2010 Minerals Yearbook

FIJI [ADVANCE RELEASE]

U.S. Department of the Interior
U.S. Geological Survey

August 2011

The Mineral Industry of Fiji

By Lin Shi

Fiji is a South Pacific country located about two-thirds of the way from Hawaii to New Zealand. The country's economic growth in 2010 was 0.1%; its nominal gross domestic product (GDP) was about $3.8 billion, and the annual average inflation rate was 5.5%. Mineral industry activities were mainly the production of cement, gold, and silver, and exploration for oil offshore. Gross earnings from tourism were the major source of Fiji's foreign currency (ANZ Pacific Quarterly, 2011b, p. 9; U.S. Department of State, 2011).

Government Policies and Programs

The Mineral Resources Department (MRD) is Fiji's national geological survey and mining organization. MRD develops mining policies and provides geologic information to assist mining investors. The MRD also facilitates the exploration for and development of mineral and petroleum resources in the country (Mineral Resources Department, 2011).

On July 20, the Government published Mining Act (Amendment) Decree 2010 (Decree No. 39 of 2010), which contains a new section (17A) that defines land as including water and land covered by water; this definition is applicable only to the issuance of special prospecting licenses, however (Government of the Republic of the Fiji Islands, 2011).

Production

According to the Fiji Islands Bureau of Statistics, the volume of the country's 2010 production in the mining and quarrying sector increased compared with that of the previous year. The 2010 annual industrial production index (IPI) of the mining and quarrying sector was 59.6 based on the 2005 constant price, and the 2009 IPI was 34.9 (Fiji Islands Bureau of Statistics, 2011c).

Structure of the Mineral Industry

Mining was an integral part of Fiji's economy. Gold was the country's second most valuable export. Fiji had been a major regional gold producer for more than 80 years. The country's mineral industry consisted of Vatukoula Gold Mines plc. (VGM), which was a British-owned gold and silver mining company; one locally operated cement company named Fiji Industries Ltd. (FIL); and several locally operated small industrial mineral quarries (their names were not available) that produced construction materials, such as limestone, sand and gravel, and other construction aggregates. The country hosts several major porphyry copper-gold and epithermal gold mineralized areas (Register of Indo-Pacific Mining, 2009, p. 24).

Mineral Trade

In 2010, Fiji had a large trade deficit, which decreased by 14% to $388.2 million in the first half of 2010 compared with the same period in 2009. The leading trade partners of Fiji were Australia, Japan, New Zealand, Singapore, the United Kingdom, and the United States. Remittances from overseas Fijian workers grew by 14% from January to May in 2010 compared with the same period in 2009, and were the second most valuable source of the country's foreign exchange earnings (U.S. Department of State, 2011).

In 2010, Fiji's inflation rate was 5.5% compared with 3.7% in 2009 and the Fiji dollar appreciated on both a nominal and a real basis. Although Fiji's gold production increased, overall investment decreased because of the high inflation rate (ANZ Pacific Quarterly, 2011a, p. 10).

Fiji's 2010 annual import price index (MPI) increased by 12.4% to 127.7 from 113.6 in 2009. The MPI of base metals and articles of base metals increased by 22.3% owing to the increased import prices of aluminum and iron and steel; the MPI of mineral products increased by 22.6% owing to the increased import prices of mineral fuels; and the MPI of precious or semiprecious stones, precious metals, imitation jewelry, and coin increased by 46.9% owing to the increased import price of gold jewelry.

Fiji's 2010 annual export price index (XPI) increased by 7.3% to 111.7 from 104.1 in 2009. The XPI of mineral products increased by 10.8% owing to the increased export prices of cement and mineral fuels; the XPI of precious and semiprecious stones, precious metals, imitation jewelry, and coin increased by 18.2% owing to the increased export price of gold; and the XPI base metals and articles of base metals increased by 20.5% owing to the increased export prices of iron and steel and lead (Fiji Islands Bureau of Statistics, 2011a, b).

Commodity Review

Metals

Copper.—Japan's Nittetsu Mining Co. and Mitsubishi Materials Corp. announced the discovery of high-grade copper resources at their Namosi project, which is located 30 kilometers northwest of Sava. In 2007, Nittetsu Mining and Mitsubishi Materials signed a definitive joint-venture agreement (JVA) with Newcrest Mining Ltd. of Australia, which then engaged and managed the exploration of copper-gold deposits in the Namosi region. In 2010, Newcrest drilled and tested a near-surface copper-gold porphyry system at the Waivaka West area and confirmed that mineralization was intersected at shallow depths in target NVD022, which had an average grade of 0.91% copper across 144 meters (m) and 0.74 gram per metric ton (g/t) gold in a 4-m section of core (Fiji Government Online Portal, 2010; Newcrest Mining Ltd., 2010).

Gold and Silver.—In 2010, Fiji increased gold and silver production. The Vatukoula gold mine, which was 100% owned by VGM, was the country's primary gold and silver producing mine. The mine—which began production in 1933, closed in 2006, and reopened in April 2008—produced a total of

220 metric tons (t) (7 million troy ounces) of gold and 62 t (2 million troy ounces) of silver. Situated within the Tavua volcano in the Tavua Basin on the northern part of the island of Viti Levu, the mine was flooded and damaged in 2009 by a once-in-one-hundred-years rainfall. VGM planned to refurbish and develop operations at the mine to restore annual gold production levels to the historic 100,000 troy ounces per year, and to investigate the potential of expanding capacity through exploring and drilling (underground and surface mining) programs on the company-licensed surrounding areas. VGM announced that the mine had proven and probable reserves of 26,000 kilograms (kg) (830,000 troy ounces) of gold. The company processed 441,924 t of ore and recovered 1,860 kg (reported as 59,658 troy ounces) of gold from the mine in 2010, of which 1,520 kg (reported as 48,741 troy ounces) was from underground production at an average grade of 7.43 g/t gold, and 340 kg (reported as 10,917 troy ounces) was from surface production at a grade of 1.75 g/t gold (Vatukoula Gold Mines plc., 2011, p. 7, 12, 15).

Industrial Minerals

Cement.—The sole Fijian cement producer, FIL, produced portland cement and blended cement for the domestic construction market and for export to eight other Pacific island countries. FIL controlled Fiji's cement price, and the Government decided to bring in competition to reduce the price. FIL stopped producing clinker and began importing it from its parent company based in Singapore to make bag and bulk cement for local consumption. FIL paid $65.15 per metric ton plus freight costs for the clinker, which brought the average price at which the company sold various qualities of portland cement to $90 to $95 per metric ton; this was higher than the price of cement in other major cement producing countries (China, Russia, and the United States) of between $45 and $78 per metric ton. In 2010, FIL's annual net profit was between $3 million and $4 million, which was the same as it had been since 2005 when the clinker plant was closed and the company was restructured (Fiji Times Online, The, 2010; Kalia, 2010).

On December 31, Chinese Tengy Cement Co. Ltd. was granted a 99-year industrial lease on 33 acres to build the second cement plant in Fiji, and the company intended to start construction of the plant as soon as possible. China's clinker price was $40 to $45 per metric ton, and the freight cost was $10 to $15 per metric ton, which yielded a total clinker sale price of $50 to $60 per metric ton, which was lower than FIL's import clinker price (Fiji Times Online, The, 2010; Fiji Government Online Portal, 2011; Radio New Zealand, 2011).

The demand for construction materials by the construction industry increased, and the country's total estimated value of construction work in 2010 increased by 3.2% to $258.2 million compared with that of the previous year. Of this amount, private sector construction work increased by 1.0% and was valued at $2.3 million, and Government-funded construction work increased by 32.6% and was valued at $5.6 million, mainly owing to construction of the Fiji Electricity Authority dam in Nadarivatu (Fiji Islands Bureau of Statistics, 2011d).

Outlook

The Fiji economy is showing signs of growth, and the Reserve Bank of Fiji expects an increase in the GDP of 2.7% in 2011, 2.1% in 2012, and 1.9% in 2013. The annual inflation rate is planned to be kept at below 6.0% in 2011. Demand for gold is expected to continue to be strong owing to the high gold trading price and strong markets in China and India, and to the demand from the electronics and dentistry products industries (ANZ Pacific Quarterly, 2011b, p. 9; Vatukoula Gold Mines plc., 2011). The volume of gold mine output, gold exports, and recycled gold is expected to increase. Newcrest plans to continue to drill and scope the copper-gold mineralization in the Namosi region at the Nowai, Waisoi South, Waivaka, and Waivaka West prospect areas (Newcrest Mining Ltd., 2010). Fiji's cement production will likely increase as demand increases and a new plant is built.

References Cited

ANZ Pacific Quarterly, 2011a, Pacific quarterly—Country update—Fiji: Australia and New Zealand Banking Group Ltd., February 15, 18 p. (Accessed June 9, 2011, via http://www.anz.com/corporate/research/international-economics/pacific-research/.)

ANZ Pacific Quarterly, 2011b, Pacific quarterly—Country update—Fiji: Australia and New Zealand Banking Group Ltd., May 16, 17 p. (Accessed June 9, 2011, via http://www.anz.com/corporate/research/international-economics/pacific-research/.)

Fiji Government Online Portal, 2010, Govt to decide mine's fate: Government of the Republic of the Fiji Islands, May 5. (Accessed May 26, 2010, at http://www.fiji.gov.fj/index.php?option=com_content&view=article&id=1447:govt-to-decide-mines-fate&catid=71:press-releases&Itemid=155.)

Fiji Government Online Portal, 2011, Government facilitates foreign investor in record time: Government of the Republic of the Fiji Islands, December 31. (Accessed June 10, 2011, at http://www.fiji.gov.fj/index.php?option=com_content&view=article&id=3112:government-facilitates-foreign-investor-in-record-time&catid=71:press-releases&Itemid=155.)

Fiji Islands Bureau of Statistics, 2011a, Export price index—Quarter 4 and annual 2010: Fiji Islands Bureau of Statistics press release no. 29, May 12. (Accessed June 9, 2011, at http://www.statsfiji.gov.fj/Releases/xpi.htm.)

Fiji Islands Bureau of Statistics, 2011b, Import price index—Quarter 4 and annual 2010: Fiji Islands Bureau of Statistics press release no. 30, May 12. (Accessed June 9, 2011, at http://www.statsfiji.gov.fj/Releases/mpi.htm.)

Fiji Islands Bureau of Statistics, 2011c, Industrial production index—Quarter 4 and annual 2010: Fiji Islands Bureau of Statistics press release no. 26, April 21. (Accessed June 9, 2011, at http://www.statsfiji.gov.fj/Releases/ipi05.htm.)

Fiji Islands Bureau of Statistics, 2011d, Quarterly construction survey—Quarter 4 and annual 2010: Fiji Islands Bureau of Statistics press release no. 21, April 4. (Accessed June 9, 2011, at http://www.statsfiji.gov.fj/Releases/construction.htm.)

Fiji Times Online, The, 2010, Cement price down: The Fiji Times Online, February 2. (Accessed June 10, 2011, at http://www.fijitimes.com/story.aspx?id=138922.)

Government of the Republic of the Fiji Islands, 2011, Mining amendment decree 2010 (Decree no. 39 of 2010): Republic of Fiji Islands Government Gazette, v. 11, no. 85, p. 861. (Accessed June 9, 2011, at http://www.mrd.gov.fj/gfiji/download/MIning Amenment Decree 2010.pdf.)

Kalia, Rashmi, 2010, China to set up cement production in Fiji: ARI Communications LLC, August 19. (Accessed June 10, 2011, at http://www.aggregateresearch.com/articles/20000/China-to-set-up-cement-production-in-Fiji.aspx.)

Mineral Resources Department [Fiji], 2011, Mining and geology in Fiji: Mineral Resources Department. (Accessed June 9, 2011, at http://www.mrd.gov.fj/gfiji/Index.html.)

Newcrest Mining Ltd., 2010, Quarterly report for the three months ending 31 December 2010: Newcrest Mining Ltd., 10 p. (Accessed July 8, 2011, at http://www.newcrest.com.au/upload/760_1x25x201190007AM.pdf.)

Radio New Zealand, 2011, Chinese company to build Fiji cement factory: Radio New Zealand International, December 31. (Accessed June 6, 2011, at http://www.rnzi.com/pages/news.php?op=read&id=57965.)

Register of Indo-Pacific Mining, 2009, Fiji: Resource Information Unit, 300 p.
Vatukoula Gold Mines plc., 2011, Vatukoula Gold Mines annual report 2010: Vatukoula Gold Mines plc., 66 p. (Accessed June 10, 2011, at http://www.vgmplc.com/downloads/Vatukoula-Annual-Report -low-res.pdf.)
U.S. Department of State, 2011, Fiji: U.S. Department of State background note. (Accessed June 9, 2011, at http://www.state.gov/r/pa/ei/bgn/1834.htm.)

TABLE 1
FIJI: ESTIMATED PRODUCTION OF MINERAL COMMODITIES[1, 2]

Commodity[3]		2006	2007	2008	2009	2010
Cement, hydraulic	metric tons	143,000	145,000	143,000	110,000	120,000
Gold, mine output, Au content	kilograms	1,961 r	837 r	871 r	1,040 r	1,856 [4]
Limestone	metric tons	215,000	220,000	215,000	215,000	50,000
Sand and gravel	cubic meters	300,000	310,000	300,000	300,000	300,000
Silver, mine output, Ag content	kilograms	750	3	265 [4]	293	500

[1]Estimated data are rounded to no more than three significant digits.
[2]Table includes data available through June 10, 2011.
[3]In addition to the commodities listed, bauxite, crushed and dimension stone, coral sand, marble, and other construction materials are produced, but data are insufficient to make reliable estimates of output.
[4]Reported figure.

TABLE 2
FIJI: STRUCTURE OF THE MINERAL INDUSTRY IN 2010

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity[e]
Cement		Fiji Industries Ltd. (FIL) (an affiliate company of Holcim Group)	Lami, Suva, Fiji	145
Gold	kilograms	Vatukoula Gold Mines plc., 100%	Vatukoula, on the island of Viti Levu	1,856
Silver	do.	do.	do.	500

[e]Estimated. do. Ditto.