into nearby rivers, affecting local residents' sources of fresh water. This environmental impact and local demands for greater company contributions to community development have become important causes of demands to close mining operations.

Strict environmental regulation

The Government responded with a commitment that coal-mining operations would conform to environmental safeguards. In 1999, it issued Government Regulation No. 18 on processing of poisonous and hazardous waste. The regulation requires mining companies to process their waste to an extraordinary degree of cleanliness, with standards set for water purity five times stricter than the United States and Canada. However, implementation of the regulation has been postponed while the Indonesian government reevaluates its provisions to make them commensurate with existing technological capability.

Clean coal technology

Since the sulfur content of Indonesian coal meets current emission standards without any additional equipment, none of PLN's current power plants has had

to use Flue Gas Desulphurization (FGD) combustion technology thus far to control SO₂ emission. FGD equipment has been installed in the newly completed private coal power plant (2x615 MW) at Paiton, East Java.

With the issuance of Minister of Environment Decree No. 13 in 1995 which regulates the maximum permissible SO₂ emission from coal power plants, all coal power plants in Indonesia starting from 2000 onwards will need to use FGD, particularly for coal with sulfur content higher than 0.3%. The decree reduced permissible atmospheric SO₂ levels from 1,500 mg/m³ to 750 mg/m³ by 2000.

The Government has a keen interest in improving coal technology to reduce coal's environmental impact. Efforts to enhance clean coal technology (CCT) have included cooperation with foreign countries to study possible effects of coal usage and to seek new ways for coal-fired power plants to meet environmental standards. In November 1999, the U.S. Federal Energy Technology Center (FETC) signed a letter of intent with the Agency for Technology Assessment and Application to implement CCT in Indonesia. PTBA is also cooperating with several American companies to carry out technological studies of methods to raise coal quality, including liquefied coal, Carbontec, Syncoal and K-Fuel. Carbontec and K-Fuel appear to be the most appropriate technologies for PTBA's coal.

TRANSPORTATION AND COAL TERMINALS

In the 1990's, coal producers and other firms made heavy investments in the development of coal loading terminals. The expansion of Indonesian coal production and exports and the success of coal contractors in developing long-term exports depend heavily on the quality of facilities to transport coal from coalfields to customers. The GOI and contractors continue to develop road access and facilities to move coal from mine to stockpile and to load coal onto rails, barges or ocean-going vessels. Transportation systems that provide access to the mining area and link mine-mouth with domestic or export markets are still limited, however, particularly in South and East Kalimantan.

Currently, Indonesia operates 19 coal loading terminals, including three cape-sized terminals, one panamax terminal and three handy-size terminals, with a total export capacity of more than 75 million MT/year. Four additional coal terminals are planned, including Bengalon by KPC, Sebuku by Cakrawala Sebuku, Bontang by Indominco Mandiri and East Kalimantan by Indexim. Below is a list of the largest coal loading ports currently in operation in Indonesia.

(1) The Indonesia Bulk Terminal (IBT), developed jointly by Consolidated Bulk Handling of Australia and Terminal Batubara Indah, is the latest common-user deep-water port. IBT, which commenced operation in 1997, is located on South Pulau Laut, a large island off South Kalimantan. It lies on major domestic and international

shipping routes. IBT has a stockyard capacity of 800,000 MT and is capable receiving 80,000 DWT vessels. IBT is expanding its storage capacity to 1.6 million MT, with a capacity to handle 200,000 DWT vessels.

(2) Tanjung Bara Coal Terminal (TBCT), a 500,000 MT capacity stockpile, was developed by KPC to load its own coal production into ships of up to 200,000 DWT. TBCT is located in north Samarinda, East Kalimantan and has been operational since 1991.

(3) PT. Dermaga Prakasa Pratama (DPP), an independent company, developed a deep-water coal terminal located at Balikpapan, East Kalimantan. The facility provides services to coal mining companies operating along the Mahakam River, such as Multi Harapan Utama, Tanito Harum, Kitadin, Bukit Baiduri and Fajar Bumi Sakti. The terminal jetty is capable of handling 80,000 DWT bulk carriers.

(4) Terminal Batubara Indah (TBI) in Cirebon, West Java, has a stockpile capacity of 50,000 MT and a handling capacity of one million MT/year. TBI handles mostly coal requirements of the Cibinong cement plant and other nearby industries, and receives regular deliveries from Adaro, Arutmin and other coal mines in Kalimantan.

CONTRACTS AND INVESTMENT

The autonomy laws

Autonomy laws passed in 1999, law No. 22 on political autonomy and law No. 25 on fiscal decentralization, created uncertainty and brought new requirements to bear on mineral resources investment policy. The decentralization policy clearly gives provincial and local governments more opportunity to manage mineral resources directly. To implement law No. 22, the Government recently issued Government Regulation No. 25 of 2000, which, *inter alia*, states that existing contracts, including Coal Contracts of Work, would be continued until the end of the agreement's effective period. The format will be revamped and classification of mineral resources will be reformulated for new contracts.

The existing contracts

Presidential Decree No. 75 of September 1996 changed contract arrangements from Coal Cooperation Contracts (CCC) where the state received 13.5 percent of production value to royalty-based Coal Contracts of Work (CCOW). The CCOW model has been widely used for other minerals such as gold, copper, nickel and granite. The new scheme applies to both existing and new contractors. Existing contractors are obliged to amend their contracts based on CCOW. CCOW allows contractors to proceed with exploitation programs during the exploration period.

Application process

A contractor must submit an application to the Minister of Energy and Mineral Resources through the Director General of Mines along with the following documents:

- 1) a topographic map to a 1:250,000 scale;
- 2) an MOU for a joint venture between a foreign and national party (not necessary if the contractor is not a joint venture);
- 3) a company profile on management, production and marketing capability, with a financial statement demonstrating that the company holds net assets of no less than two billion rupiah;
- 4) a summary of the company's experience in mining activities;
- 5) a work plan and budgeting program, including a brief description of the area being applied for, a work plan for each stage of activities, and an investment program; and
- 6) an employment agreement with mining experts or statement of intent by mining experts to carry out the project.

Contractor's obligations are:

- 1) not to mine other minerals without the Government's approval;
- 2) to be fully responsible for all risks of all activities;

- 3) to complete general survey, exploration, feasibility study, construction and exploitation programs; and
- 4) to relinquish 25% of the initial contract area within the first year of general survey, 50% of the initial contract area within three years and 75-80% of the initial contract area on or before the end of the exploration period. When the initial contract area is less than 100,000 Ha, the contractor is entitled to retain 20,000 or 25,000 Ha.

Other terms and conditions of the CCOW include:

- 1) to commence the general survey no later than six months after the signing of the contract;
- 2) to spend at least US \$2.50/Ha on the coal field by the end of the general survey period;
- 3) to commence exploration upon completion of the general survey;
- 4) to spend at least US\$15.00/Ha on exploration;
- 5) to commence exploitation no later than eight years from commencement of the general survey;
- 6) to deliver 13.5% of the production share in cash based on FOB price to the Government; and
- 7) to pay taxes and other fees to the Government.

The new scheme also transferred administrative management of coal contractors to the Directorate General

of Mines from PTBA, with the main objective of avoiding potential conflicts of interest in marketing coal production between PTBA and its contractors and to enable PTBA to better focus on development of its own operations.

New draft for fourth generation CCOW

The Government is drafting the fourth generation CCOW, which is aimed at facilitating coal-mining investment and implementing requirements of new laws for local government autonomy. The draft CCOW includes the adoption of ad valorem royalty rates denominated in U.S. dollars and community and regional development requirements. New provisions will empower regional governments, providing them with substantial input to mining companies' community development plans and a larger share of royalties and taxes. The new royalty scheme will require mining contractors to provide the Government about five percent of the sales of mineral production, up from less than two percent at present. Mining contractors have asked that the Government also address compensation disputes with illegal miners.

A difficult to realize divestment obligation

CCOW terms require that domestic entities must eventually have majority ownership of mining projects. During the first ten years of production, foreign shareholders must transfer shares according to a fixed timetable so that 51% of a mining project is eventually held by Indonesian companies (state-owned companies, private companies and local investors).

This requirement applies as well to coal producers operating under the first generation CCOW, such as KPC, Arutmin, BHP Kendilo and Kideco Jaya Agung. The CCOW establishes a formula in which the price of shares offered to local partners is based on the total expenditures from the general studies to production stages less depreciation, amortization, and liabilities. However, local investors have not been responsive to mining company sales offers since they do not consider the resultant price to be commercially attractive.

In 1999, for example, KPC offered a 30-percent share in the company at the government's agreed price of US \$175 million. State mining companies -- PTBA for coal, PT Aneka Tambang for miscellaneous mining and PT Timah for tin -- objected to the high price of KPC shares. KPC, for its part, had rejected PT Timah's initial offer to acquire a 25-percent share for US \$121 million. According to its contract, KPC would be required to divest another 7 percent in 2000. In another case, PT Arutmin Indonesia was obliged to divest 31 percent of its shares. In 1999, Arutmin offered 24 percent of its stock, valued at US\$40 million, to local investors without success. Kideco Jaya Agung is required eventually to divest 30 percent of its shares. In 1999, Kideco was to have sold 23 percent, but received no response from buyers.

New incentives planned

To encourage the development of low-quality coal in remote areas, the GOI plans to introduce new incentives, to include lower royalties which will vary

depending on the quality of coal deposits and remoteness of the area.

Contracts signed

Coal remains attractive to mining investors. In October 1999, the Ministry of Energy and Mineral Resources signed 11 contracts under third generation CCOW's with domestic mining companies covering a total area of 563,471 Ha. Most of the contractors eyed mining areas in Kalimantan and Sumatra. With these CCOW's, the Government concluded 25 contracts in 1999 compared to 14 contracts in 1998 and 68 contracts in 1997, and brought the total number to 136 contracts awarded to foreign and domestic companies since 1981. At present, 120 contracts are still active, 11 contracts terminated and 5 suspended.

Table 5: No. of CCOW Signed and Current Status

Contracts signed and status	No. of Contracts
CCOW signed	
- 1st (1981-1990)	11
- 2 nd (1994)	18
- 3 rd (1997-1999)	107
Total	136
Status	
- General survey	61
- Exploration	37
- Feasibility study	6
- Construction	1
- Production	15
Sub total active	120
- Suspended and terminated	16

Investment

After peaking at US \$679 million in 1997, investment by coal contractors dropped to only US \$288 million in 1998 and US \$422 million in 1999 following an anticipated low level of domestic coal demand. The GOI forecast that coal contractors would invest US \$592.4 million in 2000.

Table 6: Investment by Coal Contractors, (US\$ Million)

Year	Investment
1984-1994	1,555.0
1995	455.2
1996	478.6
1997	678.9
1998	288.0
1999	421.9
2000 Proj.	592.4

Source: Directorate of Coal

CURRENT PRODUCERS

PT Tambang Batubara Bukit Asam

State-owned coal company, PT Tambang Batubara Bukit Asam (PTBA), is the third largest coal producer in Indonesia, producing 11.2 million MT of coal in 1999 from two mines, Tanjung Enim in South Sumatra and Ombilin in West Sumatra. Production is expected to reach 13.5 million MT/year in 2000, 12.5 million MT from Tanjung Enim and 1.0 million MT from Ombilin. Under its expansion programs, PTBA started the development of two new mines, Banko Barat with a production capacity of 5.4 million MT per year and Muara Tiga with a production capacity of 5.9 million MT per year.

PTBA sells coal mostly in the domestic market to PT Pembangkit Listrik Jawa Bali (PJB-I), a PLN subsidiary. PJB-I signed a contract to purchase 20.42 million MT of coal from PTBA between the years 1997-2002 worth US \$85 million. In 1999, PTBA shipped 7.1 million MT of coal to PJB-I to supply Suralaya steamdriven power plants and 2.4 million MT to export markets.

PTBA operates four coal terminals (Teluk Bayur in West Sumatra, Kertapati, Tarahan and Pulau Baai in South Sumatra). The completion of the Tarahan Coal port expansion in 1999 increased its delivery capacity to 12 million MT per year.

PTBA has coal reserves of 6.6 billion MT of which 83 percent (5.5 billion

MT) is located in the Tanjung Enim area and 3.0 percent (0.28 billion MT) in the Ombilin area. The Tanjung Enim area has a large reserve of surface mineable sub-bituminous and lignite suitable for use in power stations.

PTBA contributed Rp 439.9 billion (approximately US \$55.3 million) in 1999 and Rp 241.4 billion (approximately US \$23.1 million) in 1998 from income taxes, royalties and dividends to central government revenue. To enhance the efficiency of state-owned enterprises, the Government is still carrying out preparations to offer limited sales of equity in PTBA. The sale, originally planned for June 2000, was postponed.

PT Kaltim Prima Coal – The largest coal producer

PT Kaltim Prima Coal (KPC), jointly owned by the Rio Tinto group of Australia (50%) and British Petroleum of UK (50%), is the largest coal operator in Indonesia. Commencing commercial production in 1991, KPC steadily increased coal production to nearly 15 million MT in 1999 after investing about one billion US dollars. At the current production rate, the company's marketable coal reserves of 650 million MT can sustain mining for more than 20 years. Its high quality coal, extensive exploration, and heavy investment in infrastructure were the key factors in its success.

Production is currently exported through the Tanjung Bara Coal Terminal (TBCT), a deep-water load-out facility which is capable of handling cape-size vessels of 200,000 dead weight ton (DWT) capacity. In 1999, KPC exported 13.9 million MT of coal to destinations in Europe, the U.S., Japan and other Asian countries. KPC produces two brands of coal – “Prima Coal” and “Pinang Coal.” Prima Coal is a high quality, internationally traded coal, predominantly sold on the basis of long-term contracts. While targeted to reach a production level of 15 million MT in 2000, KPC operations and production were affected for the first time in its history by labor actions. The company was shut down intermittently in the third quarter of the year, losing some 1.8 million MT of production, and had to declare *force majeure* to all its customers before starting back up on August 18.

PT Adaro Indonesia – the “Best Coal Company in 1999”

PT Adaro, a joint venture between New Hope Corporation of Australia (50%), PT Asminco Bara Utama of Indonesia (40%) and Mission Energy of the U.S. (10%), is the second largest coal producer in Indonesia. Production increased rapidly to 13.6 million MT in 1999 from its production start-up in 1991. However, Adaro’s ambitious plan to increase coal production to 20 million MT by 2000 may not be attained due to a delay in full operation of Paiton Swasta I. The company entered into a US \$5.5 billion 30-year

coal supply agreement with Paiton Energy to supply 4.3 million MT/year.

Adaro has a coal reserve of two billion MT in its contract area covering the Tabalong and Hulusungai Utara regencies. Due to its 0.1 percent sulfur content and excellent combustion characteristics, as well as being well suited for use in power plants, the company has trademarked its coal “envirocoal.” Due to Adaro’s operational efficiency, innovation in marketing and its commitment to the environment and the surrounding population, the company was recognized as Best Coal Company 1999 by the Financial Times Energy Awards in New York.

Adaro hopes to increase exports to markets in Asia, Europe and the U.S. by using Indonesia Bulk Terminal facilities at South Pulau Laut. Adaro exported 10 million MT in 1999 or nearly 75 percent of its output.

PT Berau Coal

PT Berau Coal, a joint venture between United Tractors (60%), PT Pandua Dian Pertiwi (20%) and Nissho Iwai (20%), operates coal mines located around Latek River (about 600 km north of Samarinda), East Kalimantan. Berau Coal reported measured reserves of 745 million MT from its five potential fields. Production rose sharply from 300,000 MT in 1994 to 2.3 million MT in 1998 and 3.3 million MT in 1999. Berau Coal plans to expand its mining capacity to 8.0 million MT/year in 2000. The company has been contracted to supply

4.5 million MT/year of coal by power companies. The contracts include a 30-year deal with Daya Listrik Pratama valued at US \$1 billion for 1.1 million MT/year; a deal with the developer of a rescheduled 400 MW coal power plant project at Cilegon; a 30-year deal with Paiton II worth US \$1.5 billion to supply two million MT/year; and a 5-year deal with Paiton I valued at US \$300 million.

PT Arutmin Indonesia

PT Arutmin Indonesia, a joint venture between BHP Minerals of Australia (80%) and Bakrie Brothers (20%), operates two open-cut coal mines and a coal loading facility located in South Kalimantan. The two mines are Senakin mine with a capacity of four million MT/year and Sentui mine with a capacity of two million MT/year. Commencing trial production in 1988, Arutmin increased production to 6.3 million MT in 1998 and 8.7 million MT in 1999 and targeted production of 12 million MT/year of bituminous coal in the near future from its seven separate projects. Arutmin exported 7.1 million MT in 1999 through its deep-water coal transshipment point at North Pulau Laut. The port is designed to accommodate Panamax size vessels with a stockyard capacity of 500,000 MT.

Japanese buyers postponed transactions to purchase 700,000 MT of coal from Arutmin due to fears of supply interruptions following deteriorating ties between Australia and Indonesia. Officials said the postponement would not only affect PT Arutmin, but also

could diminish Indonesia's foreign exchange earnings, as the Japanese buyers may switch to coal contracts with other countries.

PT Kideco Jaya Agung

PT Kideco Jaya Agung, owned by Samtan Co. Ltd of South Korea, produced 7.3 million MT of coal in 1999 up from 5.5 million MT in 1998. Commencing commercial production in 1993 at a production rate of 1.2 million metric tons, the company continued an expansion project to increase production capacity to over 10 million MT by 2000 from its total measured and indicated reserves of one billion MT located in Pasir, East Kalimantan. In 1999, Kideco exported 6.4 million MT, mostly shipped to South Korea. Kideco operates a US \$140 million Tanah Merah transshipment terminal, with an 8.5 million MT per year barge loading capacity for transshipment up to cape size 149,000 DWT ships.

PT Allied Indo Coal (AIC)

PT Allied Indo Coal (AIC), a joint venture between the Thohir family of Indonesia (50%) and the Salway family (50%), commenced commercial production in 1987 from the Parambahan deposit in West Sumatra, adjacent to PTBA's Ombilin. In 1999, AIC produced 426,000 MT, down from 1.7 million MT in 1998. All of the company's production was for export. Its relatively high quality coal can be processed into three different products: steam coal with heat value (HV) of 6,900 Kcal/kg; Pulverized

Coal Injection (PCI) with HV of 7,200 kcal/kg; and lump coal for household use with a 50-mm sized product.

PT Multi Harapan Utama

PT Multi Harapan Utama (MHU), a joint venture between New Hope Group Pty. Ltd. of Australia (40%) and Indonesian companies PT Asminco Bara Utama (10%) and the Risjad group (40%), started production in 1988 from the Busang deposit in East Kalimantan. MHU estimated potential reserves at 126 million MT. In 1999, MHU produced 1.6 million MT or slightly more than the year before primarily to satisfy increased demand. The company's current equipment is capable of handling annual production of up to three million MT/year.

PT Tanito Harum

PT Tanito Harum, a domestic company, changed its status from private mining to coal contractor in 1987. It obtained a portion of the contract area relinquished by AGIP - Carbone on the Mahakam River near Samarinda. In 1999, the company produced one million MT and has aggressively marketed all of its production to South America.

PT BHP Kendilo Coal Indonesia

PT BHP Kendilo Coal Indonesia, a joint venture between BHP (80%) and Mitsui (20%), operates two open-cut coal mines at Petangis and Rindu deposits in East Kalimantan, an area released by PT Utah Indonesia. BHP Kendilo commenced production in 1995

and produced one million MT/year in 1999.

PT Indominco Mandiri

PT Indominco Mandiri, a domestic mining company owned by the Salim group, signed a first generation CCOW in 1990 to develop coal resources in Block III at Bontang, East Kalimantan. Indominco commenced commercial production in 1997 at 1.2 million MT and increased its output to 2.0 million MT in 1998 and 3.0 million in 1999. The company is constructing all facilities to support full production capacity of 3.5 million MT/year by 2000.

New producers

Five contractors in Kalimantan (PT Bahari Cakrawala Sebuku, PT Antang Gunung Meratus, PT Bentala Coal Mining, PT Jorong Barutama Greston and PT Gunung Bayan Pratama) operating under second generation CCOW signed in 1994 entered commercial production in 1998 and 1999, with initial production ranging from 150,000 MT to 1.2 million MT/year. PT Bahari Cakrawala Sebuku (BCS), a joint venture between Strait Sebuku Pte Ltd. (80%) and PT. Rekyah Wahana Digdjaya (20%), is the first of the 18 coal contracts under the second generation signed in 1994 to start commercial operation (in May 1998).

PT Bentala Coal Mining, a national mining company, has an initial target of producing three million MT of coal per year to supply coal power plants.

PT Gunung Bayan Pratama (GBP) started commercial production in July 1999, reached production for the year at one million MT, and exported 836 thousand MT to Japan, Europe and Malaysia.

Other producers

The Government permits private national companies and cooperatives to mine coal under a Kuasa Pertambangan (KP) or Mining Authorization. Nine private companies and 12 cooperatives currently produce coal, with a combined output rising from 1.3 million MT in 1993 to 4.8 million MT in 1999. Their domestic sales reached 700,000 MT and exports totaled 4.4 million MT in 1999. Coal production by KP holders is expected to increase to over 5 million MT in 2000.

Three firms produced significant amounts of coal; PT. Bukit Baiduri - 1.7 million MT; PT. Kitadin - 0.9 million MT; and PT. Bukit Sanur - 0.7 million MT. PT Bukit Baiduri, which mines coal resources in Kutai District, East Kalimantan, doubled coal output in the last three years from 0.8 million MT in 1995 to 1.7 million MT in 1999 and exported all of its production, mostly to Taiwan. The company expected to produce over three million MT in 2000 and signed a contract valued at US \$61 million with PT. Petrosea, a subsidiary of Clough Engineering and Construction of Australia, to transport five million MT of steaming coal. Baiduri has identified coal reserves of 40 million MT.

Other second generation coal contractors targeting production in 2000 include PT Kartika Selabumi Mining, PT Mandiri Inti Perkasa and PT Nusa Mineral Utama.

Illegal mines

Illegal mining increased over the past three years, causing numerous problems for the industry. Illegal miners mined over three million MT of coal in 1999, according to informed estimates. Illegal miners ignore environmental and safety guidelines and market their coal at lower prices. The coal industry requested the Government to take legal action and regulate this activity. Proposed measures include requiring end users to stop buying coal from anyone without coal mining transportation and marketing licenses.