

JAMAICA

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The Jamaican economy was fairly buoyant and on a 3.4% growth path before the September 11 attack on the World Trade Center in New York. It reduced by about 20% the number of visitors to the Caribbean island which relies heavily on tourism especially from the US. In addition, November floods hurt agricultural output while industrial action at Jamalco in October added to the decrease; July violence in West Kingston has also not helped the island's image. Problems with the workforce and local protests have hampered some mining operations. Nevertheless, a 2% economic growth for 2001 has been tentatively declared, which is over double the 0.8% of the previous year. Mining and quarrying declined during the fourth quarter to reduce overall growth of 12.1%; it had grown by 16.6% up until the end of September. There was also a 21.4% increase in cement production with increased housing starts and a 3.6% growth in construction. A modest expansion seems to be following during the first three months of 2002 with a revised more positive outlook for tourism and economic growth in the US.

The bauxite/alumina industry was a major contributor to GDP especially until early last October and a November 9 wildcat strike by hourly paid workers at the Jamalco plant. Labour problems have long dogged the industry in Jamaica and hampered its efficiency, although industrial relations had been stable for a while. In December Jamalco announced that it would make redundant its 385 hourly paid employees and restructure the company since it could not conclude a new labour contract; its 1 Mt/y a year alumina refinery in Hayes, Clarendon owned by Alcoa and the Jamaican Government had been closed since the strike. Some 200 monthly paid workers represented by the Union of Technical, Administrative and Supervisory Personnel, were also employed at Jamalco.

Up until this point overall bauxite output had increased by 18.3%, and with the re-opening of Kaiser's Gramercy alumina plant in Louisiana US crude bauxite output at Discovery Bay rose a dramatic 91.1% in the period; output of alumina was up 4.3% in the first nine months of the year. The production in this sector meant a 10.1% improvement in revenue compared with the same nine months of the previous year.

Alumina Partners of Jamaica or Alpart (65% Kaiser Aluminum, which has management responsibility, and 35% Hydro Aluminium of Norway) mines bauxite on the south coast and refines it all into alumina at the Alpart refinery in Nain. Alumina rated production capacity is 1.45 Mt/y with 65% available to Kaiser. In 2000, Alpart started a planned expansion of rated capacity to 1.7 Mt/y by early 2003. On the north coast, bauxite is mined by Kaiser Jamaica Bauxite Co. (KJBC) (owned 49% by Kaiser Aluminum and 51% by the Government of Jamaica). Annual bauxite production capacity is 4.5 Mt and KJBC presently has rights to 120 Mt of bauxite reserves. Kaiser receives all of KJBC's output. Most is refined into alumina at the corporation's Gramercy, Louisiana plant, and the rest sold to third parties. Early in 2002, Kaiser resorted to Chapter 11 to protect it from its creditors while reorganising, but its plants in Jamaica and in other locations outside the US are apparently not included and should continue to function normally. The Alpart expansion should proceed. Nevertheless, there will consequently be moves to reduce costs, improve efficiency, and streamline operations.

Another significant development has been that Glencore International was named the company to take over the operations of Alcan's Kirkvine and Ewarton plants in Manchester and St. Catherine respectively. The privately-

owned Swiss metals and minerals trading house has bought Alcan's two alumina refineries for a price believed to be US\$175 million including existing bauxite minerals and reserves. Alcan has agreed to an offtake deal to feed its aluminium smelters and Glencore will deliver 7.7 Mt of alumina over the next seven years to Alcan or the equivalent of near full capacity at the two refineries of 1.2 Mt/y. The Jamaican Government has a 7% stake in the refineries and will retain this in a joint venture with Glencore.

Illegal sand quarrying has also been a concern in Jamaica and Operation Sand Storm has tried to discourage the dangerous but lucrative practice. Affected areas include Lakes Pen, Grange Lane, Dunbeholden and Harkers Hall in St. Catherine and Danks in Clarendon. Demand for sand has been outstripping supply and the Highway 2000 project needs large quantities of skid resistant material. Preliminary results of a study to identify skid resistant-aggregate in areas of Jamaica have confirmed the presence of over 43,000 Mt of hard volcanic rocks, suitable for use in road surfacing and on airport runways. The rocks are excellent sources for generating aggregate for use in concrete mixes as well as in the manufacture of sand. Traditional sand quarrying areas are the Rio Minho River in Clarendon, Wag Water in St. Mary, Rio Grande in Portland and Hallahs and Morant Rivers in St. Thomas. Nine crushing plants provide wash sand with about triple the amount of sieve operations. Mining and Energy Minister, Anthony Hylton, signed the US\$8.5 million Sedimentary Basin Resource Assessment Project in January 2002 that will analyse sand and gravel deposits in the Yallahs River and Rio Minho.

There is considerable potential in the industrial mineral sector. Jamaica's calcium carbonate resources include 152,000 Mt of recoverable limestone, 350 Mt of recoverable marble, and about 350 Mt of high purity, high brightness calcium carbonate or whiting appropriate for filler grade material. Jamaica has exported the latter to the US since 1988,

but of the large North American producers only J. M. Huber and Omya operate properties on the island near Ochos Rios. Huber exports a significant volume of 93-94% brightness chalk to the US for processing and distribution. Hodges Minerals supplies the Jamaican market with ground calcium carbonate from its plant at Hodges in the parish of St. Elizabeth that has been expanded from 3,000-t/y capacity to the current level of 20,000 t/y; in 1993 and 1994 the company expanded into exports. In Clarendon, Central Jamaica, Rugby Lime and Minerals' US\$25 million production facility has a 25-year contract to supply lime to the bauxite and alumina company Jamalco; its new 400 t/d lime plant includes a Cimprogetti Twin-D 85 twin-shaft regenerative kiln. Lydford Mining, based in Kingston, has also made substantial investment in its limestone mining operations with the installation of a milling and classifying plant which will help it introduce fine ground filler grade calcium carbonates to regional markets. The company hopes to expand output to 15,000 t/y. Total production of calcium carbonate is estimated at some 100,000 t/y. Ground calcium carbonate is now the second most important mineral exported from Jamaica after bauxite.

As well as marble from St. Catherine's Parish Jamaica, has been producing salt, silica sand, and stone. Some semi-precious stones like agates, jasper and carnelian are used in an indigenous jewellery industry while some mineral and spring water is being marketed abroad. Clays (80% of which are naturally coloured red) are available to produce commercial quantities of ceramics and building components. The existing reserves are 250 Mt including disordered kaolinite (near white to buff firing), red firing illite to montmorillonite and light firing clays. Most of the island's gypsum is in the Bull Bay area of Eastern St. Andrew and Western St. Thomas. Indicated overall reserves total some 40 Mt with recoverable reserves estimated at 5 Mt (gypsum) and 20 Mt (anhydrite). Caribbean Cement Company consumes about 25,000 t/y

of a gypsum/anhydrite blend product which is produced by Jamaica Gypsum and Quarries, whose gypsum production ranges over 200,000 t/y, most of which is exported.

Trinidad Cement Ltd (TCL) is a majority stakeholder in (CCC), which is the centre of investment with associated companies such as Jamaica Gypsum and Quarries. The company has planned local sales increases while producing more than 600,000 t/y. In February, Mexican cement producer Cemex Ltd. withdrew its buyout offer for all the shares in Trinidad Cement Ltd and its subsidiaries after an objection by the Trinidadians; one of the world's four largest cement producers, Cemex's 20% stake in Trinidad Cement Ltd made it the single largest shareholder, while it also has a 20% direct stake in Carib Cement and for years had a technical service agreement with the cement manufacturer in Jamaica; it had considered the Jamaican company in the past and made a bid for the Jamaican Government's 43% stake when it was put on the market in 1998, but Trinidad Cement Ltd was awarded the shares in March 1999, which gave it 53% control. Alleged dumping of cement from Thailand and Indonesia has roiled the market lately.

Canadian interests, both in banking and mining, have long been involved in Jamaica. Several gold and copper anomalies underlain by Cretaceous inliers and lower Eocene graben sediments have been outlined in the past. OroGrande Resources had potential deposits of copper, gold, porphyry, and skarn at its Bellas Gate property, acquired in 1991, about 65 km northwest of the capital where the island's historic copper mining started in the 1850s. Various other companies have explored for gold and copper, including BHP, Kennecott, Organa, and the Ausjam group, with interests in the Bennett Zone of the Central Inlier property. The Australian company Ausjam Mining has temporarily suspended the operation of its commercial gold mine in Pennants, Clarendon, after a year of operations; since the feasibility stage in 1995, the company has invested US\$7.5 million in the project, but has run into difficulties with its workforce, protests from local residents, and even cyanide procurement problems after September 11 terrorist attacks. It had mined some 8,000 oz, about 23% of recoverable reserves, and the largely mechanised operation is expected to yield a total of 35,000 oz of gold in 9 and 15 carat nuggets.