

2017–2018 Minerals Yearbook

CENTRAL AMERICA [ADVANCE RELEASE]

THE MINERAL INDUSTRIES OF CENTRAL AMERICA

Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama

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Note: In this chapter, information for 2017 is followed by information for 2018.

BELIZE

In 2017 and 2018, the production of mineral commodities—notably crude petroleum—represented only a minor part of the economy of Belize (Central Bank of Belize, 2019, p. 27–28). The legislative framework for the hydrocarbon sector in Belize is provided by the Petroleum Act (revised 2003) and Petroleum Regulations, statutory instrument No. 112 of 1992. Data on mineral production are in table 1. Table 2 is a list of major mineral industry facilities. More-extensive coverage of the mineral industry of Belize can be found in previous editions of the U.S. Geological Survey Minerals Yearbook, volume III, Area Reports—International—Latin America and Canada, which are available at https://www.usgs.gov/centers/nmic/latin-america-and-canada-north-america-central-america-and-caribbean.

Reference Cited

Central Bank of Belize, 2019, 2018 annual report & statement of accounts: Belize City, Belize, Central Bank of Belize, 135 p. (Accessed December 12, 2019, at https://www.centralbank.org.bz/docs/default-source/4.2.4-annual-reports/annual-report-2018.pdf?sfvrsn=2/.)

COSTA RICA

In 2017 and 2018, the production of mineral commodities—notably cement, crushed stone, diatomite, gold, petroleum refinery products, and sand and gravel—represented only a minor part of the economy of Costa Rica (Central Bank of Costa Rica, 2019, p. 124). The legislative framework for the mineral sector in Costa Rica is provided by the Mining Code Law No. 6797 of 1982. Data on mineral production are in table 1. Table 2 is a list of major mineral industry facilities. More-extensive coverage of the mineral industry of Costa Rica can be found in previous editions of the U.S. Geological Survey Minerals Yearbook, volume III, Area Reports—International—Latin America and Canada, which are available at https://www.usgs.gov/centers/nmic/latin-america-and-canada-north-america-central-america-and-caribbean.

Reference Cited

Central Bank of Costa Rica, 2019, Memoria anual 2018 [Annual report 2018]: San Jose, Costa Rica, Central Bank of Costa Rica, 130 p. (Accessed December 20, 2019, at https://activos.bccr.fi.cr/sitios/bccr/publicaciones/DocMemoriaAnual/Memoria_Anual_2018.pdf.)

EL SALVADOR

In 2017 and 2018, the production of mineral commodities—notably cement and raw steel—represented only a minor part of the economy of El Salvador (Banco Central de Reserva de El Salvador, 2019). The legislative framework for the mineral sector in El Salvador is provided by law No. 544/1995. Data on mineral production are in table 1. Table 2 is a list of major mineral industry facilities. More-extensive coverage of the mineral industry of El Salvador can be found in previous editions of the U.S. Geological Survey Minerals Yearbook, volume III, Area Reports—International—Latin America and Canada, which are available at https://www.usgs.gov/centers/nmic/latin-america-and-canada-north-america-central-america-and-caribbean.

Reference Cited

Banco Central de Reserva de El Salvador, 2019, Gross domestic product— Production, expenditure and income. At current prices: San Salvador, El Salvador, Banco Central de Reserva de El Salvador. (Accessed October 18, 2019, via https://www.bcr.gob.sv/bcrsite/?cdr=160&lang=en.)

GUATEMALA

In 2017 and 2018, the production of mineral commodities—notably antimony, gemstones, gold, gypsum, lead, limestone, nickel, raw steel, silver, and zinc—represented only a minor part of the economy of Guatemala (Ministerio de Energia y Minas, 2019, p. 11–13, 16). The legislative framework for the mineral sector in Guatemala is provided by Decree No. 48/1997. Data on mineral production are in table 1. Table 2 is a list of major mineral industry facilities. More-extensive coverage of the mineral industry of Guatemala can be found in previous editions of the U.S. Geological Survey Minerals Yearbook, volume III, Area Reports—International—Latin America and Canada, which are available at https://www.usgs.gov/centers/nmic/latin-america-and-canada-north-america-central-america-and-caribbean.

Reference Cited

Ministerio de Energía y Minas, 2019, Anuario estadístico minero 2018 [Annual mining statistics 2018]: Guatemala City, Guatemala, Ministerio de Energía y Minas, 27 p. (Accessed December 21, 2019, via http://www.mem.gob.gt/mineria/estadísticas-mineras/anuario-estadístico-minero/.)

HONDURAS

In 2017 and 2018, the production of mineral commodities—notably antimony, cement, gold, lead, silver, and zinc—represented only a minor part of the economy of Honduras (Banco Central de Honduras, 2019, p. 45–46). The legislative framework for the mineral sector in Honduras is provided by Decree No. 32/2013. Data on mineral production are in table 1. Table 2 is a list of major mineral industry facilities. More-extensive coverage of the mineral industry of Honduras can be found in previous editions of the U.S. Geological Survey Minerals Yearbook, volume III, Area Reports—International—Latin America and Canada, which are available at https://www.usgs.gov/centers/nmic/latin-america-and-canada-north-america-central-america-and-caribbean.

Reference Cited

Banco Central de Honduras, 2019, Memoria 2018 [2018 report]: Tegucigalpa, Honduras, Banco Central de Honduras, 65 p. (Accessed October 18, 2019, at https://www.bch.hn/download/memoria/memoria_anual_2018.pdf.)

NICARAGUA

In 2017 and 2018, the production of mineral commodities—notably cement, gold, gypsum, lime, petroleum refinery products, and silver—represented only a minor part of the economy of Nicaragua (Banco Central de Nicaragua, 2019, p. 143). The legislative framework for the mineral sector in Nicaragua is provided by law No. 525/2001. Data on mineral production are in table 1. Table 2 is a list of major mineral industry facilities. More-extensive coverage of the mineral industry of Nicaragua can be found in previous editions of the U.S. Geological

Survey Minerals Yearbook, volume III, Area Reports—International—Latin America and Canada, which are available at https://www.usgs.gov/centers/nmic/latin-america-and-canada-north-america-central-america-and-caribbean.

Reference Cited

Banco Central de Nicaragua, 2019, Informe anual 2018 [Annual report 2018]:Managua, Nicaragua, Banco Central de Nicaragua, 166 p. (Accessed December 18, 2019, at https://www.bcn.gob.ni/publicaciones/periodicidad/anual/informe anual/2018/Informe%20Anual%202018.pdf.)

PANAMA

In 2017 and 2018, the production of mineral commodities—notably cement, gold, lime, and salt—represented only a minor part of the economy of Panama (Instituto Nacional de Estadística y Censo, 2019). The legislative framework for the mineral sector in Panama is provided by law No. 23/1963. Data on mineral production are in table 1. Table 2 is a list of major mineral industry facilities. More-extensive coverage of the mineral industry of Panama can be found in previous editions of the U.S. Geological Survey Minerals Yearbook, volume III, Area Reports—International—Latin America and Canada, which are available at https://www.usgs.gov/centers/nmic/latin-america-and-canada-north-america-central-america-and-caribbean.

Reference Cited

Instituto Nacional de Estadística y Censo, 2019, Cuentas nacionales [National accounts]: Panama City, Panama, Instituto Nacional de Estadística y Censo. (Accessed December 21, 2019, via http://www.inec.gob.pa/archivos/P9231Avance%20Anual%20y%20Trimestral-2018.xlsx.)

$\label{eq:table 1} \textbf{TABLE 1}$ CENTRAL AMERICA: PRODUCTION OF MINERAL COMMODITIES 1

(Metric tons, gross weight, unless otherwise specified)

Country and commodit	2014	2015	2016	2017	2018	
BELIZE	140 11 1	640	500	4.40 F	0.60	001
Petroleum, crude the COSTA RICA	usand 42-gallon barrels	642	528	449 ^r	860	801
	4 4 4	1.500	1.600	1.600	1.000	1.000
Cement, hydraulic ^e	thousand metric tons	1,500	1,600	1,600	1,800	1,900
Diatomite	do.	18 °	20 e	20 e	7	7
Gold, mine, Au content	kilograms	100 °	100 e	100 e	4,255	3,699
	usand 42-gallon barrels	20,000	20,000	20,000	20,000	20,000
Stone, sand, and gravel:						
Sand and gravel, construction	thousand metric tons	7,724	7,700 °	7,700 °	7,700 °	6,000 e
Stone, crushed:						
Limestone, including calcareous materia		1,944	1,950 e	1,950 e	1,950 e	1,900 e
Sandstone	do.	145	150 e	150 e	150 e	150 e
Unspecified, rock and rough stone	do.	12,020	12,000 e	12,000 e	12,000 e	10,000 e
EL SALVADOR						
Cement, hydraulic ^e	thousand metric tons	1,000	1,000	1,000	1,000	1,000
Iron and steel:						
Raw steel		121,000	124,000	100,000	96,000	99,000
Products, semimanufactured ^e		110,000	111,000	95,000	95,000	95,000
GUATEMALA						
Antimony, mine, concentrate, Sb content		159	r	25	25 °	25 °
Barite		43	544	500	43	40 ^e
Cement, hydraulic ^e	thousand metric tons	3,500	3,500 ^r	3,600	3,700	3,800
Clays:						
Bentonite		38,368	718 ^e	18,081	20,542	20,000 e
Kaolin		1,285	1,101	793	657	700 ^e
Feldspar, mine		10,410	10,340	30,428	29,145	30,000 e
Gemstones, jadeite		521	589	216	1,891	1,611
Gold, mine, Au content	kilograms	5,928	5,641	3,826	1,646	200 e
Gypsum, mine	thousand metric tons	82	111	131	135	133
Iron and steel, raw steel	do.	395	403	314	294	300
Lead, mine, concentrate, Pb content		10,359 г	10,193 ^r	4,181 ^r	13,803	264
Lime hydrated ^e	thousand metric tons	r	r	170	170	170
Magnesite		24,268	20,000	23,954	16,298	20,000 e
Nickel, ferronickel, Ni content		5,040 ^r	10,826	8,688	12,416	14,688
Petroleum:						
Crude the	usand 42-gallon barrels	3,669	3,664 ^r	3,285 ^r	3,519	3,363
Refinery:						
Asphalt	42-gallon barrels	237,700	163,671	82,939	278,514	589,552
Diesel	do.	280,240	268,699	291,943	240,250	338,591
Kerosene	do.	3,520	3,000 e	3,000 e		521
Refinery fuel	do.	20,000 e	19,000 r, e	16,521	17,000 e	21,613
Pumice and related materials, pumice, sand		192,725	387,976	569,476	570,000 e	570,000 e
Silver, mine, Ag content	kilograms	631,382	862,197	793,083	336,943	
Stone, sand, and gravel:						
Sand and gravel, construction:						
River sand	thousand metric tons	314	181	99	100 e	100 e
Silica sand		53,200 ^r	324,658	515,921	69,021	69,000 ^e
Unspecified, common	thousand metric tons	235	622	281	591	728
Stone, crushed:						
Basalt		22,874 ^r	12,816 ^r	50,032	60,000 ^e	60,000 ^e
Basaltic andesite		2,324,208 ^r	2,574,334	2,789,343	3,030,955	5,503,883
Dolomite		10,305	33,837	16,583	20,000 ^e	14,994
Limestone, crude		2,823,106	5,036,552	2,050,691	5,583,172	2,072,312
Marble		75,716	168,331	76,152	26,254	63,207

$\label{total} \mbox{TABLE 1---Continued} \\ \mbox{CENTRAL AMERICA: PRODUCTION OF MINERAL COMMODITIES}^1$

(Metric tons, gross weight, unless otherwise specified)

Country and com	2014	2015	2016	2017	2018	
GUATEMALA—C	Continued					
Stone, sand, and gravel:—Continued						
Stone, crushed:—Continued						
Marl		65,898	60,957	60,000 ^e	60,000 ^e	60,000 ^e
Schist		310,091	358,382	556,723	394,315	390,000
Talc and related materials, talc		7,250	3,779	2,733	1,981	2,000 e
Zinc, mine, concentrate, Zn content		13,394	14,810 ^r	5,564 ^r	6,100	
HONDURA	AS					
Antimony, mine, concentrate, Sb content	nt ^e	94	21	3	3	12
Cement, hydraulic ^e	thousand metric tons	1,700	1,700	1,700	1,700	1,800
Gold, mine, Au content	kilograms	2,762 ^r	2,598 ^r	2,607	2,657	2,064
Lead, mine, concentrate, Pb content		15,509	9,844	4,400 r	6,760	9,893
Silver, mine, Ag content	kilograms	56,827	34,369	19,275 г	21,785	31,182
Zinc, mine, concentrate, Zn content		29,509	22,992	14,579	20,436	28,421
NICARAGU	JA					
Cement, hydraulic ^e	thousand metric tons	700	700	700 ^r	900	910
Gold, mine, Au content	kilograms	8,648 ^r	6,814 ^r	8,391	7,377	7,703
Gypsum, including anhydrite, mine		57,390	50,370	41,750	66,740	70,341
Lime		4,679	4,104	5,000 e	5,200 e	5,000 e
Petroleum, refinery:						
Asphalt	thousand 42-gallon barrels	105,900	132,200	113,700	101,510	128,071
Diesel	do.	1,591,000	1,421,700	993,400	1,221,340	1,520,128
Fuel oil	do.	1,942,700	2,236,700	2,200,900	2,118,070	1,776,491
Gasoline	do.	815,500 ^r	839,800 ^r	776,800	854,620	819,070
Kerosene, turbo fuel	do.	216,700	256,200	271,800	287,310	200,028
Liquefied petroleum gas	do.	116,600	155,300	213,600	231,260	202,284
Silver, mine, Ag content	kilograms	13,889	18,577	21,382	15,149	11,263
Stone, sand and gravel:						
Sand and gravel, construction	thousand metric tons	453	357	286	296	218
Stone, crushed:						
Quarried unspecified	do.	9,857	10,237	8,880	9,419	5,828
Tuff, volcanic	do.	160 ^r	171 ^r	181	222	199
Unspecified	do.	2,175	1,954	2,251	1,232	1,415
PANAMA		-	•	•	•	
Cement, hydraulic ^e	thousand metric tons	2,190	2,200 ^r	2,200 ^r	1,900	2,000
Gold, mine, Au content	kilograms	2,954	2,000 °	400 e	400 e	400 e
			,			
Lime ^e		3,500 ^r	3,500 ^r	4,000	4,200 e	4,400 e

^eEstimated. ^rRevised. do. Ditto. -- Zero.

¹Table includes data available through October 17, 2019. All data are reported unless otherwise noted. Estimated data are rounded to no more than three significant digits.

²Additional commodities may have been produced, but available information was inadequate to make reliable estimates of output.

${\it TABLE~2}$ CENTRAL AMERICA: STRUCTURE OF THE MINERAL INDUSTRIES IN 2018

(Thousand metric tons, gross weight, unless otherwise specified)

Ct1 1''		Major operating companies	Y 0 0	Annual	
Country and comm	odity	and major equity owners	Location of main facilities	capacity	
BELIZE		D.P. N 1E 1.1 1000/	N D1 10 111 1 1 17511	477	
<i>'</i>	thousand on barrels	Belize Natural Energy Ltd., 100%	Never Delay and Spanish Lookout oilfields, Cayo District	475	
COSTA RICA					
Cement, limestone,		LafargeHolcim Costa Rica S.A. (LafargeHolcim Ltd.,	Cartago cement plant, Aguas Calientes	1,200	
including marl		59.8%, and other private, 40.2%)			
Do.		CEMEX Costa Rica S.A. (CEMEX S.A.B de C.V.,	Colorado de Abangares cement plant,	1,100	
		98.7%, and other private, 1.3%)	Guancaste Province, and Guatuso de	,	
		, , ,	Patarra cement grinding and bagging		
			plant, San Jose		
Clay		do.	Tajo Finca clay quarry, near city of Platanar	100	
Steel, semimanufacture	es	Laminadora Costarricense S.A. (Mittal Steel	Rolling mill, steel manufacturing complex,	450	
,		Company N.V., 50%, and Grupo Pujol-Martí, 50%)	Guapiles, Jimenez de Pococi, Alajuela, y Tibas		
Stone, limestone		CEMEX Costa Rica S.A. (CEMEX S.A.B de C.V.,	Cerro Pena Blanca limestone quarry,	300	
,		98.7%, and other private, 1.3%)	Guancaste Province		
Do.		LafargeHolcim Costa Rica S.A. (LafargeHolcim Ltd.,	La Chilena and three other quarries near	650	
		59.8%, and other private, 40.2%)	Cartago cement plant, Cartago Province		
EL SALVADO	R	1 /	5 1 / 5		
Cement		Cemento de El Salvador S.A. de C.V. (LafargeHolcim	El Ronco and Maya plants, near Metapan,	1,900	
		Ltd., 64.25%, and other private, 35.75%)	Santa Ana Department		
Steel:		1 /	Ā		
Raw		Corporación Industrial Centroamericana S.A. de	Electric arc furnace, Quetzaltepeque,	125	
		C.V. (private, 100%)	La Libertad Department		
Semimanufactures		do.	Billet casting machine and rolling mill,	110	
			Quetzaltepeque, La Libertad Department		
Stone, limestone		Cemento de El Salvador S.A. de C.V. (LafargeHolcim	Quarries near Aldea El Zapote and Santa	440	
,		Ltd., 64.25%, and other private, 35.75%)	Ana, Santa Ana Department		
GUATEMALA	1	1 /	, 1		
Antimony		Minas de Guatemala S.A. (private, 100%)	Clavito, La Florida, Los Lirios, and	NA	
			Torlon Mines, Ixtahuacan,		
			Huehuetenango Department		
Do.		do.	Los Angeles Mine, Guatemala Department	NA	
Do. me	etric tons	do.	Cantera Los Manantiales Mine,	160	
			Chiquimula Department		
Do.		do.	Escobal Mine, Laguna de Ayarza, Santa	NA	
			Rosa Department		
Cement		Cementos Progreso S.A., 100%	San Gabriel plant, San Juan, Sacatepéquez	6,000	
			Department, San Miguel plant, Sanarate,		
			El Progreso Department, and La Pedrera		
			plant, Guatemala City		
Copper		Minera Quetzal, S.A.	Cubulco municipality, Baja	NA	
			Verapaz Department		
Do.		Tahoe Resources Inc., 100%	Escobal Mine, Laguna de Ayarza, Santa	NA	
			Rosa Department		
Gold k	ilograms	Goldcorp Inc., 100%	Marlin Mine, near municipalities of San	6,500	
			Miguel Ixtahuacan and Sipakapa,		
			San Marcos Department		
Do.		Exploraciones Mineras de Guatemala, S.A.	Progreso VII Derivada, San Jose del Golfo	NA	
			and San Pedro Ayampuc Municipalities,		
			Guatemala Department		
Do		Ricas ek Tanbirm S.A.	San Antonio La Paz, El Progreso Department	NA	
Do.					

TABLE 2—Continued CENTRAL AMERICA: STRUCTURE OF THE MINERAL INDUSTRIES IN 2018

(Thousand metric tons unless otherwise specified)

		Major operating companies		Annual
Country and commodity		and major equity owners	Location of main facilities	capacity
GUATEMALA	A—Continued	T		3.7.4
ead		Tenango Mining Company S.A., 100%	Caquipec Mine, Alta Verapaz Department	NA
Do.		Tahoe Resources Inc., 100%	Escobal Mine, Laguna de Ayarza, Santa	800
			Rosa Department	
Lime		HORCALSA S.A. (Cementos Progreso S.A., 100%)	San Miguel plant, Sanarate, El Progreso Department	180
Nickel		Compañía Guatemalteca de Niquel, S.A.	Fenix Project, El Estor municipality,	20,000
TVICKCI		(Solway Investment Group, 98.2%, and	Izabal, Department	20,000
		Government of Guatemala, 1.8%)	izaoai, Beparanent	
Petroleum, crude	thousand	Perenco plc, 100%	Rubelsanto and West Chinaja fields, Alta	4,500
	2-gallon barrels	1 creneo pie, 10070	Verapaz Department, and Caribe, Tierra	4,500
42	z-ganon barreis			
	1.1	T.1 D. 1000/	Blanca, and Xan fields, Peten Department	6.200
Silver	kilograms	Tahoe Resources Inc., 100%	Escobal Mine, Laguna de Ayarza, Santa Rosa Department	6,200
Do.	do.	Goldcorp Inc., 100%	Marlin Mine, near municipalities of San	2,000
			Miguel Ixtahuacan and Sipakapa,	
			San Marcos Department	
Steel:				
Raw		Siderúrgica de Guatemala S.A. (SIDEGUA)	Electric arc furnace, near city of Escuintla,	800
		{Corporación Aceros de Guatemala S.A.	Escuintla Department	
		[Corporación Centroamericana del Acero S.A.		
		(Gerdau S.A., 30%, and other private, 70%),		
		100%], 100%}		
Semimanufact	tures	Indeta S.A. (INDETA) {Corporación Aceros de	Rolling mill at Colonia San Ignacio, Mixco,	200
		Guatemala S.A. [Corporación Centroamericana	near Guatemala City	
		del Acero S.A. (Gerdau S.A., 30%, and other	non continue city	
		private, 70%), 100%], 100%}		
	Irila anama		Eggebal Mine Lagrung de Avienza Conta	6 200
Zinc	kilograms	Tahoe Resources Inc., 100%	Escobal Mine, Laguna de Ayarza, Santa Rosa Department	6,200
HOND	URAS			
Cement		Cementos del Norte S.A. de C.V. (LafargeHolcim Ltd.,	Rio Bijao plant, municipality of San Pedro	1,100
Cement		24.2%, and Inversiones Continental S.A., 75.8%)	Sula, Cortes Department	1,100
Do.		Cementos Argos SA de CV, 53.3%, and other	Piedras Azules plant, municipality of	1,300
Do.		private, 46.7%	Comayagua, Comayagua Department	1,500
Gold	kilograms	Aura Minerals Inc., 100%	San Andres Mine, municipality of La Union,	3,300
Gold	Knograms	Auta Willerais IIIc., 10076	Copan Department	3,300
Lead		Ascendant Resources Inc, 100%	El Mochito Mine, Santa Barbara Department,	15
			90 kilometers south of San Pedro Sula	
Silver	kilograms	do.	do.	60,000
Zinc	Kilogianis	do.	do.	40
NICAR	AGUA	•••	w	70
Cement		CEMEX Nicaragua S.A. (CEMEX S.A.B. de C.V.,	San Rafael del Sur plant, 45 kilometers from	600
Cement		100%, but on lease from Government)	•	000
Cement, clinker		*	Managua, and milling plant in Managua	350
Cement, clinker		LafargeHolcim de Nicaragua S.A. (LafargeHolcim Ltd.,	Nagarote grinding plant, San Rafael del Sur	330
C 11	1.1	70%, and other private, 30%)	T. M. T. 1 5	1 200
Gold	kilograms	B2 Gold Corp., 95%	Limon Mine, Talavera deposit,	1,200
		P2 G 11 G 1000/	160 kilometers north of Managua	
Do.	do.	B2 Gold Corp., 100%	La Libertad, 110 kilometers east	4,500
		N: G A 00 000/	of Managua	
Do.	do.	Mineros S.A., 89.99%	Rio Bambana, Atlántico Norte	2,000
Do.	do.	do.	Bonanza, North Caribbean Coast	1,150
			Autonomous Region	

See footnotes at end of table.

TABLE 2—Continued CENTRAL AMERICA: STRUCTURE OF THE MINERAL INDUSTRIES IN 2018

(Thousand metric tons unless otherwise specified)

		Major operating companies		Annual
Country and commodity		and major equity owners	Location of main facilities	capacitye
PAN	NAMA			
Cement		CEMEX Panamá (Cemex Latam Holdings S.A., 100%)	Cemement plant, Panamá Province	2,100
Do.		Argos Panamá S.A. (Cemento del Grupo Argos, 100%)	Quebrada Ancha plant, municipality of	1,300
			Colon, Province of Colon	
Gold	kilograms	Artisanal miners	Various locations	1,600

^eEstimated; estimated data are rounded to no more than three significant digits. Do., do. Ditto. NA Not available.