



2019 Minerals Yearbook

LATIN AMERICA AND CANADA [ADVANCE RELEASE]



Base modified from ESRI ArcGIS online world countries (generalized) map data, 2017
 Mercator Auxiliary Sphere projection
 World Geodetic System 1984 datum

Figure 1. Map of the Latin America and Canada region. The countries covered in this report are labeled on the map; bordering countries are shown in gray and not labeled.

THE MINERAL INDUSTRIES OF LATIN AMERICA AND CANADA

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The countries and dependencies that are covered in this chapter¹ have a combined population of approximately 684 million people and a land area of 30.5 million square kilometers (fig. 1, table 1). In 2019, the gross domestic product (GDP) based on purchasing power parity of the Latin America and Canada region was \$12,372 billion, accounting for 9.2% of the world's GDP. The region's real GDP increased by 0.5% compared with that in 2018 (table 2).

The Latin America and Canada region accounted for 55.4% of the world's production of silver; 46%, mined copper (Cu content); 32%, lithium; 31.8%, potash; 25%, zinc; and 23%, gold (table 3). Some countries of the Latin America and Canada region were globally significant producers of metals, industrial minerals, and (or) mineral fuels and related materials. The major producers of silver in the region were Mexico (23.5% of the world's output), Peru (15.3%), and Chile (5.2%) (fig. 2). The major producers of copper in the region were Chile (23.2%), Peru (13.2%), and Canada (3.2%). The major producers of lithium in the region were Chile (22.8%), Argentina (7.9%), and Brazil (1.3%). The major producers of potash in the region were Canada (29.7%), and Chile (1.5%). Data on mineral production for selected mineral commodities, by country in the region, are in table 3.

Acknowledgments

The U.S. Geological Survey (USGS) acknowledges and expresses its sincere appreciation to the following organizations for providing mineral production statistics, basic economic data, and exploration and mineral-related information:

- Argentina—Dirección Nacional de Minería;
- Bahamas, The—Department of Statistics;

- Belize—Geology and Petroleum Department;
- Bolivia—Ministerio de Minería y Metalurgia, Instituto Nacional de Estadística, and Asociación Nacional de Mineros Medianos;
- Brazil—Departamento Nacional de Produção Mineral, Serviço Geológico do Brasil, and Instituto Brasileiro de Mineração;
- Canada—Natural Resources Canada;
- Chile—Comisión Chilena de Cobre and Servicio Nacional de Geología y Minería;
- Colombia—Unidad de Planeación Minero Energética, and Instituto Colombiano de Geología y Minería;
- Costa Rica—Dirección de Geología y Minas;
- Dominican Republic—Dirección General de Minería and Servicio Geológico Nacional;
- Guatemala—Ministerio de Energía y Minas, Dirección General de Minería;
- Guyana—Guyana Geology and Mines Commission;
- Honduras—El Instituto Hondureño de Geología y Minas;
- Jamaica—Mines and Geology Division of the Ministry of Agriculture and Lands;
- Mexico—Servicio Geológico Mexicano, and Secretaría de Economía;
- Nicaragua—Ministerio de Energía y Minas;
- Paraguay—Dirección de Recursos Minerales;
- Peru—Ministerio de Energía y Minas, and Instituto Geológico Minero y Metalúrgico; and
- Trinidad and Tobago—Ministry of Energy and Energy Industries.

¹The countries and dependencies that are covered in this chapter include Canada, Mexico, and the countries of the Caribbean, Central America, and South America, but not the United States. Mineral production data and other mineral-related information for the United States are provided in volumes I and II of the U.S. Geological Survey Minerals Yearbook and are not included in this volume.

TABLE 1
THE AMERICAS: AREA AND POPULATION IN 2019

Country or territory	Area ¹ (square kilometers)	Estimated population ² (thousands)
Argentina	2,780,400	44,939
Aruba	180	106
Bahamas, The	13,880	389
Barbados	430	287
Belize	22,966	390
Bermuda	54	64
Bolivia	1,098,581	11,513
Brazil	8,515,770	211,050
Canada	9,984,670	37,593
Chile	756,102	18,952
Colombia	1,138,910	50,339
Costa Rica	51,100	5,048
Cuba	110,860	11,333
Dominica	751	72
Dominican Republic	48,670	10,739
Ecuador	283,561	17,374
El Salvador	21,041	6,454
French Guiana	86,500 ³	291 ⁴
Guatemala	108,889	16,604
Guyana	214,969	783
Haiti	27,750	11,263
Honduras	112,090	9,746
Jamaica	10,991	2,948
Martinique	1,128 ³	361 ⁴
Mexico	1,964,375	127,576
Nicaragua	130,370	6,546
Panama	75,420	4,246
Paraguay	406,752	7,045
Peru	1,285,216	32,510
Puerto Rico	9,104	3,194
Saint Kitts and Nevis	261	53
Suriname	163,820	581
Trinidad and Tobago	5,128	1,395
United States ⁵	9,833,517	328,240
Uruguay	176,215	3,462
Venezuela	912,050	28,516
Regional total	40,352,000	1,012,001
World total	148,940,000 ⁶	7,673,345 ⁷

¹Source: U.S. Central Intelligence Agency, The World Factbook

²Source: The World Bank, 2021 World Development Indicators Database.

³Source: Ministry of Overseas, France.

⁴Source: Quick Economic Accounts for Overseas Territories, France.

⁵Excludes Puerto Rico and U.S. Virgin Islands.

⁶World area total includes the areal extent of some countries and (or) territories not covered in the Minerals Yearbook.

⁷World population total includes populations of some countries and (or) territories not covered in the Minerals Yearbook.

TABLE 2
THE AMERICAS: GROSS DOMESTIC PRODUCT^{1,2}

Country or territory	Gross domestic product in 2019 based on purchasing power parity		Real gross domestic product growth rate (percentage)		
	Gross value (million dollars)	Per capita (dollars)	2017	2018	2019
	Argentina	1,033,371	22,995	2.8	-2.6
Aruba	4,235	37,748	5.5	1.3	-2.1
Bahamas, The	14,789	38,842	1.6	2.8	0.7
Barbados	4,622	16,096	0.5	-0.6	-1.3
Belize	2,950	7,222	1.8	2.9	1.8
Bolivia	104,685	9,127	4.2	4.2	2.2
Brazil	3,247,416	15,453	1.3	1.8	1.4
Canada	1,932,147	51,477	3.0	2.4	1.9
Chile	477,076	24,968	1.2	3.7	1.0
Colombia	772,904	15,647	1.4	2.6	3.3
Costa Rica	107,059	21,094	4.2	2.6	2.3
Cuba ³	105,355	9,296	1.8	2.2	2.0
Dominica	973	13,468	-6.6	3.5	7.5
Dominican Republic	206,081	19,896	4.7	7.0	5.1
Ecuador	205,887	11,923	2.4	1.3	0.0
El Salvador	59,162	9,167	2.3	2.4	2.6
French Guiana ⁴	4,875	16,753 ⁵	-3.7	4.7	4.6
Guatemala	149,744	8,500	3.1	3.3	3.9
Guyana	10,673	13,603	3.7	4.4	5.4
Haiti	36,076	3,116	2.5	1.7	-1.7
Honduras	58,265	5,963	4.8	3.8	2.7
Jamaica	30,047	10,990	0.7	1.8	1.0
Martinique ⁴	10,227	28,330 ⁵	0.7	1.3	3.6
Mexico	2,628,855	20,769	2.1	2.2	-0.2
Nicaragua	37,190	5,697	4.6	-3.4	-3.7
Panama	139,108	32,973	5.6	3.6	3.0
Paraguay	92,623	12,949	4.8	3.2	-0.4
Peru	441,808	13,323	2.5	4.0	2.2
Puerto Rico	115,845	36,201	-2.9	-4.2	1.5
Saint Kitts and Nevis	1,574	27,846	0.9	2.7	4.8
Suriname	11,534	19,288	1.6	4.9	1.1
Trinidad and Tobago	37,550	26,918	-3.0	0.1	-1.2
United States	21,372,600	65,052	2.3	2.9	2.3
Uruguay	83,098	23,617	1.6	0.5	0.4
Venezuela	204,249	7,343	-15.7	-19.6	-35.0
Regional total	33,744,653	33,344 ⁵	1.6 ⁶	1.7 ⁶	0.5 ⁶
World total ⁷	134,916,440	17,582 ⁵	3.8	3.6	2.8

¹Source: International Monetary Fund, World Economic Outlook Database, October 2021.

²Gross domestic product listed may differ from that reported in individual country chapters owing to differences in the source or date of reporting.

³Source: United Nations data 2021. Gross domestic product values of Cuba at current prices.

⁴Source: European Commission, Eurostat 2021, values at current prices have been converted from euro area euros (EUR) to U.S. dollars (US\$) at the annual average exchange rate of EUR0.893=US\$1.00 for 2019.

⁵Calculated as gross domestic product divided by population.

⁶Annual change in regional gross domestic product.

⁷World gross domestic product total includes the gross domestic product of some countries and (or) territories not covered in the Minerals Yearbook.

TABLE 3
LATIN AMERICA AND CANADA: PRODUCTION OF SELECTED MINERAL COMMODITIES IN 2019¹
(Thousand metric tons, unless otherwise specified)

Country or locality ²	Metals										
	Aluminum		Antimony, mine output, (metric tons)		Copper		Gold, mine output, (kilograms)		Iron and steel		Steel, raw
	Alumina	Bauxite	Metal, primary	Sb Content	Mine output, Cu content	Metal, refined, primary	Au content	Fe content	Iron ore, Fe content		
Argentina	--	--	427	--	--	--	53,092	15 ^e	--	4,645	
Barbados	--	--	--	--	--	--	--	--	--	--	
Belize	--	--	--	--	3	--	--	--	--	--	
Bolivia	--	--	--	3,000 ^e	1	--	42,040	--	--	--	
Brazil	9,171	31,938	650	--	381 ³	115	89,988	258,000	--	32,236	
Canada	1,522	--	2,854	5	573 ³	253	174,974	35,200	--	12,790	
Chile	--	--	--	--	4,207	689	38,455	8,427	--	1,095	
Colombia	--	--	--	--	8 ³	--	36,676	391	--	1,200	
Costa Rica	--	--	--	--	--	--	4,500	--	--	--	
Cuba	--	--	--	--	--	--	--	--	--	235	
Dominican Republic	--	--	--	--	6 ³	--	31,800	--	--	--	
Ecuador	--	--	--	1 ^e	50 ^{e,3}	--	8,300 ^e	--	--	605	
El Salvador	--	--	--	--	--	--	--	--	--	105	
French Guiana	--	--	--	--	--	--	1,300 ^e	--	--	--	
Guadeloupe	--	--	--	--	--	--	--	--	--	--	
Guatemala	--	--	--	25 ^{e,3}	--	--	200 ^e	--	--	310	
Guyana	--	1,900 ^e	--	--	--	--	19,800 ^e	--	--	--	
Haiti	--	--	--	--	--	--	--	--	--	--	
Honduras	--	--	--	--	--	--	1,931	--	--	--	
Jamaica	2,173	9,022	--	--	--	--	--	--	--	--	
Martinique	--	--	--	--	--	--	--	--	--	--	
Mexico	--	--	--	300 ^e	535 ^{e,3}	292 ^e	111,404	7,141	--	18,595	
Nicaragua	--	--	--	--	--	--	9,190	--	--	--	
Panama	--	--	--	--	147	--	1,869	--	--	--	
Paraguay	--	--	--	--	--	--	--	--	--	26	
Peru	--	--	--	--	2,389	308	128,413	10,120	--	1,230	
Suriname	--	--	--	--	--	--	24,105	--	--	--	
Trinidad and Tobago	--	--	--	--	--	--	--	--	--	--	
Uruguay	--	--	--	--	--	--	94	1	--	62	
Venezuela	--	--	8 ^e	--	--	--	480 ^e	685 ^e	--	50	
Regional total	12,866	42,860	3,939	3,331	8,297	1,657	778,611	319,980	--	73,184	
Share of world total	9.7%	12.2%	6.3%	2.2%	45.8%	9.0%	23.5%	21.2%	--	3.9%	
United States	1,410 ^e	W	1,090	--	1,260	985	200,000	29,800	--	87,800	
Share of world total	1.1%	W	1.7%	--	7.0%	5.3%	6.0%	2.0%	--	4.7%	
World total	133,000	352,000	63,000	154,000	18,100	18,500	3,320,000	1,510,000	--	1,880,000	

See footnotes at end of table.

TABLE 3—Continued
LATIN AMERICA AND CANADA: PRODUCTION OF SELECTED MINERAL COMMODITIES IN 2019¹

(Thousand metric tons, unless otherwise specified)

Country or locality ²	Metals—Continued											
	Lead		Nickel		Platinum-group metals			Silver,	Tin, mine	Zinc,		
	Mine output, Pb content (metric tons)	Metal, primary ³ (metric tons)	Mine output	Refinery products	Palladium	Platinum	mine output, Ag content (metric tons)	mine output, Sn content (metric tons)	mine output, Zn content (metric tons)			
Argentina	29,768	--	--	--	--	--	1,040	--	--	14,877	--	--
Barbados	--	--	--	--	--	--	--	--	--	--	--	--
Belize	--	--	--	--	--	--	--	--	--	--	--	--
Bolivia	88,000 ^e	600 ^e	--	--	--	--	1,158	17,000 ^e	527,000 ^e	--	--	--
Brazil	6,000 ^{e,3}	--	60	--	--	--	72	13,993	163,394	--	--	--
Canada	21,782	112,909	181	125	20,000 ^e	7,200 ^e	379	--	335,806	--	--	--
Chile	7	--	--	--	--	--	1,309	--	5,620	--	--	--
Colombia	--	--	--	--	--	163	12	--	--	--	--	--
Costa Rica	--	--	--	--	--	--	--	--	--	--	--	--
Cuba	--	--	49	--	--	--	--	--	60,000 ^e	--	--	--
Dominican Republic	--	--	57	--	--	--	109	--	5,527	--	--	--
Ecuador	--	--	--	--	--	--	1 ^e	--	--	--	--	--
El Salvador	--	--	--	--	--	--	--	--	--	--	--	--
French Guiana	--	--	--	--	--	--	--	--	--	--	--	--
Guadaloupe	--	--	--	--	--	--	--	--	--	--	--	--
Guatemala	--	--	--	--	--	--	--	--	--	--	--	--
Guyana	--	--	--	--	--	--	--	--	--	--	--	--
Haiti	--	--	--	--	--	--	--	--	--	--	--	--
Honduras	12,308	--	--	--	--	--	44	--	29,223 ^{e,3}	--	--	--
Jamaica	--	--	--	--	--	--	--	--	--	--	--	--
Martinique	--	--	--	--	--	--	--	--	--	--	--	--
Mexico	259,000 ^e	119,000 ^e	--	--	--	--	5,919	--	676,677	--	--	--
Nicaragua	--	--	--	--	--	--	17	--	--	--	--	--
Panama	--	--	--	--	--	--	35	--	--	--	--	--
Paraguay	--	--	--	--	--	--	--	--	--	--	--	--
Peru	308,116	--	--	--	--	--	3,860	19,853	1,404,382	--	--	--
Suriname	--	--	--	--	--	--	--	--	--	--	--	--
Trinidad and Tobago	--	--	--	--	--	--	--	--	--	--	--	--
Uruguay	--	--	--	--	--	--	--	--	--	--	--	--
Venezuela ^p	--	--	--	--	--	--	--	--	--	--	--	--
Regional total	724,981	232,509	347	125	20,000	7,363	13,955	50,846	3,222,506	--	--	--
Share of world total	15.5%	5.1%	13.7%	12.7%	8.8%	3.9%	55.4%	17.2%	25.2%	--	--	--
United States	274,000	--	14	--	14,300	4,150	977	--	753,000	--	--	--
Share of world total	5.9%	--	0.6%	--	6.3%	2.2%	3.9%	--	5.9%	--	--	--
World total	4,680,000	4,520,000	2,540	983	227,000	187,000	25,200	295,000	12,800,000	--	--	--

See footnotes at end of table.

TABLE 3—Continued
LATIN AMERICA AND CANADA: PRODUCTION OF SELECTED MINERAL COMMODITIES IN 2019¹

(Thousand metric tons, unless otherwise specified)

Country or locality ²	Metals—Continued		Industrial minerals					Mineral fuels and related materials	
	Zinc metal, primary (metric tons)	Cement, hydraulic	Diamond, gemstones and industrial (thousand carats)	Gypsum (metric tons)	Lithium, Li content (metric tons)	Phosphate rock, P ₂ O ₅ content	Potash, K ₂ O equivalent	Salt	Coal, all grades
Argentina	--	11,082	--	900 ^e	35,606	--	--	1,500 ^e	--
Barbados	--	--	--	--	--	--	--	--	--
Belize	--	--	--	--	--	--	--	--	--
Bolivia	--	4,200 ^e	--	1 ^e	--	--	--	5 ^e	--
Brazil	283,700	54,400 ^e	166	2,000 ^e	5,706	1,650 ^e	247	7,400	6,000 ^e
Canada	654,971	13,200 ^e	18,638	2,408	1,022	--	12,770	10,243	51,800
Chile	--	4,210 ^e	--	977	102,421	--	660	10,477	1,607
Colombia	--	12,993	--	--	--	15 ^e	--	517	77,600
Costa Rica	--	1,900 ^e	--	--	--	--	--	--	--
Cuba	--	1,407	--	100 ^e	--	--	--	200 ^e	--
Dominican Republic	--	5,644	--	220	--	--	--	--	--
Ecuador	--	6,270	--	--	--	--	--	--	--
El Salvador	--	1,000 ^e	--	--	--	--	--	--	--
French Guiana	--	95 ^e	--	--	--	--	--	--	--
Guadaloupe	--	310 ^e	--	--	--	--	--	--	--
Guatemala	--	3,800 ^e	--	130 ^e	--	--	--	--	--
Guyana	--	410 ^e	55	--	--	--	--	--	--
Haiti	--	200 ^e	--	--	--	--	--	--	--
Honduras	--	1,800 ^e	--	--	--	--	--	--	--
Jamaica	--	759	--	55	--	--	--	--	--
Martinique	--	150 ^e	--	--	--	--	--	--	--
Mexico	388,511	43,400 ^e	--	5,400 ^e	--	160 ^e	--	9,000 ^e	11,410
Nicaragua	--	910 ^e	--	70 ^e	--	--	--	--	--
Panama	--	2,000 ^e	--	--	--	--	--	40 ^e	--
Paraguay	--	1,500 ^e	--	--	--	--	--	--	--
Peru	356,925	10,574	--	254	--	1,190 ^e	--	1,266	--
Suriname	--	30 ^e	--	--	--	--	--	--	--
Trinidad and Tobago	--	678	--	--	--	--	--	--	--
Uruguay	--	737	--	--	--	--	--	--	--
Venezuela	--	4,500 ^e	--	--	--	5 ^e	--	--	100
Regional total	1,684,107	188,159	18,859	12,515	144,755	3,020	13,677	40,648	148,517
Share of world total	12.4%	4.5%	13.7%	3.6%	32.2%	4.4%	31.8%	14.3%	1.9%
United States	115,000	89,000	--	21,200	W	6,530	510	42,100	589,314 ⁵
Share of world total	0.8%	2.1%	--	6.2%	W	9.5%	1.2%	14.8%	7.4%
World total	13,600,000	4,200,000	138,000	343,000 ⁴	449,000	69,100	43,000	285,000	8,014,000

See footnotes at end of table.

TABLE 3—Continued
LATIN AMERICA AND CANADA: PRODUCTION OF SELECTED MINERAL COMMODITIES IN 2019¹

(Thousand metric tons, unless otherwise specified)

Country or locality ²	Mineral fuels and related materials—Continued				
	Natural gas, dry (million cubic meters)	Petroleum			Uranium, U content (metric tons)
		Crude, including condensate (thousand 42-gallon barrels)	Refinery products (thousand 42-gallon barrels)	Refinery products (thousand 42-gallon barrels)	
Argentina	49,126	185,639	172,645	--	--
Barbados	--	--	--	--	--
Belize	--	263	--	--	--
Bolivia	16,893	12,974	16,100	--	--
Brazil	44,724	1,017,531	417,000 ^e	--	--
Canada	170,890	2,062,615	628,000	6,796	6,796
Chile	1,339	1,130	72,500	--	--
Colombia	9,795	323,354	155,000 ^e	--	--
Costa Rica	--	--	20,000 ^e	--	--
Cuba	1,000 ^e	18,000 ^e	15,000 ^e	--	--
Dominican Republic	--	--	--	--	--
Ecuador	313	193,816	75,600	--	--
El Salvador	--	--	--	--	--
French Guiana	--	--	--	--	--
Guadeloupe	--	--	--	--	--
Guatemala	--	3,506	1,250	--	--
Guyana	--	--	--	--	--
Haiti	--	--	--	--	--
Honduras	--	--	--	--	--
Jamaica	--	--	8,590	--	--
Martinique	--	--	--	--	--
Mexico	28,702	780,370	--	--	--
Nicaragua	--	--	4,620 ^e	--	--
Panama	--	--	--	--	--
Paraguay	--	--	--	--	--
Peru	12,500	19,340	52,800	--	--
Suriname	--	6,050	5,582	--	--
Trinidad and Tobago	37,200	21,481	--	--	--
Uruguay	--	--	14,000 ^e	--	--
Venezuela	19,400 ^e	361,700 ^e	62,200 ^e	--	--
Regional total	391,882	5,007,769	1,720,887	6,796	6,796
Share of world total	9.5%	16.0% ⁵	5.2%	12.5%	12.5%
United States	960,000 ⁵	4,470,000 ⁵	6,050,000 ⁶	58 ⁷	58 ⁷
Share of world total	23.3%	14.3%	18.2%	0.1%	0.1%
World total	4,120,000	31,300,000	33,200,000	54,300	54,300

See footnotes at end of table.

TABLE 3—Continued
 LATIN AMERICA AND CANADA: PRODUCTION OF SELECTED MINERAL COMMODITIES IN 2019¹

⁹Estimated. ^W Withheld to avoid disclosing company proprietary data. -- Zero or zero percent.

¹Table includes data available through June 27, 2022. All data are reported unless otherwise noted. World totals, U.S. data, and estimated data are rounded to no more than three significant digits; may not add to totals shown owing to independent rounding. Percentages were calculated using unrounded data.

²In addition to the countries and (or) localities listed, Aruba produced crude petroleum, petroleum refinery products, and sulfur, and Barbados, Curacao, Guadeloupe, Haiti, Martinique, Saba, Saint Eustatius, and Saint Maarten also produced minerals, but mineral production data were not sufficient to make reliable estimates of output.

³Metal content of concentrate.

⁴Gypsum world total may include synthetic gypsum powder production.

⁵Source: U.S. Energy Information Administration.

⁶Source: BP Statistical Review of World Energy. Refinery, throughput.

⁷Source: World Uranium Mining.

Latin America and Canada region

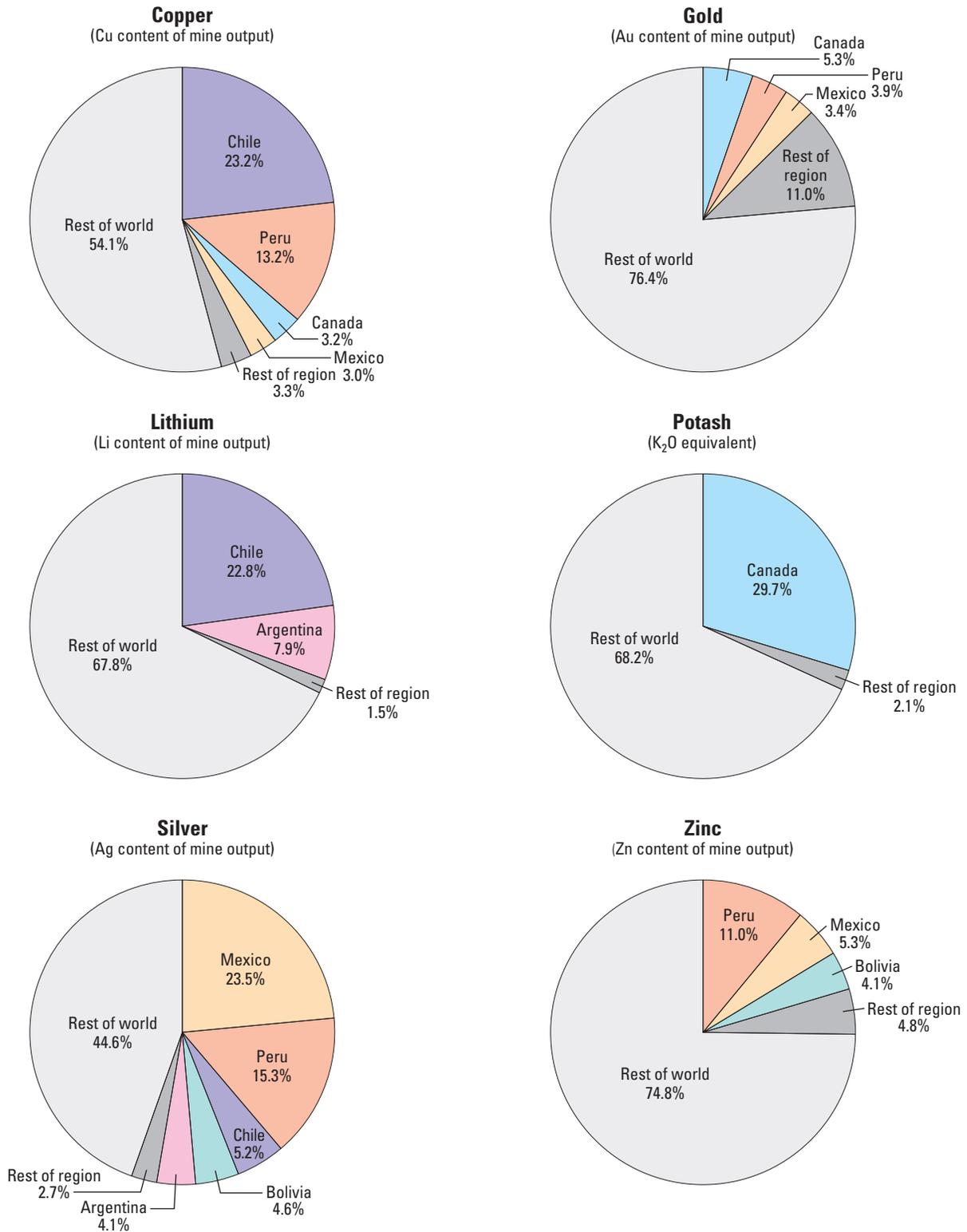


Figure 2. Pie charts showing percentage of world production of selected mineral commodities (copper, gold, lithium, potash, silver, and zinc) by countries of the Latin America and Canada region in 2019. Individual countries of the region are labeled if they accounted for at least 3% of world production. With the exception of lithium, all data are from table 3; lithium data were calculated independently. Percentages may differ slightly from those shown in table 3 because of independent rounding. Also, percentages may differ from those reported in individual country chapters owing to differences in the source or date of reporting.