

THE ISLANDS OF THE CARIBBEAN

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ANTIGUA AND BARBUDA

Although the mining sector played a minor role in the economies of Antigua and Barbuda in 2000, tourism, which was the dominant sector, accounted for more than one-half of the gross domestic product (GDP). The GDP purchasing power parity in 1999 was \$524 million. As of July 2000, the population was estimated to be 66,000. In 1998, exports were \$38 million; petroleum products accounted for 48% of the total value of exports (U.S. Central Intelligence Agency, 2000, World factbook 2000—Antigua and Barbuda—Economy, accessed August 14, 2001, at URL <http://www.odci.gov/cia/publications/factbook/geos/ac.html>).

The Government agency that oversees the mineral industries is the Ministry of Public Works, Utilities, and Energy. The Government also operates a petroleum refinery that uses imported oil.

Sand and gravel and crushed stone industries supported the local construction industry. Devcon International Corp. of the United States operated the largest quarry on Antigua, which produced aggregates from boulders to manufactured sand (Devcon International Corp., 2000, Antigua, accessed August 29, 2001, at URL <http://www.devc.com/mainpages/AMP.html>). C.O. Williams Ltd. of the United States also had quarrying operations on the islands. Limestone and salt were other mineral commodities produced on Antigua and Barbuda.

ARUBA

In 2000, the mining sector played a minor role in the economy of Aruba; tourism, which was the main sector of the Aruban economy, represented nearly 70% of the GDP, although offshore banking and oil refining and storage were also important. The GDP purchasing power parity in 1999 was \$1.6 billion. The official results of the Aruba Census 2000 show that the population increased to 90,506. In 1998, exports were \$1.17 billion led by oil reexports and transport equipment (U.S. Central Intelligence Agency, 2000, World factbook 2000—Aruba—Economy, accessed August 14, 2001, at URL <http://www.odci.gov/cia/publications/factbook/geos/aa.html>).

In 2000, Coastal Corp. of the United States operated a 280,000-barrel-per-day (bbl/d) refinery in Aruba. It was closed temporarily in April 2001 after an accidental explosion. The refinery produced mainly distillates, jet fuel, fuel oil, and refinery feedstocks (Worldfuels.com, April 18, 2001, Refinery blast, shutdown extends U.S. distillate rally, accessed January 8, 2002, at URL <http://www.worldfuels.com/archive/snapshot/snap041801.htm>). In 2000, it completed a \$250 million expansion and upgrade that boosted its overall crude distillation capacity by 65,000 bbl/d and enabled the refinery to run heavier grades of crude oil. As part of the expansion, Coastal Corp. entered into a 100,000-bbl/d crude supply contract with

Mexico's state oil company Petroleos Mexicanos S.A. de C.V. (Petroleumworld.com, April 20, 2001, Coastal delays partial restart of 280,000 bbl/d Aruba refinery, accessed August 29, 2001, at URL <http://www.petroleumworld.com/story3356.htm>).

On January 29, 2001, El Paso Energy Corp. of the United States announced the completion of its \$24 billion merger with the Coastal Corp. With a total enterprise value of over \$50 billion, El Paso Energy has become the fourth largest U.S. energy company (El Paso Energy Corp., January 29, 2001, News room—El Paso Energy completes merger with Coastal, creating the world's largest natural gas company, accessed January 9, 2002, at URL <http://www.elpaso.com/press/newsquery.asp?sId=2075>).

THE BAHAMAS

In 2000, the mining sector played a minor role in the economy of the Bahamas. The leading sectors were tourism and offshore banking; tourism accounted for more than 60% of the GDP, which, based on purchasing power parity in 1999, was \$5.58 billion. The population as of July 2000 was estimated to be 295,000. In 1998, exports were \$362.8 million led by cement, crawfish, pharmaceuticals, refined petroleum products, and rum (U.S. Central Intelligence Agency, 2000, World factbook 2000—The Bahamas—Economy, accessed August 14, 2001, at URL <http://www.odci.gov/cia/publications/factbook/geos/bf.html>). Other than cement and refined petroleum products, mineral products produced by The Bahamas were aragonite, salt, sand and gravel, and stone.

Reflecting a growing concern for the environment, the Government created a Ministry of the Environment that will deal with environmental and development issues. Among other duties, it will examine the impact of mining on the environment, waste management, forestry issues, water management, and the coastal environment (Washington Times, March 29, 2000, The Bahamas emphasizes importance of environment with establishment of new ministry, accessed May 8, 2001, at URL <http://www.internationalspecialreports.com/theamericas/00/bahamas/16.html>).

Morton Bahamas Salt Co. of the United States, which was the major salt producer on the Islands, produced about 900,000 metric tons (t) of salt in 2000. On the island of Inagua, Morton Bahamas, which was the only major industry and largest employer, produced about 500 metric tons per year (t/yr) of salt at the second largest solar saline operation in North America (Interknowledge.com, 2000, Inagua, accessed August 30, 2001, at URL <http://www.interknowledge.com/bahamas/bsinin01.htm>). Nationwide, Morton Bahamas sold its salt to fisheries, chemical plants, highway maintenance groups, and water softener companies (Expedia.com, 2000, Inagua—Morton Bahamas Salt Co., accessed June 7, 2001, at URL <http://www.expedia.com/wg/Caribbean/Bahamas/P20631.asp>).

Bahamas Oil Refining Co. [a subsidiary of the Venezuelan

state oil company Petroleos de Venezuela, S.A. (PDVSA)] operated a terminal with 20 million barrels (Mbbbl) of crude and products storage capacity. In 2000, the capacity actually in use was 10.2 Mbbbl, of which 4 Mbbbl was devoted to crude oil storage; 4.7 Mbbbl, fuel oil; and 1.5 Mbbbl, distillates and gasoline. In September 2000, the president of PDVSA discussed with Government officials of the United States the possibility of using this storage facility for an emergency reserve of heating oil to alleviate supply problems during winters in the United States (Petroleos de Venezuela, S.A., September 15, 2000, Venezuela explores new energy cooperation possibilities with the United States, accessed August 30, 2001, at URL http://www.pdv.com/news/english/2000/ciavalidini_wyny_en.html).

In the past 5 years, The Bahamas Maritime Authority (a Government-owned corporation) has transformed the country's shipping industry into the third largest ship registry in the world. The ship registry has grown to more than 1,500 vessels that carry more than 27 million gross metric tons (Washington Times, March 29, 2000, Maritime Authority grows ship registry to 3rd largest in the world, accessed May 8, 2001, at URL http://www.internationalreports.com/theamericas/00/bahamas/transportation_shipping/index.html).

Teekay Shipping Corp. (a Bahama-based provider of international crude oil and petroleum product transportation services through a fleet of medium-sized oil tankers) was a company whose growth was reflective of the growth in the Bahamian shipping industry. For example, revenues more than doubled to \$644 million from about \$300 million in 1999; this increase was mostly driven by an increase in charter rates and a shift in preferences by customers to Teekay's newer environmentally safer vessels; the preference shift followed after a series of oil spills by older tankers in recent years. The company's growth also benefited from lower interest rates and vessel operating expenses (Teekay Shipping Corp., 2000, Annual report—Financial highlights, accessed August 14, 2001, at URL http://www.teekay.com/PDFs/AR_DEC00.pdf).

BARBADOS

In 2000, the mining sector played a minor role in the economy of Barbados. In recent years, the economy has begun to diversify away from sugarcane cultivation and into manufacturing and tourism, and the Government has begun efforts to privatize state-owned enterprises. The GDP purchasing power parity in 1998 was \$2.9 billion. The population as of July 2000 was estimated to be 275,000. In 1998, exports were valued at \$211 million; export commodities were sugar and molasses, rum, other food and beverages, chemicals, electrical components, and clothing (U.S. Central Intelligence Agency, 2000, World factbook 2000—Barbados—Economy, accessed August 15, 2001, at URL <http://www.odci.gov/cia/publications/factbook/geos/bb.html>). The principal mineral commodities produced were crude petroleum and natural gas. Industrial mineral production included cement, clays, limestone, and sand and gravel.

The Ministry of Environment, Energy, and Natural Resources is the Government agency responsible for the mining sector of Barbados. Plans to privatize its energy companies, which include the Barbados National Oil Company and the National Petroleum Company, have been announced, but no timetable has been set.

In 2000, Barbados crude oil production declined to 560,000 barrels (bbl) from 708,000 bbl in 1999. Barbados has an oil-refining agreement with Trinidad and Tobago's Petroleum Company of Trinidad and Tobago Ltd. (Petrotrin), which refines Barbados' oil and then returns it for domestic consumption (U.S. Energy Information Administration, May 2001, Caribbean fact sheet—Barbados, accessed January 10, 2002, at URL <http://www.eia.doe.gov/emeu/cabs/carib.html>).

In 2000, the Energy Minister announced the resumption of Barbados' small oil-drilling program; officials suspended the project at the beginning of 1999 owing to low oil prices. The oil-drilling program was largely concentrated in the Woodbourne lease area, offshore Barbados. The Woodbourne lease area was being exploited for oil by the Barbados Government and Conoco, Inc., of the United States (Worldoil.com, August 2000, Special focus—South America, accessed August 17, 2001, at URL http://www.worldoil.com/magazine/MAGAZINE_DETAIL.asp?ART_ID=1197&MONTH_YEAR=Aug-00).

In 2000, Conoco and TotalFinaElf of France signed an agreement with the Government to extend their joint venture that was exploring for oil and gas offshore. Under the agreement, TotalFinaElf will receive 35% of Conoco's holding in a deepwater permit located in the Orinoco river delta.

Several infrastructure projects have been undertaken since 1999. One, a \$70 million investment, was approved for renovating the Grantley Adams International Airport during a 5-year period. Some of the money for this project would be used to enlarge the runway, to develop new cargo areas, and to improve security. Another investment project was a 5-year, \$128 million urban renewal project to upgrade the infrastructure in key tourism areas (Findarticles.com news service, September 20, 1999, A boost for Barbados, accessed August 31, 2001, at URL http://www.findarticles.com/cf_0/m0VOU/11_296/56002984/p1/article.jhtml).

BERMUDA

In 2000, the mining sector played a minor role in the economy of Bermuda; tourism and international finance dominated the economy. The GDP purchasing power parity in 1999 was \$2 billion. The population as of July 2000 was estimated to be 63,000. In 1998, exports, which were mainly reexports of pharmaceuticals to the United Kingdom and the United States, were valued at \$32 million (U.S. Central Intelligence Agency, 2000, World factbook 2000—Bermuda—Economy, accessed August 15, 2001, at URL <http://www.odci.gov/cia/publications/factbook/geos/bd.html>). All mineral commodity requirements except for some local stone production, primarily coralline limestone, were imported.

Alcan (Bermuda) Ltd. [a subsidiary of Aluminum Company (Alcan), Inc., of Canada] traded in bauxite with Alcan Shipping (Bermuda) Limited. It chartered dry bulk carriers for transport of bauxite and alumina (Bermuda International Business Network, [undated], Alcan (Bermuda) Limited, accessed April 11, 2001, at URL <http://www.bibn.com/bizdirectory/trading/intrading2.html>).

Electricity in Bermuda was provided by Bermuda Electric Light Co. Ltd. (Belco) and was generated by using imported fuel oil. In 2000, Belco investigated the market potential for electric-powered vehicles and imported some from Georgia Power of the United States. Natural gas was also imported from

Shell Oil Co. of the United Kingdom. The natural gas was distributed by Bermuda Gas and Utility Co., Masters Ltd. of Bermuda, and Sunshine Co. Ltd. of Bermuda. The Government of Bermuda levied import duties on the fuel oil and the natural gas (Bermuda-online.org, July 23, 2001, Electricity and natural gas are expensive in Bermuda, accessed August 31, 2001, at URL <http://www.bermuda-online.org/electgas.htm>).

CUBA

In 2000, Cuba's GDP increased by 5.6% from that of 1999. Mining and quarrying increased by 14.4%; construction, by 9.7%; and transport and communication, by 9.1%; commerce and tourism, by 5.4%; and industrial production, by 4.3% (The Government of the Republic of Cuba, [2001], *Producto interno bruto* [Gross domestic product], accessed September 12, 2001, at URL http://cubagob.cu/otras_info/ONE/Producto_interno_bruto.htm). Investment was estimated to have increased by 16%—going to energy generation, natural gas development, housing construction, petroleum exploration and production, telecommunications, transportation, tourism (Ministerio de Economía y Planificación, [undated], *Informe económico—Año 2000*, [Economic report—2000], accessed August 28, 2001, at URL http://www.cubagob.cu/des_eco/mep/cuba2000.htm).

The Government planned a 5% increase in the GDP for 2001 with a 14% increase in investment, a 15% increase in tourism, and a 5% increase in nickel production (The Government of the Republic of Cuba, 2001, *Desarrollo económico—Evolución de la economía cubana—Objetivos fundamentales del plan para el año 2001* [Economic development—Evolution of the Cuban economy—Fundamental objectives of the plan for the year 2001], accessed September 12, 2001, at URL http://www.cubagob.cu/des_eco/mep/objetivos_2001.htm).

Mining contributed significantly to Cuba's revenue through foreign trade and because of interest by the international sector as a result of recent changes in investment and mining laws. Nickel production and trade continued to dominate the mining sector. Cuba's nickel reserves were the world's fourth largest and its reserves base was the world's largest; Cuba was the sixth leading producer of mined nickel (Kuck, 2001). Production of cobalt, which is a byproduct of nickel operations, has also been important to Cuba's mineral sector. In 2000, Cuba was the sixth leading world producer of cobalt with about 7% of the total world mine production (Shedd, 2001). In addition, Cuba produced moderate amounts of ammonia, cement, chromite, copper, gold, gypsum, petroleum and petroleum products, salt, silica sand, steel, sulfur as a byproduct of petroleum refining, and other construction materials (table 1).

Mining activity in Cuba is regulated by the constitution, Law No. 76 (the mining law), Law No. 77 (the foreign investment law), and Law No. 88 (the environmental law).

El Ministerio de la Industria Básica is the Government entity with responsibility for energy, geology and mining, and basic chemistry. Mineral concessions are awarded by the Oficina Nacional de Recursos Minerales, which is an agency under the Ministerio de Industria Básica; it was created in 1995 as a result of the new mining law. The Oficina Nacional de Recursos Minerales is also charged with protecting Cuba's mineral and hydrocarbon resources, controlling mineral production, and ensuring the preservation of the environment in areas of mineral activity.

Geology and mining are overseen by the Government companies Unión Geológica Minera S.A. (Geominera) and Unión del Níquel S.A. Geominera is responsible for the exploration and production of all metallic and nonmetallic minerals, except nickel. The company works in joint venture (shared-risk ventures) with foreign private companies and has focused its activities in commodities with high potential, like gold and silver. Unión del Níquel is responsible for the production and processing of nickel and cobalt. The company works independently and with private companies to produce nickel from three active mines in western Cuba.

Government-owned Cubapetróleo S.A. (CUPET) is responsible for exploring, refining, and marketing petroleum. CUPET has three drilling and production subsidiaries, four refineries, distribution companies, and a lubricants company. It works in association with private companies in an effort to increase production from the existing fields and has production-sharing contracts in 45 blocks (Ministerio de la Industria Básica, [undated], [untitled], accessed September 10, 2001, at URL http://www.cubagob.cu/des_eco/minbas.htm). Corporación de Cemento also reports to the Ministerio de la Industria Básica. Cuba's clay, marble, and other construction material sectors report to the Ministerio de Construcción (Ministry of Construction) (Otero Costafreda, 1999). Mineral production continued to be dominated by the Government. Recent changes in mining and foreign investment legislation, however, are changing the nature of the industry. Government and foreign private companies have formed joint corporations (mixed enterprises). Exploration and production contracts between the Government and foreign private companies may be of shared risk or with risk assumed by the foreign company.

At yearend 2000, 392 economic associations with foreign capital were operating in Cuba; most of them were dedicated to mining, exploration and production of petroleum, tourism, and construction. Foreign companies also participated in the cement, electricity, financial, natural gas industries, among others. About 50% of the foreign investment in Cuba comes from the European Union. Companies from Canada have invested significantly in Cuba (The Government of the Republic of Cuba, [2001], *Inversión extranjera en Cuba* [Foreign investment in Cuba], accessed September 12, 2001, at URL http://www.cubagob.cu/otras_info/cpi/inversion.htm).

Since the dissolution of the Soviet Union in the early 1990s, Cuba's foreign trade has changed significantly. In 2000, Europe, which was Cuba's main trading partner, received 60% of Cuba's exports and was the source of about 40% of Cuba's imports (The Government of the Republic of Cuba, [2001], *Comercio exterior* [Foreign trade], accessed September 12, 2001, at URL http://www.cubagob.cu/otras_info/ONE/comercio_exterior.htm).

Production of mined nickel (nickel content of nickel oxide, nickel-cobalt sulfide, and nickel-cobalt ammonium liquor) increased by 7.4% to 71,400 t in 2000. Production of nickel and cobalt, which was concentrated in the northeastern side of the Island, came from three operations, two of which produced nickel oxide and one that produced the intermediate product, nickel-cobalt sulfide. The sulfide producer Moa S.A. was a mining and processing operation that is part of a vertically integrated joint-venture company between the Government of Cuba and Sherritt International Corp. (50% each); the joint venture was formed in 1994 and had facilities in The Bahamas, Canada, and Cuba. Production from the Moa operation

increased by 9% to 29,520 t of nickel-cobalt with a nickel content of about 27,300 t (Sherritt International Corp., 2001, p. 7). Nickel production from the nickel oxide plant in Nicaro and Punta Gorda was about 40,000 t. An ammonium liquor in the nickel oxide production produced about 1,100 t of nickel.

In early 2000, WMC Ltd. of Australia withdrew from the Pinares de Mayarí nickel project (WMC Ltd., 2000, Community—Environmental report 2000, accessed July 10, 2001, at URL <http://www.wmc.com.au/sustain/cer00/contents.htm>). Through its subsidiary Westminer Holdings Ltd., the company had signed a joint-venture agreement to evaluate the development of the Pinares de Mayarí nickel deposit and to construct a nickel and cobalt plant and refinery in the Huguín Province in eastern Cuba.

In late 2000, RAO Norilsk Nickel of Russia was considering investing in another nickel project in the Holguín Province, eastern Cuba. Construction of Las Camariocas was suspended; this plant was being constructed before the collapse of the former Soviet Union (FSU). The Cuban Government has been trying to find a new investor for the plant since foreign investment laws were modified in the mid-1990s.

Production of steel increased to about 336,200 t; this was an 11% increase since 1999 and a 45.5% increase in 5 years. The German steel plant builder Sket Walzwerkstechnik was to construct a 300-t/yr long-product rolling mill near Havana for Cía Siderúrgica Acinox. A large part of the production of the plant, which was being built next to Antillana de Acero's mini-mill, was for exports. Completion of the plant was expected to take 2 years (Metal Bulletin, 2000).

Production of crude petroleum, which has been increasing significantly in recent years, reached 17.4 Mbbl in 2000. The Government has opened the petroleum sector to foreign private companies in an effort to decrease its dependence in foreign crude. Since 1996, production has increased by almost 83% (table 1). Sherritt was the largest producer with an output of 29,554 bbl/d, which was about 60% of Cuba's total production. The company had 11 production-sharing contracts with the Government in a 3.7-million-acre area (Sherritt International Corp., 2001, p. 10).

In 2000, Cuba's gross electric generation was 15,029 gigawatt-hours, which was a 3.7% increase from that of 1999. During the year, 70% of Cuba's electricity was generated with domestic petroleum. Cuba's government agency Unión Eléctrica de Cuba signed a contract with Alstom S.A. of France, which was the world's second largest power turbine manufacturer, to modernize the thermoelectric plant in the Matanzas Province so that it could accept high-sulfur petroleum. Alstom was one of the foreign companies collaborating in a 3-year, \$167 million program that began in 1997 to upgrade 45% of Cuba's generating capacity built by Czechoslovakia and the FSU. In 1999, 41% of the upgrade had been completed (U.S.-Cuba Trade and Economic Council, Inc., 2000, Alstom S.A. of France confirms US\$20 million contract to modernize power plant, accessed August 28, 2001, at URL <http://www.cubatrade.org/2000lights.html>).

DOMINICA

In 2000, the mining sector played a minor role in the economy of Dominica. Although efforts were underway to develop the tourism industry, agriculture continued to be the leading sector. The GDP based on purchasing power parity in

1998 was \$225 million. The population as of July 2000 was estimated to be 72,000. In 1998, exports were valued at \$60.8 million; bananas accounted for 50% of the total value of exports (U.S. Central Intelligence Agency, 2000, World factbook 2000—Dominica—Economy, accessed August 15, 2001, at URL <http://www.odci.gov/cia/publications/factbook/geos/do.html>). Dominica's mineral products were cement, clay, limestone, pumice, sand and gravel, and volcanic ash.

In February 2000, Devcon sold its cement and ready-mix operations in Dominica for approximately \$3.9 million. Additional terms of the transaction were undisclosed (Devcon International Corp., February 24, 2000, [untitled], accessed August 16, 2001, at URL <http://www.devc.com/mainpages/News.htm>).

The Dominican Government researched and planned for the possible construction of a more than 3,000-meter (10,000-foot) runway international airport at Wesley that would help facilitate trade and develop its tourism industry. The needed investment of \$110 million would include \$80 million for the airport, \$20 million for road construction, and \$10 million for displaced farmers. Officials in Antigua expressed support for the construction of the airport because nearly one-half of the goods produced in Dominica are sold to Antigua (Caribbean Aviation, June 1, 2001, Caribbean airports—Dominica airport, accessed August 31, 2001, at URL <http://www.caribbeanaviation.com/airports.htm#dom>).

DOMINICAN REPUBLIC

During 2000, the Dominican Republic's real GDP increased by 7.8%. The mineral industry of the Dominican Republic, which continued to be small, represented about 2% of the GDP. Mining increased by 9.2% stimulated by higher output and a higher average price of nickel, which was the country's most important mineral to the economy. The construction sector increased by 5.2% (Banco Central de la República Dominicana, 2001, p. 1, 5).

The country produced cement, gypsum, ferronickel, marble, petroleum refinery products, salt, sand and gravel, and steel. Production of construction minerals partially met the Dominican Republic's domestic demand. Production of gold and silver was suspended in 1999 and was not resumed in 2000 (table 1). The Dominican Republic did not produce petroleum in 2000, and domestic production of petroleum refinery products was not enough to meet the requirements for domestic consumption.

Mining in the Dominican Republic is regulated by Mining Law 146, which was promulgated and published in the Official Gazette No. 9231 in June 1971. The tax section of the mining law was modified by law 11-92 in 1992. Income tax was reduced from 40% to 25%. The Government agency responsible for administering the mining law is the Dirección General de Minería, which is part of the Secretaría de Estado y Comercio.

In 1995, the foreign investment law was revised with law 16-95. The law gave similar rights to foreign and domestic investors. Under the law, foreign investment must be registered with the Central Bank within 90 days from the date of investment. Foreign investment is prohibited in the disposal of dangerous or radioactive and toxic waste not produced in the country, areas that affect public health and the balance of the environment, and manufacturing of equipment and materials directly related to national defense and security. Regulation No.

360 provides definitions and details to administer law 16-95.

Mineral production in the Dominican Republic was by the Government and the private sector. The sole producer of gold and silver Government-owned Rosario Dominicana S.A. was idle during the year. Corporación Dominicana de Empresas Estatales held minority interest in the production of gypsum, marble, nickel, and salt. Cemex Dominicana S.A. [a subsidiary of Cementos Mexicanos S.A. de C.V. (CEMEX)] invested in the Dominican gypsum mine; Cemex Dominicana was also known as Cementos Nacionales. The Government also held 50% interest in the only petroleum refinery Refinería Dominicana de Petróleo S.A.

Production of cement was about 2 million metric tons (Mt). In early 2000, CEMEX announced a \$187 million investment in Cemex Dominicana. A large portion of the investment (\$145 million) was planned to increase the company's clinker capacity from 600,000 t to 2.2 million metric tons per year (Mt/yr). The new clinker line was scheduled to be completed in 2 years. CEMEX was also investing \$22 million in a new vertical mill that would increase the facility's grinding capacity by 50% to 2.4 Mt/yr. In addition, Cemex Dominicana will become self-sufficient in power with a \$20 million investment in 18-megawatt (MW) generating plant, which began in 2000 (Cemento Mexicanos S.A. de C.V., 2000).

In 2000, nickel continued to be the most important mineral to the Dominican economy and the major source of foreign earnings from the mining sector. According to U.S. Geological Survey data, the country ranked 10th in world nickel mine production and 12th in plant production. The only nickel producer was Falconbridge Dominicana C. por A. (Falconda) [a subsidiary of Falconbridge Ltd. of Canada (85.26%), the Government of the Dominican Republic (10.64%), and Redstone Resources, Inc. (4.1%)]. Falcondo produced ferronickel near the town of Bonao. Production of ferronickel increased by 17.7% to 72,488 t with an nickel content of 27,829 t. Shipments of ferronickel increased by 13.5% to 71,065 t with a nickel content of 27,226 t.

The private sector with 12 private and independent producers produced 46% of the electricity generated in the Dominican Republic in 2000. Total production was 9.8 billion kilowatthours (kWh); this was a 5.4% increase from that of 1999, and consumption increased by 10.8% to 5.8 billion kWh (Banco Central de la República Dominicana, 2001, p. 16).

In 2000, AES Corp. of the United States began construction of a 300-MW \$340 million electric powerplant near Santo Domingo (AES Corp., 2000). The construction of the gas-fired plant was scheduled for completion in 2002. BP Amoco plc agreed to supply liquefied natural gas to AES for its projects in the Dominican Republic (Alexander's Gas & Oil Connections, August 7, 2000, BP Amoco agrees to LNG sale to AES for Dominican Republic, accessed September 7, 2000, at URL <http://www.gasandoil.com/goc/company/cnl03250.htm>). In addition to the plant, AES has Los Mina 210-MW powerplant and a 50% participation in EDE Este, which is the electric distribution company in the eastern part of the country.

GRENADA

In 2000, the mining sector played a minor role in the economy of Grenada. Although tourism was the leading sector, the construction and trade sectors grew significantly. The GDP purchasing power parity in 1999 was \$360 million. The

population as of July 2000 was estimated to be 89,000. In 1998, exports were \$26.8 million; export commodities were mainly agriculture products (U.S. Central Intelligence Agency, 2000, World factbook 2000—Grenada—Economy, accessed August 16, 2001, at URL <http://www.odci.gov/cia/publications/factbook/geos/gj.html>). Limestone and sand and gravel were produced for the local construction industry.

In January, the Grenada Airports Authority began construction projects that will cost nearly \$15 million primarily to construct a new terminal and resurface the runway at Point Salines International Airport. The airport was also seeking additional flights from the United States, in particular, flights by Continental Airlines, Inc., and Delta Air Lines, Inc. After American Airlines, Inc., of the United States and BWIA West Indies Airways Ltd. of Trinidad and Tobago stopped flights, only Air Jamaica Airlines flew to Grenada (Caribbean Aviation, June 1, 2001, Caribbean airports—Grenada airport, accessed August 31, 2001, at URL <http://www.caribbeanaviation.com/airports.htm#gnd>).

GADELOUPE AND MARTINIQUE

Guadeloupe and Martinique were administered as Overseas Departments of France. In 2000, mining played a minor role because their economies were led by agriculture, tourism, light industry, and services. The islands depended on France for large subsidies and imports. The GDP purchasing power parity in 1996 was nearly \$8 billion (\$3.7 billion for Guadeloupe and \$4.2 billion for Martinique). Their combined population as of July 2000 was estimated to be about 840,000. In 1997, exports were valued at \$390 million; major exports were bananas, refined petroleum products, rum, and sugar (U.S. Central Intelligence Agency, 2000, World factbook 2000—Guadeloupe—Economy, accessed August 16, 2001, at URL <http://www.odci.gov/cia/publications/factbook/geos/gp.html>; U.S. Central Intelligence Agency, 2000, World factbook 2000—Martinique—Economy, accessed August 16, 2001, at URL <http://www.odci.gov/cia/publications/factbook/geos/mb.html>). Cement, clays, lime, pumice, salt, sand and gravel, and stone were mineral commodities produced. Petroleum products were refined on Martinique by Societe Anonyme de Raffinage des Antilles from imported crude oil.

HAITI

In 2000, the mining sector played a minor role in the economy of Haiti; small-scale agriculture was the main sector. The GDP based on purchasing power parity in 1999 was \$9.2 billion. The population as of July 2000 was estimated to be 6,900,000. In 1998, exports, which consisted of agricultural products, were valued at \$322 million (U.S. Central Intelligence Agency, 2000, World factbook 2000—Haiti—Economy, accessed August 16, 2001, at URL <http://www.odci.gov/cia/publications/factbook/geos/ha.html>). Haiti was involved in the production of cement, the mining of clays and limestone for cement production, the quarrying of marble, the production of marine salt, and the dredging for sand and gravel and other minerals used in the construction industry. In northern Haiti, deposits of chromite, copper, gold, iron ore, lead, manganese, silver, sulfur, tin, and zinc are small and undeveloped.

KWG Resources, Inc., of Canada had two properties in Haiti with gold and copper resources—Grand Bois and Morne Bossa.

Grand Bois, which covers an area of 25 square kilometers (km²) in the northern part of Haiti, had a resource estimated to be 4.6 Mt at a grade of 1.9 grams per metric ton (g/t) gold. Morne Bossa, which also covers an area of 25 km² and is 10 kilometers (km) southeast of Cap Haitien, had a resource estimated to be 2.2 Mt at a grade of 1.8 g/t gold (KWG Resources, Inc., 2000, Exploration, accessed August 17, 2001, at URL <http://www.kwg-resources.com/explore>).

Other companies active in the mining sector included the Canadian companies Mazarin Mining Corp. and St. Genevieve Resources Ltd. St. Genevieve Resources estimated that two small gold mines near Cap Haitien could yield at least \$100 million during the next 10 years (Welcome to the Caribbean.com, [undated], Caribbean mining, accessed August 17, 2001, at URL <http://www.welcometothecaribbean.com/mining.htm>).

JAMAICA

Leading industries in Jamaica in 2000 were bauxite mining and tourism. The GDP based on purchasing power parity was \$8.8 billion in 1999. In 1998, exports were valued at \$1.4 billion; alumina and bauxite accounted for more than 50% of the total value of exports; others were bananas, rum, and sugar. Jamaica's population as of July 2000 was estimated to be 2,700,000 (U.S. Central Intelligence Agency, 2000, World factbook 2000—Jamaica—Economy, accessed August 16, 2001, at URL <http://www.odci.gov/cia/publications/factbook/geos/jm.html>). Jamaica also produced cement, gold, gypsum, secondary lead, lime, limestone, petroleum refinery products, salt, and other construction materials.

The Ministry of Mines and Energy was the Government agency responsible for the mining sector of Jamaica. Legislation that governs the mineral sector includes the Mining Act, the Mining Regulations, the Minerals (Vesting) Act, the Mines and Health Regulations, the Bauxite and Alumina Encouragement Act, the Quarries Control Act, the Quarries Regulation, and the Gunpowder and Explosive Act (Mines and Geology Division, 1998, p. 29). The Ministry's Mines and Geology Division supports the Ministry through research and ensures compliance with the mining laws. The Jamaica Bauxite Institute is responsible for monitoring and regulating the bauxite industry and serves as the Government adviser in all matters that concern the subsector.

Production of minerals in Jamaica was led by the private sector, but the Government was a partner or had minority equity in several mineral producing companies. Large international companies, such as Alcan, Inc., of Canada, Alcoa Inc. and Kaiser Aluminum Corp. of the United States, and Norsk Hydro A/S of Norway through their Jamaican subsidiaries, sometimes in partnership with the Government or with each other, were responsible for all the bauxite and alumina produced in Jamaica.

Internationally, Jamaica continued to rank among the leading producers of bauxite and alumina; it produced 8.8% of the world's bauxite and about 7.4% of the world's alumina (Plunkert, 2001). In 2000, total bauxite production (crude bauxite for exports plus bauxite converted to alumina) decreased by 5.1% to about 11.1 Mt. The main reason for this decrease was an explosion in July 1999 at Jamaica's largest bauxite mining company Kaiser's Gramercy alumina refinery in Louisiana. Shipments were expected to resume to the Gramercy refinery by the end of October 2000 (United Steelworkers of

America Local #329, October 5, 2000, Kaiser Jamaica to resume shipment to U.S. plant, accessed March 19, 2001, at URL http://www.uswa329.org/October_2000/oct05c.htm).

In an effort to improve production efficiency, Jamaica Alumina Co. (Jamalco) [a joint venture between Alcoa (50%) and the Government of Jamaica (50%)] and Alumina Partners of Jamaica (Alpart) [a joint venture between Kaiser Aluminum (65%) and Norsk Hydro (35%)], which were two of the bauxite and alumina producers in Jamaica, agreed to form a joint venture to merge their bauxite mining operations. The merger, which was approved by the Jamaican Cabinet in 1999, was possible because both companies will be mining bauxite in South Manchester Parish by 2001. This joint venture required Jamalco to construct 16 km of railroad to connect the existing railroad at Parnassus with a new railhead in St. Jago, which also will be built by Jamalco as part of the agreement (Jamaica Gleaner, April 28, 1999, Today's business—Bauxite companies to merge in July, accessed March 31, 2000, at URL <http://www.jamaica-gleaner.com/gleaner/19990428/business/b1.html>).

In 2000, Alcan owned a 93% interest in Alcan Jamaica Co., which was Alcan's division that operated bauxite mines and two alumina refineries. The remaining 7% was owned by the state-owned Jamaica Bauxite Mining Ltd. Swiss-based Glencore International AG expressed interest in acquiring Alcan's bauxite interests in Jamaica (Mbendi Information Services, May 3, 2001, Jamaica—Mining—Overview, accessed August 17, 2001, at URL <http://www.mbendi.co.za/indy/ning/am/jm/p0005.htm>).

In November 1999, in an effort to encourage expansions in the bauxite and alumina industry, the Government of Jamaica agreed to reduce the bauxite levy by excluding from the levy any additional capacity created by plant expansions (Balford Henry, Senior staff reporter, November 16, 1999, Today's front page—Unions give, want some back, Jamaica Gleaner, accessed August 4, 2000, at URL <http://www.jamaica-gleaner.com/gleaner/19991116/index.html>). Based on production in 2000, Jamaica's bauxite ores were expected to last another 100 years (Canute James, Financial Times, January 17, 2001, Jamaica gives bauxite a boost, accessed September 5, 2001, at URL <http://www.aaccla.org/news/newstext.cfm?title=Jamaica%20gives%20bauxite%20a%20boost&type=news>).

In April 2001, the Minister of Industry, Commerce, and Technology announced that Ausjam Mining Ltd. of Australia had begun gold mining operations in October 2000 in Pennants, Clarendon. Ausjam invested \$213.5 million and employed 25 people to start the first recorded gold-mining operation in Jamaica (Jamaica Gleaner, April 21, 2001, Eureka! There is gold in the hills of Clarendon, accessed August 27, 2001, at URL <http://www.jamaica-gleaner.com/gleaner/20010421/lead1.html>).

In 1999, the Government of Jamaica sold its 43% stake in the Caribbean Cement Co. Ltd., which was the only cement producer in Jamaica, to Trinidad Cement Ltd. of Trinidad and Tobago. Trinidad Cement paid \$29.4 million to the National Investment Bank of Jamaica (Jamaica Gleaner, April 22, 1999, Today's business—Carib cement sale official, accessed August 4, 2000, at URL <http://www.jamaica-gleaner.com/gleaner/19990422/business/b7.html>). Later in the year, Trinidad Cement increased its share of Caribbean Cement to 74%. In 2001, company officials announced a hike in cement prices to local customers in an effort to combat increasing energy costs

that threatened its ability to operate efficiently and to maintain profitability (Jamaica Gleaner, June 18, 2001, Cement price hikes, accessed August 27, 2001, at URL <http://www.jamaica-gleaner.com/gleaner/20010618/lead/lead3.html>).

In 2000, Rugby Jamaica Lime and Minerals Ltd. (a partnership of Rugby Group plc of the United Kingdom and Clarendon Lime Ltd. of Jamaica) completed construction of a lime plant in Halse Hall, Clarendon Parish. The \$25 million plant, which was built at the Jamalco alumina refinery property, has a capacity to produce 125,000 t/yr of lime. The company signed a long-term contract with Jamalco for 85,000 t/yr of lime and was negotiating other contracts with Alcan and Alpart (Caribbean News Agency, January 17, 2001, Business news—Jamaica's bauxite industry back on track, accessed January 11, 2002, at URL <http://www.cananews.com/cbi/businessupdate1160.htm>).

The Jamaican Government held discussions in 2000 with Duke Energy Corp. and Enron Corp. of the United States and Southern Electric Co. of the United Kingdom for the state-owned Jamaica Public Service Co. (Jamaica Gleaner, August 2, 2000, Shirley ponders JPSCo future, accessed August 27, 2001, at URL <http://www.jamaica-gleaner.com/gleaner/20000802/Business/Business2.html>). In February 2001, a sale was made to Southern Electric Co. for \$201 million for an 80% share; the Government retaining the remained 20% (The Jamaica Newsletter, February 10, 2001, JPS sold!! 80% to Southern Electric Co., accessed August 27, 2001, at URL <http://www.jamaicanewsletter.com/NL-021001.html>).

Petrojam Ltd. of Jamaica planned to begin operation of a powerplant that will generate energy by using petcoke, which is a material made from crude oil and was previously handled as waste and which they will burn to generate the equivalent of 120 MW of capacity (Washington Times, 2000a). In 1998, electricity production was 6.4 billion kWh and electricity consumption in 1998 was 5.9 billion kWh (U.S. Central Intelligence Agency, 2000, World factbook 2000—Jamaica—Economy, accessed August 16, 2001, at URL <http://www.odci.gov/cia/publications/factbook/geos/jm.html>).

On October 24, 2000, the Jamaica Ship Registry was officially launched. Besides Kingston, the island boasts eight active deepwater ports. Kingston Wharves Ltd. of Jamaica recently began a modernization project that could take 4 years to complete at a cost of \$39 million (Washington Times, 2000b).

MONTserrat

In 2000, mining played a minor role in the economy of Montserrat. Severe volcanic activity has caused significant economic and social disruption in Montserrat since 1995. The United Kingdom, of which Montserrat is a dependent territory, committed about \$100 million between 1996 and 1998 to help reconstruct the economy and has programmed additional aid for 1999 to 2001. In 2000, the construction sector was the leading industry, and the GDP based on purchasing power parity in 1998 was \$31 million. Montserrat's population as of July 2000 was estimated to be 6,400. In 1998, exports were valued at \$1.5 million; some export products include apparel, electronic components, and plastic bags (U.S. Central Intelligence Agency, 2000, World factbook 2000—Montserrat—Economy, accessed August 16, 2001, at URL <http://www.odci.gov/cia/publications/factbook/geos/mh.html>). Small quantities of sand

and gravel and other quarry products constituted the mineral industry.

Since the W.H. Bramble airport terminal was destroyed by lava flows from the Soufriere Hills Volcano in 1997, Government officials have researched the location of a new airport and have sought funding. Thatch Valley was chosen as the new location. The British Government, however, has rejected Montserrat's requests for an investment of \$145 million. The Committee for the Redevelopment of Montserrat, which is a non-Government organization, began to pursue alternative sources of financing the new airport (Caribbean Aviation, June 1, 2001, Caribbean airports—Montserrat airport, accessed August 31, 2001, at URL <http://www.caribbeanaviation.com/airports.htm#VP-M>).

NETHERLANDS ANTILLES

In 2000, mining played a minor role in the Netherlands Antilles; offshore finance, petroleum transshipment, and tourism were the leading sectors. The GDP based on purchasing power parity in 1998 was \$2.4 billion. The population as of July 2000 was estimated to be 210,000. In 1998, exports were valued at \$303 million; petroleum products accounted for 98% of exports (U.S. Central Intelligence Agency, 2000, World factbook 2000—Netherlands Antilles—Economy, accessed August 16, 2001, at URL <http://www.odci.gov/cia/publications/factbook/geos/nt.html>). The Netherlands Antilles are virtually without natural resources. Oil refining and oil transshipments play an important role in the economy, but oil is not locally produced. Calcium phosphate is extracted on Curaçao, and limestone and salt are mined on Bonaire (United Nations Development Programme, [undated], Netherland Antilles—Introduction, accessed August 17, 2001, at URL <http://www.undp.org/tt/nan/nansite.htm>).

Aggregate was quarried on Saint Martin by Bouwwbedrijf Bowne Winden N.V. (a subsidiary of Devcon International Corp.). Production was consumed primarily by the local construction industry. Devcon produced and distributed ready-mix concrete, crushed stone, concrete block, and asphalt in the eastern Caribbean. In March 2000, Devcon sold 100% control of its cement import terminal on Saint Martin to Holderbank Financiere Glaris Ltd. of Switzerland (MarketPlaceCement, March 30, 2000, Consolidation of market network in Central America and the Caribbean—"Holderbank" acquires stake in Guatemala-based Cementos Progreso and five cement import terminals in the Caribbean, accessed September 4, 2001, at URL <http://www.global-cement.dk/cement%20news/week13/holdconsol.htm>).

In 1997, AKZO Salt Antilles N.V. (a subsidiary of Akzo Nobel Salt, Inc., of the Netherlands) sold its 360,000-t/yr solar salt facility on the southern end of Bonaire to Cargill Salt Co. of the United States. Cargill's purchase included all Akzo's North American processing and marketing assets (Cargill, April 28, 1997, News and information—Cargill buys Akzo Nobel Salt's North American operations, accessed September 4, 2001, at URL <http://www.cargill.com/today/releases/0428b1997.htm>).

Petroleum activities in the Netherland Antilles were administered by Saba Bank Resources NV (jointly owned by the Government of the Netherland Antilles and the Governments of Saba, Saint Eustatius, and Saint Martin). In 2000, Saba Bank sponsored a geologic review of offshore sediments that are located 5 km southwest of the island of Saba;

results indicated the potential of a resource of 500 Mbbl of oil (Oil & Gas Journal, 2000).

PDVSA leased the Curaçao Isla refinery from the Government of the Netherlands Antilles and had plans to invest \$200 million during the next 10 years to upgrade the refinery's facilities. In June 2000, PDVSA canceled plans to upgrade Isla and instead put its refinery in Cienfuegos, Cuba, into operation. The Curaçao Isla refinery had a capacity of 116.8 million barrels per year (U.S. Energy Information Administration, May 2001, Caribbean fact sheet—Oil and natural gas—Refining, accessed September 4, 2001, at URL <http://www.eia.doe.gov/emeu/cabs/carib.html>).

SAINT KITTS AND NEVIS

In 2000, the mining sector played a minor role in Saint Kitts and Nevis. The economy of the Nation of Saint Kitts and Nevis has traditionally been dependent on the sugarcane industry, but the Government has recently increased efforts to expand tourism. In 1998, Hurricane Georges caused significant economic damages and limited GDP growth. The GDP purchasing power parity in 1998 was \$244 million. The population of Saint Kitts and Nevis as of July 2000 was estimated to be 39,000. In 1998, exports were valued at \$42 million and comprised machinery, food, electronics, beverages, and tobacco (U.S. Central Intelligence Agency, 2000, World factbook 2000—Saint Kitts and Nevis—Economy, accessed August 16, 2001, at URL <http://www.odci.gov/cia/publications/factbook/geos/sc.html>). Saint Kitts and Nevis produced salt, crushed stone, and sand and gravel.

In August 2000, a \$5.1 million project to construct a 2,160-square kilometer (24,000-square-foot) passenger terminal at Newcastle Airport was undertaken with an anticipated completion date of July 2001. The Government expected the new terminal to help increase arrivals by 20% per year (Caribbean Aviation, June 1, 2001, Caribbean airports—Nevis airport, accessed August 31, 2001, at URL <http://www.caribbeanaviation.com/airports.htm#nev>).

SAINT LUCIA

In 2000, Saint Lucia's economy depended on bananas, tourism, and small-scale manufacturing; mining played a minor role. Prior to 1994, St. Lucia added small computer-driven information technology and financial services as development objectives. Recent investment has been in a petroleum storage and transshipment terminal built by Ameranda Hess Corp. of the United States. The Caribbean Development Bank funded an airport expansion project. The GDP based on purchasing power parity in 1998 was \$656 million. Saint Lucia's population as of July 2000 was estimated to be 156,000. In 1998, exports were valued at \$75 million; export commodities were agricultural products and clothing (U.S. Central Intelligence Agency, 2000, World factbook 2000—Saint Lucia—Economy, accessed August 16, 2001, at URL <http://www.odci.gov/cia/publications/factbook/geos/st.html>; U.S. Department of State, April 2001, Background notes—Saint Lucia—Economy, accessed September 4, 2001, at URL <http://www.state.gov/r/pa/bgn/index.cfm?docid=2344>). Gravel and sand pits and pumice quarries supplied the island's construction sector, which is tied to hotel expansion.

SAINT VINCENT AND THE GRENADINES

In 2000, mining played a minor role in the economy of Saint Vincent and the Grenadines; agriculture, construction, and tourism were leading sectors. The GDP based on purchasing power parity in 1999 was \$309 million. The population as of July 2000 was estimated to be 115,000. In 1998, exports were valued at \$47.8 million and were led by bananas (U.S. Central Intelligence Agency, 2000, World factbook 2000—Saint Vincent and the Grenadines—Economy, accessed August 16, 2001, at URL <http://www.odci.gov/cia/publications/factbook/geos/vc.html>). Saint Vincent and the Grenadines produced cement, salt, and sand and gravel.

TRINIDAD AND TOBAGO

Leading industries in Trinidad and Tobago in 2000 were petroleum, chemicals, and tourism. The GDP based on purchasing power parity was \$9.4 billion in 1999. Trinidad and Tobago's population as of July 2000 was estimated to be 1,175,523. In 1998, exports were valued at \$2.4 billion and were led by petroleum and petroleum products. The country has become the world's largest exporter of ammonia and the second largest exporter of methanol (U.S. Central Intelligence Agency, 2000, World factbook 2000—Trinidad and Tobago—Economy, accessed August 16, 2001, at URL <http://www.odci.gov/cia/publications/factbook/geos/td.html>). Trinidad and Tobago also produced ammonia, asphalt, cement, direct reduced iron, limestone, natural gas, petroleum and petroleum products, and sulfur.

The Ministry of Energy and Energy Industries is the Government agency responsible for the mining sector of Trinidad and Tobago. Production of mineral commodities in Trinidad and Tobago was by the Government and the private sector.

Trinidad Cement Ltd. [owned by the Government of Trinidad and Tobago (80%) and CEMEX (20%)] was the only cement producer in Trinidad and Tobago. In 2000, cement production increased by 7.8% to 742,645 t from 688,400 t in 1999.

Production of petroleum in Trinidad and Tobago was by the Government-owned Petrotrin and by the private sector represented by BP Amoco Energy Co. of Trinidad and Tobago Ltd. (BP Amoco Energy), Trinmar Ltd. (a joint venture between Petrotrin and Texaco Trinidad, Inc.), and Trinidad and Tobago Marine Petroleum Co. (Trintomar) (a joint venture of National Gas Co., Enron Oil and Gas Trinidad Ltd., and Mora Oil Ventures). In 2000, production of crude petroleum decreased by 4.4% to almost 43.6 Mbbl from more than 45.6 Mbbl; this reduction reversed last year's 2% increase and marked the lowest production level in 10 years. Production of refinery products climbed by 7.9% to more than 57.5 Mbbl from more than 53.3 Mbbl.

Investment in petroleum exploration totaled \$99.7 million in 2000, which included five exploratory wells onshore and seven wells offshore (Ministry of Energy and Energy Industries, 2000, Industry focus—Oil—2000 exploration & production review and forecast for 2001, accessed January 11, 2002, at URL <http://www.energy.gov.tt/applicationloader.asp?app=articles&id=552>). In August 2000, New Horizon Exploration Ltd. of Trinidad and Tobago announced that it had formed a joint venture with Petrotrin to develop the Parrylands block E oil field. New Horizon planned to invest up to \$35 million to

develop the field and expected to recover up to 30 Mbbl (Businesswire, August 3, 2000, Trinidad oil field to be produced through a joint venture with New Horizon Exploration Trinidad & Tobago, Ltd. and Petrotrin, accessed August 4, 2000, at URL <http://www.businesswire.com/webbox/bw.080300/202160268.htm>).

Production of natural gas, which has been the driving force behind the rapid development of the petrochemical manufacturing sector in Trinidad and Tobago, increased by 16.9% to 15,483 million cubic meters in 2000 from 13,240 million cubic meters in 1999; the change from 1998 to 2000 was nearly 50% (Ministry of Energy and Energy Industries, 2000, Industry focus—Oil—2000 exploration & production review and forecast for 2001, accessed January 11, 2002, at URL <http://www.energy.gov.tt/applicationloader.asp?app=articles&id=552>). The three leading producers were BP Amoco Energy, British Gas Trinidad, and Enron Corp.

In July 2000, BP plc and Spain's Repsol YPF announced the discovery of 2 trillion cubic feet of natural gas off the southeast coast of Trinidad. This was BP's third major gas discovery in the past 3 years off of Trinidad. BP owned 70% of the exploration license, and Repsol YPF owned 30% (Alexander's Gas & Oil Connections, June 23, 2000, Discoveries—BP Amoco and Repsol find offshore gas in Trinidad, accessed August 29, 2001, at URL <http://www.gasandoil.com/goc/discover/dix02559.htm>).

In August 2000, Atlantic LNG (jointly owned by BP, British Gas, Cabot Oil & Gas Corp. of the United States, National Gas, and Repsol) signed an agreement to expand its natural gas facility at Port Fortin. The project was expected to cost about \$1 billion, and upon completion, the facility will be the sixth largest natural gas facility in the world after those in Algeria, Indonesia, Qatar, Malaysia, and Australia (Atlantic LNG, August 29, 2000, Expansion, accessed August 30, 2000, at URL <http://atlantlng.com/media032300.html>).

Infrastructure developments in Trinidad and Tobago include the creation of a Ministry of Transport and the opening of the international airport at Piarco, just outside Port of Spain. The Minister of Infrastructure noted, "In five years you should not be able to recognize Trinidad and Tobago because the mandate of this ministry is to change dramatically the infrastructure of the country" (Washington Times, 2001).

In 1999, a \$100 million 225-MW natural-gas-fueled powerplant of InnCOGEN (a subsidiary of York Research Corp. of the United States) began commercial operation (York Research Corp., 1999). Most of the company's output in 2000 (equivalent to 195 MW) was to be sold to the Government's distribution company Trinidad and Tobago Electricity Commission under a 30-year agreement. In 1998, total electricity production in Trinidad and Tobago was 4.8 billion kWh, and electricity consumption was 4.4 billion kWh (U.S. Central Intelligence Agency, 2000, Trinidad and Tobago—Economy, World factbook 2000, accessed August 16, 2001, at URL <http://www.odci.gov/cia/publications/factbook/geos/td.html>).

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TABLE 1
ISLANDS OF THE CARIBBEAN: PRODUCTION OF MINERAL COMMODITIES 1/ 2/

(Metric tons unless otherwise specified)

Country and commodity	1996	1997	1998	1999	2000
ARUBA e/ 3/					
Petroleum refinery products thousand 42-gallon barrels	62,436 4/	65,000	65,000	65,000	100,000
Sulfur, byproduct of petroleum	48,787 4/	50,000	50,000	50,000	77,000
BAHAMAS, THE e/ 5/					
Salt	900,000	900,000	900,000	900,000	900,000
Stone, argonite	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000
BARBADOS 5/ 6/					
Cement, hydraulic	106,515	172,728	259,181	252,929 r/	267,659
Clay and shale	120,000	120,000	120,000	150,000 r/	150,000
Gas, liquefied petroleum e/ 42-gallon barrels	20,000	20,000	20,000	20,000	20,000
Gas, natural:					
Gross million cubic meters	35 e/	28	37	47 r/	38
Marketed e/ do.	15	12	15	15	15
Limestone e/	1,500,000	1,500,000	1,500,000 4/	1,500,000	1,500,000
Sand e/	200,000	200,000	200,000 4/	200,000	200,000
Petroleum:					
Crude thousand 42-gallon barrels	380	328	585	708 r/	560
Refinery products do.	2,250 e/	2,653	2,277	2,300 e/	2,300
CUBA 5/ 7/					
Asphalt	42,100	59,400	68,400	73,300	90,000 e/
Cement, hydraulic	1,437,900 r/	1,706,600 r/	1,713,400 r/	1,784,600 r/	1,632,700
Chromite	37,300	44,000	46,000 r/	52,000 r/	50,000 e/
Cobalt, mine output, Co content:					
Oxide, oxide sinter, sulfide, ammoniacal liquor precipitate 8/	2,437 r/	2,683 r/	2,987 r/	2,877 r/	3,096
Sulfide and ammoniacal liquor precipitate	2,113	2,274	2,521	2,417	2,607
Copper, mine output, Cu content	2,362 r/	2,208 r/	1,351 r/	1,090 r/	1,000
Feldspar	12,100	14,700	14,400	4,100	5,000 e/
Gas, natural, marketed thousand cubic meters	19,300 r/	37,200 r/	124,200 r/	460,000 r/	574,500
Gold e/ kilograms	250	250	1,000	1,000	1,000
Gypsum e/ thousand tons	130	130	130	130	130
Iron and steel, steel, crude	230,988	342,000	283,327 r/	302,662 r/	336,169
Kaolin	15,500	11,500	11,000	10,400	10,000 e/
Lime thousand tons	98 r/	106 r/	93 r/	92 r/	100 e/
Nickel, Ni content:					
Mine output, oxide, oxide sinter, sulfide, ammoniacal liquor precipitate	51,220 r/	58,881 r/	64,752 r/	62,627 r/	68,305
Metallurgical products: 8/					
Granular oxide, oxide sinter, powder	26,730 r/	33,571 r/	38,192 r/	37,510 r/	39,890
Sulfide	24,066 r/	24,507 r/	25,176 r/	24,999 r/	27,288
Ammoniacal liquor	425	803	1,385	1,119	1,125
Total	51,221 r/	58,881 r/	64,753 r/	63,628 r/	68,303
Nitrogen, N content of anhydrous ammonia e/ thousand tons	135	135	135	135	135
Petroleum:					
Crude 9/ thousand 42-gallon barrels	9,518 r/	9,425 r/	10,823 r/	13,777 r/	17,382
Refinery products do.	60,000	60,000	60,000	60,000	60,000
Salt	159,800 r/	163,600 r/	134,600 r/	159,100 r/	160,000
Sand cubic meters	1,828,000	1,949,100	1,861,200	1,775,700	1,800,000
Silica sand do.	110,900 r/	92,900 r/	94,500 r/	91,200 r/	100,000 e/
Stone, crushed do.	2,889,900	2,919,600	2,860,000	2,950,300	3,301,300
Sulfur, byproduct of petroleum e/	5,000	5,000	5,000	5,000	5,000
DOMINICAN REPUBLIC 10/					
Cement, hydraulic	1,641,875	1,835,017	1,884,562	2,000,000 e/	2,000,000 e/
Gold kilograms	3,659	2,349	1,424 r/	651	--
Gypsum	86,019	115,000	80,000	81,249 r/	110,044
Iron and steel:					
Ferroalloys, ferronickel	78,488	84,897	69,419	61,561 r/	70,000 e/
Steel, crude	42,261	82,479	35,874 r/	42,893 r/	35,801
Limestone thousand tons	980	1,000 e/	1,000 e/	605 r/	703
Marble cubic meters	2,117	2,126	2,687	2,700 r/	4,057
Nickel, Ni content:					
Metal, ferronickel:					
Smelter	30,376	32,588	25,220	24,449	27,829
Shipments	29,452	32,581	26,554	24,012	27,226

See footnotes at end of table.

TABLE 1--Continued
ISLANDS OF THE CARIBBEAN: PRODUCTION OF MINERAL COMMODITIES 1/ 2/

(Metric tons unless otherwise specified)

Country and commodity	1996	1997	1998	1999	2000
DOMINICAN REPUBLIC--Continued 10/					
Nickel, Ni content--Continued:					
Mine output, laterite ore	45,168	49,152	40,311 r/	39,997 r/	39,943
Petroleum, refinery products:					
Liquefied petroleum gas	300 e/	409	480	433	450 e/
Gasoline, motor	2,100 e/	1,925	1,877	1,906	1,900 e/
Kerosene	95 e/	88	84	71	90 e/
Jet fuel	1,805 e/	1,741	1,763	1,788	1,800 e/
Distillate fuel oil	2,700 e/	2,754	2,888	2,656	2,700 e/
Residual fuel oil	4,600 e/	4,359	4,506	4,408	4,400 e/
Total	11,600 e/	11,276	11,598	11,262	11,300 e/
Salt:					
Marine e/	49,719 4/	50,000	50,000	50,000	50,000
Rock	11,330	10,479	5,672	5,436	12,200
Total	61,049	60,479	55,672	55,436	62,200
Sand and gravel	9,602	10,894	12,933	15,398	16,246
Silver	17,017	12,406	7,409	3,140	--
GUADELOUPE e/ 5/ 11/					
Cement	230,000	230,000	230,000	230,000	230,000
Lime	5,000	5,000	5,000	5,000	5,000
Pumice	210,000	210,000	210,000	210,000	210,000
Salt	48,000	48,000	48,000	50,000	49,000
HAITI e/ 12/					
Sand and gravel:					
Gravel	400,000 r/	400,000 r/	400,000 r/	427,300 r/ 4/	450,000
Sand	2,000,000 r/	2,000,000 r/	2,000,000 r/	2,053,500 r/ 4/	2,000,000
Stone, marble	100	100	100	100	131 4/
JAMAICA					
Aluminum:					
Bauxite, dry equivalent, gross weight	11,863	11,987	12,646	11,688	11,127
Alumina	3,199	3,394 r/	3,440	3,570	3,600
Cement, hydraulic	556,509	588,287	557,991	503,713	521,343
Gypsum	338,875	263,662	154,451	235,900	330,441
Lead, refined (secondary) e/	800	800	800	-- r/ 4/	-- 4/
Lime	245,000 e/	199,419	227,300	226,882 r/	267,215
Petroleum refinery products	4,742	5,255	5,142	3,607	3,600
Salt	17,866	16,498	15,606	19,090	19,068
Silica sand	15,790	12,089	6,128	9,400	6,700
Stone:					
Limestone	3,351	3,350	3,201	3,300	3,420
Marble, cut and/or polished	2,000	1,500	750	375 r/	150
Marl and fill	4,116	4,198	3,900	4,490	4,720
Sand and gravel	1,836	1,928	1,839	1,580 r/	1,600
MARTINIQUE e/ 5/ 11/					
Cement, hydraulic	220,000	220,000	220,000	220,000	220,000
Lime	5,000	5,000	5,000	5,000	5,000
Petroleum refinery products	4,800	4,800	4,800	4,800	4,800
Pumice	130,000	130,000	130,000	130,000	130,000
Salt	200,000	200,000	200,000	200,000	200,000
NETHERLANDS ANTILLES 3/					
Petroleum refinery products	70,104	76,303	78,169	80,000 e/	80,000 e/
Salt	366,265	432,225	487,373	500,000 e/	500,000 e/
Sulfur, byproduct of petroleum	23,921	28,616	30,000 e/	30,000 e/	30,000 e/
SAINT KITTS AND NEVIS					
Sand and gravel	50,389	100,000 r/ e/	200,000 r/ e/	211,849 r/	214,700
Stone, crushed	106,902	105,000 e/	105,000 e/	105,000 e/	121,266
TRINIDAD AND TOBAGO					
Asphalt, natural	18,100 13/	15,396 14/	18,735 14/	12,600 13/	9,897
Cement, hydraulic 13/	617,100	652,500	690,400	688,400	742,645
Gas, natural: 13/					
Gross	7,127	9,137	10,294	13,240	15,483
Marketed	7,049	7,379	8,651	11,917 r/	14,175

See footnotes at end of table.

TABLE 1--Continued
ISLANDS OF THE CARIBBEAN: PRODUCTION OF MINERAL COMMODITIES 1/ 2/

(Metric tons unless otherwise specified)

Country and commodity	1996	1997	1998	1999	2000
TRINIDAD AND TOBAGO--Continued					
Iron and steel:					
Direct-reduced iron 13/	954,000 r/	1,140,000 r/	1,073,333 r/	1,379,000 r/	1,530,000
Steel, crude	695,000	736,000	781,425	728,952 r/	741,469
Semimanufactures (billets) 13/	643,600	747,000	776,900	723,900	723,000
Lead, refined (secondary) e/	1,600	1,600	1,600	1,600	1,600
Natural gas liquids thousand 42-gallon barrels	4,460 13/	4,113 14/	5,254 14/	5,753 13/	6,932 14/
Nitrogen, N content of anhydrous ammonia 15/	1,801,000	1,771,700	2,271,300	2,771,000 r/	2,686,400
Petroleum:					
Crude thousand 42-gallon barrels	47,171 13/	45,166 14/	44,759 14/	45,662 13/	43,593 14/
Refinery products do.	41,067 13/	33,525 14/	49,019 14/	53,320 13/	57,533 14/
Stone, limestone thousand tons	1,600 e/	1,219	1,100	1,100 e/	1,100 e/
Sulfur, byproduct of petroleum e/ 16/	5,000	15,000	15,000	15,000	15,000

e/ Estimated. r/ Revised. -- Zero.

1/ Estimated data are rounded to no more than three significant digits; may not add to totals shown.

2/ Table includes available data through September 2001.

3/ In addition to commodities listed, crude construction materials (lime, sand, stone, etc.) may be also produced, but data on such production are not available, and information is inadequate to make reliable estimates of output levels.

4/ Reported figure.

5/ In addition to commodities listed, crude construction materials (sand and gravel, etc.) may be also produced, but data on such production are not available, and information is inadequate to make reliable estimates of output levels.

6/ Barbados also presumably produced clays and stone, but data on such production are not available, and information is inadequate to make reliable estimates of output levels.

7/ Cuba also presumably produced marble and stone, but data on such production are not available, and information is inadequate to make reliable estimates of output levels.

8/ The Government of Cuba reports figures of nickel-cobalt content of granular and powder oxide, oxide sinter, and sulfide production. By using an average cobalt content in these products of 0.9% in total granular and powder oxide, 1.1% in total oxide sinter, and 4.5% in total sulfide, the cobalt content of reported nickel-cobalt production was determined to be 1.16% of granular and powder oxide, 1.21% of oxide sinter, 7.56% of sulfide, 25% of ammoniacal liquor. The remainder of reported figures would represent the nickel content.

9/ Production has been converted from metric tons to barrels by using the U.S. Energy Information Administration's factor of 6.449 barrels per metric ton of crude petroleum.

10/ In addition to commodities listed, crude construction materials (gravel, stone, etc.) may be also produced, but data on such production are not available, and information is inadequate to make reliable estimates of output levels.

11/ Guadeloupe and Martinique also presumably produced stone, but data on such production are not available, and information is inadequate to make reliable estimates of output levels.

12/ In addition to commodities listed, asphalt, lime, and salt may be also produced, but data on such production are not available, and information is inadequate to make reliable estimates of output levels.

13/ Source: Central Bank of Trinidad and Tobago Annual Economic Survey.

14/ Source: Ministry of Energy and Energy Industries.

15/ Source: International Fertilizer Industry Association.

16/ Sulfur as a byproduct of natural gas may be produced, but information is inadequate for reliable output estimates.