



2013 Minerals Yearbook

MALI AND NIGER

THE MINERAL INDUSTRIES OF MALI AND NIGER

By Omayra Bermúdez-Lugo

MALI

In June 2013, Mali's interim Government and the country's Tuareg rebel groups signed a preliminary peace agreement in Ouagadougou, the capital city of Burkina Faso. The peace agreement led to democratic presidential elections in Mali in July 2013, and legislative elections in November and December (Diallo and Diarra, 2013; Kerry, 2013, Psaki, 2013). Mali's political stability had been threatened in April 2012 when Tuareg rebels carried out a military coup that resulted in the dissolution of the Government and the internal displacement of more than 100,000 people. Although industrial gold mining operations in the west and southwest of the country were not affected by the coup, gold, manganese, iron ore, and phosphate rock exploration activities were temporarily suspended; these exploration activities, however, resumed in 2013 (Nossiter, 2012; United Nations High Commissioner for Refugees, 2012).

Mali's economy continued to be largely dependent on gold exports, which historically have accounted for the majority of the country's total export earnings from mining. In addition, to gold, Mali was estimated to also produce about 20,000 t of phosphate rock. Diamond, iron ore, rock salt, sand and gravel, silver as a byproduct of gold mining, and colored gemstones (such as amethyst, epidote, garnet, prehnite, and varieties of quartz) were also produced, but information was inadequate to make reliable estimates of output. In 2013, gold produced from industrial mining operations decreased to 40,803 kilograms (kg) from 41,016 kg in 2012; artisanal miners were estimated to have produced more than 6,000 kg of gold during 2013.

Industrial gold production came from seven mines. Production from the Syama Mine increased by about 35% to 5,513 kg of gold in 2013, mostly as a result of increased throughput and higher ore grades. Production from the Tabakoto Mine increased by 13.5% to 3,895 kg of gold, mostly as a result of the completion of the Tabakoto mill expansion program. Gold production from the Kalana Mine increased slightly to 317 kg in 2013 from 314 kg in 2012. At the Loulo-Gounkoto Mine, higher throughput, resulting from the commissioning of a third mill in 2012, resulted in a 30% increase in output to 18,051 kg of gold in 2013 from 15,652 kg in 2012. Gold production from the Morila Mine's stockpile decreased by 30% to 4,411 kg; Morila Mine's main ore body was depleted in 2009 and the only ore being processed was that of stockpiled material, which was also expected to be depleted by 2017. Gold production also decreased at the Sadiola Hill and Yatela Mines. Production from the Sadiola Hill Mine decreased by about 14% to 6,532 kg, and that of the Yatela Mine, by about 7% to 2,084 kg. Mining activities at the Yatela Mine were suspended on September 30 partly as a result of the decrease in the spot price of gold (AngloGold Ashanti Ltd., 2014a, p. 33; 2014b; Avnel Gold Mining Ltd., 2014, p. 20; Endeavour Mining Corp., 2014,

p. 7, 16; IAMGOLD Corp., 2014, p. 15, 63; Randgold Resources Ltd., 2014, p. 23, 33; Resolute Mining Ltd., 2014, p. 9–10).

Table 1 provides data on the principal mineral commodities produced in Mali from 2009 to 2013, and table 2 provides a list of major mineral industry facilities in 2013. More-extensive coverage of the mineral sector of Mali can be found in the 2011 and 2012 U.S. Geological Survey Minerals Yearbook, volume III, Area Reports—International—Africa and the Middle East, which are available at <http://minerals.usgs.gov/minerals/pubs/country/africa.html#ml>.

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NIGER

In 2013, Niger was the world's fourth-ranked producer of uranium by tonnage. Niger's uranium industry continued to be

affected by political instability in the West Africa region. On May 23, 2013, at least 14 employees at Société des Mines de l'Air (SOMAIR), a subsidiary of Areva Group of France, were injured and one was killed after a suicide bomb attack was carried out at Areva Group's concession facilities. Although uranium ore extraction resumed at SOMAIR's facility on May 24, ore processing was not fully operational until August. The SOMAIR facilities were located near Arlit in the Agadez region in northeastern Niger. Other mineral commodities produced in the country included cement, coal, gold, gypsum, limestone, petroleum, petroleum refinery products, salt, silver, and tin (Areva Group, 2013a–c; BBC News, 2013; World Nuclear Association, 2014).

On December 2, Semafo Inc. of Canada sold its 80% interest in the Samira Hill Mine to Government-owned Société de Patrimoine des Mines du Niger S.A. (SOPAMIN). The Samira Hill Mine was the only industrial gold mining operation in the country. Production in 2013 was about 960 kg of gold (Semafo Inc., 2014, p. 20).

Table 1 provides data on the principal mineral commodities produced in Niger from 2009 through 2013, and table 2 provides a list of major mineral industry facilities in 2013. More-extensive coverage of the mineral sector of Niger

can be found in the 2011 and 2012 U.S. Geological Survey Minerals Yearbook, volume III, Area Reports—International—Africa and the Middle East, which are available at <http://minerals.usgs.gov/minerals/pubs/country/africa.html#ng>.

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TABLE 1
MALI AND NIGER: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Country and commodity		2009	2010	2011	2012	2013
MALI ²						
Gold, mine output, Au content ³	kilograms	42,731 ^r	38,563 ^r	38,208 ^r	41,016 ^r	40,803
Phosphate rock		--	1,600 ^e	18,000 ^e	20,000 ^e	20,000 ^e
NIGER ⁴						
Cement, hydraulic		41,848	32,008	72,510	72,500	70,000 ^e
Coal, bituminous		225,072	246,558	246,016	235,072	241,792
Gold, mine output, Au content ⁵	kilograms	1,985	1,950	1,957	1,662	1,150
Gypsum		19,737	7,559	6,058	600 ^r	--
Limestone		29,691	23,152	-- ^r	-- ^r	--
Salt ^e		30,000	30,000	30,000	30,000	30,000
Silver, mine output, Ag content	kilograms	256	326	197	329	300 ^e
Petroleum:						
Crude ⁶	thousand 42-gallon barrels	--	--	680 ^r	4,642 ^r	6,498
Refinery products ⁶	do.	--	--	459	4,550	6,335
Tin, mine output, Sn content ⁷		6	6	10	-- ^r	--
Uranium, U ₃ O ₈ content ⁸		3,800 ^r	4,900 ^r	5,100 ^r	5,500 ^r	5,300

^eEstimated; estimated data are rounded to no more than three significant digits. ^rRevised. -- Zero.

¹Table includes data available through December 31, 2014.

²In addition to the commodities listed, Mali also produced diamond, iron ore, salt, sand and gravel, silver as a byproduct of gold mining, and colored gemstones (amethyst, epidote, garnet, prehnite, and varieties of quartz), but information is inadequate to make reliable estimates of output.

³Excludes artisanal gold production, which was estimated to be more than 5,000 kilograms (kg) in 2009 and 2010 and more than 6,000 kg from 2011 through 2013.

⁴In addition to the commodities listed, Niger also produced phosphate rock, sulfuric acid produced from imported sulfur, tungsten ore, and a variety of construction materials (clays, sand and gravel, and stone), but information is inadequate to make reliable estimates of output.

⁵Includes artisanal and small-scale production of gold, which averaged 267 kilograms per year from 2008 to 2012.

⁶Reported by Institut National de la Statistique.

⁷Production of tin was by artisanal miners.

⁸Series revised to U₃O₈ content from U content to reflect the standard unit of trade used in the nuclear energy business.

TABLE 2
MALI AND NIGER: STRUCTURE OF THE MINERAL INDUSTRIES IN 2013

(Metric tons unless otherwise specified)

Country and commodity		Major operating companies and major equity owners	Location of main facilities ¹	Annual capacity
MALI				
Gold	kilograms	Artisanal miners	Kenieba Valley	5,000
Do.	do.	Endeavour Mining Corp., 80%; Government, 20%	Tabakoto Mine, Kenieba Valley	4,600
Do.	do.	Morila Ltd. (AngloGold Ashanti Ltd., 40%; Randgold Resources Ltd., 40%; Government, 20%)	Morila Mine, 280 km southeast of Bamako	4,500
Do.	do.	Sadiola Exploration Company Ltd. (AngloGold Ashanti Ltd., 40%; IAMGOLD Corp., 40%; Government, 20%)	Yatela Mine, ² 50 km southwest of Kayes	2,100
Do.	do.	Société d'Exploitation des Mines d'Or de Sadiola S.A. (AngloGold Ashanti Ltd., 41%; IAMGOLD Corp., 41%; Government, 18%)	Sadiola Hill Mine, 77 km south of Kayes	7,000
Do.	do.	Société d'Exploitation des Mines d'Or de Kalana S.A. (Avnel Gold Mining Ltd., 80%, and Government, 20%)	Kalana Mine, 300 km south of Bamako	900
Do.	do.	Société des Mines de Loulo S.A. (Somilo) (Randgold Resources Ltd., 80%, and Government, 20%)	Loulo-Goukoto Mine complex, 350 km west of Bamako	21,000
Do.	do.	Société des Mines de Syama S.A. (Resolute Mining Ltd., 80%, and Government, 20%)	Syama Mine, 300 km southeast of Bamako	7,800
Phosphate rock		Toguna S.A. (Toguna Groupe, 100%)	Tilemsi, northern Mali	140,000
NIGER				
Cement		Société Nigérienne de Cimenterie (Damnaz Cement Company Ltd.)	Malbaza Uzine, southwestern Niger	80,000
Coal		Société Nigérienne de Charbon (SONICHAR)	Anou Araren, central Agadez region	300,000
Gold	kilograms	Société de Patrimoine des Mines du Niger S.A. (SOPAMIN), 80%, and Government, 20%	Samira Hill Mine, 90 km west of Niamey	3,000
Petroleum	thousand 42-gallon barrels per day	China National Petroleum Corp., 60%, and Government, 40%	Agadem oilfields	20,000
Petroleum refinery products	do.	China National Petroleum Corp., 60%, and Government, 40%	Soraz refinery, city of Zinder, 900 km east of Niamey	20,000
Salt		Artisanal mining	Bilma salt pans, Tenere Desert, northern Niger	33,000
Uranium		Compagnie Minière d'Akouta (COMINAK) [Areva Group, 34%; Government, 31%; Overseas Uranium Resources Development Co., 25%; ENUSA Industrias Avanzadas S.A., 10%]	Akouta underground mine, northern Niger	2,000
Do.		Société des Mines de l'Air (SOMAIR) (Areva Group, 63.4%, and Government, 36.6%)	Arlit open pit mine, 6 km northwest of Arlit, Agadez region	3,000
Do.		Société des Mines d'Azelik S.A.	Azelik Mine	700

Do. do. Ditto.

¹Abbreviations used for units of measure are as follows: km, kilometer.

²The Yatela Mine closed in September 2013.