THE MINERAL INDUSTRY OF

PAKISTAN

By Chin S. Kuo

In 1996, Pakistan's economic growth was 6.1%. The budget deficit, at 6.3% of the gross domestic product, rose compared with that of 1995 and was the result of large current account and trade deficits. A staggering 37% of the federal budget went to debt servicing, 26% to defense, and only 20% to development. The Government planned to cut spending, reduce corruption, and reform the state financial sector. After a series of gradual downward adjustments, the State Bank of Pakistan sharply devalued the rupee by 3.65%. During the year, foreign investments, the majority of which were direct and long term, increased substantially. Singapore and Malaysia agreed to finance three powerplant projects in Pakistan, and Malaysia offered to build a $100-million oil terminal near Karachi.

The Government approved a policy to attract more investment in exploration and development of mineral resources. The new policy would provide tax incentives to private investors in the minerals sector. The customs duty levied on exploration machinery imports would be only 5%, and the mineral industry would be exempt from sales tax. A deduction of development expenditures at 25% per year would enable recovery within a 4-year period. Other taxes would be imposed only after the company had begun commercial production. New ad valorem royalty rates were being introduced for precious stones and metals, as well as semiprecious stones and base metals. There would be no ban on repatriation of profits. Tax withholding for corporate nonresidents would be set at 7.5% and adjusted against the final tax iability.

The timeframe for granting of mineral titles was prescribed. State participation in mining was not mandatory, although joint ventures with local companies would be encouraged. Although foreign companies would be free to operate on their own without incorporation in the country, a mining area licensee ought to be locally incorporated. The government of Punjab Province decided to lift the ban on mining leases and lease mines to financially sound parties.

The Pakistani Privatization Commission announced the privatization of Wah Cement and Pak Saudi Fertilizers. Wah Cement's plant has a capacity of 3,000 metric tons per day (t/d) and is located near the Ghazi Barotha hydropower project in northern Pakistan. The successful bidder for the company was required to produce a 40% cash payment and provide the remainder in bank guarantees. Transfer of the plants was scheduled for February 1996. The Government also was considering total or partial privatization or equity sharing for the restructuring of the Saindak copper/gold project. Chinese and South Korean companies, including L.G. International of the Republic of Korea, expressed particular interest in the project. The Government decided to privatize the mineral projects of Pakistan Mineral Development Corp. in phases, the first of which was to include salt mines in various parts of the country. In addition, the sale of 49% of the shares of Oil & Gas Development Corp. was to be through public subscription.

The Government planned to levy a 10% customs duty and 15% sales tax on imported raw materials. Gold was, however, exempted from a 10% regulatory import duty to curb smuggling. Foreign trade was mostly with Japan and southeast Asian countries, such as Brunei, Indonesia, Malaysia, the Philippines, and Singapore.

Pasminco of Australia entered into a joint-venture agreement with Pakistan Mineral Development Corp., whereby it would spend at least $4 million on drilling and regional exploration in a 3,000-square-kilometer (km^2) area of southeastern Balochistan Province during the first 2 or 3 years (Mining Journal, 1996b). The company planned 7,500 meters (m) of diamond drilling in the first one-half of 1996. It had spent $2.2 million on the first 5,500 m of diamond drilling in the Duddar area of Balochistan.

The $470-million Saindak copper/gold mine in Chagai District, 700 kilometers (km) west of Quetta, Balochistan, was inaugulated in November 1995. Developed by state-run Saindak Metals Ltd., the mine had begun trial production in 1996. It produced around 8,000 metric tons (t) of copper in concentrate. When in full production, the operation was to recover 15,800 metric tons per year (t/yr) of copper, 1.5 t/yr of gold, and 2.8 t/yr of silver for 20 years. The mine planned to employ 1,288 people and indirectly create jobs for 11,000 others. During the year, Saindak Metals stopped production at its 20,000-t/yr smelter because the entire concentrate inventory was exhausted.

Oranmore Resources of Ireland was granted an exclusive reconnaissance license to explore a 1,300-km^2 area in Balochistan. The main area of interest had a preliminary resource of 6 million metric tons grading 6% zinc, and the potential was good for drilling a resource grading 10% zinc (Mining Journal, 1996a). Oranmore signed a joint-venture agreement with Bolan Mining Enterprises, a local barite producer, and expected to start a drilling program by mid-1996.

Punjab Mineral Development Corp. in Lahore, one of the leading refractory clay producers in the country, extracted 30,000 t of clay grading from 50% to 75% aluminum oxide at Attock. A large gypsum production plant was currently under construction at Warah in northwestern Pakistan. When completed, the plant was expected to supply gypsum to the local market. In another development, the Government ordered the relevant authorities to implement stringent safety measures at the Khewra salt mines where it was feared that parts of the mines could collapse at any time. Pakistan Industrial Development Corp. (PIDC) mined a limited quantity of magnesite of between 7,000 and 10,000 t/yr from its Khumar mining leases in the Abbottabad District in the Northwest Frontier Province. A joint venture formed by PIDC and Syndicated Mines & Minerals Ltd. planned to construct a magnesite calcining operation and an associated magnesia and magnesia-chrome brick plant with a capacity of between 20,000 and 25,000 t/yr of bricks.

Office Cherifien des Phosphates of Morocco planned to take a 10% interest in Al-Noor Fertilizer Industries Ltd.'s plant that was under construction at Dhabeji, near Port Qasim (Phosphorus & Potassium, 1996). The plant would comprise production units for 1,300 t/d of diammonium phosphate (DAP), 1,000 t/d of ammonia, and 1,200 t/d of urea. The total estimated cost of the project was $220 million. China National Chemical Engineering Corp. was the project's mechanical construction contractor, and Lurgi AG of Germany would supply the DAP granulation unit. The complex was scheduled to be completed in 1998.

Chemieanlagenbau Stassfurt AG of Germany secured a contract to expand and revamp a synthetic soda ash plant in Karachi, owned by Sind Alkalis (Industrial Minerals, 1996). Production capacity would be raised by 50%, from 150 to 225 t/d of light ash. All engineering work was expected to be completed by 1997. The only other soda ash operation is at Khewra, 100 km south of Islamabad, with a capacity ranging from 190,000 to 200,000 t/yr of synthetic type.

Sind Coal Authority invited applications for a study of the Thar coal deposits to ascertain the feasibility of establishing, in three stages, a 3,960-megawatt (MW) lignite-fired powerplant at Keti Bandar, Thatta District, 370 km from the coalfield. Also included in the study would be an investigation of transport methods and costs and the advisability of a powerplant at the mine mouth.

Pak-Arab Refinery Co. (Parco) planned to build a new oil refinery at Mahmood Kot, 65 km north of Multan. Abu Dhabi National Oil Co. holds a 40% stake in Parco that had been transferred to International Petroleum Investment Co. Universal Oil Products of the United States conducted the feasibility study through its subsidiary, UOP Management Services. Babcock International Group of the United Kingdom was awarded the contract to manage the project and provide technical services. The $756-million refinery was to have a capacity of 100,000 barrels per day (bbl/d) and was expected to be completed by mid-2000. A $90.8-million pipeline for the refinery was to be built by Williams Brothers of the United States and to carry finished products to Parco's customers in Lahore and Faisalabad.

Iran agreed to build a $1.2-billion oil refinery in Balochistan Province. The plant would have a capacity of 120,000 bbl/d. Iran and Pakistan also agreed to conduct a feasibility study for a proposed $3.5-billion natural gas pipeline.

The Government planned to increase power-generation capacity by 4,500 MW by 2000. AES Transpower of Singapore completed the $350-million financing for the second of two 360-MW powerplants to be built in Muzaffargarh, Punjab Province (Far Eastern Economic Review, 1996). International Finance Corp. was to provide $70 million in loans and an equity investment of $9.5 million. National Power of the United Kingdom reached closure on the partial purchase of the 1,600-MW Kot Addu powerplant in Punjab Province by acquiring a 26% stake with management control in Kot Addu Power Co., which owns the powerplant. BC Hydro International of Canada spent $6 million in the Raiwind power project and other offshore ventures.

Overseas Economic Cooperation Fund of Japan planned to provide a $470,000 loan to finance construction of a hydroelectric powerplant and four other projects. A $200-million loan was to be used for the Ghazi Barotha hydropower project to help meet the current power shortage. This powerplant would be the second largest hydroelectric station in the country, with a generating capacity of 1,450 MW. Voith of Austria and GEC Alsthom of France won two contracts to provide equipment, which included five turbines, with capacity of 290 MW each, and generators of the same capacity. The $214-million contract for the construction of the power complex was awarded to Dongfang Electric Corp. of China. It was scheduled to start operations in the year 2000.

Enron Corp. of the United States reached an agreement with the Government to build, own, and operate a $670-million 754-MW residual oil-fired powerplant in Punjab Province. A 30-year power purchase agreement was signed with the Pakistan Water & Power Development Authority (WAPDA). Construction was scheduled to begin in mid-1996, and commercial operation was planned for early 1999. The company owns a 100% equity interest in the Punjab project, and a affiliate of Bechtel Enterprises holds rights to acquire a 25% equity stake. A 400-MW combined cycle powerplant was being built in late 1996 in Punjab Province on a build-own-operate basis by Rousch (Pakistan) Power, a joint venture of Rousch Finance of the United States, Siemens Power Ventures of Germany, and ESB International of Ireland. The powerplant was to be fired by using residual fuel oil to be supplied by Pakistan Petroleum Ltd., and the electricity would be sold to WAPDA.

Coastal Power Co. of the United States signed agreements to build, own, and operate a $150-million 140-MW natural-gas-fired powerplant at Quetta. The project would be implemented by Habibullah Coastal Co. A power purchase agreement was signed with WAPDA, and a fuel supply agreement, with Sui Southern Gas Co. Fiat Avio of Italy was awarded the engineering, procurement, and construction contract. The plant was scheduled to be completed by the end of 1997.

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TABLE 1
PAKISTAN: PRODUCTION OF MINERAL COMMODITIES 1/

(Metric tons unless otherwise specified)

Commodity		1992	1993	1994	1995	1996
METALS						
Aluminum, bauxite, gross weight		3,461	4,845	4,570	3,057	4,056
Antimony ore:						
Gross weight		83	--	--	40 e/	-- e/
Sb content e/		12	--	--	6 2/	--
Chromium, chromite:						
Gross weight		22,852	22,154	6,240	17,000 e/	27,987
Cr content e/		7,500	7,400	2,810	7,650	12,594 2/
Iron and steel: e/						
Pig iron	thousand tons	1,100	1,200	1,045 2/	1,100	1,500
Steel, crude	do.	1,000	1,100	344 2/	409 2/	416 2/
Lead, refined, secondary e/		3,000	3,000	3,000	2,500	2,000
INDUSTRIAL MINERALS						
Abrasives, natural, emery		298	666	178	132	135
Barite		32,432	26,336	20,320	15,360	18,582
Cement, hydraulic	thousand tons	7,793	8,321	8,100	8,586	8,900 e/
Chalk		4,280	4,770	5,597	7,170	6,545
Clays:						
Bentonite		6,057	7,991	11,180	5,759	15,290
Fire clay		123,034	132,278	133,643	139,548	122,936
Fuller's earth		22,042	20,941	15,335	12,862	13,415
Kaolin (china clay)		37,444	37,179	47,894	30,746	54,860
Other		1,268,968	1,728,380	647,324	198,199	200,525
Feldspar		19,166	17,034	15,335	21,163	32,572
Fluorspar e/		5,000	5,100	13,351 2/	2,753 2/	363 2/
Gypsum, crude		462,002	534,565	607,279	313,868	503,915
Magnesite, crude		6,484	4,157	4,464	16,891	3,202
Nitrogen, N content of ammonia		1,144,200	1,445,700	1,450,000 e/	1,450,000 e/	1,460,000 e/
Phosphate rock:						
Gross weight		19,828	13,822	15,042	10,460	800 e/
P2O5 content e/		6,000	4,300	2,560	1,780	140
Pigments, mineral, natural, ocher		5,126	6,196	6,000 e/	6,000 e/	5,500 e/
Salt:						
Rock	thousand tons	853	895	847	935	940 e/
Marine	do.	10	14	13	17	18 e/
Total	do.	863	909	860	952	958 e/
Sand:						
Bajri and common		237,676	377,859	490,623	175,572	166,380
Glass		135,101	167,644	170,000 e/	170,000 e/	165,000 e/
Sodium compounds, n.e.s.:						
Caustic soda		60,000	81,381	93,600	100,000 e/	108,900
Soda ash, manufactured		146,000	186,216	184,636	200,000 e/	215,400
Stone:						
Aragonite and marble		330,570	384,553	389,741	471,761	571,765
Dolomite		153,324	192,575	225,697	198,051	161,754
Limestone	thousand tons	8,759	9,074	9,096	9,769	14,870
Other (reported as "ordinary stone")	do.	50 e/	50 e/	4	6	7 e/
Strontium minerals, celestite		1,448	1,684	2,320	1,625	2,500 e/
Sulfur:						
Native		140	410	545	195	150 e/
Byproduct, all sources e/		26,000	27,000	27,000	27,000	27,000
Total e/		26,140	27,410	27,545	27,195	27,150
Talc and related materials, soapstone		23,676	46,846	37,151	35,043	34,095
MINERAL FUELS AND RELATED MATERIALS						
Coal, all grades	thousand tons	2,751	3,305	3,082	2,997	3,345
Coke	do.	650 e/	670 e/	701	720	735
Gas, natural:						
Gross production	million cubic feet	550,715	583,545	590,000	595,000	598,000 e/
Marketed production (sales) e/	do.	450,000	500,000	500,000	500,000	500,000
Natural gas liquids e/	thousand 42-gallon barrels	85	85	85	80	80
Petroleum:						
Crude	do.	22,686	21,467	22,000	23,000	23,500 e/

See footnotes at end of table.

TABLE 1--Continued
PAKISTAN: PRODUCTION OF MINERAL COMMODITIES 1/

(Metric tons unless otherwise specified)

Commodity		1992	1993	1994	1995	1996
MINERAL FUELS AND RELATED MATERIALS--Continued						
Petroleum--Continued:						
Refinery products: e/						
Gasoline	thousand 42-gallon barrels	7,300	7,300	7,400	7,500	7,500
Jet fuel	do.	4,200	4,500	4,500	4,500	4,600
Kerosene	do.	3,200	3,300	3,300	3,300	3,500
Distillate fuel oil	do.	13,600	13,600	13,800	14,000	14,000
Residual fuel oil	do.	12,300	12,300	12,400	12,500	12,600
Lubricants	do.	1,200	1,300	1,300	1,300	1,400
Other	do.	4,200	4,200	4,300	4,300	4,300
Total	do.	46,000	46,500	47,000	47,400	47,900

e/ Estimated.
1/ Table includes data available through July 28, 1997.
2/ Reported figure.