THE MINERAL INDUSTRY OF RWANDA
By Thomas R. Yager

In 2015, Rwanda was the world’s leading producer of tantalum. Rwanda also accounted for about 1% each of the world’s mined tin and tungsten production. The country also produced beryl, cement, clay, crushed stone, dimension stone, gemstones (such as amethyst, sapphire, and tourmaline), gold, lime, natural gas, peat, steel, and refined tin. Domestic consumption of minerals was not globally significant (Anderson, 2017; Papp, 2017; Shedd, 2017).

In 2015, the manufacturing sector accounted for 4.8% of Rwanda’s gross domestic product, and the mineral sector, 1.4%. The mineral sector employed about 37,000 Rwandans in 2015 compared with 35,580 in 2014. Total exports (excluding re-exports) were valued at $381 million in 2015, of which niobium and tantalum accounted for 17%; mined tin, 9%; and tungsten, 5%. Total imports were valued at $2.31 billion, of which petroleum products accounted for 11%, and construction materials (including cement and metals) accounted for 10% (African Development Bank Group, 2016; National Bank of Rwanda, 2016a, b; Joseph Butera, Mining and Petroleum Economist, Ministry of Natural Resources, written commun., June 17, 2016).

In July 2010, the U.S. Congress passed the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act), which contains provisions concerning the use of minerals to finance military conflict in the eastern part of Congo (Kinshasa). The U.S. Securities and Exchange Commission (SEC) issued regulations in final form in accordance with the Dodd-Frank Act in August 2012 (U.S. Securities and Exchange Commission, 2012, p. 56274–56275).

Under the regulations, all companies registered with the SEC that sell products containing gold, tantalum, tin, or tungsten are required to disclose whether these minerals originated from Congo (Kinshasa) or adjoining countries. Companies that sell products containing gold, tantalum, tin, or tungsten that originated in Congo (Kinshasa or adjoining countries are also required to submit annual reports to the SEC that describe the due diligence measures taken, the smelters that processed the minerals, and the companies’ efforts to determine the mine of origin (U.S. Securities and Exchange Commission, 2012, p. 56274).

In December 2010, the Government of Rwanda and the International Tin Research Institute (ITRI) started the ITRI Tin Supply Chain Initiative (iTSCI) certification scheme for domestically produced tantalum, tin, and tungsten to meet the end user requirements of the Dodd-Frank Act. By the end of June 2015, 302 mining companies that operated 842 mine sites were participating in the iTSCI. ITRI was continuing with a mineral sampling program at numerous mine sites; it had collected samples at 53 mine sites during the first half of 2015 and planned to gather samples at an additional 119 mine sites (International Tin Research Institute, 2015b).

In 2014, the Government passed Law No. 13/2014 of May 20, 2014 on Mining and Quarrying Operations. The new law established large-scale mining, small-scale mining, and artisanal mining licenses. Large-scale mining licenses, which are valid for up to 25 years, are applicable to companies that intend to invest at least $22 million and to produce at least 180 metric tons per year (t/yr). Small-scale mining licenses, which are valid for up to 15 years, are applicable to companies that intend to invest at least $1 million during a 5-year period and to produce at least 36 t/yr. Artisanal mining licenses, which are valid for up to 5 years, are applicable to companies that intend to invest at least $100,000 and to produce at least 6 t/yr (International Tin Research Institute, 2015b).

In 2013, the Government passed the Upstream Petroleum Policy. The objectives of the policy include the promotion of petroleum exploration and the development of a legal framework for the petroleum sector. As of the end of 2015, the Government had not passed a law governing the petroleum sector.

Production

In 2015, the production of limestone increased by 177%; pozzolanic materials, by 144%; clay, by an estimated 137%; sandstone, by 110%; gold, by an estimated 99%; natural gas, by an estimated 75%; and cement, by an estimated 36%. Refined tin production restarted in 2015. Production of mined tin decreased by an estimated 35%; niobium and tantalum, by an estimated 29% each; and tungsten, by an estimated 15% (table 1; Joseph Butera, Mining and Petroleum Economist, Ministry of Natural Resources, written commun., June 17, 2016).

Structure of the Mineral Industry

Privately owned companies, cooperatives, and artisanal miners produced cassiterite, columbite-tantalite, crushed stone, gemstones, gold, peat, and wolframite. The cement and steel plants also were privately owned. Kibuye Power 1 Ltd. (KP1), which produced natural gas, was a state-owned company. As of early 2015, the Government held a 25% share in Rutongo Mines Ltd., which was the country’s leading producer of cassiterite.

As of mid-2015, cassiterite, columbite-tantalite, and wolframite were produced by at least 302 mining companies that operated at least 842 mine sites, of which 464 were inactive or suspended from mining for various reasons. At the end of December 2014, 353 mine sites were inactive or had been suspended. The increase in inactive mine sites could be attributable to decreases in tin prices on world markets and to heavy rains in April and May. Production also was limited by a lack of capital and modern mining equipment. In addition, 51 companies were engaged in processing and exporting cassiterite, columbite-tantalite, and wolframite (International Tin Research Institute, 2015b).
Commodity Review

**Metals**

**Niobium (Columbium), Tantalum, and Tin.**—In 2015, reported columbite-tantalite production decreased to 1,652 metric tons (t) from 2,303 t in 2014. Domestically mined columbite-tantalite had average tantalum pentoxide (Ta₂O₅) and niobium pentoxide (Nb₂O₅) contents of 26% and 18%, respectively (David Bensussan, Chief Executive Officer, Minerals Supply Africa Ltd., oral commun., February 20, 2015; Joseph Butera, Mining and Petroleum Economist, Ministry of Natural Resources, written commun., June 17, 2016).

Columbite-tantalite was mined by numerous companies and artisanal mining cooperatives. Mines in Rutsiro District (Western Province) produced at the rate of 78 t/yr in the first half of 2014; Bugesera District (Eastern Province), 55 t/yr; Rwamagana District (Eastern Province), 48 t/yr; Rubavu District (Western Province), 38 t/yr; and Nyabihu District (Western Province), 24 t/yr (International Tin Research Institute, 2015a).

In 2015, reported cassiterite production decreased to 3,846 t from a revised 5,930 t in 2014. Domestically mined cassiterite had an average tin content of 63% and an average tantalum content of between 1% and 2% (Christophe Barthelemy, Director General, Phoenix Metal Ltd., oral commun., February 18, 2015; Joseph Butera, Mining and Petroleum Economist, Ministry of Natural Resources, written commun., June 17, 2016).

Rutongo Mines Ltd. (Tinco Investments Ltd. of the British Virgin Islands, 75%, and the Government, 25%), which was Rwanda’s leading cassiterite producer, was producing at the rate of between 720 and 960 t/yr in early 2015. The company planned to complete an expansion that would increase its output to more than 2,400 t/yr by August 2016. The remaining life of Rutongo’s mining operations was estimated to be between 20 and 25 years at a minimum; additional resources in tailings could prolong the life of the mine (Markram, 2015).

Cassiterite also was mined by numerous companies and artisanal mining cooperatives. Mines in the Rulindo District (Northern Province) produced at the rate of about 740 t/yr in the first half of 2014; the Muhanga District (Southern Province), 290 t/yr; Gakenke District (Northern Province), 260 t/yr; Kayonza District (Eastern Province), 240 t/yr; and Gatsibo District (Eastern Province), 230 t/yr (International Tin Research Institute, 2015a; Joseph Butera, Mining and Petroleum Economist, Ministry of Natural Resources, written commun., June 17, 2016).

Substantial amounts of mixed cassiterite and columbite-tantalite were produced in Rwanda. Domestically mined mixed cassiterite and columbite-tantalite had an average tin content of between 55% and 60% and an average Ta₂O₅ content of between 18% and 22%. Mines in the Nyamasheke District (Western Province) produced at the rate of about 1,000 t/yr in the first half of 2014; Rutisiro District, 900 t/yr; Muhanga District, 890 t/yr; Gakenke District, 590 t/yr; and Rubavu District, 490 t/yr. Mixed cassiterite and columbite-tantalite was separated into cassiterite and columbite-tantalite before export (International Tin Research Institute, 2015a; David Bensussan, Chief Executive Officer, Minerals Supply Africa Ltd., oral commun., February 20, 2015).

In January 2015, Phoenix Metal Ltd. restarted production at its smelter in Karuruma; operations had been shut down for nearly 10 years because of power supply interruptions and insufficient cassiterite supplies. The company planned to produce about 2,200 t/yr of tin metal and to recover tantalum-rich slag from the refining process. Based on the tantalum content of Rwandan cassiterite, Phoenix Metal could recover between 35 and 70 t/yr of tantalum in slag. The company’s ability to engage in large-scale production depended on receiving certification as a conflict-free smelter (Christophe Barthelemy, Director General, Phoenix Metal Ltd., oral commun., February 18, 2015).

**Tungsten.**—In 2015, reported wolframite production decreased to 1,784 t from a revised 2,166 t in 2014. Domestically mined wolframite had an average tungsten trioxide content of about 60% (David Bensussan, Chief Executive Officer, Minerals Supply Africa Ltd., oral commun., February 20, 2015; Joseph Butera, Mining and Petroleum Economist, Ministry of Natural Resources, written commun., June 17, 2016).

Eurotrade International S.A. (Tinco Investments, 100%), which was Rwanda’s leading wolframite producer, was producing at the rate of 300 t/yr at the Nyakabingo Mine in early 2015. The company planned to complete an expansion that would increase its output to 600 t/yr by August 2016. The remaining life of the Nyakabingo Mine was estimated to be between 20 and 25 years at a minimum; additional resources in tailings could prolong the life of the mine (Markram, 2015).

Wolframite was mined by numerous companies and artisanal mining cooperatives. Mines in the Rwamagana District were producing at the rate of about 300 t/yr of wolframite in the first half of 2014; Burera District, 290 t/yr; Rulindo District, 250 t/yr; Rutisiro District, 230 t/yr; and Ngororero District, 190 t/yr (International Tin Research Institute, 2015a).

**Industrial Minerals**

**Cement.**—Rwanda’s cement consumption was estimated to be about 500,000 t/yr in January 2015; the majority of cement demand was met through imports from Kenya, Tanzania, Uganda, and other countries. In September 2015, Cimenterie du Rwanda Ltd. (Cimerwa) [PPC Ltd. of South Africa, 51%] completed the expansion of its capacity to 600,000 t/yr from 100,000 t/yr. Kigali Cement Co. (ARM Tanzania, Uganda, and other countries). In September 2015, Cimenterie du Rwanda Ltd. (Cimerwa) [PPC Ltd. of South Africa, 51%] completed the expansion of its capacity to 600,000 t/yr from 100,000 t/yr. Kigali Cement Co. (ARM Ltd. of Kenya, 100%) was producing at the rate of 300 t/yr at the Nyakabingo Mine in early 2015. The company planned to complete an expansion that would increase its output to 600 t/yr by August 2016. The remaining life of the Nyakabingo Mine was estimated to be between 20 and 25 years at a minimum; additional resources in tailings could prolong the life of the mine (Markram, 2015).

Large Lakes Cement Co. was producing at 15% of its capacity to about 150,000 t/yr from 100,000 t/yr by 2016. Great Lakes Cement Co. was producing at 15% of its capacity to about 26,000 t/yr in January 2015 (Nkurunziza, 2015; International Cement Review, 2016).

**Clay and Shale, Crushed Stone, Gypsum, and Pumice and Pumicite.**—The African Development Bank Group (2010, p. 2–3) estimated that the increase in Cimerwa’s capacity to 600,000 t/yr would result in additional consumption by the company of about 570,000 t/yr of limestone, 180,000 t/yr of pozzolanic materials, 70,000 t/yr of sandstone, 51,000 t/yr of pozzolanic materials, 70,000 t/yr of sandstone, 51,000 t/yr of pozzolanic materials, 70,000 t/yr of sandstone, 51,000 t/yr.
of clay, and 24,000 t/yr of gypsum. Cimerwa increased its production of pozzolanic materials to 48,955 t in 2015 from 20,056 t in 2014; sandstone, to 20,292 t from 9,651 t; and clay, to 16,839 t from an estimated 7,100 t. Limestone was produced by Cimerwa and ALICOME Ltd.; national output increased to 187,657 t in 2015 from a revised 67,732 t in 2014. Gypsum was expected to be imported from Kenya (Joseph Butera, Mining and Petroleum Economist, Ministry of Natural Resources, written commun., June 17, 2016).

**Gemstones.**—Green and black tourmaline were produced by artisanal miners in central Rwanda and sapphire was produced near Cyangugu in the Western Province. New deposits of amethyst were discovered in the Southern Province in 2015. In fiscal year 2015, amethyst production was 27,019 kilograms (kg); tourmaline, 10,591 kg; and sapphire, 1 kg (Joseph Butera, Mining and Petroleum Economist, Ministry of Natural Resources, written commun., June 17, 2016).

**Mineral Fuels and Related Materials**

**Natural Gas.**—KP1 extracted natural gas from Lake Kivu for use in its 4.5-megawatt (MW)-capacity gas-fired power station. In December 2015, Kivuwatt Ltd. (a subsidiary of ContourGlobal LLC of the United States) started operations at its natural gas extraction facility and gas-fired power station at Lake Kivu. The station’s initial capacity was 25 MW, with a planned increase to 100 MW by 2019. Symbion Power LLC of the United States planned to complete a new gas-fired power station with a capacity of 50 MW by 2017 or 2018 (Ministry of Infrastructure, 2015, p. 30; Contour Global LLC, 2016).

**Peat.**—Peat Energy Co. (PEC) (a subsidiary of Rwanda Investment Group S.A.) mined peat at Gishoma for use in cement production. The company planned to increase its capacity and supply its production to a new peat-fired power station at Gishoma. The Government planned to complete the new 15-MW power station by the end of June 2016. Cimerwa would consume about 13 MW of the capacity, and the remainder would be supplied to the national power grid. The power station would consume 158,000 t/yr of peat (Estara, 2015; International Cement Review, 2015).

In November 2015, reserves at the peat deposits that would supply the Gishoma power station were estimated to be sufficient for 4 or 5 years compared with the previous estimate of 25 years. The Government was considering the possibility of relocating the power station after the reserves at Gishoma were depleted (Estara, 2015).

Hakan Mining and Generation Industry and Trade Inc. of Turkey planned to start a new peat-fired power station by 2017 or 2018. The plant’s initial capacity was planned to be 80 MW, with the option for an expansion to 120 MW (Ministry of Infrastructure, 2015, p. 73, 7.1.1).

**References Cited**


International Tin Research Institute, 2015a, iTSCI Rwanda data summary—Q1 2012 to Q2 2014: London, United Kingdom, International Tin Research Institute, unpaginated.

International Tin Research Institute, 2015b, Status report iTSCI Rwanda field operations—January–June 2015: London, United Kingdom, International Tin Research Institute, 8 p.


TABLE 1
RWANDA: PRODUCTION OF MINERAL COMMODITIES

<table>
<thead>
<tr>
<th>Commodity</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>METALS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gold</td>
<td>kg</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>160^e</td>
</tr>
<tr>
<td>Niobium (columbium) and tantalum</td>
<td>kg</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>160^e</td>
</tr>
<tr>
<td>Columbite-tantalite concentrate:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross weight do.</td>
<td>890,076</td>
<td>1,144,684</td>
<td>2,466,025</td>
<td>2,302,520</td>
<td>1,651,712</td>
</tr>
<tr>
<td>Nb content do.</td>
<td>110,000</td>
<td>140,000</td>
<td>310,000</td>
<td>290,000</td>
<td>210,000</td>
</tr>
<tr>
<td>Ta content do.</td>
<td>190,000</td>
<td>240,000</td>
<td>530,000</td>
<td>490,000</td>
<td>350,000</td>
</tr>
<tr>
<td>Cassiterite concentrate:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross weight do.</td>
<td>6,952</td>
<td>4,637</td>
<td>4,895</td>
<td>5,930</td>
<td>3,846</td>
</tr>
<tr>
<td>Nb content kilograms</td>
<td>70,000</td>
<td>50,000</td>
<td>50,000</td>
<td>60,000</td>
<td>40,000</td>
</tr>
<tr>
<td>Ta content do.</td>
<td>100,000</td>
<td>70,000</td>
<td>70,000</td>
<td>90,000</td>
<td>60,000</td>
</tr>
<tr>
<td>Steel, crude^e</td>
<td>15,000</td>
<td>15,000</td>
<td>15,000</td>
<td>15,000</td>
<td>15,000</td>
</tr>
<tr>
<td><strong>Tin</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mine output, cassiterite concentrate:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross weight</td>
<td>6,952</td>
<td>4,637</td>
<td>4,895</td>
<td>5,930</td>
<td>3,846</td>
</tr>
<tr>
<td>Sn content</td>
<td>4,400</td>
<td>2,900</td>
<td>3,100</td>
<td>3,700</td>
<td>2,400</td>
</tr>
<tr>
<td>Refined</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>400^e</td>
</tr>
<tr>
<td>Tungsten, mine output, concentrate:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross weight</td>
<td>1,066</td>
<td>1,751</td>
<td>2,218</td>
<td>2,166</td>
<td>1,784</td>
</tr>
<tr>
<td>W content^e</td>
<td>480</td>
<td>830</td>
<td>1,100</td>
<td>1,000</td>
<td>850</td>
</tr>
<tr>
<td><strong>INDUSTRIAL MINERALS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beryl</td>
<td>kilograms</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Cement</td>
<td>94,150</td>
<td>105,760</td>
<td>130,000</td>
<td>140,000</td>
<td>190,000</td>
</tr>
<tr>
<td>Clay</td>
<td>NA</td>
<td>NA</td>
<td>9,100</td>
<td>7,100</td>
<td>16,839</td>
</tr>
<tr>
<td>Gemstones:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amethyst</td>
<td>kilograms</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Sapphire</td>
<td>do.</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Tourmaline</td>
<td>do.</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td><strong>Stone</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Granite</td>
<td>cubic meters</td>
<td>NA</td>
<td>NA</td>
<td>802</td>
<td>2,217</td>
</tr>
<tr>
<td>Limestone</td>
<td>90,000</td>
<td>100,000</td>
<td>92,137</td>
<td>67,732</td>
<td>187,657</td>
</tr>
<tr>
<td>Pozzolanic materials</td>
<td>28,000</td>
<td>31,000</td>
<td>23,862</td>
<td>20,056</td>
<td>48,955</td>
</tr>
<tr>
<td>Sandstone</td>
<td>11,000</td>
<td>12,000</td>
<td>12,716</td>
<td>9,651</td>
<td>20,292</td>
</tr>
<tr>
<td><strong>MINERAL FUELS AND RELATED MATERIALS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural gas, dry^e</td>
<td>million cubic meters</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Peat</td>
<td>13,000</td>
<td>13,000</td>
<td>13,000</td>
<td>13,000</td>
<td>13,000</td>
</tr>
</tbody>
</table>

^eEstimated; estimated data are rounded to no more than three significant digits. ^rRevised. ^d ditto. ^na not available. ^-- Zero. ^fFiscal year data. ^gReported exports. ^hReported figure. ^iEstimated based on capacity utilization. ^jFor use in cement production only.
TABLE 2
RWANDA: STRUCTURE OF THE MINERAL INDUSTRY IN 2015

(Metric tons unless otherwise specified)

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Major operating companies and major equity owners</th>
<th>Location of main facilities</th>
<th>Annual capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cement</td>
<td>Cimenterie du Rwanda Ltd. (Cimerwa) (PPC Ltd., 51%)</td>
<td>Plant at Cyangugu</td>
<td>600,000</td>
</tr>
<tr>
<td>Do.</td>
<td>Kigali Cement Co. (ARM Cement Ltd., 100%)</td>
<td>Plant at Mugaransa</td>
<td>100,000</td>
</tr>
<tr>
<td>Do.</td>
<td>Great Lakes Cement Co.</td>
<td>Plant in Musanze District</td>
<td>26,000</td>
</tr>
<tr>
<td>Clay</td>
<td>Cimenterie du Rwanda Ltd. (Cimerwa)</td>
<td>Mine near Mugaransa</td>
<td>61,000 e</td>
</tr>
<tr>
<td>Gemstones:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amethyst</td>
<td>kilograms Artisanal miners</td>
<td>Various locations</td>
<td>28,000 e</td>
</tr>
<tr>
<td>Sapphire</td>
<td>do. do.</td>
<td>Mines in Rusizi District</td>
<td>1,100 e</td>
</tr>
<tr>
<td>Tourmaline</td>
<td>do. do.</td>
<td>Various locations in central Rwanda</td>
<td>11,000 e</td>
</tr>
<tr>
<td>Natural gas</td>
<td>million cubic meters KivuWatt Ltd. (a subsidiary of ContourGlobal LLC)</td>
<td>Plant at Lake Kivu</td>
<td>61 e</td>
</tr>
<tr>
<td>Do.</td>
<td>Kibuye Power 1 Ltd. (Government, 100%)</td>
<td>do. do.</td>
<td>11 e</td>
</tr>
<tr>
<td>Niobium (columbium) and</td>
<td>Various companies and cooperatives</td>
<td>Mines in Rutsiro District</td>
<td>480 e</td>
</tr>
<tr>
<td>tantalum, columbite-tantalite ore</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and concentrate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do.</td>
<td>do. do.</td>
<td>Mines in Nyamasheke District</td>
<td>460 e</td>
</tr>
<tr>
<td>Do.</td>
<td>do. do.</td>
<td>Mines in Muhanga District</td>
<td>390 e</td>
</tr>
<tr>
<td>Do.</td>
<td>do. do.</td>
<td>Mines in Gakenke District</td>
<td>270 e</td>
</tr>
<tr>
<td>Do.</td>
<td>do. do.</td>
<td>Mines in Rubavu District</td>
<td>260 e</td>
</tr>
<tr>
<td>Do.</td>
<td>do. do.</td>
<td>Mines in Nyaraguru District</td>
<td>150 e</td>
</tr>
<tr>
<td>Do.</td>
<td>do. do.</td>
<td>Mines in Bugesera District</td>
<td>130 e</td>
</tr>
<tr>
<td>Do.</td>
<td>do. do.</td>
<td>Mines in Ngororero District</td>
<td>120 e</td>
</tr>
<tr>
<td>Do.</td>
<td>do. do.</td>
<td>Mines in Ruhango District</td>
<td>75 e</td>
</tr>
<tr>
<td>Do.</td>
<td>do. do.</td>
<td>Mines in Kamonyi District</td>
<td>65 e</td>
</tr>
<tr>
<td>Do.</td>
<td>do. do.</td>
<td>Mines in Gatsibo District</td>
<td>55 e</td>
</tr>
<tr>
<td>Peat</td>
<td>Peat Energy Co. [subsidiary of Rwanda Investment Group S.A. (RIG)]</td>
<td>Mine at Gishoma in Rusizi District</td>
<td>20,000</td>
</tr>
<tr>
<td>Steel, crude</td>
<td>SteelRwa Industries Ltd.</td>
<td>Plant in Rwamagana District</td>
<td>36,000</td>
</tr>
<tr>
<td>Stone, crushed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limestone</td>
<td>do. do.</td>
<td>Mine at Nyakabuye</td>
<td>690,000 e</td>
</tr>
<tr>
<td>Pozzolanic materials</td>
<td>do. do.</td>
<td>do. do.</td>
<td>220,000 e</td>
</tr>
<tr>
<td>Sandstone</td>
<td></td>
<td>Mine at Nengo</td>
<td>84,000 e</td>
</tr>
<tr>
<td>Stone, dimension</td>
<td>cubic meters East African Granite Industries Ltd.</td>
<td>Plant at Rutarka Village</td>
<td>5,100</td>
</tr>
<tr>
<td>Tin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cassiterite, ore and</td>
<td>Rutongo Mines Ltd. (Tingo Investments Ltd., 75%, and Government, 25%)</td>
<td>Gasanya, Gisange, Karumbo, Mahaza, Masoro, and Nyamyumba</td>
<td>1,200</td>
</tr>
<tr>
<td>concentrate</td>
<td></td>
<td>Mines in Rulindo District</td>
<td></td>
</tr>
<tr>
<td>Do.</td>
<td>Various companies and cooperatives</td>
<td>Mines in Muhanga District</td>
<td>790 e</td>
</tr>
<tr>
<td>Do.</td>
<td>do. do.</td>
<td>Mines in Nyamasheke District</td>
<td>690 e</td>
</tr>
<tr>
<td>Do.</td>
<td>do. do.</td>
<td>Mines in Rutsiro District</td>
<td>640 e</td>
</tr>
<tr>
<td>Do.</td>
<td>do. do.</td>
<td>Mines in Gakenke District</td>
<td>590 e</td>
</tr>
<tr>
<td>Do.</td>
<td>do. do.</td>
<td>Mines in Rubavu District</td>
<td>320 e</td>
</tr>
<tr>
<td>Do.</td>
<td>do. do.</td>
<td>Mines in Kayonza District</td>
<td>290 e</td>
</tr>
<tr>
<td>Do.</td>
<td>do. do.</td>
<td>Mines in Gatsibo District</td>
<td>270 e</td>
</tr>
<tr>
<td>Do.</td>
<td>do. do.</td>
<td>Mines in Bugesera District</td>
<td>230 e</td>
</tr>
<tr>
<td>Do.</td>
<td>do. do.</td>
<td>Mines in Nyaraguru District</td>
<td>210 e</td>
</tr>
<tr>
<td>Do.</td>
<td>do. do.</td>
<td>Mines in Gasabo District</td>
<td>200 e</td>
</tr>
<tr>
<td>Refined</td>
<td>Phoenix Metal Ltd.</td>
<td>Smelter at Karuruma</td>
<td>2,200</td>
</tr>
</tbody>
</table>

See footnotes at end of table.
<table>
<thead>
<tr>
<th>Commodity</th>
<th>Major operating companies and major equity owners</th>
<th>Location of main facilities</th>
<th>Annual capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tungsten, wolframite ore and concentrate&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Eurotrade International S.A. (subsidiary of Tinco Investments Ltd.)</td>
<td>Nyakabingo Mine in Rulindo District</td>
<td>480</td>
</tr>
<tr>
<td>Do.</td>
<td>Various companies and cooperatives</td>
<td>Mines in Rwamagana District</td>
<td>300&lt;sup&gt;®&lt;/sup&gt;</td>
</tr>
<tr>
<td>Do.</td>
<td>do.</td>
<td>Mines in Burera District</td>
<td>290&lt;sup&gt;®&lt;/sup&gt;</td>
</tr>
<tr>
<td>Do.</td>
<td>Rwanda Allied Partners (RAP)</td>
<td>Kilimbari Mine in Kayonza District</td>
<td>270&lt;sup&gt;®&lt;/sup&gt;</td>
</tr>
<tr>
<td>Do.</td>
<td>Various companies and cooperatives</td>
<td>Mines in Rutsiro District</td>
<td>230&lt;sup&gt;®&lt;/sup&gt;</td>
</tr>
<tr>
<td>Do.</td>
<td>do.</td>
<td>Mines in Ngororero District</td>
<td>190&lt;sup&gt;®&lt;/sup&gt;</td>
</tr>
<tr>
<td>Do.</td>
<td>do.</td>
<td>Mines in Nyaraguru District</td>
<td>160&lt;sup&gt;®&lt;/sup&gt;</td>
</tr>
<tr>
<td>Do.</td>
<td>do.</td>
<td>Mines in Muhanga District</td>
<td>150&lt;sup&gt;®&lt;/sup&gt;</td>
</tr>
<tr>
<td>Do.</td>
<td>do.</td>
<td>Mines in Kirehe District</td>
<td>140&lt;sup&gt;®&lt;/sup&gt;</td>
</tr>
<tr>
<td>Do.</td>
<td>do.</td>
<td>Mines in Rubavu District</td>
<td>130&lt;sup&gt;®&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<sup>1</sup>Estimated. Do., do. Ditto.

<sup>2</sup>Not operating at the end of 2015.

<sup>3</sup>Gross weight of concentrate.