



**CONAPRI**  
Consejo Nacional de Promoción de Inversiones



# ***MINING- METALLURGICAL SECTOR***

***Executive Resume***

Caracas, January 2007

**Country Profile:** general characteristics of the country and of the mining-metallurgical business.

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  - Steel roundup
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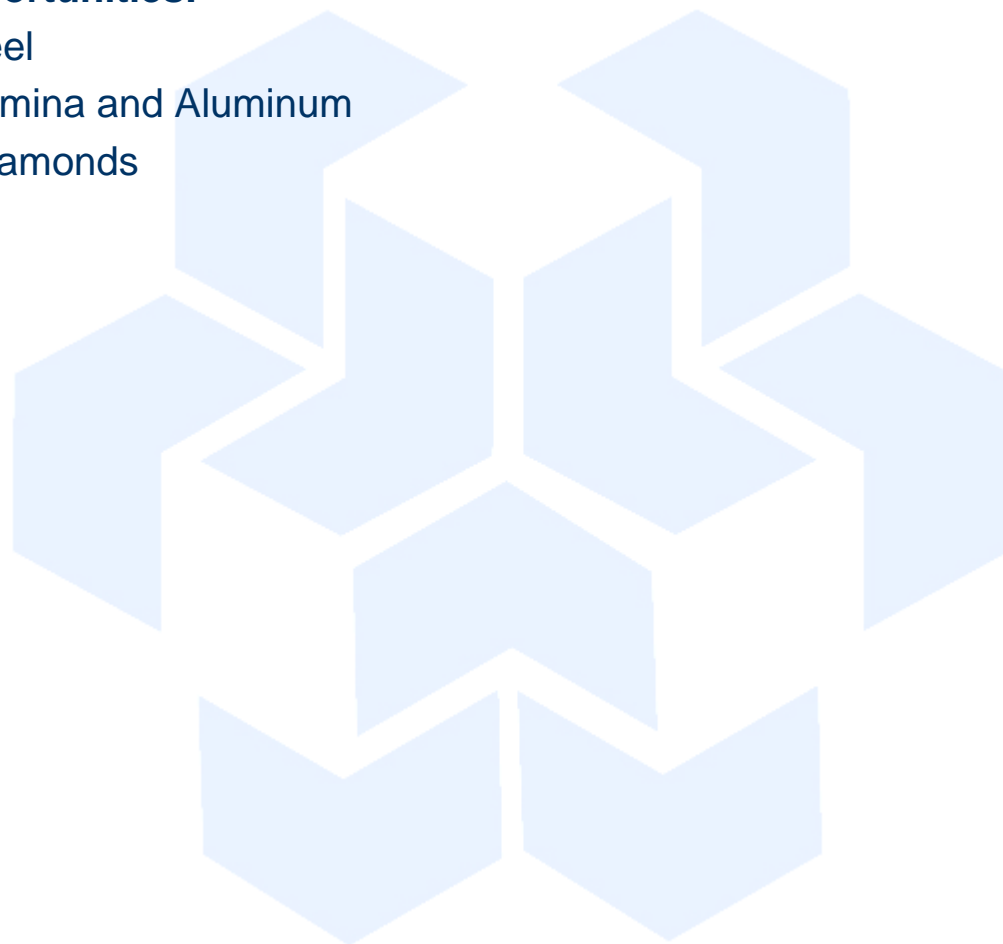
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- **Investment Opportunities:**
  - Iron and Steel
  - Bauxite, Alumina and Aluminum
  - Gold and Diamonds
- **Making contact**





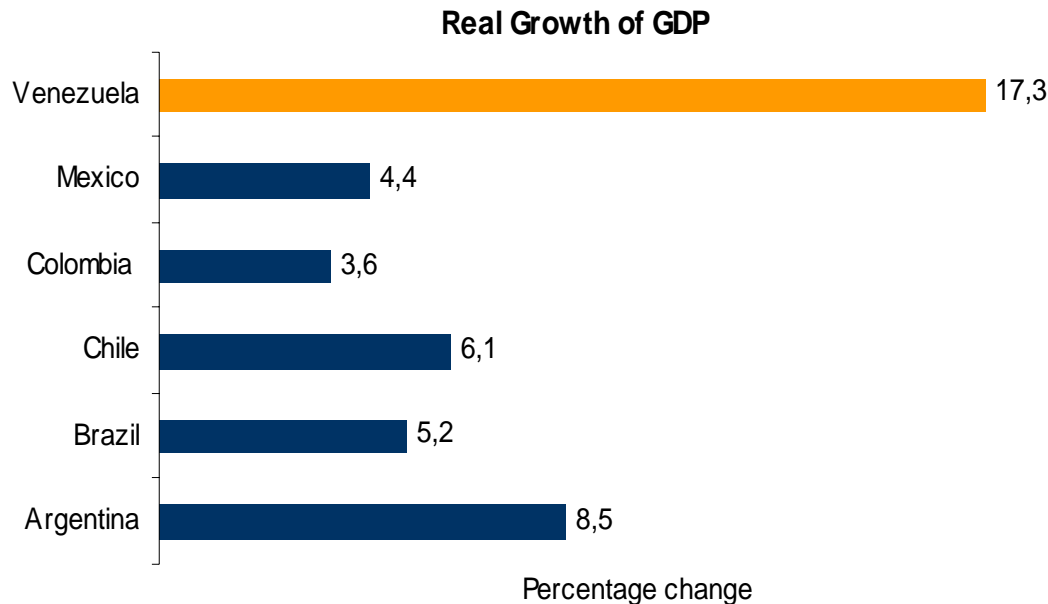
# COUNTRY PROFILE

*and the legal system*

- No restrictions to participation of private capital, whether foreign or domestic, except in the case of iron, a sector reserved for the state.
- Freedom of repatriation of capital and earnings, following compliance with requirements governing purchase of foreign exchange.
- Signing of international treaties for protection and promotion of foreign investment.
- Value Added Tax exemption for imports of goods and services during the pre-operational stage of mining projects geared towards exports.
- Geographical location favoring access to main markets.
- Participation in a variety of commercial integration arrangements: Andean Community, G-3 and CARICOM, among others.

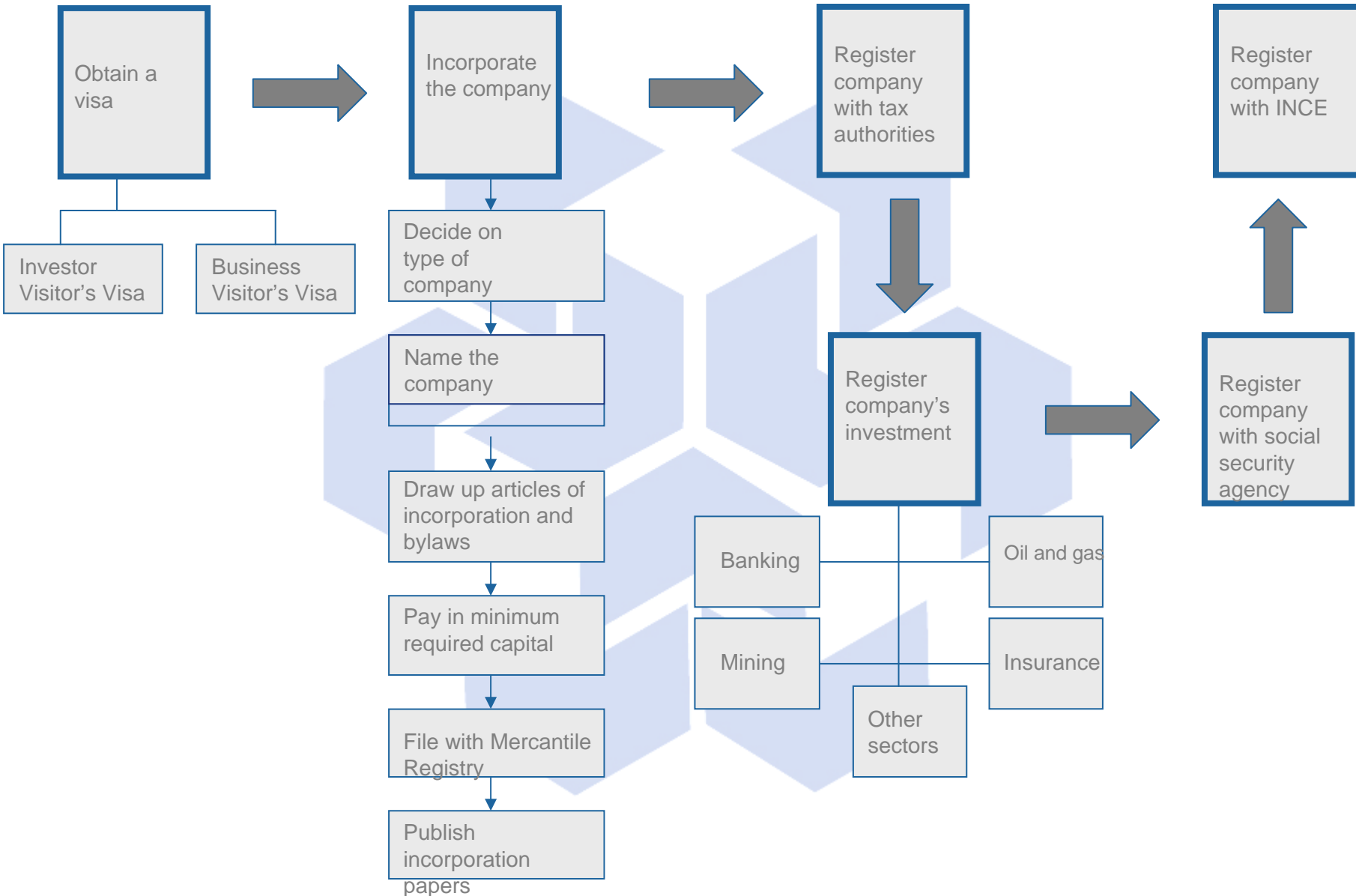
(\*) Venezuela has given notice of termination of the G-3 Agreement. Customs Preferences will be maintained for at least six (6) months.

(\*\*) Venezuela has withdrawn from the CAN. Customs Preferences are to be maintained for five (5) years.



Source: Yearbook 2005. Institute of Management Development (IMD).

- In the past two years, Venezuela has been one of the countries whose economy has demonstrated a high rate of recovery, becoming first country in the world in terms of domestic growth during that period.
- The recovering is reflected on the consumption of the Venezuelan, where food reaches 52% of total consumption.





- In Venezuela, the **Ministry of Basic Industries and Mining (Mibam)** is the government agency responsible for all mining-related matters, including the planning, control, inspection, defense, and conservation of mining resources, and also for the system applicable to foreign investment in the sector.
- Mining is only allowed either through direct government participation, under concession or with a production permit, which is an authorization issued to artisanal miners, cooperatives, and small mining enterprises. A number of regional government agencies have been granted concessions and are in a position to lease their concessions under contract.
- The Mibam is subdivided into three Vice Ministries: Mines, Basic Industries, and Investment Promotion.
- The **Instituto Nacional de Geología y Minería (National Geology and Mining Institute - Ingeomin)** is an autonomous agency attached to the Ministry of Basic industries and Mining, exists as a legal entity, functions independently, and has its own capital separate from the National Treasury.
- The Taquilla Única or Single Reception Office is a unit set up, pursuant to the law, and attached to the General Mines Division, to facilitate the functioning of the Permanent Inter-ministerial Committee and to assist it in achieving its objectives.
- The Permanent Inter-ministerial Committee, also created pursuant to the law, is made up of the Ministries of Finance, Defense, the Environment and Natural Resources, and Basic Industries and Mines (former Ministry of Energy and Mines).

- The present **Mines Law** (Decree No. 295, September 1999) establishes the rules governing all mines and minerals inside Venezuelan territory, the exploration and production of minerals, earnings, concessions, the distribution and transportation of minerals, and the sale of minerals mined on domestic and foreign markets.
- The new **General Regulations to the Mines Law** (Decree No. 1,234, published in 2001) proposes and develops terms, conditions, and administrative procedures in support of the Mines Law.
- **Organic Environment Law.**
- **Decree No. 2,219** dated April 23, 1992, published in Gaceta Oficial de la República de Venezuela No. 4,418.
- **Resolution No. 56**, dated July 4, 1996, published in Gaceta Oficial de la República de Venezuela No. 5,079.
- In 2005, the Venezuelan government created a new **ORGANIC LAW ON PREVENTION, WORKING CONDITIONS AND THE WORK ENVIRONMENT (LOPCYMAT).**
- Resolution No. 115 of the Ministry of Energy and Mines.



# INDICATORS

millions of metric tons (mmt)

Minerales	Volumen
Arenas silíceas	65,00
Arcillas blancas	20,00
Asbesto	2,00
Barita	(*)
Bauxita	5.000,00
Bentonita	10,00
Caliza	1.000,00
Caolín	40,00
Carbón	8.283,00
Cianita	0,40
Cobre	3,00
Cromo	(*)
Cuarzo y cuarzita	(*)
Diamante	(*)
Diatomita	(*)
Dolomita	100,00
Estaño y Tantalio	(*)
Feldespato	110,00
Fosfato	1.982,00
Granito	5,00
Hierro	14.705,00
Manganeso	2,00
Magnesita	8,00
Molibdebo	(*)
Níquel	56,00
Oro	0,0001
Plomo y Zinc	3,00
Talco	2,00
Titanio	15,00
Torio, Niobio y tierras raras	150,00
Tungsteno	2,00
Uranio	(*)
Vanadio	10,00
Yeso	80,00

The minerals that constitute most of the mining potential of Venezuela by his considered volume they are: the IRON, the COAL, the BAUXITE, the PHOSPHATE and the LIMESTONE.

Source: Ministry of Energy and Mines, Mining Concessions Division

millions of metric tons (mmt)

	Reserves	Reserve Base
USA	6,900	15,000
Australia	15,000	40,000
Brazil	23,000	61,000
Canada	1,700	3,900
China	21,000	46,000
India	6,600	9,800
Iran	1,800	2,500
Kazakhstan	8,300	19,000
Mauritania	700	1,500
Mexico	700	1,500
Russia	25,000	56,000
South Africa	1,000	2,300
Sweden	3,500	7,800
Ukraine	30,000	68,000
<b>Venezuela</b>	<b>4,000</b>	<b>6,000</b>
Other countries	11,000	30,000
<b>WORLD TOTAL</b>	<b>160,200</b>	<b>370,300</b>

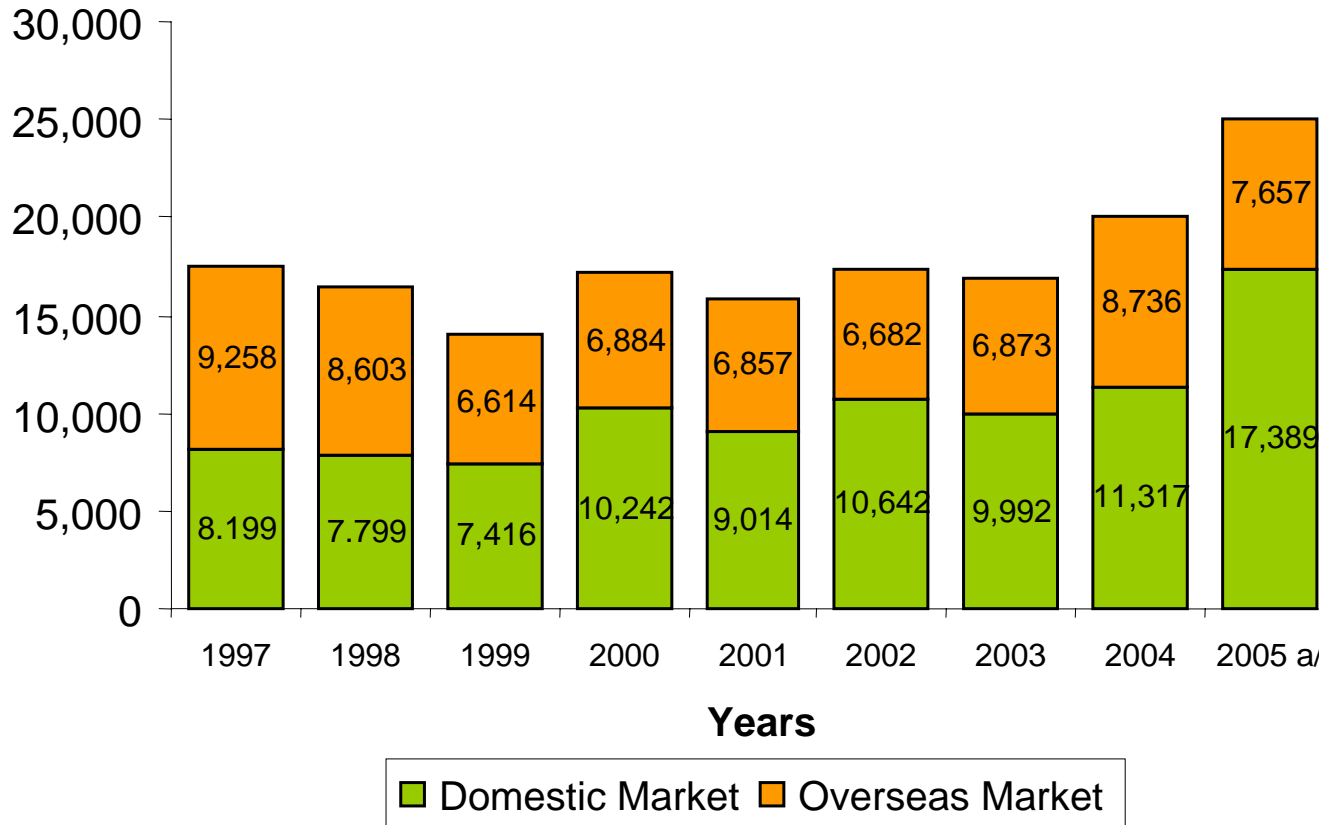
**Venezuela has 2.38% of World Iron Reserves with an average tenor of 49.94%.**

In millions of metric tons

Source: USGS, Mineral Commodity Summaries 2006.



## thousands of metric tons (tmt)



a/ Figures subject to review

In thousands of metric tons

Source: Ministry of Energy and Mines. Planning and Mining Economics Division

## Steel Production. Millions of metric tons (mtm)

	1997	1998	1999	2000	2001	2002	2003
USA	98.49	98.66	97.43	101.82	90.10	91.59	93.68
Canada	15.55	15.93	16.14	16.50	15.18	15.91	15.83
Mexico	14.22	14.21	15.27	15.63	13.30	14.10	15.13
<b>Total North America</b>	<b>128.26</b>	<b>128.80</b>	<b>128.84</b>	<b>133.95</b>	<b>118.58</b>	<b>121.60</b>	<b>124.64</b>
Brazil	26.15	25.76	25.00	27.87	26.72	29.60	31.15
Argentina	4.17	4.22	3.81	4.48	4.11	4.36	5.03
Venezuela	4.00	3.55	3.26	3.83	3.81	4.16	3.93
<b>Total Central &amp; South America</b>	<b>34.32</b>	<b>33.53</b>	<b>32.07</b>	<b>36.18</b>	<b>34.64</b>	<b>38.12</b>	<b>40.11</b>
Bulgaria	-	-	1.89	2.02	1.97	1.86	2.32
Czech Republic	6.75	6.50	5.62	6.22	6.32	6.51	6.78
France	20.00	20.13	20.20	20.74	19.19	20.26	19.76
Italy	25.84	25.71	24.74	26.76	26.54	26.30	26.83
Germany	45.01	44.05	42.06	46.38	44.80	45.02	44.81
Greece	-	-	0.95	1.09	1.28	1.84	1.70
Hungary	-	-	1.92	1.97	2.06	2.14	1.98
Kazakhstan	-	-	4.11	4.80	4.69	4.87	5.07
Poland	11.59	9.91	8.85	10.50	8.81	8.37	9.11
Rumania	6.67	6.39	4.39	4.67	4.94	5.49	5.69
Russia	-	-	51.52	59.14	58.97	59.78	62.72
Spain	13.68	14.82	14.88	15.87	16.50	16.41	16.41
Turkey	-	-	13.81	13.57	14.38	16.05	17.64
Ukraine	-	-	27.39	31.78	33.11	34.05	36.92
United Kingdom	18.50	17.32	16.28	15.15	13.54	11.67	13.27
<b>Total Europe</b>	<b>148.04</b>	<b>144.83</b>	<b>238.61</b>	<b>260.66</b>	<b>257.10</b>	<b>260.62</b>	<b>271.01</b>
South Africa	8.31	8.00	7.86	8.48	8.82	9.10	9.48
Zimbabwe	-	-	0.26	0.26	0.15	0.11	0.15
Egypt	-	-	2.63	2.84	3.80	4.32	4.40
<b>Total Africa</b>	<b>8.31</b>	<b>8.00</b>	<b>10.75</b>	<b>11.58</b>	<b>12.77</b>	<b>13.53</b>	<b>14.03</b>
Australia	8.31	8.94	8.16	7.30	7.10	7.55	7.54
China	108.91	114.59	123.95	127.24	151.63	181.55	220.12
India	24.41	23.48	24.30	26.92	27.29	28.81	31.78
Indonesia	-	-	2.89	2.85	2.78	2.46	2.04
Japan	104.55	93.55	94.19	106.44	102.87	107.75	110.51
New Zealand	-	-	0.78	0.70	0.83	0.77	0.85
Thailand	-	-	15.44	16.90	17.26	18.23	18.83
Taiwan	-	-	8.80	11.40	12.90	15.40	19.00
<b>Total Asian Pacific</b>	<b>246.18</b>	<b>240.56</b>	<b>278.51</b>	<b>299.75</b>	<b>322.66</b>	<b>362.52</b>	<b>410.67</b>
<b>Other countries</b>	<b>232.43</b>	<b>220.71</b>	<b>99.22</b>	<b>104.88</b>	<b>104.25</b>	<b>106.61</b>	<b>106.54</b>
<b>WORLD TOTAL</b>	<b>797.54</b>	<b>776.43</b>	<b>788.00</b>	<b>847.00</b>	<b>850.00</b>	<b>903.00</b>	<b>967.00</b>

Venezuelan production accounts for 0.41% of total production on the world steel market. According to the Venezuelan Iron and Steel Institute (IVES), in 2004, Venezuela posted production of 4.56 million tons of steel, up 16% on 2003.

Rounded figures  
 In millions of tons

Source: British Geological Survey (BGS), World Mineral Production 1999-2003. UNCTAD.

## Production by type of product. Metric tons (mt)

Product	1997	1998	1999	2000	2001	2002	2003 a/
<b>Raw Materials</b>	<b>18,361,400</b>	<b>17,042,171</b>	<b>14,600,942</b>	<b>19,403,005</b>	<b>17,469,546</b>	<b>19,651,310</b>	<b>19,166,909</b>
Liquid Steel	3,956,432	3,553,315	3,261,365	3,834,575	3,812,564	4,163,845	3,930,100
Miscellaneous 1/	14,404,968	13,488,856	11,339,577	15,568,430	13,656,982	15,487,465	15,236,809
<b>Semi-finished products</b>	<b>554,260</b>	<b>153,490</b>	<b>173,071</b>	<b>445,926</b>	<b>506,191</b>	<b>559,517</b>	<b>505,722</b>
<b>Finished products</b>	<b>3,286,979</b>	<b>2,642,571</b>	<b>2,608,585</b>	<b>2,892,553</b>	<b>2,838,709</b>	<b>3,131,323</b>	<b>2,957,328</b>
<b>Total Non-flat products</b>	<b>1,206,149</b>	<b>1,142,832</b>	<b>1,031,235</b>	<b>1,050,996</b>	<b>1,100,639</b>	<b>1,014,013</b>	<b>1,028,998</b>
Bars	573,153	570,257	430,210	399,266	480,095	357,022	403,465
Rods	22,597	15,242	19,985	22,351	23,844	126,685	-
Wire Rod	466,882	385,524	457,986	486,587	443,922	530,306	495,932
Shims	24,379	47,621	32,777	40,118	43,096	-	-
Heavy Shapes	119,138	124,188	90,277	102,674	109,682	-	129,601
<b>Total Flat Products</b>	<b>2,038,938</b>	<b>1,499,739</b>	<b>1,568,512</b>	<b>1,807,052</b>	<b>1,696,524</b>	<b>2,096,983</b>	<b>1,904,168</b>
Thick Plates 2/	1,814	-	-	-	-	-	-
Sheet Metal and Chrome Sheets	90,403	136,112	56,062	51,609	65,719	79,447	104,569
Hot Rolled Thin Plates and Coils: in Sheet Steel	730,737	627,010	710,242	776,692	814,569	1,073,896	912,692
Cold Rolled Plates and Coils: in Sheet Steel	1,215,984	736,617	754,889	925,979	723,858	868,160	886,907
Over-rolling	-	-	47,319	52,772	92,378	75,480	-
<b>Seamless Tubes</b>	<b>41,892</b>	<b>-</b>	<b>8,838</b>	<b>34,505</b>	<b>41,546</b>	<b>20,327</b>	<b>24,162</b>

1/ Includes pre-reduced inputs and pellets.

2/ Includes hot rolled thin plates and coils.

a/ Figures subject to revision

In metric tons

Source: Latin American Iron and Steel Institute and Instituto Venezolano de Siderurgia.

## Bauxite reserves. Metric tons (mt)

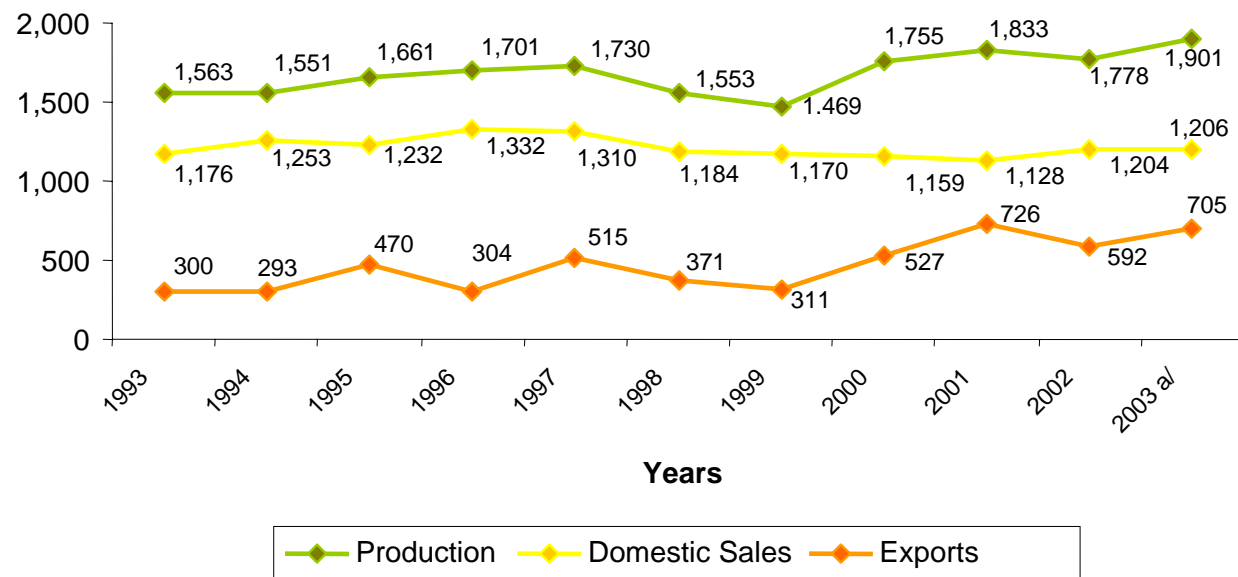
	Reserves	Reserve Base
USA	20,000	40,000
Australia	5,700,000	7,700,000
Brazil	1,900,000	2,500,000
China	700,000	2,300,000
Greece	600,000	650,000
Guinea	7,400,000	8,600,000
Guyana	700,000	900,000
India	770,000	1,400,000
Jamaica	2,000,000	2,500,000
Kazakhstan	350,000	360,000
Russia	200,000	250,000
Suriname	580,000	600,000
Venezuela	320,000	350,000
Other countries	3,400,000	4,000,000
<b>WORLD TOTAL</b>	<b>24,640,000</b>	<b>32,150,000</b>

In millions of metric tons.

Source: USGS, Mineral Commodity Summaries 2006.

**Bauxite resources are estimated at between 55 and 75 trillion tons, 33% of which are located in South America, 27% in Africa, 17% in Asia, 13% in Oceania, and 10% in other parts of the world.**

## Alumina production & sales. Thousands of metric tons (tmt)



**The companies Alcasa and Venalum head alumina sales on the domestic market, while the leaders in alumina sales on the foreign market are Glencore, Pechiney, and Billiton, among others.**

a/ Figures subject to revision

In thousands of metric tons

Source: CVG Industria Venezolana de Aluminio, C.A., CVG Aluminio del Caroní, S.A.

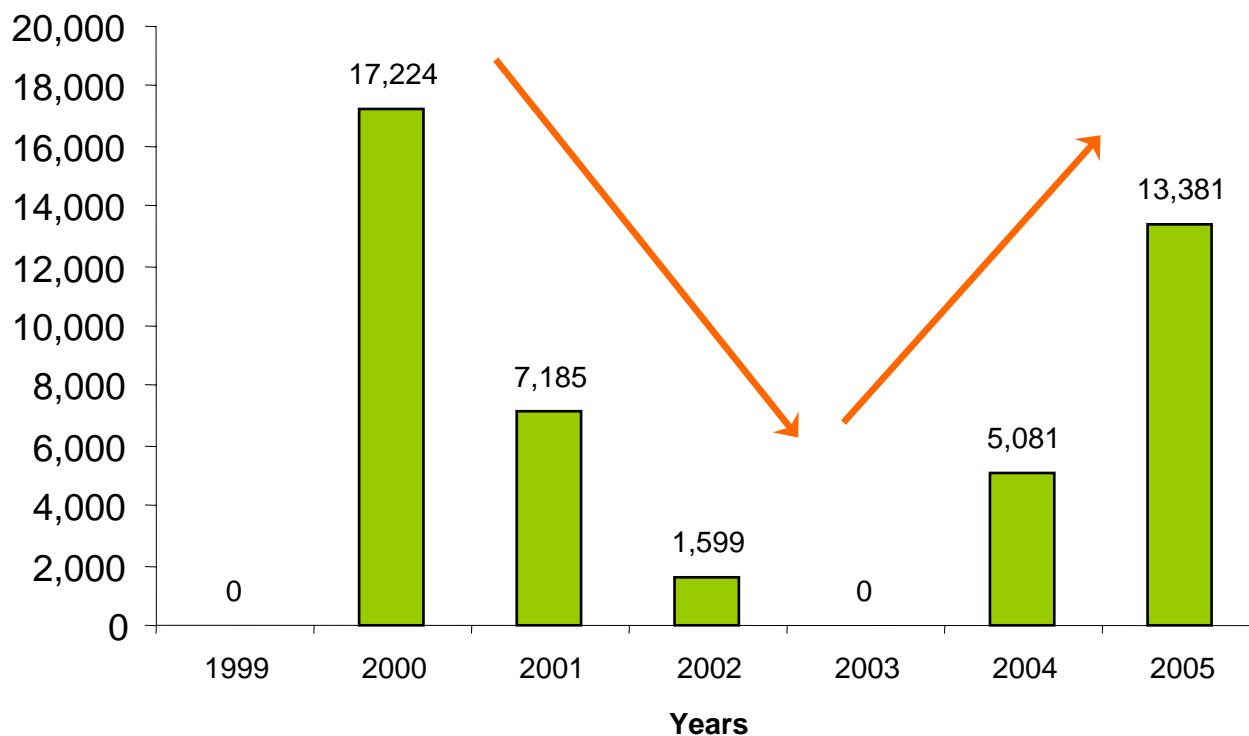
## Domestic aluminum sales and exports. Metric tons (mt)



a/ Figures subject to revision  
In thousands of metric tons

Source: CVG Industria Venezolana de Aluminio, C.A., CVG. Aluminio del Caroní, S.A.

## Venezuelan gold sales on foreign markets, kilograms (kg)

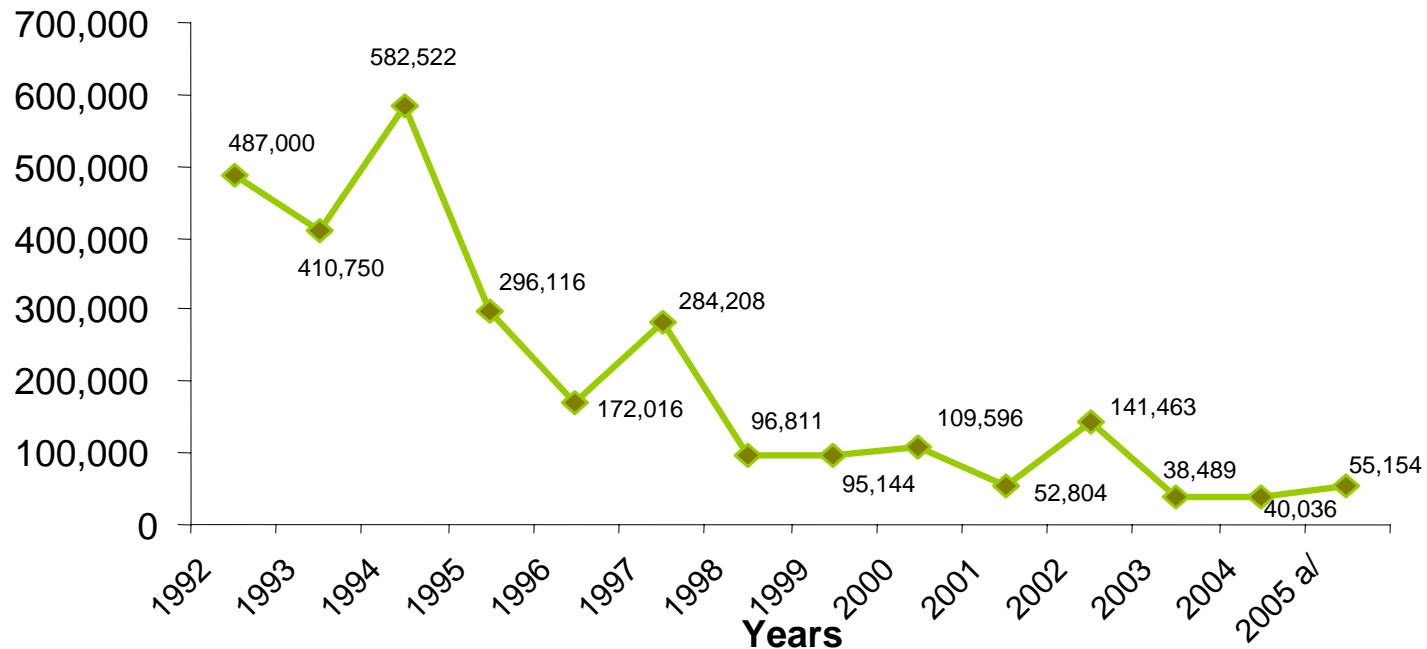


**Following the drop in gold sales on foreign markets in 2003, there has been a sharp increase in the past two years.**

NOTE: Does not include Luxury Consumption and Wholesale Tax  
In kilograms

Source: Central Bank of Venezuela, International Investments Division, Gold Operations Department.

## Venezuelan Diamond Production. Metric carats (ct)



**Diamond production was erratic during the period under study, showing a decline in value over time.**

a/ Figures subject to revision

In metric carats

Source: Ministry of Energy and Mines, Mining Industry Inspection and Control Division

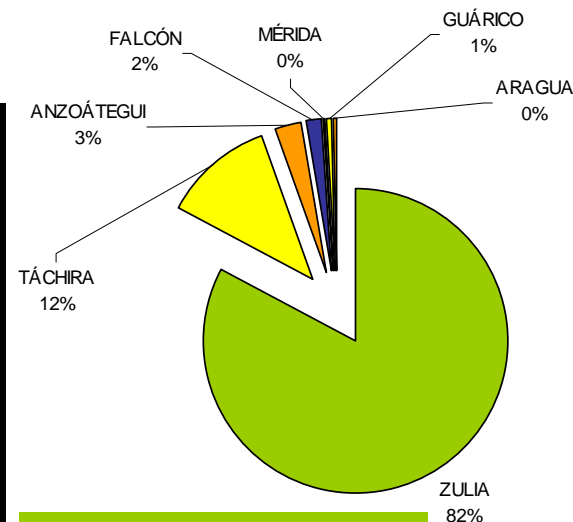
## Venezuela's Coal Resources. Millions of metric tons (mmt)

States and Regions	Measured Reserves	Indicated Reserves	Inferred Reserves	Total Resource
Carbones del Guasare	891	2,568	3,600	7,059
Carbones de la Guajira	165	-	-	165
Other	29	-	74	103
<b>ZULIA</b>	<b>1,085</b>	<b>2,568</b>	<b>3,674</b>	<b>7,327</b>
Santo Domingo	106	131	46	283
Lobatera	8	7	9	24
Las Adjuntas	30	61	184	275
Other	4	40	425	469
<b>TACHIRA</b>	<b>148</b>	<b>239</b>	<b>664</b>	<b>1,051</b>
Naricual	117	23	19	159
Fila Maestra	5	66	9	80
<b>ANZOÁTEGUI</b>	<b>122</b>	<b>89</b>	<b>28</b>	<b>239</b>
El Pedregal	15	27	108	150
Others	1	nd	3	4
<b>FALCÓN</b>	<b>16</b>	<b>27</b>	<b>111</b>	<b>154</b>
<b>MÉRIDA</b>	<b>n/a</b>	<b>n/a</b>	<b>9</b>	<b>9</b>
<b>GUÁRICO</b>	<b>n/a</b>	<b>n/a</b>	<b>50</b>	<b>50</b>
<b>ARAGUA</b>	<b>n/a</b>	<b>n/a</b>	<b>30</b>	<b>30</b>
<b>TOTAL</b>	<b>1,371</b>	<b>2,923</b>	<b>4,566</b>	<b>8,860</b>

In millions of metric tons

NOTE: Does not include coal layers detected in the Oil Belt

Source: Ministry of Energy and Mines, Planning and Mining Economics Division



**Eighty-two percent of coal resources are concentrated in Zulia state, and most of those resources are mined by the company Carbones de Guasare.**

## Nonmetallic Mineral Production. Thousands of metric tons (tmt)

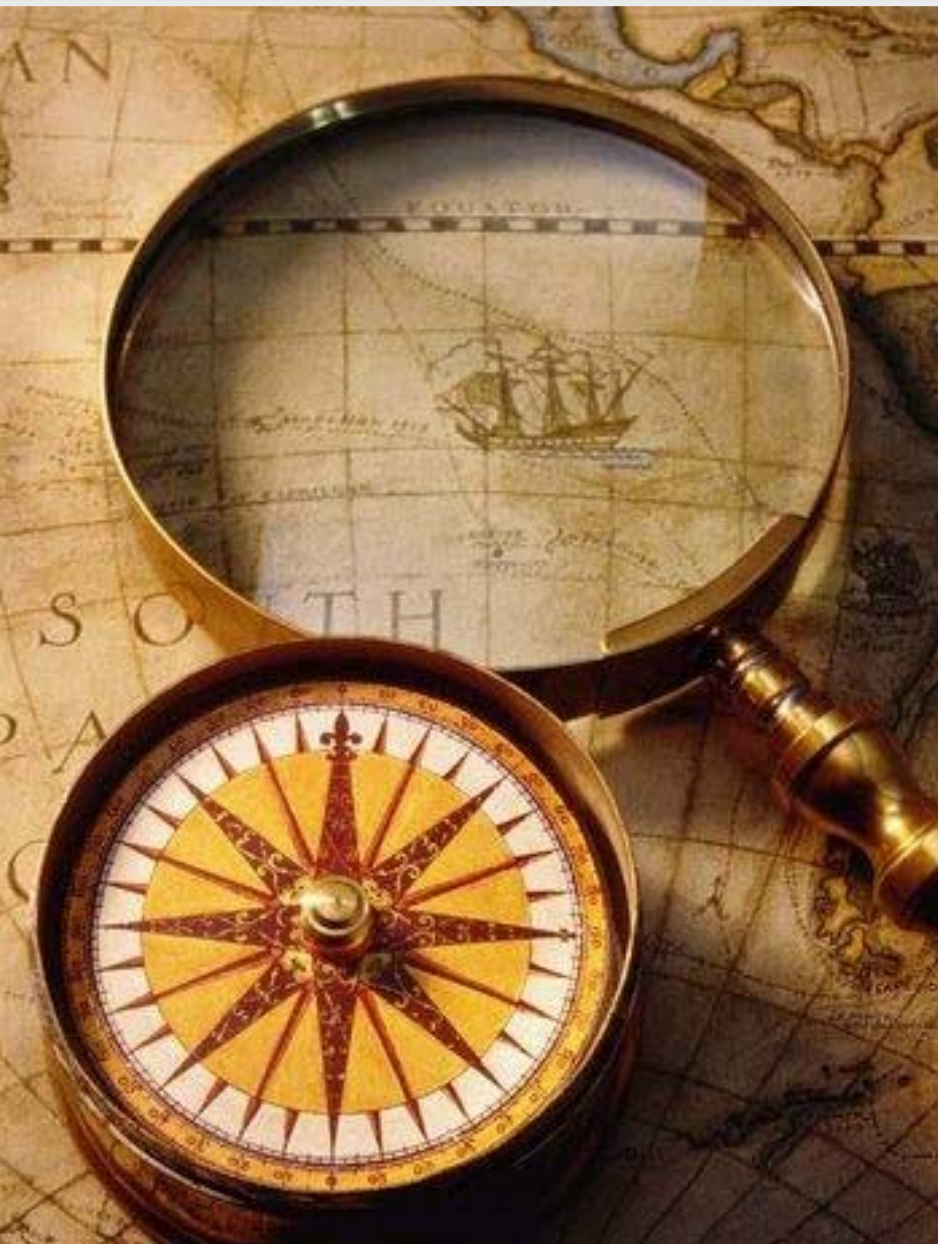
Mineral	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005 a/
Amphibolite	77	59	-	-	-	14	19	4	-	-
White Clay	248	-	139	201	120	1,236	817	702	2,140	-
Red Clay	2,489	2,759	1,960	1,979	2,199	3,428	2,855	1,573	920	235
Silica Sand <sup>1/</sup>	763	798	344	295	422	627	878	625	943	207
Sands and Gravels	3,660	4,218	4,753	5,431	2,802	8,601	4,104	2,704	2,878	605
Chalk <sup>1/</sup>	15,783	14,177	14,246	13,735	11,085	18,158	13,532	2,516	11,444	18,781
Kaolin	8	5	4	12	-	-	-	-	-	-
Quartz	20	70	39	44	101	105	163	202	151	171
Dolomite	225	204	71	-	-	67	103	54	-	-
Feldspar	205	160	148	125	130	142	147	149	176	202
Phosphate	148	291	322	366	389	399	390	260	300	392
Granite	286	400	807	1,151	581	796	-	-	-	-
Gypsum	57	80	72	42	25	5	-	5	4	6
Screenings (Gravel)	2,202	833	1,085	4,720	3,175	991	5,229	3,525	3,864	292
<b>TOTAL</b>	<b>26,171</b>	<b>24,054</b>	<b>23,990</b>	<b>28,101</b>	<b>21,029</b>	<b>34,569</b>	<b>28,237</b>	<b>12,319</b>	<b>22,818</b>	<b>20,891</b>

a/ Figures subject to revision

<sup>1/</sup> Excludes production of minerals obtained under contracts with the Nation.

In thousands of metric tons

Source: Ministry of Energy and Mines, Mining Industry Inspection and Control Division.



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