The Strength of Brazilian Mining

IBRAM
INSTUTUTO BRASILEIRO DE MINERAÇÃO
Brazilian Mining Association
Câmara Minera de Brasil
EXECUTIVE BOARD
José Fernando Coura
Chief Executive Officer
Rinaldo César Mancin
Head of Environmental Affairs
Marcelo Ribeiro Tunes
Head of Mining Affairs
Walter B. Alvarenga
Head of Institutional Relations
Ary Pedreira
Head of Administrative and Financial Affairs

BOARD OF DIRECTORS
Chair:
• SAMARCO MINERAÇÃO S.A.
  Ricardo Vescovi de Aragão
Vice Chair:
• EMBÚ S.A. ENGENHARIA E COMÉRCIO
  Luiz Eulálio Moraes Terra

Board Members:
• ANGLOGOLD ASHANTI LTDA
  Hélcio Roberto Martins Guerra (Member)
  José Margalith (Alternate)
• COPELMI MINERAÇÃO LTDA
  Cesar Weinschenck de Faria (Member)
  Carlos Weinschenck de Faria (Alternate)
• MINERAÇÕES BRASILEIRAS
  REUNIDAS S.A. – MBR
  Edmundo Paes de Barros Mercer (Member)
  Solange Maria Santos Costa (Alternate)
• MINERAÇÃO RIO DO NORTE S.A. – MRN
  Júlio César Ribeiro Sanna (Member)
  Ademar Cavalcanti Silva Filho (Alternate)
• KINROSS BRASIL MINERAÇÃO S/A
  Antonio Carlos Saldanha Marinho (Member)
  Cláudio Martins Ferreira Vicente Vianna (Alternate)
• VALE S.A
  Vânia Somavilla (Member)
  Salma Torres Ferrari (Alternate)
  Clóvis Torres Júnior (Member)
  Carlos Anísio Figueiredo (Alternate)
  Marconi Tarbes Vianna (Member)
  Silmar Magalhães Silva (Alternate)
• VOTORANTIM METAIS S.A
  Jones Belther (Member)
  Valdecir Botassini (Alternate)
• EMBÚ S.A. ENGENHARIA E COMÉRCIO
  Fábio Luna Camargo Barros (Alternate)
• SAMARCO MINERAÇÃO S.A.
  Júlio Eustáquio Tizon (Alternate)
Mining is one of the most ancient and traditional economic activities on Brazil.

Over the centuries, the techniques, then rudimentary, have evolved to business actions fully adhering to the international sustainability practices, in which the social commitment and the environmental preservation are allied to the financial goals of the mining operations.

The inert ores in the underground belong to the Brazilian state and are converted to richness through the action of the mining companies. Mining constitutes a base industry, therefore, it supplies the raw materials for the transformation industries to produce essential goods for comfort, health and care and safety for the citizens.

The mining industry is also one of the major productive segments in the Brazilian economy.

Even in a scenario of international crisis, the corporative mining answers with growth on its productive capacity, to the point of contributing in a definitive way to the employment generation and income for the society, as well as to the establishment of actions that ensure the economic stability.

When mining succeeds, Brazil succeeds.

Recently, mining has been legally recognized as being an activity of public utility. It is up to the Brazilian Mining Association (IBRAM) to take part in the representation of the companies of the sector.

Among its associates are the major mining companies in the world. A reason for Brazil to be proud of.

The list of more than 200 associates of the Association represents 85% of the Brazilian Mining Production. In this document, IBRAM presents, in figures, the strength of the Brazilian mining industry, and also shows the work it accomplishes in favor to the development of the sector and its associates.

José Fernando Coura
Mining Engineer
Chief Executive Officer – CEO
Brazilian Mining Association
Founded on December 10th, 1976, IBRAM – Brazilian Mining Association (www.ibram.org.br) is the National Entity that represents Companies and Institutions operating in the mining industry. It is a private, non-profit organization, with great coordination capability, which aims to:

- bring together, represent, promote and disseminate the Brazilian Mining Industry, contributing to its competitiveness;
- cooperate with governments, including support to technical studies;
- promote sustainable development and best practices on occupational health and safety in the mining industry;
- encourage studies, research, development, innovation, and use of the best technologies available;
- advocate for the interests of the mining industry.

IBRAM
Instituto Brasileiro de Mineração
Brazilian Mining Association
www.ibram.org.br

ASSOCIATE YOUR BUSINESS WITH IBRAM
Send an e-mail to ibram@ibram.org.br or call +55 61 3364-7272

IBRAM
- Brings together 235* Companies (in Mining and other industries);
- Accounts for over 85% of Brazil’s mineral production.

Institutional Mission: contributing to the sustainable development of the Mining Industry in Brazil by generating wealth and social benefits while preserving the environment.

GOVERNANCE

Board of Directors – Comprised of representatives of mining companies.
Executive Board – Comprised of five directors: a CEO, a Director for Mineral Affairs, a Director for Environmental Affairs, a Director of Institutional Relations and a Chief Financial Officer.

IBRAM IS A MEMBER OF THE FOLLOWING INTERNATIONAL INSTITUTIONS

ICMM – International Council on Mining & Metals
OLAMI – Organismo Latinoamericano de Minería
WEF – World Economic Forum
SIM – Inter American Mining Society

REGIONAL OFFICES

In addition to the headquarters in the capital of Brazil (Brasília), IBRAM also has offices in Minas Gerais – the largest producing state in the Country – and in Pará, in the Amazon region, which is the second largest producing state.

* Data for October/2012
A Positive Outlook for Mining in Brazil

Brazil has one of the largest mineral repositories in the world and is an important producer and exporter of high quality ores. That’s why Mining is one of the strengths of the Brazilian economy.

The Mining Industry is responsible for the positive balance of Brazil’s trade, and the outlook for this economic activity is extremely optimistic for the coming decades.

Mining Companies in Brazil

According to Annual Reports on Mining, DNPM – National Department of Mineral Production Brazil reported 7,932 Companies in 2010. Their breakdown by region is as follows:

- MIDWEST: 942 companies
- NORTHEAST: 1,258 companies
- NORTH: 439 companies
- SOUTHEAST: 3,392 companies
- SOUTH: 1,901 companies

Data on Brazilian mining are updated in the website: www.ibram.org.br

The Brazilian mining industry currently finds itself in a time of vigorous growth, thanks both to the profound structural changes that the country has experienced and the social and economic situation in which the world is in. This growth is driven by urbanization in emerging countries endowed with large territorial areas, high demographic density and high GDP (Gross Domestic Product), such as the BRICs (Brazil, Russia, India and China), which coincidentally makes them important players for global mining.
Brazil’s Mineral Production (BMP)

2011: Forecast of Brazil's mineral production totaled US$ 50 billion

From 2000, the increased demand for minerals, especially in view of the high global growth rate, has been boosting the value of the BMP. During 2001-2011, the value of the BMP grew by 550%, from US$7.7 billion to US$50 billion. With urbanization and the strengthening of world economies, it is estimated that the BMP will continue to grow between 5% and 8% per year over the next two years.
Brazil is an important player in the world’s mining industry. However, it still depends on some minerals that are key to the economy. Brazil is the fourth largest consumer of fertilizers, and is responsible for only 2% of the world’s production. The Country imports 91% of the potassium and 51% of the phosphate it requires, which are both essential for the fertilizers industry.
### MAIN MINERAL PRODUCTS IMPORTED AND EXPORTED

(US$ 1.000.000)

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2010</th>
<th>Δ 11/10</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Brazilian Exports</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exports Mineral Sector</td>
<td>49.710</td>
<td>35.360</td>
<td>40.58%</td>
</tr>
<tr>
<td>Iron Ore</td>
<td>41.817</td>
<td>28.912</td>
<td>44.64%</td>
</tr>
<tr>
<td>Gold (in bars)</td>
<td>2.239</td>
<td>1.786</td>
<td>25.38%</td>
</tr>
<tr>
<td>Niobium (iron-niobium)</td>
<td>1.840</td>
<td>1.557</td>
<td>18.18%</td>
</tr>
<tr>
<td>Copper</td>
<td>1.573</td>
<td>1.238</td>
<td>27.04%</td>
</tr>
<tr>
<td>Silicon</td>
<td>637</td>
<td>460</td>
<td>38.39%</td>
</tr>
<tr>
<td>Kaolin</td>
<td>261</td>
<td>275</td>
<td>-5.02%</td>
</tr>
<tr>
<td>Manganese Ore</td>
<td>306</td>
<td>357</td>
<td>-14.40%</td>
</tr>
<tr>
<td>Bauxite</td>
<td>319</td>
<td>270</td>
<td>18.15%</td>
</tr>
<tr>
<td>Tin</td>
<td>23</td>
<td>8</td>
<td>192.50%</td>
</tr>
<tr>
<td>Lead</td>
<td>9</td>
<td>12</td>
<td>-21.67%</td>
</tr>
<tr>
<td>Granite</td>
<td>247</td>
<td>219</td>
<td>12.60%</td>
</tr>
<tr>
<td>Others Minerals</td>
<td>439</td>
<td>268</td>
<td>63.88%</td>
</tr>
<tr>
<td><strong>Brazilian Imports</strong></td>
<td>226.243</td>
<td>181.768</td>
<td>24.47%</td>
</tr>
<tr>
<td>Imports Mineral Goods</td>
<td>11.292</td>
<td>7.757</td>
<td>45.57%</td>
</tr>
<tr>
<td>Coal</td>
<td>5.231</td>
<td>3.575</td>
<td>46.31%</td>
</tr>
<tr>
<td>Potassium Chloride</td>
<td>3.471</td>
<td>2.204</td>
<td>57.48%</td>
</tr>
<tr>
<td>Phosphate</td>
<td>207</td>
<td>135</td>
<td>52.96%</td>
</tr>
<tr>
<td>Copper</td>
<td>1.141</td>
<td>952</td>
<td>19.88%</td>
</tr>
<tr>
<td>Zinc</td>
<td>184</td>
<td>157</td>
<td>17.07%</td>
</tr>
<tr>
<td>Sulphur</td>
<td>441</td>
<td>246</td>
<td>79.43%</td>
</tr>
<tr>
<td>Others Minerals</td>
<td>617</td>
<td>488</td>
<td>26.43%</td>
</tr>
<tr>
<td><strong>Brazilian Balance</strong></td>
<td>29.796</td>
<td>20.147</td>
<td>47.89%</td>
</tr>
<tr>
<td>Balance of the Mineral Sector</td>
<td>38.419</td>
<td>27.603</td>
<td>39.18%</td>
</tr>
</tbody>
</table>

Data on Brazilian mining are updated in the website: [www.ibram.org.br](http://www.ibram.org.br)
Mineral Trade Balance

**EXPORTS 2011**
% of value exported in US$

- Iron Ore: 84.12%
- Gold: 4.50%
- Niobium: 3.70%
- Copper: 3.16%
- Silicon: 1.28%
- Kaolin: 0.53%
- Manganese Ore: 0.61%
- Bauxite: 0.64%
- Tin: 0.05%
- Lead: 0.02%
- Granite: 0.50%
- Others: 0.88%

**IMPORTS 2011**
% of value imported in US$

- Coal: 46.32%
- Potassium: 30.74%
- Phosphate: 1.83%
- Copper: 10.11%
- Zinc: 1.63%
- Sulphur: 3.91%
- Others: 5.46%

Source: MDIC/Aliceweb

**ROYALTIES IN BRAZIL 2005-2011**
(CFEM – FINANCIAL COMPENSATION FOR MINERAL RESOURCES EXPLOITATION)

<table>
<thead>
<tr>
<th>Year</th>
<th>Royalties (BRL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>405.1</td>
</tr>
<tr>
<td>2006</td>
<td>462.5</td>
</tr>
<tr>
<td>2007</td>
<td>537.4</td>
</tr>
<tr>
<td>2008</td>
<td>853.9</td>
</tr>
<tr>
<td>2009</td>
<td>736.8</td>
</tr>
<tr>
<td>2010</td>
<td>1,078.2</td>
</tr>
<tr>
<td>2011</td>
<td>1,540.0</td>
</tr>
</tbody>
</table>

Source: DNPM/IBRAM

Data on Brazilian mining are updated in the website: www.ibram.org.br
The labor force employed in mining in 2011 totaled 175 thousand workers. Studies by the Ministry of Mines and Energy’s National Department of Geology, Mining and Mineral Processing show that the multiplier effect of jobs is 1:13 in the mining sector, i.e., for each mining job, 13 others are created (direct employment) along the supply chain.

Therefore, it can be assumed that the mineral sector employed about 2.2 million workers (directly) in 2011, not considering the vacancies generated during the research, prospecting and planning stages, and the workforce employed in the mines.

**NOTE:** One cannot overlook the informal job market – especially in the Mining industry – for the extraction of high unit value minerals (gem, gold, diamond, etc.) and also in the extraction of mineral aggregates for the housebuilding industry. This workforce is spread across Brazil’s 5,584 municipalities and is not covered by official statistics. Though extremely inaccurate, estimates suggest something between 300 and 500 thousand workers. (Source: PNM 2030)

### HDI of mineral producing municipalities

The Human Development Index is greater in mineral producing municipalities than the average in their respective states. Even when far from large urban centers or in poor areas, a mining company has become a real possibility for the sustainable development of the region. The HDI is calculated by the United Nations Development Program – UNDP.

<table>
<thead>
<tr>
<th>Municipality – Estate</th>
<th>Mineral</th>
<th>State HDI</th>
<th>Municipality HDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Itabira – MG</td>
<td>Iron Ore</td>
<td>0,766</td>
<td>0,798</td>
</tr>
<tr>
<td>Araxá – MG</td>
<td>Niobium</td>
<td>0,766</td>
<td>0,799</td>
</tr>
<tr>
<td>Nova Lima – MG</td>
<td>Gold</td>
<td>0,766</td>
<td>0,821</td>
</tr>
<tr>
<td>Catalão – GO</td>
<td>Phosphate</td>
<td>0,773</td>
<td>0,818</td>
</tr>
<tr>
<td>Cachoeiro de Itapemirim – ES</td>
<td>Dimension Stone</td>
<td>0,767</td>
<td>0,770</td>
</tr>
<tr>
<td>Parauapebas – PA</td>
<td>Iron Ore</td>
<td>0,720</td>
<td>0,740</td>
</tr>
<tr>
<td>Oriximiná – PA</td>
<td>Bauxite</td>
<td>0,720</td>
<td>0,769</td>
</tr>
<tr>
<td>Presidente Figueiredo – AM</td>
<td>Cassiterite</td>
<td>0,713</td>
<td>0,742</td>
</tr>
</tbody>
</table>

*Fonte: UNDP*
The graphs show an increase in the amount of investments in the Brazilian Mining sector.

The figures calculated by IBRAM are projections for a 5-year period. The Association expects, based on data collected from mining companies, significant investments of US$ 75 billion for the period 2012-2016, which represents a new record for the Mining industry.

It is one of the private industries that make the most significant investments in the Country – an average of over US$ 15 billion per year. This amount is periodically reassessed by IBRAM.

These investments cover a number of minerals, and Iron Ore is the most significant one, accounting for 63% of the total.

### INCREASES IN MINERAL PRODUCTION UNTIL 2016

<table>
<thead>
<tr>
<th>Ores</th>
<th>Production in 2011 (1.000 ton) (A)</th>
<th>Increase by 2016 (1.000 ton) (B)</th>
<th>Forecast Production on 2016 (C)=(A+B)</th>
<th>Variation (C/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agregates</td>
<td>673.000</td>
<td>176.000</td>
<td>849.000</td>
<td>26%</td>
</tr>
<tr>
<td>Iron Ore</td>
<td>467.000</td>
<td>353.000</td>
<td>820.000</td>
<td>76%</td>
</tr>
<tr>
<td>Bauxite</td>
<td>31.000</td>
<td>7.000</td>
<td>38.000</td>
<td>23%</td>
</tr>
<tr>
<td>Manganese</td>
<td>2.600</td>
<td>400</td>
<td>3.000</td>
<td>15%</td>
</tr>
<tr>
<td>Phosphate</td>
<td>1.800</td>
<td>700</td>
<td>2.500</td>
<td>39%</td>
</tr>
<tr>
<td>Copper</td>
<td>400</td>
<td>200</td>
<td>600</td>
<td>50%</td>
</tr>
<tr>
<td>Potassium</td>
<td>290</td>
<td>2.110</td>
<td>2.400</td>
<td>728%</td>
</tr>
<tr>
<td>Zinc</td>
<td>285</td>
<td>65</td>
<td>350</td>
<td>23%</td>
</tr>
<tr>
<td>Niobium</td>
<td>90</td>
<td>30</td>
<td>120</td>
<td>33%</td>
</tr>
<tr>
<td>Nickel</td>
<td>70</td>
<td>30</td>
<td>100</td>
<td>43%</td>
</tr>
<tr>
<td>Gold</td>
<td>0,066</td>
<td>0,029</td>
<td>0,095</td>
<td>44%</td>
</tr>
</tbody>
</table>

Source: IBRAM estimatives

Data on Brazilian mining are updated in the website: www.ibram.org.br
INVESTMENT IN THE MINERAL SECTOR 2012 – 2016

In billions of US$

The investment numbers were calculated in the month of May/2012. Updated information on the website www.ibram.org.br.

INVESTMENTS OF THE MINERAL SECTOR BY MINERAL FROM 2012 – 2016

In billions of US$

*Aluminum Chain* contains investments in Bauxite, Alumina and Aluminum.

The investment numbers were calculated in the month of May/2012. Updated information on the website www.ibram.org.br.

Data on Brazilian mining are updated in the website: www.ibram.org.br

Source: IBRAM

New investments in the mineral sector 2012 to 2016: US$ 75 billion

Investments in the mineral sector 2011 to 2015: US$ 68.5 billion
Brazil’s mining potential is significant. To date, about less than 30% of its immense territory is known through geological surveys in an appropriate scale for this activity. Indigenous areas account for 13% of this territory and 25% of the Amazon, and are among regions that may have their mining potential assessed, as well as the coastal area, located along the Brazilian continental platform.

The graph shows pent-up demand in the field of geology surveying in Brazil. For illustrative purposes, although its land area is about seven times that of Peru, Brazil has allocated only half of the amount invested by Peru on geological research.

**PRIVATE INVESTMENT IN MINERAL EXPLORATION**

**TOP 10 COUNTRIES IN TERMS OF INVESTMENTS IN MINERAL EXPLORATION**

- **Australia**: 12%
- **Canada**: 19%
- **United States**: 8%
- **Mexico**: 6%
- **Peru**: 5%
- **China**: 4%
- **Chile**: 5%
- **Russia**: 4%
- **Argentina**: 3%
- **Brazil**: 3%
- **Other Countries**: 31%

10 leading countries
Total: US$ 10.7 billion

Source: Metals Economic Group – 2009

Data on Brazilian mining are updated in the website: [www.ibram.org.br](http://www.ibram.org.br)
The table shows the disparity between the total amounts invested by countries assessed as compared to Brazil. The analysis takes into account country size, and confirms that smaller countries (Peru, Chile and Mexico) or countries with similar territorial areas are ahead of Brazil in terms of investments in exploration.

<table>
<thead>
<tr>
<th>Global Investment (US$ 10.700.000)</th>
<th>Area (sq.km) x 1.000</th>
<th>Absolute Investments (US$)</th>
<th>Share of Investments (%)</th>
<th>Absolute Investments/Area (US$/sq.km)</th>
<th>Brazil Investment vs Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>9971</td>
<td>2.033.000</td>
<td>19</td>
<td>0,2</td>
<td>5,4</td>
</tr>
<tr>
<td>Australia</td>
<td>7682</td>
<td>1.284.000</td>
<td>12</td>
<td>0,2</td>
<td>4,5</td>
</tr>
<tr>
<td>USA</td>
<td>9373</td>
<td>856.000</td>
<td>8</td>
<td>0,3</td>
<td>2,4</td>
</tr>
<tr>
<td>Mexico</td>
<td>1973</td>
<td>642.000</td>
<td>6</td>
<td>0,0</td>
<td>8,7</td>
</tr>
<tr>
<td>Chile</td>
<td>757</td>
<td>535.000</td>
<td>5</td>
<td>0,0</td>
<td>18,8</td>
</tr>
<tr>
<td>Peru</td>
<td>1285</td>
<td>535.000</td>
<td>5</td>
<td>0,4</td>
<td>11,1</td>
</tr>
<tr>
<td>Russia</td>
<td>17075</td>
<td>428.000</td>
<td>4</td>
<td>0,7</td>
<td>0,7</td>
</tr>
<tr>
<td>China</td>
<td>9600</td>
<td>428.000</td>
<td>4</td>
<td>0,1</td>
<td>1,2</td>
</tr>
<tr>
<td>Argentina</td>
<td>2780</td>
<td>321.000</td>
<td>3</td>
<td>0,1</td>
<td>3,1</td>
</tr>
<tr>
<td><strong>Brazil</strong></td>
<td><strong>8547</strong></td>
<td><strong>321.000</strong></td>
<td><strong>3</strong></td>
<td><strong>0,01</strong></td>
<td><strong>1</strong></td>
</tr>
</tbody>
</table>

The table shows the disparity between the total amounts invested by countries assessed as compared to Brazil. The analysis takes into account country size, and confirms that smaller countries (Peru, Chile and Mexico) or countries with similar territorial areas are ahead of Brazil in terms of investments in exploration.
Over the past decades, the Mining Industry has provided concrete examples of seamless integration between conservation and environmental preservation and social responsibility. Wherever it acts within the National territory, and in its several segments, the number of positive cases of this integration is impressive and increasing. The struggle for sustainable development is a guiding principle of the Mining industry.

One of IBRAM’s primary commitments is to support and disseminate best practices related to sustainability among its member organizations. More than a requirement from the markets, corporate sustainability must be integrated into the routine of mining companies in all possible aspects.

The mining sector is critical to the Brazilian economy. Its ability to contribute to the country’s trade balance is remarkable, as well as the socioeconomic and environmental development of the regions where mining companies will use mineral deposits to transform inert resources into wealth to the society. In addition, development is a strong driver of technical knowledge, encouraging the training of researchers as the mining companies develop and adopt technologies to operate mineral reserves with excellence.

At the same time, this allows for improvement of efficiency in mines and increases the life cycle of deposits, resulting in an increasing production capacity and extended time to use mineral resources. And what’s more: the mineral sector has proved to be very efficient in recovering degraded land, including by other actions of man in the locations where it operates. This has a direct impact on the Country’s development.

Innovations and the development and use of pioneering technologies go beyond the mining activity itself, and also affects the supply chain, which also invests in the development of new solutions, equipment, activities, and services.

The unique characteristics of the mineral sector, notably locational rigidity, are the basis for another equally important issue, namely, reconciliation of two public interests: the exploration and use of mineral resources, and environmental conservation.

Therefore, IBRAM believes that legislation should harmonize these two assets – biodiversity and mineral natural resources – so as to provide imperative and effective legal certainty to private investors who finance mining projects, which operates in a highly risky environment, while employing considerable financial resources in the whole industrial process.

Learn more about Brazil’s Mining Sustainability at the IBRAM website:

www.ibram.org.br
In 2011 IBRAM developed the first edition of the GHG Inventory for the Mineral Sector.

It is a compendium that maps emissions from the mining Industry, covering 10 types of minerals, from 33 mining companies that account for approximately 80% of ore production and around 90% of Brazil’s production figures (2008): Bauxite, Kaolin, Copper, Iron, Phosphate, Niobium, Nickel, Gold, Potassium, and Zinc.

Emissions of greenhouse gases for the ten mineral commodities covered in the study expressed in metric tons of carbon dioxide equivalent (CO2e) totaled 8,855,655 tons of CO2e in 2008.

In preparing this study, the operational control approach was used, which is the common practice of recording and reporting GHG inventories for multiple companies. This approach is an indication that companies account for 100% of emissions from operations.

With this Inventory, IBRAM expects to contribute decisively to demystifying the matter to companies that have not included this issue on their agendas. Another objective is to influence the adoption of official policies to support small industries, leading to effective action on adaptation and mitigation of GHG emissions. It also aims to integrate the mineral sector to the Brazilian public policies related to climate change.

As a contribution to the Rio+20 Conference, IBRAM, in the performance of its mission and objectives, conducted a study in partnership with ERM – Environmental Resources Management, in order to learn about the management practices of sustainability carried out by the mineral business sector.

The goal is to show the evolution of management practices in the mining sector based on the engagement of mining companies operating in Brazil by sharing their experiences.

The findings of the study are reflected in a publication launched during Rio+20, focusing on aspects of mining impacts, as well as identification of management practices in the industry.

This study offers an opportunity to demonstrate how corporate management workflows has progressed in terms of achieving sustainability and on the understanding that it is possible to show how much the mining industry contributes to sustainable development.
IBRAM promotes institutional actions to ensure better conditions for business competitiveness to mining companies through Special Programs and Permanent Committees – as it is the case of the Legal Committee.

### CONIM

**IBRAM-CONIM – International Committee for Mining Standardization**, based in IBRAM-MG, coordinates and strengthens the participation of Brazilian companies in work related to the development of technical standards for ISO (International Organization for Standardization) and ABNT (Brazilian Association of Technical Standards).

Currently, IBRAM-CONIM is conducting two special programs: International Standardization of Iron Ore, and the Program for International Standardization of Ore Concentrates and Primary Products of Copper and Nickel.

The three ISO Committees meet every two years in a country that is either a supplier or a consumer of minerals. Thanks to efforts made by IBRAM-CONIM, Brazil has reached leadership positions in at least one third of the technical bodies in these committees. Besides, the country has also appointed experts for all projects of national interest. IBRAM-CONIM relies on politically and technically skilled delegations to attend these international meetings.

### MINING

**“MINERAÇÃO” – a Special Program for Occupational Safety and Health in Mining**, is a voluntary and pioneer initiative in the Brazilian mining industry. Developed and coordinated by IBRAM, “MINERAÇÃO” was created with the objective of assisting companies in the mining sector, regardless of their size, aiming at lowering the number of occupational accidents by encouraging sustainability in the sector.

The program encourages prevention of accidents at the workplace through the implementation of a series of initiatives aimed to mitigate the main risks of OSH – Occupational Safety and Health identified in the mineral sector, such as the creation of a risk management system, specific trainings, exchange of best practices, database with statistical information on specific accidents in the sector, among other actions.

To learn more about the “MINERAÇÃO” program, and how to join the Program, please contact IBRAM-MG, tel. + 55 31 3223-6751 or access www.ibram.org.br.

### DAMS

Aware of the responsibility of the mining industry regarding environmental conservation, and to reduce social-environmental and economic risks of accidents in tailing dams, IBRAM created the **Special Program for Safety in Tailing Dams**, a pioneer initiative that is being deployed nationwide.

The program aims to train professionals in the mining industry, government and civil society on the best practices for managing safety at dams, providing modern tools and management strategies. Thus, it intends to contribute decisively to minimizing accidents and incidents in these dams.

### PERH

The **Special Program for Water Resources – PERH** is an initiative developed by IBRAM since 2000, with a history of significant achievements, especially in the monitoring and implementation of the National Water Resources Policy – through the participation of IBRAM in the collegiate forums of the National Water Resources Management System – SINGREH.

PERH currently operates in conjunction with the Water Resources Network of the National Industrial Confederation (CNI). This partnership aims to strengthen the participation of the mining sector and the production industries in the management and implementation of PERH’s mechanisms. For its operation and consolidation, PERH relies on the participation of IBRAM’s members in the various forums that focus on water resources management.

IBRAM views this opportunity as a milestone in issues related to sustainable development in mining, since it provides its participants with a strategic vision for the use of water resources. Additionally, it promotes a positive image of the mining sector regarding social and environmental issues.
Main Mining Events Promoted by IBRAM

**International Mining Exhibition**

The greatest mining events of the Latin America, organized in every two years. The EXPOSIBRAM and the Brazilian Mining Congress are realized in Belo Horizonte (MG).

[www.exposibram.org.br](http://www.exposibram.org.br)

**International Mining Exhibition of Amazon Mining Congress of Amazon**

Realized once in every two years in the Brazilian Amazon, these events have their structure and programming similar to those used on EXPOSIBRAM and on the Brazilian Mining Congress.

[www.exposibramamazonia.org.br](http://www.exposibramamazonia.org.br)

**Brazilian Congress on Open Pit Mine**

**Brazilian Congress on Underground Mine**

Both congresses are organized in partnership from IBRAM with UFMG – Federal University of Minas Gerais. They are held in every two years.

[www.cbmina.org.br](http://www.cbmina.org.br)

**International Congress on Mining Law**

The greatest event of Brazil on this important issue. Reunites executives of the mineral sector, members of the School of the Attorney General's Office and legal practitioners of the public and private sectors from several different countries.

[www.direitominerario.org.br](http://www.direitominerario.org.br)
EXPOSIBRAM
International Mining Exhibition
Brazilian Mining Congress

Events that gather more than:

45,000 visitors, 1,200 attendees and hundreds of expositors from several countries.
EXPOSIBRAM and the Brazilian Mining Congress are two major events in the mining industry.

Every two years, one venue brings together leading mining companies, including global companies; suppliers of machinery, equipment and services; representatives from research institutions and universities; business and government delegations from various nations; Brazilian authorities; trade associations; federal government enterprises and bodies; senior managers from various industries other than mining; and experts on issues related to the global mining sector.

These events are organized by IBRAM and rely on sponsorship from large companies and institutions.

EXPOSIBRAM is the primary showcase for those wishing to participate in the huge market derived from the mining industry, and the Brazilian Congress shows important trends in this major industry for the coming decades.

The 15th Exhibition and Congress will be held in Belo Horizonte, MG, in September 2013.

IBRAM’s website (www.ibram.org.br) and www.exposibram.org.br regularly provide information on both events, including how to become a sponsor and/or exhibitor, as well as how to register for the Congress.
International Mining Exhibition of the Amazon/Mining Congress of the Amazon

► www.exposibram.org.br

These conferences are held once every two years in the Brazilian Amazon, and they are in their 3rd edition and their structure and agenda are similar to those of EXPOSIBRAM and the Brazilian Mining Congress, which are held in Belo Horizonte, MG.

EXPOSIBRAM AMAZÔNIA and the Mining Congress of the Amazon focus on sustainable development in the mining industry in Brazil’s North region, where the state of Pará is a hub of Brazil’s mining boom.

As a result of this importance to the industry and to Brazil, IBRAM decided to bring together local partners, such as FIEPA – Industrial Federation of the State of Pará, in order to ensure prime space for the promotion of new business, as well as for the discussion of issues related to mining in that region.

Corporations and public and private organizations showcase their products, services and business opportunities in EXPOSIBRAM AMAZÔNIA, while managers and experts in mining, scholars and authorities from several countries ensure high quality debates on trends of mining in the Amazon.

Both conferences are gateways to a promising new market for companies from all over Brazil and abroad – input suppliers, consultants, service providers, and business partners are also attending. And the outlook is excellent – after all, mining companies are investing billions of dollars in their projects.
Besides promoting the EXPOSIBRAM and the Brazilian Mining Congress, IBRAM also organizes two other events of the mining sector in partnership with public and private institutions.

CBMINA
Brazilian Congress on Open Pit Mining
Brazilian Congress on Underground Mining

www.cbmina.org.br

Simultaneously realized, in every two years, both events aiming present the elevated technical level of the mining industry in Brazil.

Over the years, the CBMINA has been consolidated as one of the most important discussion forums on open pit and underground mining and the outreach of the activity on the social, economic, legal and environmental fields.

On the one hand, the Congresses stimulate applied researches for members of the Academy and professionals of mining companies and award the best cases. On the other hand, they gather high level debates bringing space to new ideas and approaches connected to the evolution of the Brazilian mining activity, related to strategic issues, such as: geological exploration, applied geomechanics, mining closure, underground mining ventilation, tailings dams, quality control, mining economics, climate changes, health and safety.

In 2012, the 7th CBMINA had the participation of more than 400 attendees. Besides the mining professionals, were also present professors and students of Mine Engineering from universities located on several different parts of Brazil, federal and state authorities, as also researchers and professionals of the mining sector.

Both events are organized in partnership by IBRAM and the UFMG – Federal University of Minas Gerais. The 8th edition of the CBMINA will be held in 2014.
International Congress on Mining Law

► www.direitominerario.org.br

Sponsored every two years by IBRAM in collaboration with the National Department of Mineral Production (DNPM) and the School of the Attorney General’s Office, the “International Congress on Mining Law” series is a great opportunity to promote integration between the legal professions in the public sector and those related to the mining industry and other sectors.

The first two editions of this international conference brought together 700 professionals. Both conferences were held in Salvador, Bahia, one of the states where mining is booming.

The target audience is quite diversified. It includes legal practitioners in the public sector with various levels of seniority, as well as officers and legal advisors to the mineral industry, including partners of the most renowned law firms in Brazil and other countries, representatives from trade associations, as well as managers and experts from the ministries and other policy-making bodies for the mining industry. The 3rd edition of the International Congress on Mining Law will be held in 2014.