

# The Mineral Industry of the Democratic Republic of the Congo (Kinshasa)

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On January 1, 1967, the Congolese Government assumed control of all assets of Union Minière du Haut-Katanga in the Congo; these were valued at \$800 million. A new Congolese company, Société Générale Congolaise des Minerais (GECOMIN), was organized as controller of the former Union Minière properties. The company is administered by a nine-man council and has Belgian personnel in key positions of Director General and Deputy Director General. A three-man commission was to be organized, comprised of one representative of GECOMIN, one of Belgian interests, and a third chosen by agreement of the two parties, to arbitrate compensation to Union Minière for the nationalization of its Properties in the Congo.

Negotiations were started between Belgian private, Belgian Government, and Congolese Government representatives in order to reach an agreement on managing the properties and resuming mineral shipments. On February 15, a technical co-operative agreement was concluded whereby Société Générale des Minerais (SGM) would act as manager for GECOMIN, in matters involving the mining, processing, and marketing operations. Final approval of programs was to be by the Board of Directors of GECOMIN. This agreement was for 3-years' duration, with 2-years' notice given before termination. After loading of the copper and other mineral products at African ports, SGM also would pay GECOMIN 70 percent of the f.o.b. value of these products, the remainder would be paid at the time of the final sale

by SGM. SGM was to receive 4.5 percent of GECOMIN gross revenues as fee for its managerial services. The complete text of the terms of the GECOMIN-SGM agreement were published in Agence Congolaise de Presse on February 21.

GECOMIN planned to offer 40 percent of its ownership to various international interests, but at yearend no agreement had been reached. Roan Selection Trust Ltd., the Peñarroya group, and the Banque Lambert, Brussels, were approached regarding an international consortium to participate in GECOMIN. Late in the year, Maurice Tempelsman, the U.S. mining industrialist with extensive interests in Africa, reportedly was offered the 40-percent participation.<sup>2</sup>

Although metal and mineral shipments from GECOMIN properties in Katanga were interrupted during the GECOMIN-Belgian negotiations of January and February, shipments were near or above normal for the remainder of the year, and new production highs for metallic copper and zinc concentrate were reached. GECOMIN placed large orders for new equipment, mainly from the United States, in preparation for increased production.

Activities in other mineral sectors of the country remained fairly normal. The mineral industry continued as a major source of revenue and foreign exchange. In 1967 Government revenue from GECOMIN op-

<sup>1</sup> Physical scientist, Division of International Activities.

<sup>2</sup> Metals Week. V. 39, No. 2, Jan. 8, 1968, p. 5.

erations was 323.9 million,<sup>3</sup> 95.5 percent of which was from copper. The Gross National Product (at current prices) in 1966 was estimated at \$1,800 million, based on Banque Nationale calculations. The mineral industry contributed about 40 percent of the national budget and employed about 50,000 Africans.<sup>4</sup> At the beginning of the year, the GECOMIN staff included 1,661 expatriates and 249 Africans; at yearend, the expatriate staff had dropped to 1,096 and the African staff had increased to 368. Recruitment efforts were active throughout the year. At yearend, GECOMIN employed 21,752 African laborers.

The Congolese Government continued efforts to restrict the influence of foreign-owned and foreign-operated companies. In 1966 the Government voided all mineral property rights issued before independence on June 30, 1960, required all concession holders to reapply for concessions, placed a 10-percent levy on all mineral production, and required all foreign companies with operations in the country to establish headquarters in Kinshasa. After the GECOMIN-Belgian controversy in early 1967, however, Government moves against foreign business and personnel were slackened. Foreign management groups were given authority to reorganize certain firms for greater efficiency.

A new mining code, prepared by the Ministry of Mines, was adopted in April. It called for increased Congolese participation in and Congolese control of mining ventures. Foreign investors had three possibilities in establishing companies in the Congo: 1) With Congolese private interests, 2) with the Congolese Government, and 3) with foreign financing entirely (but with company headquarters in the Congo).<sup>5</sup>

Progress was made on the Inga Dam hydroelectric project on the Congo River, 120 kilometers upriver from the Atlantic Ocean. In October a \$20 million loan was negotiated with Italian interests to provide equipment for first-phase construction, which was expected to be completed in 1972 or 1973.

The National Institute of Mines was moved to Lubumbashi from Bukavu, which was evacuated following the mercenary uprising during the summer. According to the Institute's director, the school had an enrollment of about 100 students. The majority of the first graduating class of six mining engineers and six geologists was expected to assume duties with GECOMIN. The Institute's staff of approximately 20 professors was furnished by French and Belgian technical assistance, the United Nations, and the Congolese Government.

## PRODUCTION

Although the Congolese Government took major steps toward assuming controlling interests in all sectors of the mineral industry, disruptions in mining were few, and there was little change in mineral production trends. Output of copper and zinc concentrate attained record highs, although increases were modest. Diamond and manganese ore output also showed slight increases. Output of several commodities, including cadmium, cobalt, germanium, gold, and tin, was reduced.

A new petroleum refinery was dedicated late in the year, and production is expected in 1968.

<sup>3</sup> On June 24, 1967, a monetary reform program was instituted, under the auspices of the International Monetary Fund, to stabilize the economy and curb strong inflation. The Congolese Franc (CF) was devaluated from the rate of US\$1=150 CF to US\$1=500 CF, as of that date. A new monetary unit, the zaire, is equal to US\$2 or 1,000 CF.

<sup>4</sup> Industries et Travaux d'Outremer. No. 167, October 1967, p. 915.

<sup>5</sup> World Mining. V. 3, No. 8, July 1967, p. 40.

Table 1.—Congo (Kinshasa): Production of mineral commodities

(Metric tons unless otherwise specified)

Commodity	1963	1964	1965	1966	1967
<b>Metals:</b>					
Beryl.....	213	123	19	-----	2
Cadmium.....	393	469	399	421	263
Cobalt.....	7,376	7,676	8,388	11,297	19,718
Columbium-tantalum concentrate.....	* 74	* 46	93	* 96	146
Copper, blister and refined.....	271,337	276,640	288,605	315,664	318,976
Germanium, content of concentrate kilograms.....	7,283	8,271	14,638	14,970	347
Gold..... troy ounces.....	214,574	188,693	90,408	* 159,821	152,973
Lead.....	1,185	1,045	1,551	1,060	* 1,000
Manganese ore.....	270,033	309,700	377,575	249,303	271,636
Monazite.....	-----	-----	20	NA	NA
Platinum and palladium..... troy ounces.....	7	1	-----	-----	-----
Silver..... do.....	1,097,176	1,480,252	1,538,413	* 1,851,402	1,839,763
<b>Tin:</b>					
Cassiterite, metal content long tons.....	6,883	5,108	6,324	5,036	4,664
Smelter..... do.....	1,441	1,485	1,815	2,002	1,815
Tungsten concentrate, 60 percent WO <sub>3</sub> basis.....	202	234	215	189	112
<b>Zinc:</b>					
Concentrate, metal content.....	103,545	105,540	119,154	* 113,437	* 121,547
Refined, electrolytic.....	52,724	55,553	57,019	* 61,500	61,492
<b>Nonmetals:</b>					
Cement..... thousand tons.....	246	225	248	285	* 260
<b>Diamond:</b>					
Gem..... thousand carats.....	296	295	14	12	1
Industrial..... do.....	14,468	14,457	12,490	* 12,418	13,154
Lime.....	66,703	67,722	65,228	63,005	NA
Salt.....	343	525	125	80	NA
Sulfuric acid..... thousand tons.....	NA	NA	NA	124	* 120
Mineral fuels: <sup>3</sup> Coal, bituminous..... do.....	* 103	* 106	* 116	110	133

\* Estimate. \* Revised. NA Not available.

<sup>1</sup> Includes 6,465 tons in cathodes and 3,253 tons in granules.<sup>2</sup> From 214,710 tons of concentrate at 56.61 percent zinc produced at Kipushi.<sup>3</sup> The petroleum refinery near Moanda was inaugurated in November 1967, but output data were not available.

## TRADE

The mineral industry continued as the dominant source of foreign exchange in the country in 1966, the latest year for which data were available. Because of a substantial increase in prices, copper earnings were \$95.5 million higher than in 1965, and represented about 57 percent of total export earnings for the year. Major mineral export values were as follows:

	Value (million dollars)	
	1965	1966
Copper.....	171.4	266.9
Cobalt.....	18.2	29.7
Tin and cassiterite.....	18.3	26.4
Diamond.....	23.3	25.6
Zinc and concentrate.....	21.5	21.1
<b>Total.....</b>	<b>252.7</b>	<b>369.7</b>

Complete data on destinations were not available, but copper went mainly to Belgium, Italy, France, and the Republic of South Africa. Metallic tin, cassiterite, and zinc concentrate were shipped mainly to Belgium. The United Kingdom received all diamond legally exported from the Congo. Routes to port were the Voie Nationale and rail to Lobito, Beira, and Dar-es-Salaam.

Major mineral commodity imports in 1966 were petroleum refinery products, \$19 million (\$15.9 million in 1965), and iron and steel semimanufactures, \$14.4 million (\$10.6 million in 1965).

The important role of the mineral industry in the Congolese foreign trade balance is indicated in the following tabula-

tion showing the relationship between mineral and total trade:

	Value (million dollars)		Mineral commodities' share of total (percent)
	Mineral commodities <sup>1</sup>	Total trade	
<b>Exports:</b>			
1965.....	261.2	326.0	80.1
1966.....	379.6	467.3	81.2
<b>Imports:</b>			
1965.....	47.2	319.9	14.8
1966.....	54.2	336.5	16.1
<b>Trade balance:</b>			
1965.....	+214.0	+6.1	XX
1966.....	+325.4	+130.8	XX

XX Not applicable.

<sup>1</sup> Includes only those commodities listed in table 2 of this chapter.

According to U.S. Department of Commerce statistics, the United States imported metals and minerals from the Congo during 1965 and 1966, as follows:

Commodity	Value (thousand dollars)	
	1965	1966
Cobalt.....	9,737	14,873
Diamond, industrial.....	913	4,491
Manganese ore.....	9,648	6,763
Zinc, unwrought.....	3,305	3,357
Other ores and concentrates..	807	2,147
<b>Total.....</b>	<b>24,410</b>	<b>31,631</b>

**Table 2.—Congo (Kinshasa): Foreign trade in selected mineral commodities <sup>1</sup>**  
(Metric tons unless otherwise specified)

	1965	1966
<b>Exports:</b>		
<b>Metals:</b>		
Cadmium.....	390	351
Cobalt.....	8,380	11,062
Columbium-tantalum concentrate.....	62	56
<b>Copper:</b>		
Blister.....	63,323	79,475
Unwrought, refined, mainly wire bars.....	142,319	156,364
Unwrought, refined, cathode.....	72,581	74,785
<b>Total.....</b>	<b>278,223</b>	<b>310,624</b>
Gold..... troy ounces..	40,285	58,418
Manganese ore.....	311,188	234,137
<b>Tin:</b>		
Cassiterite..... long tons..	5,062	7,109
Smelter..... do.....	1,259	1,873
Tungsten concentrate.....	208	284
<b>Zinc:</b>		
Concentrate.....	89,650	94,897
Refined, electrolytic.....	51,931	50,970
<b>Nonmetals:</b>		
Cement.....	30,530	22,725
Diamond..... thousand carats..	12,583	12,480
<b>Imports:</b>		
<b>Metals:</b>		
Aluminum, all forms.....		1,772
Copper, semimanufactures.....	224	170
Iron and steel, semimanufactures.....	42,806	66,238
Ores, scrap, waste, n.e.s.....	253	286
Nonferrous metals, n.e.s.....	843	355
<b>Nonmetals:</b>		
Cement.....	7,963	526
Construction materials, undifferentiated.....	30,830	42,886
Fertilizer materials, natural and manufactured.....	5,551	6,030
Salt.....	22,723	50,408
Minerals, nonmetallic, n.e.s.....	12,690	13,381
<b>Mineral fuels:</b>		
Coal and briquets.....	336,684	231,609
<b>Petroleum refinery products:</b>		
Gasoline, motor..... thousand 42-gallon barrels..	1,159	1,126
Gasoline, aviation..... do.....	564	585
Kerosine..... do.....	450	581
Fuel oils, undifferentiated..... do.....	1,135	1,376
Lubricating oils..... do.....	96	143
<b>Total..... do.....</b>	<b>3,404</b>	<b>3,811</b>
Mineral tar and crude chemicals from coal, oil, and gas distillation.....	2,844	4,018

<sup>1</sup> Data by country are not available.

**Table 3.—Congo (Kinshasa): Copper exports in 1967, by port**  
(Metric tons)

Form of copper	Shipping port				Total
	Matadi, Congo (Kinshasa) (via Voie Nationale)	Beira, Mozambique	Dar-es-Salaam, Tanzania	Lobito, Angola	
Electrolytic ingots.....	113,853	6,812	17,765	23,468	161,898
Cathodes.....	32,930	1,606	—	47,351	81,887
Blister and other.....	27,848	26,848	25,866	—	80,562
Total.....	174,631	35,266	43,631	70,819	324,347

## COMMODITY REVIEW

### METALS

**Columbium-Tantalum.**—Final agreement between Union Carbide Corp. and the Congolese Government on participation in exploitation of the Lueshe deposit, Kivu province, was pending at yearend. Société Minière de Lueshe (SOMALU) was constituted in 1960 by Union Carbide and the Government. Exploration continued in 1967. Reserves were 34.5 million tons proved ore, containing 15.4 kilograms of pyrochlore per ton, and 119.5 million tons probable, containing 9.7 kilograms of pyrochlore per ton. Also, 500,000 cubic meters of associated alluvium contains 1.55 kilograms of pyrochlore per ton.

At Bingo, also in Kivu province, the ore is reportedly richer and less complex. Ore reserves are 2.3 million tons proved at 3.6 percent  $\text{Cb}_2\text{O}_5$  to depths of 25 meters, and 4.8 million tons probable at 2.3 percent  $\text{Cb}_2\text{O}_5$ . Preconcentration to a grade of 40 to 45 percent  $\text{Cb}_2\text{O}_5$  was considered feasible.<sup>6</sup>

**Copper.**—Despite the GECOMIN-SGM controversy early in the year, copper output reached a new high, and exports exceeded those of 1966 by more than 3,000 tons. Average copper content of ores from GECOMIN properties was 4.8 percent. Total concentrate production was 1,338,346 tons. GECOMIN planned an output rate of 320,000 tons of copper during 1968 and undertook long-range studies for expansion in subsequent years.

Production under Union Minière du Haut-Katanga in 1966<sup>7</sup> and GECOMIN in 1967<sup>8</sup> was as follows:

Form of copper produced	Metric tons	
	1966	1967
Ingots, electrolytic.....	156,350	160,822
Cathodes.....	79,729	81,448
Blister and other.....	79,585	76,706
Total.....	315,664	318,976

An exploration and mining agreement was reportedly signed on December 18, 1967, between the Nippon Mining Co., Ltd., Japan, and the Congolese Government. The area to be explored comprised 36,000 square kilometers between Musoshi, Southern Katanga Province, and the Zambian border. Near Musoshi, a vein 6 to 8 meters thick reportedly contains 3.5 percent copper. The agreement involved a 3-year exploration period, a joint operating company, and a 5-year investment plan of \$40 million. An annual production rate of 42,000 tons of concentrate, containing 36 to 37 percent copper, was planned for 1970. The Japanese will ship the concentrate to Japan via the port of Beira, Mozambique. A large staff of Japanese engineers, geologists, and other technical personnel was in the Congo.

**Manganese.**—Output from the Société Minière de Kisenge (SMK) mine at Kisenge in southwest Katanga Province, was greater in 1967 than in 1966, although the mine was closed down in November after an invasion of mercenary troops. After cessation of mining, stockpile ore was shipped at a reduced scale by personnel who were flown in daily from Lubumbashi. The average grade of ore was 51 percent manganese. Prior to the invasion, SMK employed approximately 50 European technicians.

In order to maintain SMK operations, the Congolese Government agreed to a reduction of export taxes, a long-term, low-interest loan to SMK, and a waiver

<sup>6</sup> United Nations, Economic Commission for Africa, *The Rare Minerals of the Democratic Republic of the Congo*. ECA Seminar on New Metals and Minerals, Addis Ababa, Ethiopia, February 1968, pp. 7-10.

<sup>7</sup> Union Minière du Haut-Katanga, *Rapport Annuel*, 1966, p. 18.

<sup>8</sup> U.S. Embassy, Kinshasa. *Mineral Industry Report for Katanga*. State Department Airgram A-88, May 16, 1968, 12 pp.

of import duties on replacement equipment.

**Tin.**—The Congolese Government canceled 50 concessions in January, when owners failed to apply for renewal in accordance with new mining laws. For those concessions renewed, the Government intended to obtain shares in operating companies.<sup>9</sup>

Operations of Compagnie Géologique et Minière des Ingénieurs et Industriels Belges (GEOMINES) were normal in 1967, despite a slight reduction in technical personnel after the political unrest in the area during the summer. Cassiterite production was 2,543 long tons, compared with 2,818 long tons in 1966. Smelter tin production continued at a rate of about 2,000 long tons per year.

In March GEOMINES operations in the Congo came under the control of a new company, Société Géologique et Minière du Congo (GEMICO), with 50 percent Congolese participation. GEOMINES personnel were to retain responsibility for technical operations and marketing. However, at yearend an accord had not been signed, and GEOMINES remained the sole major company directed entirely from Brussels. The company employed 50 European technicians and 3,500 Congolese during the year.

### NONMETALS

**Diamond.**—In June the Ministry of Land, Mines, and Energy announced in Kinshasa that Société Minière de Bakwanga (MIBA) would sell diamonds directly to the de Beers Consolidated Mines, Ltd. organization rather than through SGM, as formerly. Britmond Co. (British Diamond Distributors Ltd.) of Hamilton, Bermuda, a de Beers affiliate, was given a monopoly on diamond purchasing in the Congo and opened a purchasing office in Kinshasa.

MIBA established headquarters at Mbuji-Mayi and was granted a charter under Congolese laws. In 1966 the company moved about 5 million cubic meters of overburden and gravel.<sup>10</sup> A new sorting plant employed about 220 Europeans and 3,600 Africans. "Congolization" of operations continued, with training schools in

the Congo and engineering study provided in Belgium.

Société Internationale Forestière du Congo (FORMINIERE) was taken over by the Government in 1966. The company sought compensation.

Illegal mining and smuggling continued on a large scale, estimate at nearly half the official reported production rate. Congo (Brazzaville) reported exports of 5.3 million carats in 1965<sup>11</sup> of diamond that probably originated largely in Congo (Kinshasa).

### MINERAL FUELS

**Coal.**—Société des Charbonnages de la Luena, an affiliate of GECOMIN, increased output of its Kaluku mine. Sales in 1966 were 37,947 tons to Union Minière du Haut-Katanga, 34,823 tons to Cimentkat, the cement producer, and 33,805 tons to the Bas Congo au Katanga Railroad Company.<sup>12</sup> The company acquired two new Bucyrus drag lines. The coal is of inferior quality, and future operations are indefinite.

**Petroleum.**—The 12,500-barrel-per-day refinery of Société Congolaise Italienne de Raffinage (SOCIR), near Moanda at the mouth of the Congo River, was dedicated in November. The company is owned by the Congolese Government (51 percent) and Ente Nazionale Idrocarburi (ENI) (49 percent). In December Esso received the first crude oil tender for 200,000 tons (about 1.5 million barrels) of Abu Dhabi crude, for delivery from January to April, 1968.<sup>13</sup>

Arrangements for pricing and marketing of refinery products were under negotiation between the Government, ENI, and four distributors in the Congo—Petrofina S.A. (Belgium), Shell Oil Company (Netherlands), Mobil Oil Corp. (United States), and Texaco Inc. (United States).

<sup>9</sup> Tin International. V. 60, January 1967, p. 11.

<sup>10</sup> Mining Journal. V. 269, No. 6885, Aug. 4, 1967, p. 77.

<sup>11</sup> International Financial News Survey. V. 19, No. 37, Sept. 22, 1967, p. 301.

<sup>12</sup> Industries et Travaux d'Outremer. No. 164, July 1967, p. 76.

<sup>13</sup> Petroleum Intelligence Weekly. Feb. 2, 1968, p. 7.