



2014 Minerals Yearbook

SOLOMON ISLANDS

THE MINERAL INDUSTRY OF THE SOLOMON ISLANDS

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The Solomon Islands is a country in the South Pacific Ocean that consists of large and small volcanic islands and hundreds of islets and atolls. About 80% of the country's population depends on agriculture, fishing, and forestry for at least a portion of its livelihood. The mineral resources that are the most significant to the economy are gold and silver. The country's undeveloped mineral resources include lateritic bauxite, lead, nickel, and zinc (Asian Development Bank, 2015b).

Minerals in the National Economy

In April 2014, severe flooding in the Solomon Islands caused damage to businesses, residential properties, and public infrastructure, such as bridges and crossings on the West Guadalcanal Highway that led to the capital city of Honiara. The most affected areas were Honiara, West Guadalcanal Province, and Isabel Province. In addition, the flooding led to the closure of the Gold Ridge Mine, the only gold and silver mine in the country. In 2014, the country's gross domestic product (GDP) increased by 2% compared with a 2.8% (revised) increase in 2013. Economic growth was driven mainly by the agriculture and fishing industries (Kitco News, 2013; Central Bank of Solomon Islands, 2014b, p. 4; Reliefweb, 2014; Asian Development Bank, 2015a, p. 258).

Solomon Island's exports totaled \$411 million (SBD3.12 billion) in 2014 compared with \$403 million (SBD2.95 billion) (revised) in 2013, and imports totaled \$456 million (SBD3.47 billion) in 2014 compared with \$476 million (SBD3.49 billion) (revised) in 2013. The value of mineral exports decreased by 67% to \$28 million (SBD210 million) from \$85 million (SBD624 million) owing to the closure of the Gold Ridge Mine and accounted for 7% of total exports in 2014 compared with 21% (revised) in 2013. Gold and silver exports went mostly to Australia. The value of mineral fuel imports decreased by 14% owing to the closure of the Gold Ridge Mine, which was the leading fuel consumer in the Solomon Islands, and accounted for 22% of total fuel imports in 2014 compared with 26% in 2013. Solomon Islands' major export partners, by value, in 2014 were China (57.5%), Australia (10.6%), the United Kingdom (6.3%), and Italy (5.9%). The major import partners, by value, were Australia (27.6%), Singapore (24.2%), China (12.0%), and Malaysia (8.4%) (Central Bank of Solomon Islands, 2013; 2014a; 2014b, p. 4, 53–54; Australia Department of Foreign Affairs and Trade, 2014).

Government Policies and Programs

In July, the National Parliament of the Solomon Islands passed the Mines and Minerals (Amendment) Act 2014 (formerly the Mines and Minerals Act 1996). The Mines and Minerals (Amendment) Act 2014 states that all mining companies that hold mining licenses in the Solomon Islands

are expected to invest in improvements of infrastructure in the Solomon Islands. The newly established Mining Royalty Special Fund's responsibilities include collecting royalty payments on minerals other than bauxite, copper, gold, iron ore, nickel, and silver, such as lead, phosphate, and zinc. The consolidated revenues of the Government of the Solomon Islands would include the royalty payments for bauxite, copper, gold, iron ore, nickel, and silver, of which 10% would be paid to the Government of the Solomon Islands as a trustee of the Government for the Province in which the licensed area is located and 40% would be paid to the Government of the Solomon Islands as a trustee for the land owner of the licensed area (National Parliament of Solomon Islands, 2014, p. 4–6).

Production

In 2014, gold output decreased by 26% compared with that of 2013, and silver output decreased by 32% compared with that of 2013. The decrease in output resulted from the low global price of gold in 2014 (\$1,300 per troy ounce) and flooding that led to the closure of the Gold Ridge Mine (table 1).

Structure of the Mineral Industry

Table 2 is a list of major mineral industry facilities.

Commodity Review

Metals

Alumina and Bauxite.—Solomon Bauxite Ltd. (a subsidiary of Southwest Pacific Bauxite Pty Ltd. of Australia) held 75% interest in the Vaghena Island bauxite project. The project contained about 25 million metric tons (Mt) of bauxite. A feasibility study for the project was planned to be completed in mid-2014. As of year's end 2014, there was no updated information about the feasibility study. Depending on the results of the study and the granting of mining licenses, production could begin in 2015. The projected production capacity of the mine was 1.2 million metric tons per year (Mt/yr) of bauxite, which could be expanded to 2 Mt/yr after several years. The project is located on the northeastern portion of Vaghena Island, and it was expected to employ between 200 and 250 people (Solomon Bauxite Ltd., 2014; Southwest Pacific Bauxite Pty Ltd., 2014).

In December 2014, the Ministry of Mines, Energy and Rural Electrification canceled PT Mega Bintang Borneo Ltd. of Indonesia's mining licenses and ordered it to stop operations at the bauxite area on Rennell Island in Renbel Province. The Ministry of Mines, Energy and Rural Electrification awarded PT Mega Bintang Borneo Ltd.'s licensed area to Asia Pacific Investment and Development Ltd. (APID) of Indonesia because PT Mega Bintang Borneo Ltd.'s licensed area fell under APID's prospecting licenses, which were renewed in 2012. In 1968, Mitsui conducted a survey of the southern part of

Rennell Island and estimated total bauxite reserves to be more than 36 Mt. In October 2014, APID held a groundbreaking ceremony in the western part of Rennell Island. The company moved some equipment and was expected to move 80 more motorized machines for operations to the development area; it was also expected to employ 200 local workers. The mined bauxite would be exported and processed abroad (Stock, 1970, p. 972; Puia, 2014a, b; Theonomi, 2014a, b).

Copper, Gold, and Silver.—Gold Ridge Mine, which is located in Guadalcanal Province, was the only operating gold and silver mine in Solomon Islands. As of June 2014, total probable reserves at the mine were estimated to be 14.6 Mt at a grade of 1.4 grams per metric ton (g/t) gold. From January through March and June through July, Gold Ridge Mine produced 1,403 kilograms (kg) of gold and 280 kg of silver. From April to June, operations at the Gold Ridge Mine were stopped owing to escalating security concerns, damages caused by severe flooding of the only access road to the mine, lack of food supply and fuel for electricity, and flooded open pit mines. St Barbara Ltd. evacuated 200 employees from the mining site. Later in the year, St Barbara Ltd. cut more than 400 jobs at the mine and negotiated transferring the operation of the Gold Ridge Mine to the Government of Solomon Islands. The Government of Solomon Islands and the landowners of the Gold Ridge Mine expressed concern about the collapse of a tailings dam, which could cause contamination of water in the Metapona River (Central Bank of Solomon Islands, 2014b, p. 12, 67; Radio New Zealand, 2014; Solomon Times Online, 2014b–e; St Barbara Ltd., 2014, p. ii–iii, 7; Swanepoel, 2014).

The exploration licenses for the Kuma copper-gold project and the Fauro Island project were awarded in 2013 to Australian Resource Management Pty Ltd. of Australia, a wholly owned subsidiary of SolGold plc of Australia (formerly Solomon Gold plc). In 2014, SolGold conducted exploration studies for copper and gold at the Kuma project; the Fauro Island project, the Lower Koloula project, and the Malukuna project were not included in the exploration studies. The Kuma project is a copper-gold porphyry system located about 40 kilometers (km) south-southeast of the capital, Honiara. The area of the Kuma project is 43 square kilometers (km²). In September, SolGold collected 184 soil samples for analysis, 184 samples for spectral analysis, and 3 rock-chip samples for analysis at the Kuma project (Asia Miner News, 2013; SolGold plc, 2013a, p. 24; 2014, p. 8, 37, 41).

The Fauro Island project consists of nine target areas and includes the central Ballyorlo porphyry copper and gold deposit and peripheral high-level targets and high-grade epithermal gold-silver targets at Kiovakase and Meriguna. The exploration licenses for the Malukuna and Lower Koloula projects were awarded to Guadalcanal Exploration Pty Ltd., a 100%-owned subsidiary of SolGold, in 2013. The Malukuna project is located 23 km southeast of Honiara and covers an area of 36 km² that has not yet been explored. The Lower Koloula project consists of two main areas of interest—the Big Frog and the Pepechichi areas. Big Frog is a porphyry system, and rock-float samples graded 2.47 g/t gold, 100 g/t silver, and more than 0.1% copper. The Pepechichi area is defined by a copper-gold

anomaly (Asia Miner News, 2013; SolGold plc, 2013a, p. 23–24, 26; 2013b, p. 1–5)

In 2014, Axiom Mining Ltd. of Australia was granted an exploration license for the West Guadalcanal project. The project is an epithermal gold and copper-gold system that covers an area of 485 km². The West Guadalcanal project consisted of three prospects—Mt. Tanijili, Tahoe, and Polo. In 2014, Axiom Mining planned to carry out initial drilling to a depth of 2,500 meters (m) at the Tahoe prospect. A total of 1,529 m was drilled with nine holes. The drilling results included 4.35 m containing 0.91 g/t gold and 7.22 g/t silver. Trenching results indicated that the surface mineralization zone could be extended to 1.5 km (Axiom Mining Ltd., 2014a, p. 12–15; Axiom Mining Ltd., 2015a, b).

Global Immune Technologies of the United States has signed a security exchange agreement with U.S.-based Universal Resources (formerly Meekom Transaction) to acquire 70% of Meekom Gold Exchange and Refinery Corp. Ltd. (MGER). The licenses to refine, buy, and sell gold were awarded to MGER in 2009 and renewed in 2013. MGER is under Australian buyers' protection based on an agreement with the United Nations. MGER buys 600 kilograms per year of gold from artisanal miners at a low price (Mining Technology, 2014; Okla, 2014).

Nickel.—In 2014, the Solomon Islands High Court dismissed Sumitomo Metal Mining Co., Ltd. (SMM) of Japan's claims for an exploration license for Isabel nickel project and ruled in favor of Axiom Mining. Axiom Mining was awarded a 50-year exploration license through its subsidiary Axiom KB Ltd., which is a joint venture of Bungusule and Kolosori tribe (20%) and Axiom Mining (80%). In 2014, Axiom Mining resumed exploration activities on Isabel prospect. Axiom KB conducted a drilling survey at the Isabel nickel project to determine the grade of nickel in saprolite beneath the limonite mineralization, and to verify the historical data compiled by International Nickel Company Ltd. (INCO) of Canada and Kaiser Engineering International Inc. (Kaiser Engineering) of the United States. The drilling results showed nickel concentrations of more than 2% and a depth of mineralization that was deeper than indicated by the INCO and Kaiser Engineering data. The development of Isabel nickel mine was expected to start in 2015. The mine's production capacity was expected to be 2 Mt/yr of ore (Axiom Mining Ltd., 2014a, p. 2, 11; 2014b; 2015a, b; Garret, 2014).

In 2014, Axiom Mining partnered with Anitua Ltd. of Papua New Guinea. Anitua provided a loan of \$4.1 million (AUD5 million¹) for the development of the Isabel nickel project. Anitua also agreed to provide services, such as exploration drilling, construction, camp management, and contract mining (Solomon Times Online, 2014a).

Outlook

The economic growth of the Solomon Islands is expected to recover slowly in 2015; the GDP is projected to increase to 3.3% in 2015 from 2.0% in 2014. The recovery of the mineral industry will likely depend on how quickly gold production resumes at the Gold Ridge Mine and on the future of mining

¹Where necessary, values have been converted from Australian dollars (AUD) to U.S. dollars (US\$) at an average rate of AUD1.23=US\$1 for 2014.

projects such as those for bauxite and nickel (Central Bank of Solomon Islands, 2014b, p. 7).

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TABLE 1
SOLOMON ISLANDS: PRODUCTION OF MINERAL COMMODITIES¹

(Kilograms)

Commodity	2010	2011	2012	2013	2014
Gold, mine output, Au content	130	1,641	2,180	1,886	1,403
Silver, mine output, Ag content	--	612	932	413 ^r	280

^rRevised. -- Zero.

¹Table includes data available through June 22, 2015.

TABLE 2
SOLOMON ISLANDS: STRUCTURE OF THE MINERAL INDUSTRY IN 2014

(Kilograms)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Gold:			
Ore	St Barbara Ltd. (100%)	Gold Ridge Mine, Guadalcanal, Guadalcanal Province	1,500 ^e
Refined	Meekom Gold Exchange and Refinery Corp. Ltd.	NA	700 ^e
Silver, in ore	St Barbara Ltd. (100%)	Gold Ridge Mine, Guadalcanal, Guadalcanal Province	30

^eEstimated. NA Not available.