VALE

Sustainability Report 2009

Sustainability Report Vale 2009

SUMMARY

Profile

We are global advocates of ethical practices in business, respect for the environment, and the quality of life in the regions where we operate. We strive to contribute to building a positive legacy for future generations

We are a global company that operates in the mining sector. We search for, produce and market an extensive portfolio of products, including iron ore and pellets, nickel, copper, coal, bauxite, alumina, aluminum, potassium, kaolin, manganese, ferroalloys, cobalt, platinum group metals and precious metals. We are also active in logistics, energy, steel making and fertilizers, which are strategic sectors for us and which are complementary to our mining business.

Our products and services can be found in all areas of modern society and have an essential function in ensuring the quality of life. Three of our main products – iron ore, coal, and manganese – are fundamental components in the production of steel, which is used in basic industries, transport, construction, and thousands of everyday items. Nickel is used in stainless steel production and in electronic and medical equipment. Copper is an essential part of telecommunication networks, TV sets, and cell phones. Bauxite is the raw material for producing aluminum, which is widely used in industries ranging from packaging to aircraft manufacturing. The agricultural sector uses potassium and phosphate to increase yields, while kaolin is used especially in paper manufacturing and in the ceramic and pharmaceutical industries.

AMERICAS

1. Brazil – Vale's worldwide headquarters
2. Colombia
3. Chile
4. Argentina
5. Peru
6. Paraguay
7. Canada
8. United States
9. Barbados

EUROPE

10. France
11. Norway
12. Switzerland
13. United Kingdom

AFRICA

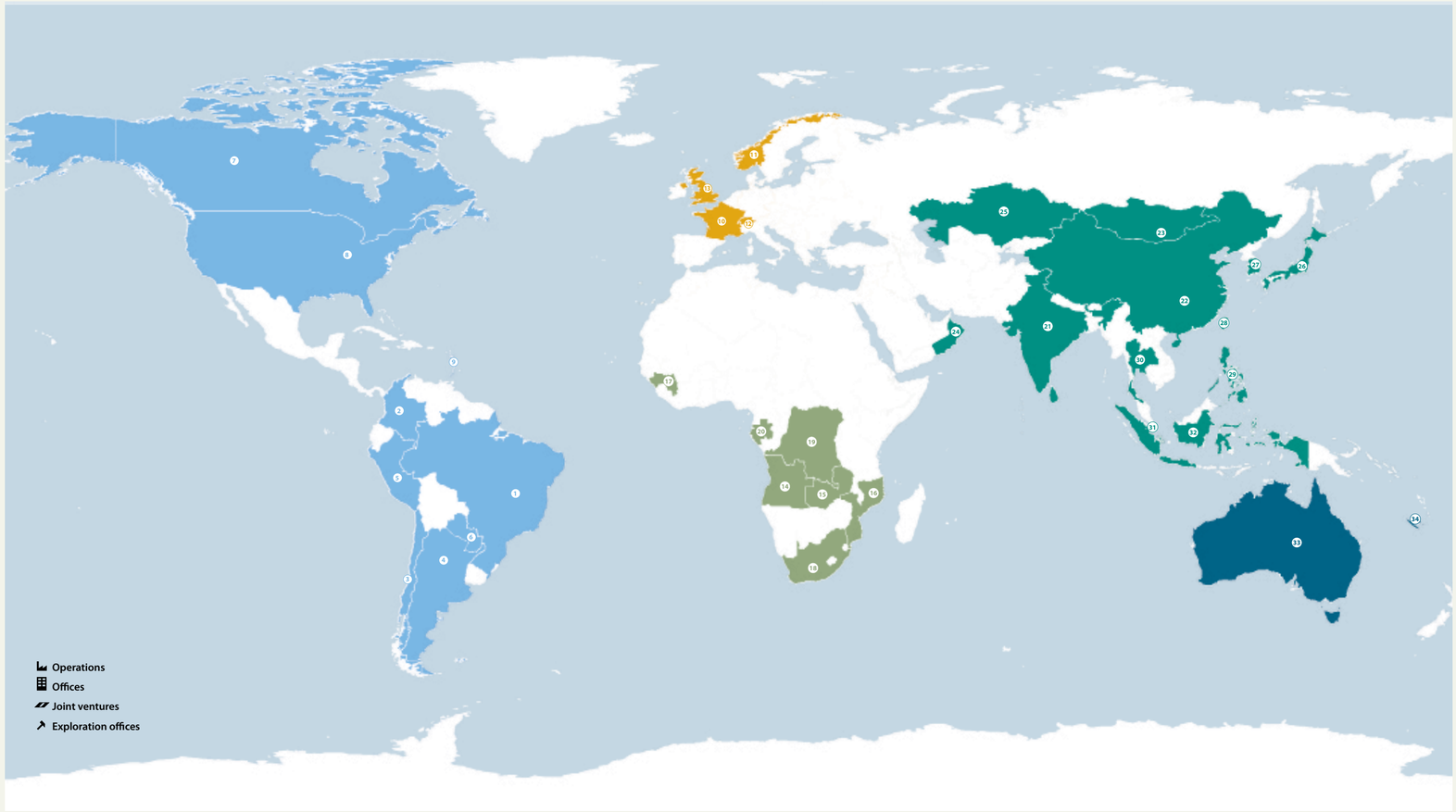
14. Angola
15. Zambia
16. Mozambique
17. Guinea
18. South Africa
19. Democratic Republic of Congo
20. Gabon

ASIA

21. India
22. China
23. Mongolia
24. Oman
25. Kazakhstan
26. Japan
27. South Korea
28. Taiwan
29. Philippines
30. Thailand
31. Singapore
32. Indonesia

OCEANIA

33. Australia
34. New Caledonia



Our mission

To transform mineral resources into prosperity and sustainable development

Corporate Information

Name	**Vale**
Corporate name	**Vale S.A.**
Legal form	**Publicly traded company**
Shares traded on Stock Exchanges	**BM&FBovespa: VALE3, VALE5**
	NYSE: VALE, VALE.P
	Euronext PARIS: VALE3, VALE5
	Latibex: XVALO, XVALP
Worldwide headquarters	**Rio de Janeiro, Brazil**
Social and environmental investments in 2009	**US$ 781 million**
Total workforce (Dec. 2009)	**140,600 (Employees: 60,000, Contractors: 80,600)**
Corporate credit rating	**Baa2 by Moody's Investors Service**
	BBB+ by Standard & Poor's Ratings Services
	BBB by Fitch Ratings
	BBB (high) by Dominion Bond Rating Service
Recognition and Awards	**GRI Readers Choice Award in the Civil Society category for the *2008 Sustainability Report*. Vale was also a runner-up in the Investor Award and Best Overall award, for the best five organizations in the world**
	The best placed Latin American company in the index assessing the level of transparency of information on climate change. The large mining company with the lowest intensity of greenhouse gas emissions per unit of revenue, according to the Carbon Disclosure Project (CDP)
	Época Prize in 2009 for one of the companies with the most outstanding climate change policies
	***2008 Sustainability Report* recognized as a Notable Communication on Progress (COP) by the Global Compact**
	The top placed mining company in the climate change ranking compiled by Goldman Sachs, and one of the five most sustainable companies in the basic materials sector, according to the *GS-Sustain Report*
	Awarded five prizes in the 2009 IR Magazine Awards, including the Prize for the best investor relations program in Brazil

Message from the Board of Directors

In 2009, Vale continued with its growth strategy, in the face of various challenges caused by the global economic crisis

The company made the adjustments that were needed and maintained the pace of development of new projects, with total investments of US$9 billion. Meanwhile, it distributed US$2.75 billion in dividends and in interest on shareholder equity. Moreover, between 2000 and 2009, Vale was the diversified mining company which generated most shareholder value.

It is important to highlight that the global economic crisis has not had any impact on Vale's sustainable development strategy. In fact, the crisis provided the company with an opportunity to reiterate its commitment to its various stakeholders, and to try to act to minimize the impact of the reduction in mineral demand, not only on the financial area, but also on the company's social and environmental performance. The results of the year, as this report shows, mean that we can strengthen this strategy and increase our level of investments from as early as 2010.

We have also reaffirmed our commitment to the continual improvement of corporate governance, based on transparency, fairness, and ethics. The preparation and publication of various global corporate documents allow Vale to publicize and strengthen its values in all the countries where it operates, maintaining its strategy of growth combined with the promotion of sustainable development.

In 2009, as planned, the company published three new global policies – for Sustainable Development, Human Rights, and Corporate Security – which establish a set of standard guidelines that Vale units are committed to following. The Global Rules for Accountability in Health, Safety and the Environment were also approved, defining the processes for reporting incidents and significant events, and the parties responsible for achieving performance targets in these crucial areas.

Sérgio Rosa
Chairman of the Board of Directors

In 2009, completing the range of instruments that establish standards for the ethical and transparent behavior of Vale, the company launched its Code of Conduct for Suppliers, which includes a commitment to encourage product and service suppliers to adopt the same principles of ethical conduct that are followed by Vale. This document joins a range of other instruments, such as the Code of Ethical Conduct and the Reporting Channel to the Board of Directors.

For the fourth consecutive year, Vale maintained the internal controls required by the Sarbanes-Oxley Act, demonstrating that it has consolidated its practices of transparency and governance, in accordance with the requirements for companies that have ADRs (American Depositary Receipts) that are publicly listed on the New York Stock Exchange.

The publication of this third sustainability report, prepared in accordance with the internationally adopted guidelines of the Global Reporting Initiative (GRI), represents another element of the process of improving our management of sustainable development. It provides transparency about our way of acting, the challenges we face, and the results obtained by Vale's management, and it demonstrates our compliance with the Principles for Responsible Investment (PRI).

In the name of the Board of Directors of Vale and of all the shareholders, I would like to reiterate our satisfaction with the progress that has been made, and to thank the Executive Officers, the employees and our partners for the results obtained in 2009, in the certainty that Vale's actions will continue to be guided by the principle of sustainable development.

Message from the CEO

In 2009, which was a year of major challenges for us, we maintained our commitment to sustainable development, as determined by our Mission statement and our Sustainable Development Policy

We have reinforced our sustainability strategy with the publication of significant global guidelines that serve to guide our actions, in particular our Sustainable Development Policy, which aims to construct a social, economic, and environmental legacy in the regions where we operate, based on three main areas; Sustainable Operator, Local Development Catalyst, and Global Sustainability Agent.

In 2009, guided by our Sustainable Development Policy, we made progress in various different aspects of the Global Sustainability Agent area. We published our Human Rights Policy, a global document that serves to guide the actions of the whole company. We created the Vale Fund for Sustainable Development, which is designed to support actions by NGOs (non-governmental organizations) to balance environmental conservation with the improvement of social and economic conditions of communities, with an initial focus on the Amazon rainforest biome.

In parallel, Vale, in conjunction with civil society organizations, oversaw the publication of an Open Letter to Brazil on Climate Change, which includes voluntary commitments by 30 large Brazilian companies to contribute to global efforts for reducing potential climate change impacts. We also participated with proposals in the debate on the Brazilian government's position at the 15th Conference of the Parties of the United Nations on Climate Change (COP15), in December 2009. We signed The Copenhagen Communiqué, a statement by global business leaders in favor of an agreement on climate change.

In the Sustainable Operator area, particularly in the economic area, our sustainability strategy proved its worth. Faced with a dramatic global financial crisis and a sharp recession in the global economy, Vale demonstrated the practical competitive advantages of its consistent management strategy: a world class portfolio of assets, competitive costs of production, financial health and strength, and, most importantly, qualified and motivated people.

Confronted with the fall in world demand for minerals and metals, as a result of the unprecedented reduction in the production of the steel industry, we had to carry out measures to cut costs and increase efficiency. However, we also implemented measures to hold on to internal talent, including relocating and retraining our employees. We carried out the adjustments that were needed to respond to the immediate situation, but in 2009 we also made investments of US$ 9 billion that are fundamental to our organic growth and to our economic sustainability in the medium and long terms.

Starting in 2009, we began to reap the rewards of the decisions that we made at the outset of the global crisis. In the second half of the year, our iron ore production was 21% higher than in the first half, and we produced

Roger Agnelli
Chief Executive Officer

record annual amounts of coal, bauxite and alumina. As a result, Vale reported net profit of US$5.3 billion in 2009, and paid out total shareholder remuneration of US$ 2.75 billion. In a context of uncertainty in global markets, in 2009 we made extensive social and environmental investments, totaling US$781 million, with $580 million going into environmental actions and US$201 million into social projects.

We continued to work hard to increase our company's health and safety culture. Sadly, despite a reduction in the accident rate in 2009, there were nine fatal accidents in operations and projects involving Vale employees and contractors, as well as three fatalities at our road transport service providers. As well as carrying out close investigations of each accident, we are working to adopt more effective accident prevention methods, and to encourage the adoption of this safety culture in our value chain.

In the Local Development Catalyst area of our Sustainable Development Policy, we continued to invest in initiatives which are reinforcing our strategy of developing and qualifying local suppliers, based on our Inove Program, now in its second year of operation, and our Suppliers Development Program (PDF).

The Vale Foundation continued to establish Knowledge Stations, which aim to contribute towards improving the quality of life and to the integrated and sustainable development of the communities. Children and adolescents are the priority target public, and the Knowledge Stations that will be built in the Brazilian states of Maranhão, Minas Gerais, Espírito Santo, Pará, Sergipe and Rio de Janeiro should benefit around thirty thousand young people.

The Vale Foundation also launched the Brazil Vale Ouro [Brazil is Worth Gold] program, which forms a part of the Knowledge Stations. The program aims to select and prepare athletes in the cities where we operate in Brazil, and represents Vale's support of high performance sports.

We strive to contribute to the reduction of the deficit in sanitation and housing in the areas where we operate. Supporting local municipalities, we develop executive engineering projects and provide support in winning the resources that are available from state and federal governments. In 2009, the Vale Foundation invested a total of US$11 million in infrastructure and housing projects, and this resulted in the allocation of US$395 million by the municipalities and the Federal Government.

With the publication of Vale's third sustainability report, prepared in accordance with the guidelines of the Global Reporting Initiative (GRI), we are consolidating our strategy of transparent and accountable actions. As well as continually improving our internal processes, we have also moved forward with the publication of this report, which includes additional information and contains more transparency about our activities.

These and other initiatives which combine value creation with the construction of a positive legacy for future generations are aligned with the principles of the International Council on Mining and Metals (ICMM), and the Global Compact of the United Nations, which for the second consecutive year recognized our previous sustainability report as a Notable Communication on Progress.

I would like to thank everyone who has contributed to the management of processes and to the improvement in our performance in the sustainability indicators that are detailed in this report. They are contributing to the search for excellence in the management of our businesses, making our actions transparent to society, and helping to spread our practices in the sustainability area across all the different countries in which we operate.

Vale Executive Officers

Roger Agnelli
Chief Executive Officer

Fabio de Oliveira Barbosa
Chief Financial Officer

Carla Grasso
Executive Officer, Human Resources and Corporate Services

José Carlos Martins
Executive Officer, Ferrous Minerals

Eduardo de Salles Bartolomeo
Executive Officer, Logistics, Project Management and Sustainability

Tito Botelho Martins
Executive Officer, Non-ferrous Minerals

INTRODUCTION AND REPORTING PROCESS

How to read our report

This publication aims to present the evolution of Vale's sustainability journey, in an objective and transparent manner, to allow it to be readily understood

GRI Guidelines – For the third year running, we are publishing our Sustainability Report according to the Global Reporting Initiative (GRI) guidelines, G3 version, including the Mining and Metals Sector Supplement.

Global Compact and ICMM – Our activities, as described in this Report, are aligned with the principles of the Global Compact and the International Council on Mining and Metals (ICMM), international initiatives to which we are a signatory. The tables of content on pages 126-128 assist in locating information related to the principles of those frameworks. The *2009 Sustainability Report* also serves as a Communication on Progress (COP) for the Global Compact.

Reporting Period – This report covers the 2007 to 2009 period.

Structure – The way chapters have been organized allows tracking of results achieved by Vale in our three main activities, as determined by our Sustainable Development Policy: Sustainable Operator, Local Sustainable Development Catalyst and Global Sustainability Agent. This structure reaffirms our commitment to harmonize the economic, social and environmental aspects of our business.

Indicators – We report 86 indicators of which 49 are core, 23 additional and 14 are from the Mining and Metals Sector Supplement.

Management approach – We are globalizing corporate processes and documents, considering the cultural diversity of each location as well as the dynamics of each line of business. We are aware that this integration is a complex process that demands time and qualification of involved teams. The evolution of the process has already produced global corporate documents (please refer to the Corporate Governance chapter).

GRI application Level – This report reaches the GRI A+ Application Level, reporting all profile items, information on management approach and core performance indicators as well as indicators from the Mining and Metals Sector Supplement, in accordance with the principle of materiality established by the Global Reporting Initiative. The addition of indicators in this report (51 reported in 2007 and 73 in 2008) reflects our continuous improvement in the process of enhancing our sustainability management. Additional details on page 124.

Boundary – This report provides information on companies that were included in the previous report. The data for Vale Inco, acquired in 2006, have been included in the results since 2007, and data for Vale Australia, acquired in 2007, from 2008. For additional information, please refer to the full boundary chart on page 119.

External assurance – The information included in the *2009 Sustainability Report* has been externally assured by independent auditors Ernst & Young, as per the declaration on page 121. The assurance scope included compliance with the GRI methodology, assurance of information on management approach and performance, and application level declared. In addition, the relationships of the report to the guidelines of the ICMM were verified, as shown in the declaration on page 122.

Assessment form – As in previous years, an Assessment Form for the *2009 Sustainability Report* is available at www.vale.com. This initiative aims to gather opinion from our stakeholders for analysis, allowing us to improve our sustainability management and the reporting process of our performance.

Contact – For additional information on sustainability, please visit us at www.vale.com and contact us through the Talk to Us channel, Sustainability category.

Materiality

The chapters of the 2009 *Sustainability Report* cover material topics and describe our performance in areas that have been assessed as relevant to us

The topics have been selected in accordance with criteria ranging from the impacts and opportunities associated with Vale and the mining sector, to their relation with the strategic commitments of the company. These topics were classified in the matrix in accordance with the main sustainability interests of our stakeholders and their relevance to management.

Vale's *2009 Sustainability Report* follows the principles of the Global Reporting Initiative (GRI), according to which companies in their reports should, based on materiality, cover the most relevant topics for their sector. To ensure objectiveness and transparency, Vale's materiality matrix reflects analysis of the economic, social and environmental impacts of our activities on the public that is affected by the company.

The input of society was provided by our membership of leading sector organizations, such as the International Council on Mining and Metals (ICMM), analysis of reports on Vale in the press, the online feedback for our 2008 report. A highlight of the process was the survey of our sustainability practices that we commissioned with selected stakeholders. This independent survey asked stakeholders to provide their opinions of Vale and suggestions about the most relevant topics for the company. We also analyzed the main sustainability reports of the sector, to situate the company externally and in the context of the marketplace.

In the second stage of the process, we established criteria for the relevance of each topic for our sustainability strategy. We analyzed documents such as our Policies for Sustainable Development, Corporate Guidelines on Climate Change and Carbon, our Human Rights Policy, our Code of Ethical Conduct, our Code of Conduct for Suppliers, and information in our 20-F Form.

The interests of internal and external stakeholders received the same weighting in this analysis. Four levels were used to classify the topics by relevance: very high, high, medium and low. The scoring of the topics also reflects the representativeness of the participating stakeholders, and the company's strategy.

The complete text of the Sustainable Development Policy is available on our website at www.vale.com, in the Sustainability section.

Sustainable Development Policy

As one of the leading global companies in the mining sector, we strive to contribute positively to the promotion of good practices in sustainability

Vale's sustainability strategy is based on the responsible and integrated management of economical, environmental and social issues. In our businesses, in particular in our mining operations, we endeavor to generate local, regional and global prosperity, and to create a positive legacy over the life cycle of our activities. To this end, we carry out a range of voluntary corporate activities and establish partnerships with governments, public institutions, the private sector, and civil society.

In 2009, we approved our global Sustainable Development Policy, which establishes guidelines and principles in three main areas.

SUSTAINABLE OPERATOR

To work sustainably is to act in a conscientious and socio-economic and environmentally responsible manner throughout the complete life cycle of our activities – from the conception, project implementation, operational cycle and commercialization until the closure phase. It is VALUE creation.

Value added to stakeholders
Anticipation and prevention
Legislation as baseline: continuous improvement
Uphold organization and discipline
Ethics and respect in businesses

LOCAL SUSTAINABLE DEVELOPMENT CATALYST

As a catalyst of LOCAL development we seek to go beyond the impact management of our operations and projects, contributing voluntarily through partnerships with governments, other companies and civil society – to build a sustainable regional legacy.

License to operate
Order for development
Communication and engagement
Alliances with key stakeholders
Legacy for the region

GLOBAL SUSTAINABILITY AGENT

The GLOBAL sustainability agent pillar is based on the acknowledgment, on one side, that certain global sustainability aspects may directly affect our businesses and, on the other side, that Vale – as one of the leading global companies in the mining sector – may contribute to the international promotion of sound sustainability practices.

Guaranteed transparency
Leadership
Observation of trends
Best practices
Act local, think global
Legacy for future generations

Top 10

As the chart shows, the result of this process is the following classification, in quadrants, according to the level of relevance obtained for each topic.

- **Employment and labor relations**
- **Minimization of environmental impacts**
- **Business performance**
- **Ethics in business**
- **Environmental conservation**
- **Safety and accidents at work**
- **Regional legacy**
- **Value chain**
- **Development and personal qualification**
- **Communication and engagement**

In the respective chapters of this report, we will detail the three most significant items associated with employment and labor relations, minimization of environmental impacts and business performance.

company

Highlights in 2009

We have continued to progress in enhancing our management of issues relating to sustainability and in implementing our Sustainable Development Policy. We established specific training in sustainability which will be available online to all areas of the company in 2010. Meanwhile, we prepared a series of documents which establish global rules and guidelines for critical issues in the sustainability area. These include our Human Rights Policy (read the complete text on www.vale.com, in the Sustainability section) and the Rules for Accountability in Health, Safety and the Environment, which allocate responsibilities for the management of these issues to specific positions.

In 2009, Vale prioritized taking actions to meet the challenge of climate change. Based on the publication of the *Open Letter to Brazil on Climate Change* and our active participation in the COP 15 conference, we encouraged public debate on climate change, in partnership with NGOs and the private sector, leading to a deeper engagement with the process of public policy making (more information on these initiatives can be found on pages 96 and 97).

In parallel, we established the Vale Fund for Sustainable Development, which provides financial resources for environmental initiatives in the global sustainability area. In its early stages, the current focus is on making resources available to organizations and projects which promote the conservation of green areas in the Amazon region (see the text about the Fund to the right).

Finally, in a period of major challenges such as 2009, Vale reaffirmed its commitment to act continually to ensure sustainability in its operations. We continued to invest in priority projects in the areas of social development and environmental conservation. Meanwhile, we maintained our capacity to create value for our shareholders and stakeholders.

CASE

Sustainability beyond our operations

The Vale Fund for Sustainable Development is a not for profit institution that was established by the company in 2009 to promote sustainable development, preserving and conserving the environment while at the same time improving social and economic conditions in developing countries.

The Vale Fund initially has US$26 million of resources available for investments to 2012, and invests strategically in the key areas of sustainability. The Fund supports programs which look for solutions for combating deforestation and degradation and for ways of guaranteeing the socioeconomic development of local populations by improving physical and institutional infrastructure.

Based on partnerships that it has established with NGOs, the Vale Fund has been working on projects in three main areas: Regional Satellite Monitoring; Consolidation and Creation of Protected Areas; and the Promotion of Green Municipalities.

In the first of these areas, the Fund has established a partnership with Imazon to improve the system of monitoring deforestation in the Amazon. The investment made in 2009 has enabled progress to be made in the system for geoprocessing information, leading to more accurate and rapid reports, which are then used by the public sector and other organisations for carrying out inspections.

We reaffirm our commitment to implement environmental conservation projects.

Three projects have been started in the Consolidation and Creation of Protected Areas, in the state of Pará, including: consolidation of the conservation units of the Calha Norte area, consolidation of the Extractive Reserves of Terra do Meio, and the implementation and sustainability of the Marajó Biosphere Reserve (which will be recognized by UNESCO).

In the Green Municipalities area, the focus is on promoting a model of environmental management in the towns of the Amazon region. This vision was inspired by the annual list of the municipalities where there is most deforestation, published by the Ministry of the Environment. Extreme cases such as Paragominas, which leads the deforestation ranking, and other intermediate municipalities such as São Félix do Xingu and Novo Progresso, where over half of the territory has still been preserved, were selected from this list. In addition to the municipalities on the list, the Vale Fund also selected Almeirim, in the Calha Norte area, which has a very low level of deforestation and which has the potential to become a model for environmental management, before deforestation becomes a critical issue.

The initial activities of the NGO partners of the Vale Fund were focused on encouraging landowners to register in the Rural Environmental Registry (CAR)*, which is a very useful tool for enlisting local rural producers in the fight against deforestation.

Managers hope to attract and mobilize resources from other national and international institutions in the sustainability area. The Vale Fund is a pioneering initiative, which enables good practices and sustainable development to be supported well beyond the boundaries of Vale's operations.

*** Cadastro Ambiental Rural (CAR, in Portuguese). All the names of Brazilian institutions mentioned in this report are followed by their acronyms in Portuguese.**

Sustainable operator

Our main objective is to create value throughout the life cycle of our activities. As well as contributing to the sustainable development of the communities, regions and countries where we operate, we seek to maintain a permanent relationship and an open dialogue with our stakeholders.

CARAJÁS, BRAZIL

The National Forest of Carajás is one of the leading environmental conservation areas in Brazil. Our operation in the state of Pará is located within this conservation unit. As well as acting to protect the forest, we support the Conservation Program for the Harpy eagle, a species which is near threatened with extinction.

BUSINESS PERFORMANCE

Overcoming challenges

Strong financial management has enabled us to withstand the contraction of the steel industry and to prepare Vale for a new growth cycle

In 2009, despite the recession and the contraction of the global economy, Vale posted a solid operating and financial performance. Faced with an unprecedented reduction of production in the steel industry, which led to a fall in demand for our main products, we once again demonstrated our capacity to overcome challenges, based on our competitive advantages: an extensive, world class portfolio of assets, low cost production, good financial health, discipline in capital allocation, a high quality work force, and an entrepreneurial spirit.

Production (USGAAP)

Volume in thousand metric tons (unless otherwise stated)	2008	2009
Iron ore	293,374	229,338
Pellets	34,252	15,253
Manganese ore	2,383	1,657
Ferroalloys	475	223
Nickel	275	187
Copper	312	198
Bauxite	4,403	6,203
Alumina	5,028	5,910
Aluminum	543	459
Metallurgical Coal	2,808	2,527
Thermal Coal	1,286	2,892
Potassium	607	717
Kaolin	1,129	781
Cobalt (metric tons)	2,828	1,575
Platinum (thousand troy ounces)	166	103
Palladium (thousand troy ounces)	231	152
Gold (thousand troy ounces)	85	49
Silver (thousand troy ounces)	2,308	1,245

We implemented response measures to the crisis with agility and on an integrated basis, with the focus on reducing costs and improving efficiency. We canceled no investments, and were even able to identify new growth opportunities. Because of this, despite the fall in performance indicators compared to the previous year, we have already started to enjoy positive results which will strengthen our capacity to create value for our shareholders and for society in the coming years. Iron ore production in the second half of 2009 was 130.2 Mt[1] in total, compared with 107.7 Mt in the first six months of the year. This increase of 21% in our main product is a clear indicator of the appropriateness of our strategy. In addition, our annual production of three minerals set new records, for coal (5.4 Mt), bauxite (12.5 Mt) and alumina (5.9 Mt).

However, the recovery of world markets in the last months of the year was not enough for our annual financial performance indicators to reach the same level as in 2008. Gross operating revenues in 2009 of US$ 23.9 billlion[2], were consequently lower than the record level of the year before, of US$38.5 billion. Cash generation, measured in terms of adjusted EBITDA (earnings before interest, tax, depreciation and amortization, adding the dividends received from unconsolidated affiliates), fell from the record US$19 billion of 2008 to US$9.2 billion. Net profit was US$5.3 billion, compared with US$13.2 billion in 2008, which enabled total shareholder remuneration of US$2.75 billion. We maintained a solid financial position, with a strong cash position that reached US$11 billion on December 31, 2009 , the availability of long and medium term credit terms, and a low risk debt portfolio.

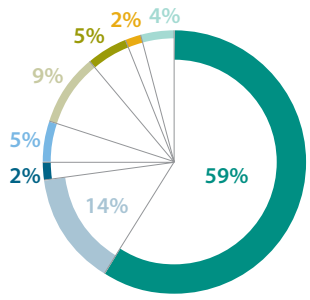
1 Million metric tons

2 According to USGAAP accounting standards

*For more details about our financial performance, and other accounting information, please see the 20-F Form, available on **www.vale.com**.*

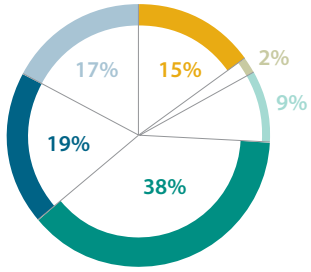
Despite the economic crisis, we again demonstrated our capacity to overcome challenges.

Revenue by product
(US$ 24 billion)



- IRON ORE AND PELLETS
- NICKEL
- MANGANESE AND FERROALLOYS
- COPPER
- ALUMINUM
- LOGISTICS
- COAL
- OTHERS

Revenue by destination
(US$ 24 billion)



- BRAZIL
- REST OF WORLD
- AMERICAS EXCEPT BRAZIL
- CHINA
- ASIA EXCEPT CHINA
- EUROPE

Economic value generated and distributed (in US$ million) – revenues by origin of product

	Brazil	South America except Brazil	Canada	North America except Canada	Australasia	Europe	Africa	Total
Direct economic value generated								
a) Revenues*	19,726	0	2,997	38	1,415	184	0	24,360
Economic value distributed								
b) Operational costs	10,186	15	2,699	46	1,317	219	15	14,497
c) Employee salaries and benefits	1,534	0	709	11	314	70	0	2,638
d) Payments to capital providers	2,745	0	0	1,537	0	0	0	4,282
e) Payments to the government	1,664	0	74		69	152	0	1,959
f) Investments in the community	154	0	37	0	9	0	1	201
Total	**16,283**	**15**	**3,519**	**1,594**	**1,709**	**441**	**16**	**23,577**
Economic value retained								
Economic value generated less economic value distributed	3,443	-15	-522	-1,556	-294	-257	-16	783

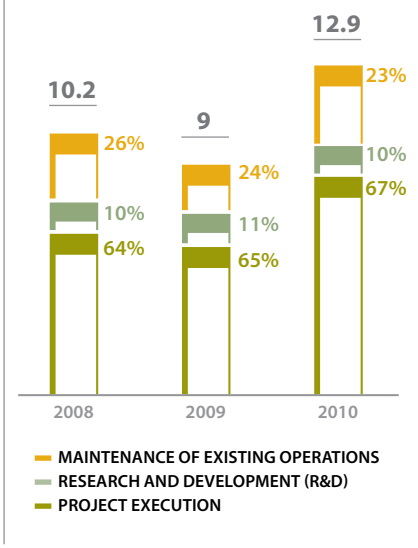
* USGAAP accounting standards are used, with some adjustments in accordance with the methodology established by GRI: in addition to gross operating revenues, the item a) Revenues includes financial results and income from asset sales.

TAX INCENTIVE

In Brazil, Vale and some of its associates have been awarded a tax incentive in the shape of a partial exemption from income tax, equivalent to the tax saving provided under Brazilian tax legislation on the earnings of our iron, railroad, manganese, copper, bauxite, alumina, aluminum, kaolin and potassium operations in the North and Northeastern regions of Brazil. The incentive is calculated based on the taxable earnings from these operations. It reflects the levels of operating profit generated by the areas which are awarded an incentive, and for the periods established for each product, generally ending in 2018. Some of the railway and iron operations in the North region were awarded an incentive for 10 years beginning in 2009. An amount equal to the tax saving is appropriated from retained earnings to a reserve account within stockholders' equity and may not be distributed in the form of cash dividends.

The companies carry out cultural, sporting, childcare and other programs which receive incentives in compliance with the requirements of Brazilian tax legislation, and this offsets part of the tax due. Tax incentives in 2009 came to a total of US$148 million.

Investments by type
(US$ billion)



INVESTMENTS

In 2009, our total volume of investments (excluding acquisitions) was US$9 billion, as we carried out all the investments included in our budget. Of this total, US$5.8 billion were allocated to capital projects, US$1.01 billion to research and development, and US$2.15 billion to the maintenance of existing operations.

Of investments in the organic growth of Vale (project development, research and development), we highlight the Southeast Corridor project, which was concluded in 2009, with the expansion of the Vitória-Minas railroad (EFVM) and of the Tubarão Port. It should also be noted that we have continued our corporate commitments, with investments in social responsibility of US$781 million, of which US$580 million went to environmental protection and US$201 million to social projects. (More information on our environmental investments can be found on page 54, and information on our social investments is on page 79).

In the last five years, in accordance with our long term vision, Vale has invested US$59.5 billion, creating new opportunities for value generation and increasing our leadership in global mining and metal markets. In 2010, according to the budget that has been approved by the Board of Directors, we plan to invest US$12.9 billion, continuing to improve our existing operations and to grow based on executing projects and implementing research and development actions.

FINANCIAL STRENGTH

Vale continues to enjoy a healthy financial position, based on our cash generation capacity, available cash, medium and long term credit lines, and a low risk debt portfolio, with low costs, high interest rate coverage, and long maturities.

As of 31 December 2009, our total debt was US$22.9 billion, with an average maturity of 9.17 years and an average cost of 5.3% per year. Debt amortization of US$2.7 billion is due in 2010. Our net debt at the end of 2009 was US$11.8 billion. Our cash position totaled US$11 billion, including US$3.7 billion in low risk fixed income assets, with a maturity of between 91 and 360 days.

In spite of the global economic crisis, in 2009 Vale maintained its Investment Grade rating from the main rating agencies, as shown in the *Corporate Information* chart. Likewise, Brazil, where most of Vale's operations take place, maintained its investment grade rating.

In 2010, we will continue to carry out research and development actions.

CAPITAL MARKETS

In the last ten years, from 2000 to 2009, Vale was the diversified mining company that created the most value for shareholders, with a Total Shareholder Return (TSR) of 33.2% on average per year. It maintained this performance over the last five years, with an average TSR of 35.3% from 2005 to 2009.

Following the generalized fall in our share prices and in international markets in the second half of 2008 due to the financial crisis, there was a sharp rise in 2009. The price of the ADRs which represent our ordinary shares increased by 139.1% in the year. As a result, the market capitalization of Vale increased from US$61.9 billion on 31 December 2008 to US$146.9 billion at the end of 2009.

As a result, we have returned to the long term trend for the price of our shares to rise, which began in the early 1990s and accelerated significantly in the last ten years. This positive record is the result of implementing a transparent corporate governance policy, of a long term strategy, and of making major investments supported by discipline in capital allocation and by the effects of the mining and metals cycle. The global recession briefly interrupted this trend for the share price, but the shares returned to their growth trend in 2009.

In the last five years, Vale has distributed US$10.075 billion as dividends to its shareholders and interest on shareholder equity, with US$2.75 billion distributed in 2009 alone.

Mineral research

We are currently implementing an extensive mineral research program which includes undertakings in 21 countries. Our prospecting activities include mainly copper, manganese ore, iron ore, nickel, bauxite, phosphate, potassium, coal, uranium, diamonds and metals of the platinum group. We operate with our own teams, and also in partnership with other companies.

CORPORATE GOVERNANCE

Ethical and accountable growth

Our corporate governance structure reflects global best practices. We are continuing to globalize our standards and documents, while respecting local legislative and cultural differences

In 2009, we continued the process of globalizing our regulatory documents, approving four policies, four rules and seven guidelines, totaling 15 new regulatory instruments with a global scope. These documents were prepared by the areas directly related to the subject matter treated, and were reviewed by our Global Assessment Committee. This Committee was established in 2008 and is composed of representatives from various areas of Vale and from various countries, including Brazil, Australia, Canada, China and Switzerland. The mission of the Committee is to assess the regulatory instruments, in the context of the customs of the countries where Vale operates, while also considering legal requirements and the diversity of cultures across our company.

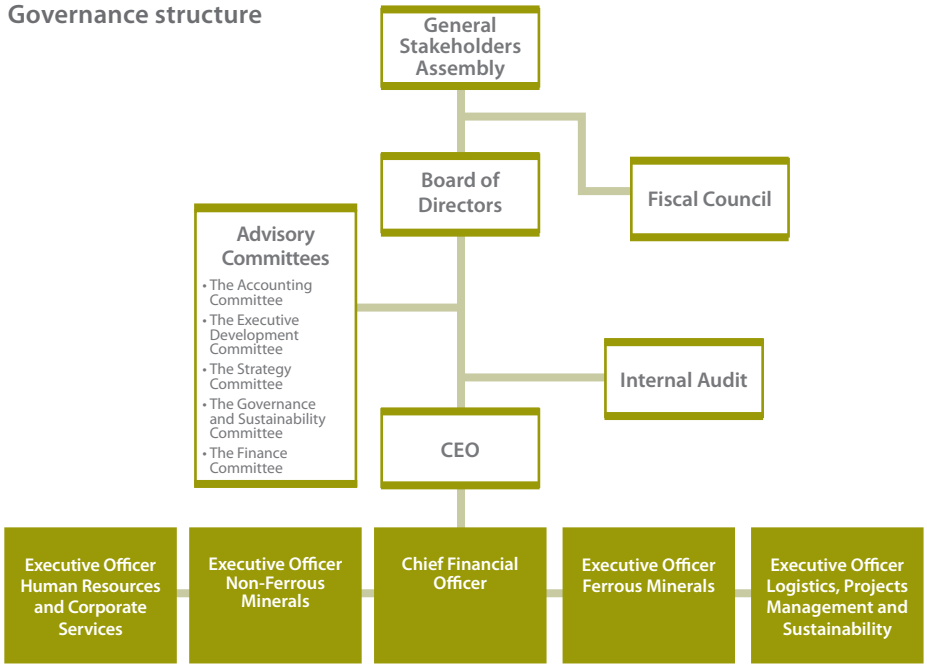
We created 15 new regulatory instruments with a global scope.

After analysis by the Global Assessment Committee, documents must be approved by executive body of the area that is covered by the document. Depending on the range of application, approval can also come from the company's Executive Officers or the Board of Directors, in accordance with the general attributes of these two internal governance bodies.

The documents that were approved at the beginning of 2009 include policies and rules that had been targeted by our sustainability strategy, including:

- Sustainable Development Policy, prepared in 2008 and approved in 2009, which provides guidelines for our local, regional, and global behavior;
- Human Rights Policy, which reaffirms the commitments of Vale in this area of global interest;
- Corporate Security Policy, an important instrument which standardizes the position of the company in all countries where we operate;

Governance structure



- Accountabilities Norm in Health, Safety and the Environment, which define the processes for reporting incidents, and the parties responsible for achieving targets and for significant events in these areas.

STRUCTURE

The corporate governance structure of Vale reflects the global demands that we serve, and promotes our values while keeping them aligned with the best international practices in management.

Board of Directors – sets general guidelines and policies for our business, analyzes plans and projects proposed by our Executive Officers, and monitors their implementation. It consists of eleven members and eleven alternates, elected at a General Shareholders' Meeting, for two-year terms. In 2009, the Board was composed of nine directors appointed by our controlling shareholder, one independent member with no ties to the controlling group, and one elected by our employees. At the General Shareholders' Meeting – held once a year – minority holders can raise issues on the subjects on the agenda.

Non-controlling shareholders holding common shares representing at least 15% of our voting capital, and preferred shares representing at least 10% of our total share capital, have the right to appoint one member and an alternate each to our Board of Directors. If no group of common or preferred shareholders meets the thresholds described above, shareholders holding preferred or common shares representing at least 10% of our total share capital are entitled to combine their holdings to appoint one member and an alternate to our Board of Directors.

The compensation of Board members is a fixed amount. The global and annual director and officer compensation is determined at the General Shareholders' Meeting, taking into account factors ranging from attributes, experience and skills, professional reputation and market practices. The Board of Directors determines the distribution of such compensation among the directors, executive officers, and members of Advisory Committees. The Board is not submitted to a formal self-assessment process.

The members of the Board of Directors have recognized reputations in the areas of finance and capital markets, corporate governance, mining activities, mining business, and sustainability. Sérgio Ricardo Silva Rosa, Chairman of the Board in 2009, holds no position as executive officer at the company.

Permanent Fiscal Council – consisting of three to five independent members (and same number of alternates), under Brazilian corporate law, the Permanent Fiscal Council monitors Vale's management activities and reviews the company's financial statements, reporting its findings to the shareholders.

It is also empowered to perform the role of Audit Committee according to the terms of the Sarbanes-Oxley Act for US capital markets.

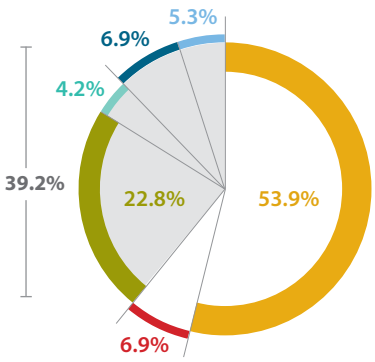
At the General Shareholder Meeting of 2009, a member of the Fiscal Council and his alternate were appointed by the holders of preferred shares. None of the members of the Fiscal Council may be a member of the Board of Directors or an executive officer, as per independence criteria determined by Brazilian law.

Executive Officers – implement the general policies and guidelines determined by the Board of Directors, prepare plans and projects, and are responsible for the company's operational and financial performance.

They are appointed by the Chief Executive Officer and approved by the Board of Directors. In addition to fixed compensation, our executive officers are also eligible for bonuses and incentive payments, according to the fulfillment of individual and collective targets related to their performance in economic-financial, technical-operational and sustainability aspects including health, safety and environmental indicators and targets.

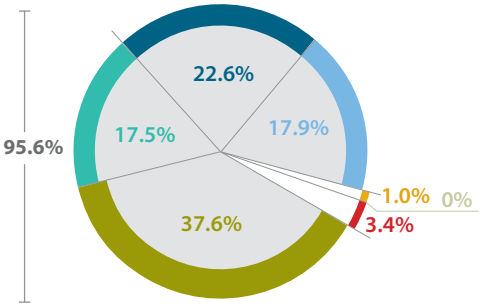
SHAREHOLDING STRUCTURE (MARCH 2010)

Common shares (ON)



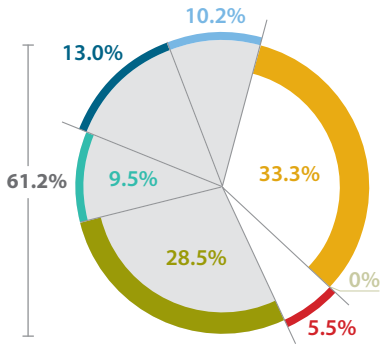
VALEPAR	53.9%
BRAZILIAN GOVERNMENT	6.9%
BNDESPar	6.9%
*FREE-FLOAT**	39.2%
Non-Brazilian Investors	27.0%
NYSE ADR	22.8%
BM&FBovespa	4.2%
Brazilian Investors	12.2%
Institutional	6.9%
Retail	5.3%

Preferred Capital (PN)



VALEPAR	1.0%
BRAZILIAN GOVERNMENT	3.4%
National Treasury	0.0%
BNDESPar	3.4%
*FREE-FLOAT**	95.6%
Non-Brazilian Investors	55.1%
NYSE ADR	37.6%
BM&FBovespa	17.5%
Brazilian Investors	40.5%
Institutional	22.6%
Retail	17.9%

Total Capital



VALEPAR	33.3%
BRAZILIAN GOVERNMENT	5.5%
National Treasury	0.0%
BNDESPar	5.5%
*FREE-FLOAT**	61.2%
Non-Brazilian Investors	38.0%
NYSE ADR	28.5%
BM&FBovespa	9.5%
Brazilian Investors	23.2%
Institutional	13.0%
Retail	10.2%

* Free-float: shares available to be traded at stock exchanges (Bovespa, NYSE, Euronext and Latibex) over the total shares outstanding (Total shares minus shares held in Vale's treasury). For more information on the shareholder structure of Vale, please consult our 20-F form, at www.vale.com.

MISSION, VISION AND VALUES

Our Mission

Our mission is to transform mineral resources into prosperity and sustainable development

For the company's **shareholders**, Vale aims to provide a total return greater than the market average in the segments where the company operates.

For the company's **customers**, Vale aims to provide superior minerals, reliability and value, based on constant innovation and development.

For the company's **employees**, Vale aims to provide an ethical, transparent and challenging work environment that offers opportunities and creates pride in the company, by following a competitive merit-based compensation system.

For the company's **suppliers**, through the company's long-term vision and willingness to enter into win-win partnerships, Vale aims to provide a continuous supply of quality goods and services at a competitive cost.

For the **communities** and countries where the company operates, through our ethical and respectful operations, Vale aims to ensure that its presence makes a positive contribution towards sustainable development.

For all **countries where the company operates**, Vale aims to improve the populations' standard of living and boost development through the generation of employment opportunities.

Our Vision

Our vision is to be the largest mining company in the world, and to surpass established standards of excellence in research, development, project implementation and business operations.

Our Values

Ethics and Transparency – Our behavior as an organization is characterized by behaving ethically and with integrity. We abide by the laws and moral principles established and accepted by society, and clearly communicate our policies and results.

Excellence in Performance – We are committed to the continual improvement of our processes through the use of industry best practice performance indicators. We promote a high-performance culture to ensure that we develop and sustain lasting competitive advantages.

Entrepreneurship – Our determined mindset is the heart of our organization. We are unrelenting in our constant search for new opportunities and innovative solutions in the face of shifting challenges and needs, thus ensuring the successful execution of strategies that contribute to Vale's growth.

Economic, Social and Environmental Responsibility – We acknowledge the need to promote development while ensuring sustainability and environmental responsibility.

Prioritizing Life and Safety – Safety is always on our mind. People are more important than material goods. For Vale, the lives, safety and health of our employees, customers and communities always come first.

Respect for Diversity – We acknowledge one another as equals, and respect our differences. We recognize differences as opportunities for integration, growth and as a competitive advantage.

Proud to Be Vale – Our pride in our company is the result of all our values. We behave as stewards of our business in the relentless quest to achieve our defined goals. We share and celebrate the fruits of our labor. We are proud to build something that will make a difference. This is why we are proud to be Vale.

Transparency, trust and clarity are the values that guide our relationship with our stakeholders

PUBLIC POLICIES

Vale is in continual dialogue with authorities at various levels of government in the countries where it is present. Because mining is a highly regulated sector, our actions are aimed at ensuring that our points of view are understood and considered in the processes of public policymaking. We also participate in national and international bodies and associations, looking to contribute to the development of guidelines and standards in the market segments in which we operate, and to spread best practices in our industry.

Since 2006, we have been a member of the International Council on Mining and Metals (ICMM), whose priority is to promote the sustainable development of the sector and respect for human rights. As part of the ICMM, Vale contributed to the preparation of the Extractive Industry Transparency Initiative (EITI).

Since 2007, we have been signatories to the Global Compact of the United Nations (UN), signing up to the ten basic principles of this initiative. In addition, based on our signing of the Global Compact, we are also committed to the International Labor Organization's Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development, and the United Nations Convention against Corruption.

Vale also participates in the Global Business Coalition on HIV/Aids, Tuberculosis and Malaria, which is mobilizing resources for the treatment and prevention of these diseases.

Our relations with government authorities and with organizations and bodies representing civil society are guided by our Code of Ethical Conduct and by our company's vision, mission and values. We seek constructive dialogue in an attempt to reach a consensus with those engaged in sustainable development policymaking and with the many stakeholders in the mining sector. Our relationships with all parties are built on transparency and trust, and on achieving clearly defined objectives.

In 2009, we continued with the process of disseminating the guidelines which describe our public policy positions, by holding internal training courses. We also enhanced our training in the specific area of governmental relations, which will be implemented in 2010.

In terms of party-specific political activities, Vale seeks to maintain impartiality, and always acts in accordance with the legislation of each country where the company operates. Employees, as individuals and citizens, are free to participate in such activities, as long as any public statements are clearly personal opinions and are separated from the company's point of view.

In addition to our voluntary membership in the bodies listed below, most of which are focused on sustainable development, we are also members of more than 200 sector, industry and trade associations.

We aim to establish constructive dialogues with our various stakeholders.

Our relationships are guided by our Code of Ethical Conduct and our Vision, Mission and Values

MEMBERSHIPS IN ORGANIZATIONS AND ASSOCIATIONS

- Brazilian Association of Port Terminals (ABTP)
- Brazilian Association of Producers of Planted Forests (Abraf)
- Brazilian Association of Producers of Ferroalloys and Silicon Metals (Abrafe)
- Brazilian Association for Sustainable Development (FBDS)
- Brazilian Business Council for Sustainable Development (CEBDS)
- Brazilian Mining Institute (Ibram)
- Brazilian Rail Transport Association (ANTF)
- Business for Social Responsibility (BSR)
- Centre National de Recherche Technologique Nickel et Son Environnement
- Chambre de Commerce et d'Industrie (CCI)
- Cobalt Development Institute
- European Association of Metals (Eurometaux)
- European Ferro-Alloys Association (Euroalliages)
- Ethos Institute for Business and Social Responsibility
- Global Business Coalition on HIV/Aids, Tuberculosis and Malaria (GBC)
- Global Corporate Volunteer Council (Iave)
- International Aluminium Institute (IAI)
- International Council on Mining and Metals (ICMM)
- International Emission Trading Association (IETA)
- The Manganese Institute
- Ontario Mining Association (OMA)
- New South Wales Minerals Council
- Queensland Resources Council
- Reputation Institute
- The Mining Association of Canada (MAC)
- The Nickel Institute
- United Nations Global Compact
- World Economic Forum

Target audience	Dialogue channels
General Public	Vale Sustainability Report Reporting Channel (described on our website) *Talk to Us* Vale website Surveys: reputation, image and opinion*
Shareholders, debenture holders and investors	Form 20-F reports, press releases, relevant facts, General Shareholder Meetings and minutes, Quarterly Financial Reports (ITR) and meetings with investors. Also available: email rio@vale.com and Investor Relations telephone line, 55-21-3814-4540.
Customers	Campaigns, tours and meetings at Vale, satisfaction surveys.
Employees	Internal publications, Vale portal (intranet), organizational climate polls and surveys of reputation, image and opinion*.
Suppliers	Tours and meetings at Vale, interchange programs, and structured meetings.
Communities	Socioeconomic diagnoses, consultation meetings prior to project development, interviews, focus groups, visits to units, and the Leadership Meetings Program.
Governments and civil society	Membership of associations and entities.

* The Vox Populi survey of corporate image is held every two years. The last survey was held in 2008 and it will be held again in June 2010. The reputation survey was held in 2008, and the survey for 2009 will take place in September 2010.

In addition to internal training, we belong to national and international associations and entities.

TOOLS FOR INSTITUTIONAL RELATIONS

In 2009, we consolidated our guidelines for corporate relationships, based on our *Institutional Relationship Guide,* which was first published in 2007 and which was promoted in 2008, with training events in Brazil, Chile, Mozambique and Peru. Over the course of the year, we carried out various actions aimed at improving the institutional relationships of Vale with national and international bodies, including the Brazilian Mining Institute, the International Council on Mining and Metals (ICMM) and the Brazilian Business Council for Sustainable Development (CEBDS). These actions included the participation of company executives in meetings and official events held by these associations, and in working groups and discussion groups, leading to a more unified approach in the mineral sector and a better exchange of relevant information.

We continued with the process of training the internal public at Vale, including holding courses on the management of critical topics. A committee structure was implemented for discussing these topics, based on holding multi-disciplinary meetings that will encourage a coherent and proactive position. Our aim is to be able to anticipate trends and hence avoid crises, and to strengthen the institutional relationships that Vale has with its main stakeholders.

The Vale Columbia Center (VCC) on Sustainable International Investment is a partnership between Vale and the University of Columbia in New York that seeks to be a leading forum for discussion of issues related to foreign direct investment in the global economy, paying special attention to the contribution of this investment to sustainable development. The VCC is an incubator for improving policies and practices, for governments, investors from the private sector and civil society, to increase the contribution of foreign direct investment to sustainable development.

In the crisis management area, in 2009 we established the Committee for Management of Corporate Crises and reviewed the Plan for the Area. In 2010 we will start to train members of the Committee and to carry out simulations to test the procedures of the Plan. In 2009, we identified operations which are at risk from political instability or which are located in a hostile environment, and we established evaucation plans and equipment for these units. In 2010 we will also prepare our Management Policy for Business Continuity, defining the structure, functions, responsibilities and communications lines in crisis managment situations.

ETHICS MANAGEMENT

The following corporate governance instruments are used to ensure that we manage our business ethically:

- Code of Ethical Conduct – this reaffirms our commitment with ethical, responsible and consistent action toward all stakeholders. The Code of Ethical Conduct must be observed by the Board of Directors, Committees, Fiscal Council, Executive Directors, employees, interns, and all our subsidiaries and companies under operational control, in accordance with local legislation and as a guideline to our rules and policies. The full version of the Code is available at our website (www.vale.com).

- Code of Ethics for Financial Management and the Investor Relations area – this provides specific guidance for professionals working in our financial, investor relations and controller departments, who handle confidential information. This Code is also available at our website (www.vale.com).

- SOX Certification – obtained each year since 2006, this certification demonstrates the implementation of transparency and good governance practices, as required under the US Sarbanes-Oxley Act.

- Reporting Channel – established in 2005 as part of SOX requirements, this channel provides access to the Chairman of the Board, for the reporting by anonymous letter of complaints about possible irregularities, in the accounting and auditing area, or any other violations of our Code of Ethical Conduct. The procedures that we observe protect the rights of both complainants and accused always respecting local legislation. Vale's Internal Audit team assesses the content of each complaint that is received by this formal reporting channel, and if considered appropriate, the relevant departments are informed of the result of this assessment. This ensures that they can adopt the necessary measures, including any disciplinary measures, in accordance with our Code of Ethical Conduct. The disciplinary measures applied will take into consideration the nature and seriousness of the offense, and will comply with the rules for human resources at Vale and with local legislation.

- Code of Conduct for Suppliers – launched in 2009, aims to disseminate the principles of ethical conduct that Vale follows in its relations with suppliers of products and services. It is available on www.vale.com.

RISK MANAGEMENT

Vale's risk management strategy is based on an integrated view of the risks to which we are exposed, and includes not only the assessment of the impact of movements in financial markets on our business results (market risk), but also the risk of obligations assumed with third parties (credit risk), and risks which are inherent in our productive processes (operational risk) and which are mainly associated with health and safety and the environment. Additional information can be found in the 20-F report.

Vale believes that risk management provides essential support for our strategy of growth and financial flexibility, and since 2005 the Board of Directors has established a Corporate Risk Management Policy and an Executive Committee for Risk Management.

This Committee supports the Executive Officers in their risk management responsibilities. Its main functions include:

- Tracking the process of identification, assessment, monitoring and management of risks;

- Assessing and recommending the implementation of risk mitigation strategies;

- Providing information on the main risks to which the company is exposed and on the impact of these risks on the company's overall risk profile, in accordance with Vale's risk classification.

We apply the precautionary approach in carrying out viability analyses in our risk management processes, aiming to address the interests of our stakeholders as well as our corporate needs through prior identification, assessment and minimization of financial, health, and safety risks for all employees, contractors and surrounding communities and for the environment.

We believe it is essential that the risk management process not only identifies risks in a regular and systematic way based on the information provided, but that it also allows for risk minimization. In order to achieve this, our risk management processes are integrated into our daily activities, with clear definitions of roles and responsibilities. Our risk management procedures are guided by the principles of the ISO 31000 standard.

Vale's approach to risk management is divided into four levels:

- Market: assessing the impact of the volatility of risk factors such as interest rates, currencies and commodity prices on cash flows.

- Credit: analyzing the possibility of default by clients and financial institutions which carry out business with Vale.

- Operational: includes the assessment of the possibility of potential losses as a result of failures or inadequacy in internal processes, people, systems and/or external events. Incidents can occur in our operations, in our projects and corporate processes, and can result in damage to property, to the environment, to people, to society, and to the company's reputation.

- Strategic : assessing the risk of not achieving the strategic goals of the company, and including the evaluation of the impact of mergers and acquisitions and trends in sustainability.

Based on this analysis, we implement risk control (prevention and mitigation) measures. During the preparation of the annual strategic plan, we identify the risks and opportunities of every business unit, which provides the basis for developing and updating our strategies to address the challenges that the company faces.

Management of Market Risk

The market risk management process, which was first implemented on a systematic basis in 2005, is focused on assessing the risks to cash flows. The main aims of the process are to support the growth plan of Vale, and to enable enough financial flexibility to enjoy an investment grade rating.

Vale measures and monitors market risks regularly, based on calculating the cash flows which are at risk, in every material company of the group and also in our portfolio. Our

Sustainability is ever present at all stages of our capital projects

strategies for mitigating market risks, such as derivative transactions which we make for hedging purposes, are analyzed and implemented in accordance with our need to reduce risks to our cash flows.

Currently Vale has a limited exposure to market risk, thanks to our integrated view of operations, and to the natural hedges of our business, which reflects the benefits of the company's diversification in products and currencies.

Major actions last year in this area include:

- The redefinition of risk appetite, based on a certain level of probability of a breach of Vale's main contractual obligations;
- The preparation of a new model of cash flows at risk, based on long term information from the company's strategic plan and cash flow models prepared by the financial area;
- Providing new information on derivatives, as required by the Brazilian financial markets regulator, the Comissão de Valores Mobiliários (CVM).

Management of Credit Risk

Vale is exposed to credit risk in the following areas; receivables generated from the sale of products, derivatives for hedging purposes and other financial transactions, and when it is a beneficiary of payment guarantees. The management of these risks is carried out using the framework of the Vale governance structure, composed of the Executive Committee for Risk Management and the Executive Officers, who establish principles for allocating credit limits and determine the procedures used to control and assess credit exposure.

Major actions carried out in 2009 include:

- The implementation of the credit risk management process in North America and in the nickel business;
- Consolidation of Vale's exposure to credit risk from its portfolio;
- The active management of exposure to credit risk in transactions with financial institutions during the crisis, using a new methodology which incorporates the probability of default by counterparties, as well as controlling the maximum probability of default that is acceptable for the Vale portfolio.

Management of Operational Risk

In Vale projects

Risk management in our capital projects is based on an Integrated Risk Assessment and Management methodology (Agir), which uses multidisciplinary workshops to identify and assess risks. This involves professionals from the areas of engineering, planning, supplies, budgeting, operations, maintenance, construction, environment, communities, human resources, land management, and health and safety, as well as external specialists.

The risk analysis is focused on capital investments and on the lead times of the projects. In the control and monitoring stage, the workshops monitor indicators of efficiency and effectiveness. Risk reassessment is applied as the project evolves.

Vale's projects follow the Front-End-Loading (FEL) methodology that is used by companies worldwide. This enables a structured process for risk assessment to be implemented, at the same time as enabling the structured development of the other areas of the project.

Issues concerning sustainability are also analyzed, enabling the continued improvement of the projects, right from the planning and concept stage, affecting all stages of the capital investment projects.

In Vale operations

Risk management at our operations aims to assess and mitigate the causes and effects of possible incidents scenarios resulting from our activities, and to allow Vale to meet our goals and targets in a sustainable and effective way.

To carry out risk surveys in our operations, a multidisciplinary team has been established, with the mission of implementing Vale's risk management culture as an integrated part of daily processes. Our aim is to aggregate existing practices at all levels of company operations, respecting local requirements, in order to establish a single risk management identity.

We implemented various initiatives in this respect in 2009, including:

- The propagation of the company's risk management culture and of the development of company norms, increasing the requirements for compliance, so that risks to life and to the environment are reduced whenever possible;
- The development and implementation in Brazil of integrated systems which enable the online monitoring and control of critical processes, such as dams and stockpiles, the security of people and property, environmental management, and others;
- The development and implementation of qualitative and quantitative methods for identifying and analyzing risks in operations and projects in South and Central America[1], in order to prioritize the management and mitigation of risks and to eliminate risks whenever possible. This will enable a more objective preparation of the cost/benefit analyses of our mitigation plans, of an emergency plan, when planning the size our insurance policies, and when we establish financial provisions to provide our own insurance cover;
- The preparation of consolidated reports for the various management levels of the company.

These and other initiatives will improve the company's understanding of its risk profile and its ability to establish effective risk controls. In addition, it will be possible to prioritize and monitor risk mitigation actions, and to meet the requirements of the risk rating agencies in their assessment of the risk management processes of the company.

Management of Strategic Risk
In the strategic area, the risk management process aims to identify events which could prevent the company from meeting its long term strategic goals. In addition to identifying these events, and describing their possible causes and potential consequences, current controls are analyzed, as well as future action plans that could be implemented in order to reduce the probability of these events happening.

MATERIALITY MATRIX

Our Materiality Matrix (read more on page 10) defines three main priorities – employment and labor relations; minimization of environmental impacts and business performance. A detailed description of the management of risk in these areas is provided in the respective chapters of this report.

ANTI-CORRUPTION

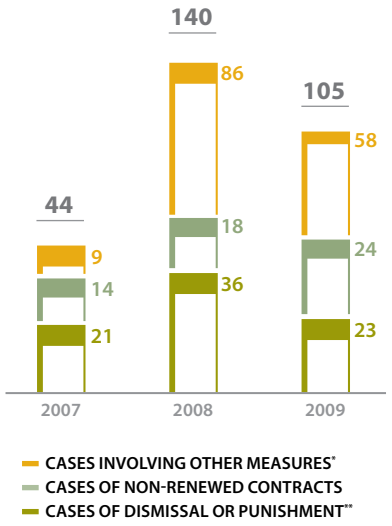
We act in accordance with best practices in the market, preventing losses and investigating cases that are possibly associated with fraud, deviations, and illicit acts.

Cases that have been identified and duly substantiated with facts and figures are treated seriously and in proportion to the damages incurred or avoided. Persons who have been proved to be involved in these situations are held accountable and are punished with dismissal and legal proceedings. Contracts with companies where involvement and participation in illicit acts has been proven will be terminated. Companies involved will be removed from the Vale registry and will be subject to fines that are proportionate to the damages or losses caused.

The figures recorded here refer specifically to measures taken in cases of fraud against the company. Other cases of deviations from ethical conduct are not included. None of these cases refer to irregularities or improprieties in our company's accounting records or internal controls. No cases of corruption (active or passive) involving public servants or government representatives were reported in the period.

Vale Manganese, Urucum Mineração, CPBS, Onça Puma, Salobo, FCA, Hispanobras, Itabrasco, Nibrasco and Kobrasco, Vale Oman, the Bayovar project and Vale Mozambique have already implemented the standardized anti-corruption routines and measures that have been adopted by Vale's own units.

Incidents of corruption



* Other measures taken include filing legal suits against the directors of the company and the heads of the areas involved, with 168 actions to mitigate the risks of fraud, lawsuits, rescission, and fines applied with the support of the Legal Department.

** The number of employees to have been dismissed/punished for corruption cases: 113 in 2007, 70 in 2008, and 83 in 2009. In 2009, the main causes of dismissal in cases of corruption were the falsification of documents/fraud -65%, followed by contract fraud – 13%, and conflict of interests/influence peddling – 13%.

1 This process will be implemented gradually for the most relevant risks in all regions of the world.

We have established a Reporting Channel for complaints (see page 27), and our Code of Ethical Conduct, which is also applied to our subsidiaries to the extent permitted by local legislation, defines the administrative procedures that can be applied in the event of the breach of this Code (more information about the Code of Ethical Conduct can be found on page 26). In July 2009, we published our Code of Conduct for Suppliers, which establishes the principles and guidelines that govern the relationships between Vale and its partners. This Code was distributed to all our suppliers in Brazil. Events were held with the presence of over one thousand suppliers, and with the participation of the areas of Health, Occupational Safety, Environment, Human Resources, Supplies, the Shared Services Center (CSC) and Projects, in order to publicize the Code and to confirm the ethical values that guide the relationship between Vale and its partners. These events took place in the cities of Rio de Janeiro, Belo Horizonte, Governador Valadares, Vitória, São Luis, Parauapebas and Ourilândia do Norte.

In 2010, we plan to reinforce the permanent values of this code in our international operations, in order to strengthen the ethical component of our commercial relations.

In 2009, about 18% of our managers received anti-corruption training.

Worldwide, over 1,400 employees received anti-corruption training, mainly in Brazil, where the focus was on the prevention and combat of fraud, and on safety processes and risk analyses. The main message was that Vale does not tolerate deviations from ethical conduct or illicit acts. The main operational areas which received training were in the businesses of Ferrous Minerals, Logistics (Port and Rail), as well as Capital Projects and corporate areas (HR, Shares Services Center and strategic supplies).

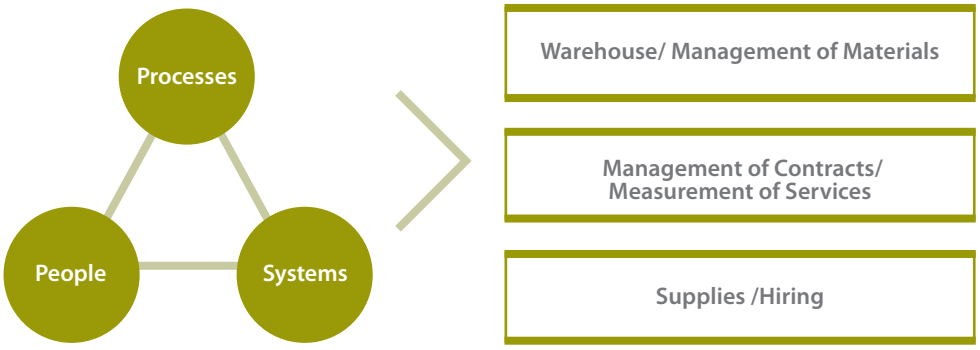
For the assessment of corruption risks, we use a methodology based on the analysis of historical records of recurring situations connected to fraud, especially in the supply chain and in the execution of contracts. Based on this analysis, we plan actions to prevent these sorts of losses in our operations and in projects in the managed units, in Brazil and overseas, which have a significant weight in the cost and volume of the company's investments.

As was forecast in our 2008 report, in 2009 we made progress in the development of our risk analysis model and in the implementation of routines to prevent losses, such as the assessment of the contracts in works at the Onça Puma, Salobo and Moatize projects and at the plant and railroad extension project at Carajás.

Also in 2009, the areas of Capital Projects and Safety prepared a *Guide for the Prevention of Losses in Projects*. It is anticipated that this Guide will steer project leaders in taking preventative measures to identify and reduce possible losses from fraud during the implementation of projects.

It defines the processes and procedures to be implemented for monitoring and assessing preventative practices, initially covering: Hiring, Contract Management, and Materials Management, in the areas of Processes, People, and Systems.

Our aim in 2010 is to implement this Guide in our international projects.



LEGAL COMPLIANCE

In 2009, Vale recorded the existence of 262 legal processes, of which 111 were judicial and 151 were relevant administrative processes[1]. In this period, there was no payment of fines and no imposition of non-monetary sanctions[2].

Civil

Vale is cited in 69 lawsuits of no defined economic value, challenging the legality of the company's privatization process, which took place in 1997. All actions are awaiting final judicial decision. We do not believe that such actions will affect the privatization process or produce any negative effect whatsoever on the company.

Regulatory

In 2009 one lawsuit of undefined economic value continued, aimed at nullifying the legal authorization that allows Vale and other companies to operate the Port of Praia Mole, in the Brazilian state of Espírito Santo. The company obtained a favorable judicial decision, however the final decision has yet to receive confirmation by a superior court.

Tax

Vale is disputing, through one lawsuit and three administrative processes, the levying of Income Tax and Social Contributions on the Net Profit of affiliated and subsidiary companies abroad. The company has also challenged what it considers to be an improper collection of Financial Compensation for Mineral Exploration (CFEM) in 144 administrative processes and 38 lawsuits.

Labor

In 2009, the company continued to challenge the collection of a Brazilian Government Severance Indemnity Fund (FGTS) deposit through a debit note, which resulted in two administrative notifications on Vale. The company also faces a lawsuit of no defined economic value, involving our potash exploration underground mine in Sergipe.

In Australia, the Broadlea Coal business unit is involved in a judicial action that has been filed by the Department of Mines and Energy of Queensland (now the Department of Employment, Economic Development and Innovation), regarding an accident at the workplace involving an employee. In this case, a decision about a possible fine is still pending. A judicial action against the Integra Coal business unit, filed by the Primary Industries Department of New South Wales and included in the 2008 report, has been closed.

Anti-competitive behavior

Two administrative processes are pending decision, in which anti-competitive behavior is alleged regarding our logistics businesses. One of these involves Companhia Portuária da Baía de Sepetiba (CPBS), a subsidiary of Vale, for alleged refusal to ship third-party iron ore minerals. The other process involves railroad concessions granted directly to Vale (Estrada de Ferro Vitória-Minas and Estrada de Ferro Carajás) and its affiliate FCA, for alleged abusive price increases for users. It is our understanding that the allegations in both cases are without foundation.

In July 2009 we published our Supplier Code of Conduct

1 The following criteria are used to determine materiality of legal processes: a) due to the monetary value, including indemnity claims and fines; b) due to topics of interest to the company or the public at large, regardless of monetary value; c) those resulting from non-monetary sanctions.

2 In this report, Vale will continue to include in its report existing cases which match materiality criteria. However, and for better compliance with the scope of GRI indicator SO8, Vale will start reporting only those values representing a defined amount acknowledged as due by Vale, or already paid, in order to prevent possible distortions regarding the reality of judicial and administrative processes, which, pending final decision, have no definition or precision of values under discussion. Form 20-F presents estimated provisioned values according to accounting criteria.

HUMAN RESOURCES

Changing, without losing our essence

Preserving our workforce amidst the global economic crisis was our greatest challenge in 2009. We implemented several actions to retain our greatest capital: our people

The global economic crisis presented a challenging outlook at the start of 2009. As the crisis continued, we were required to continue adapting our production strategies – considering the productivity of our assets and demand for our products. Over the course of the year, we undertook a range of actions to secure both the immediate and long-term health of our business. In some cases, this involved restructuring of our company and our workforce.

Aware of the critical role that human capital plays in the success of our company, however, we also prioritized investing in the skills of our workers who, in some cases, receive training for more than three years in order to carry out their functions in operational areas. Words like relocation and requalification became part of our daily vocabulary. Maintaining our workforce, principally in technical and operational areas, was the company's greatest challenge in 2009. We were aware that when we resumed production, human capital would be fundamental.

By the end of 2009 and the beginning of 2010, this strategy proved beneficial when we again recorded a volume of production at pre-crisis levels. As a result, for 2010 we are already preparing to increase our human resources, maintaining our long term vision to reach our intended productivity goals.

EMPLOYABILITY

After experiencing a strong reduction in demand, we directed greater efforts towards maintaining our greatest asset, the knowledge and productive capacity of our employees. In order to position our company for success through this difficult economic time without comprising the long term success that will be dependent on a highly qualified workforce, we looked to creative ways to reduce costs while retaining our workforce. We reviewed and suspended some service contracts, which meant reducing the number of contractors and re-assigning their tasks to permanent employees, and provided financial incentives to encourage early retirement.

In Brazil, we were also able to negotiate some provisions to respond to the economic crisis with local unions. These measures included paid leave, the suspension of employment contracts to enable professional training and extra unemployment insurance. This

Some of our employees receive training for more than three years before carrying out their functions in operational areas.

experience demonstrated the importance of having started a review of Vale's operational activities in 2008. This review allowed us to identify the optimization opportunities across our operations that allowed us to re-shape our efforts to respond to the economic crisis without losing our most important asset.

In 2009, the total number of company employees (with indefinite labor contracts) and outsourced workers (contractors in permanent activities and projects) declined to 140.6 thousand; 78% of these are located in Brazil. We also have approximately 1,565 fixed-term contract employees (a stable number as compared to 2008), of which 31% are operational apprentices in Brazil.

We reduced our workforce by 3.5% from 2008 to 2009, which in absolute numbers represents 5,100 employees, as shown in the chart to the right. The reductions were evenly distributed between employees and contractors.

Generally, our contractors work on the remodeling and expansion of new projects, on maintenance, cleaning, and property security, among other services provided.

Personnel
(in thousands)

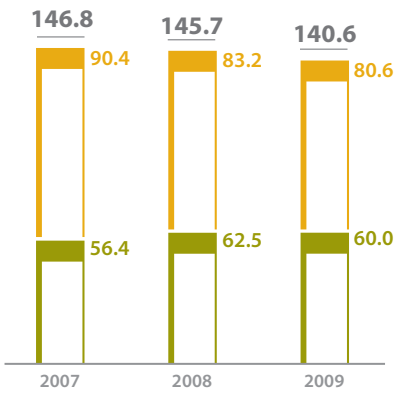
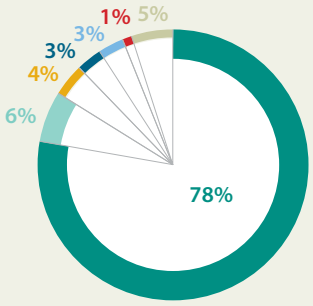


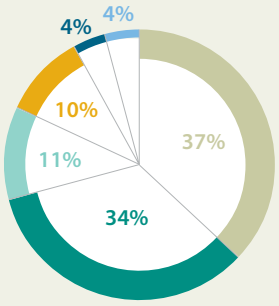
Chart does not include affiliates. Vale Australia included only from 2008 onward. In 2007, if Vale Australia employees were included, the total number of jobs would reach 147.9 thousand, and our own employees would reach 57 thousand.

Employees and contractors by country (2009)



- BRAZIL
- CANADA
- INDONESIA
- NEW CALEDONIA
- MOZAMBIQUE
- AUSTRALIA
- OTHERS

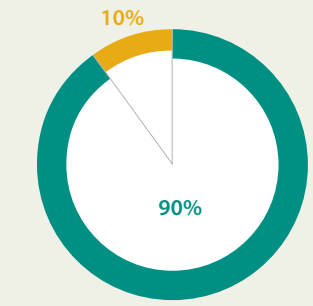
Employees and contractors by Brazilian states (2009)



- PARÁ
- MINAS GERAIS
- ESPÍRITO SANTO
- MARANHÃO
- RIO DE JANEIRO
- OTHER STATES

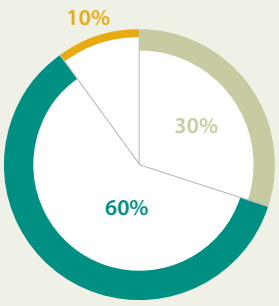
Profile of our employees

Employees by gender



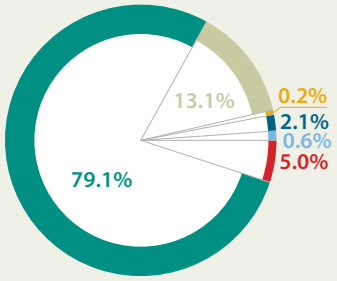
- MEN
- WOMEN

Employees by age



- UNDER 30
- 30-50 YEARS
- OVER 50

Employees by category



- SPECIALISTS
- DIRECTORS
- AREA MANAGERS AND COORDINATORS
- GENERAL MANAGERS
- SUPERVISORS
- OPERATIONAL TECHNICIANS

DIVERSITY

Respect for diversity is one of our fundamental values, as expressed in our Code of Ethical Conduct. Vale considers discrimination (based on ethnic background, origin, gender, sexual orientation, religious belief, union affiliation, political and ideological conviction, social class, disability, marital status or age) to be intolerable.

We encourage a work environment that is open to dialogue, in which all employees are encouraged to share with their colleagues and managers concerns of any nature, including issues of discrimination and harassment. In addition to our Code of Ethical Conduct and the Human Rights Policy, released in 2009, Vale also provides a formal channel for filing a complaint through which any cases of discrimination can be reported. In 2009, we had three cases of bullying, which were reported directly to the Human Resources department and for which reasonable actions were taken. In one of the cases, upon confirmation, the executive involved was let go from the company. Currently, we have a case being investigated at Vale Australia, reported to a supervisor by an employee, and we are following its resolution.

In 2009, women continued to represent 10% of our workforce, which is typical in our sector. Of these, the majority of women (53%) held technical positions (operational and administrative). For this category the percentage of women remained stable from 2008 to 2009. In the group of specialists (analysts, engineers, geologists, etc.) that represent 39% of the female workforce, there was an increase from 29% to 31%, as demonstrated in the chart to the right. For supervision and managerial positions (managers and coordinators that represent 4% each of the workforce), the participation of women fell slightly. For more details, see the section on turnover.

Our senior management—Executive Officers, the Board of Directors and the Fiscal Council[1]— consists of 33 people (31 men and two women). Thirteen of the members were in the 30 to 50 age bracket, and twenty are 50 and over.

In accordance with our Remuneration Policy and Code of Ethical Conduct, there is no difference in the base salary between women and men that occupy the same role. The following chart shows this consistent tendency over the years.

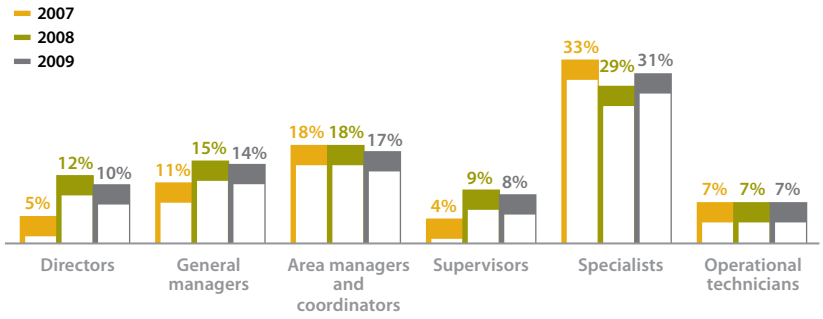
About 60% of Vale employees are in the 30 to 50 age bracket. In leadership roles (supervisors, area managers, coordinators, general managers and directors) the proportion is 76%.

Age bracket by employee category (2009)

	Under 30	30 to 50 Years	Over 50
Directors	0%	60%	40%
General managers	0%	74%	26%
Area managers and coordinators	3%	77%	20%
Supervisors	9%	77%	14%
Specialists	21%	65%	13%
Operational technicians	34%	58%	8%

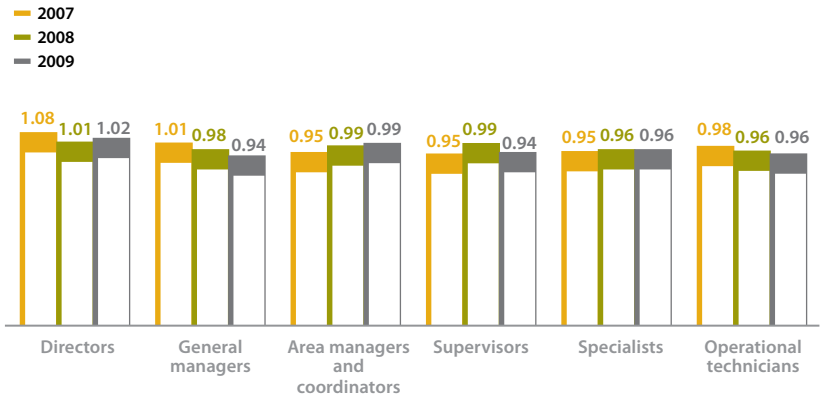
Ratio of women by employee category

%



Includes data from Vale Inco and Vale Australia as of 2008. Employees, as per this indicator (LA13), represent 95% (2009) of the total reported employees (LA1). Projects not included.

Ratio of base salary of women in relation to men by employee category



Employees, as per this indicator (LA14), represent 75% (2007), 98% (2008) and 97% (2009) of the total reported employees (LA1).

1 Position in 2009.

Our Program for Inclusion of People with Disabilities has strengthened the commitment of Vale to Respect for Diversity. The program, which is coordinated by Valer—Vale Education and by the regional areas of Human Resources, has existed since 2004. In 2008 and 2009, Vale faced up to the challenge of including disabled people in higher risk operating areas by hiring 282 people with disabilities, of various educational levels, in the states of Rio de Janeiro, Pará, Minas Gerais, Espírito Santo, Maranhão and Sergipe, Brazil. This level of hiring means that we have complied with the Terms for the Adjustment of Conduct (TAC) with the Public Prosecutor's Office. In addition to the opportunity to access the labor market, these professionals have also benefited from theoretical and practical training that was entirely financed by Vale.

Our Inclusion Program also involved implementing various measures to improve workplace accessibility. In order to guarantee that our disabled employees could fully access work areas, we made a number of architectural alterations to our operating units, including adapting bathrooms, constructing ramps, widening doors, and others. We also carried out training for the recruitment sectors, and held awareness raising training for managers. From 2010, in order to comply with Brazilian Law number 8,213 (07/25/1991), which establishes that vacancies must be reserved for disabled people, we have a target of hiring annually 140 professionals with disabilities and we aim to continue to implement our plan to adapt our facilities.

GLOBAL PRACTICES

With the globalization of our practices for remuneration, performance, career development, and succession in 2008, in 2009 we prioritized the improvement of our processes, the computerization of existing operations and the implementation of this progress in our new operations, including new capital projects.

In 2009, we continued strategic planning for our Human Resources department, which will enable us to anticipate the demands for qualified professionals for the next five years in different regions where we operate. This plan includes key positions, such as engineers, geologists, operational technicians, in capital projects and in our existing locations. In addition to preparing our employees for our current operations, we also train them for future projects and for the decommissioning of our operations, preparing for their relocation and transfer.

REMUNERATION AND PERFORMANCE

In addition to following the practice, adopted in recent years, of conducting comparative remuneration surveys, in 2009 we prepared and implemented a career plan for areas dedicated to capital projects, with differentiated remuneration packages aligned with the company strategy for this sector.

We offer all our employees salaries equal to or greater than the legal minimum requirement in each location. Strengthening the culture of a constant search for results, each employee's remuneration package in 2009 included payment of variable remuneration[2], based on performance results at company, departmental, group and individual levels.

At Vale managed units, performance evaluation is based on annual goals in line with the company strategy. Performance evaluations are carried out through an interactive process between employees and their managers, supported by computer software into which results are registered. The goals also serve as a base for the Variable Remuneration Program, which rewards the employee for achieving or exceeding targets.

For the short term (annual) performance cycle, goals are based on the established principal strategic objectives and annual budget, measuring performance in economic-financial, technical-operational and sustainability (management, health, safety and environment) aspects.

Workplace meals and/or food tickets are just some of the benefits that we offer to our employees.

2 For nickel business, includes only non-union staff and employees represented by one of the unions in Sudbury. Other unionized employees receive other forms of variable remuneration.

In 2010, to increase our process of continual improvement in sustainability, we increased the number of indicators used to assess our performance in sustainability, including targets for the Sustainability Action Plan (PAS) of certain operating and corporate units.

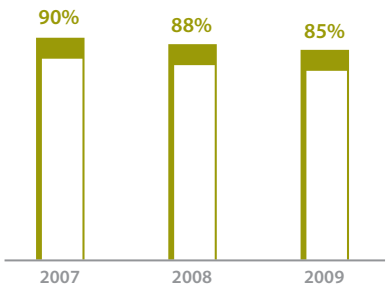
Throughout 2009, we standardized our performance management process and began the implementation of the global system for recording and monitoring performance information, which will be available in 2010. Our aim is to reinforce the application of a fair evaluation, focused on results and competency.

In 2009, approximately 84.5% of Vale employees received a performance review. The reduction in relation to 2008, when the rate was 88%, was due to a lower percentage of evaluations in some subsidiaries. At Valesul, for example, this process was not conducted because Vale made an agreement to sell company assets in early 2010, when the evaluation process occurs. At Albras and Alunorte, the record of performance evaluations is based on the career and succession procedure, and aimed mainly at managerial positions.

Because of limitations in Vale Australia's system of records, only 26% of the evaluations were considered, although performance evaluation is an adopted practice in the business. The plan for 2010 is that, with the implementation of a global system, this percentage will increase.

In 2009, the percentage of evaluated employees at the Vale Inco units in Canada, where most employees affiliated with unions do not undergo performance evaluations, was 37%. This was a comparable level to previous years.

Percentage of employees receiving performance reviews



Employees as per this indicator (LA12) amount to 95% (2009) of the total reported employees (LA1). Projects not included.

GRANTED BENEFITS

Vale's growth means that it has become a pressing business need to map our benefits, in order for adopted company practices to be aligned worldwide. We carried out several actions to evaluate the benefits offered in our operations around the world, including the acquisition of management software to update our global practices online. Based on this survey, we will develop measures to improve the practices that Vale uses, taking into consideration current initiatives and availability of local markets. The benefits offered to the majority of our employees include a private pension plan, health coverage and life and accident insurance.

As a result of the process of globalizing the benefits offered by Vale, we implemented an offshore pension fund. The fund is targeted at foreign employees residing in countries where their participation in the local pension plan is not viable, yet it is possible to include them in the global plan. In order to be effective, a global pension plan needs to provide sufficient benefits and enable effective tracking of investment performance and a wide choice of funds in addition to simple and efficient administration.

Benefits related to commuting assistance, educational assistance, the Employee Assistance Plan (EAP), workplace meals and/or meal tickets, and personal accident insurance are offered to a significant number of Vale employees (on average, 89% of our employees). In 2009, we consolidated the EAP, expanding its reach among our companies. The program offers psychological support to employees and their dependents.

We expanded the reach of our Employee Assistance Plan among our companies

As a rule, there are no differences between benefits granted to full-time and temporary Vale employees. Exceptions are found in some Vale Inco units in regard to life insurance coverage, disability coverage, private pension plan and health plan.

In order to help employees manage their financial resources, as well as support them in their personal lives, in Brazil we developed an online course called Family Budget and Financial Planning. The aim is to simulate the participant's financial knowledge and to stimulate self-management of personal finances. Based on their budget analysis, employees are encouraged to reflect on their dreams and develop specific goals for the short, medium and long term. From tracking pay-stubs to credit card payments or financing for an automobile, various stages of financial planning are addressed using practical examples.

In addition to this initiative, at the Vale managed units in Brazil we are continuing with our Program in Support during Critical Incidents, which is any situation experienced by employees in which they suffer strong emotional and/or psychological reactions. We also continued with our Program for Retirement Planning (PPA), led by Valer-Vale Education, in partnership with the Brazilian Micro and Small-Business Support Service (Sebrae).

COMPLEMENTARY PENSION PLAN

One of the global guidelines for the benefits offered by Vale includes providing our employees with access to a pension plan that will cover their basic needs when they retire. In Brazil, Vale offers complementary pension plans through the Vale do Rio Doce de Seguridade Social (Valia), a non-profit closed entity, with administrative and financial autonomy. Valia serves the following companies which are part of the report scope: Vale, Urucum Mineração, Vale Manganês, FCA, CPBS, PPSA, Cadam and Valesul[3]. For additional information, please visit www.valia.com.br (available in Portuguese).

Most participants in Valia are members of mixed defined contribution plans[4] with a defined benefit component, payable specifically in cases of death and disability. For defined benefits, the value is determined in advance with actuarial assessment regularly updated to ensure its payment. For defined contributions, the value is permanently adjusted to the resources maintained in favor of the member[5].

The defined contribution component of the mixed plans aims to assure that the plan remains financially sustainable over time. At the same time, the defined benefit component is designed to avoid a significant decrease in income in case of retirement due to disability or the provision of death pension.

Albras and Alunorte are in a process of transitioning from plans from an open entity, with defined contributions, to plans administered by Valia.

Vale Manganèse France does not offer a supplementary retirement plan in the Vale Brazil form. In France, there is a complementary allowance to the obligatory retirement payment, financed by members of the active workforce.

In Canada Vale has started the process of transitioning from a defined benefit to a defined contribution plan[6]. Vale Inco will maintain the defined benefit plan for current retirees and for those employees who elected to remain within the defined benefit portfolio. In January 2009, the defined benefit plan for non-union employees in Canada was closed to new members. However, the defined benefit option was

Funds kept and maintained separately from company resources
Plans offered by Valia in Brazil (2009)

Plan	Type of plan	Participants (thousand)(1)	Degree of coverage
Vale Mais, ValiaPrev and FCA(2)	Mixed	53.6	Over 100%(6)
Defined Benefit(3)	Defined benefit	17.1	
Complementary allowance(4)	Defined benefit	2.0	62% with monthly contribution
Total		70.7(5)	

(1) Includes active and assisted employees (retirees and pensioners).
(2) Employees contribute, on average, 4% of base salary (31% of plan costing) to the costing of the planned retirement. For participants migrating from Defined Benefit Plan to Vale Mais Plan, the benefit was increased by 35% in 2008, with no need to raise contributions on the part of the participant.
(3) The Defined Benefit Plan was closed to new members on 30 April 2000, when the Vale Mais Plan was implemented.
(4) Participants in this plan are retirees in the Defined Benefit Plan who left the company as part of the retirement incentive plan. This plan is closed to new membership. Regarding the level of coverage, the sponsor (Vale) has contributed monthly to the plan since December 2001 with the aim of reaching liability coverage of 100% by November 2014. Monthly installment values are readjusted when necessary and the amount was US$ 5.9 million in January 2010.
(5) Not including recipients of the Complementary Allowance that is included in the Defined Benefit Plan.
(6) This level of coverage refers to the defined benefit amount of the mixed plans and of the defined benefit plan.

Funds kept and maintained separately from company's resources
Plans offered outside Brazil (2009)(1)

Country	Operation	Type of plan	Participants (thousand)(2)	Degree of coverage
Canada	Newfoundland & Labrador	Defined contribution	0.3	N/A
Canada(3)	Ontario and Manitoba	Defined benefit	21.5	86% - 90%
Canada(3)	Ontario and Manitoba	Defined contribution	1.5	N/A
Indonesia	PT Inco	Defined benefit	2.7	Over 100%
United Kingdom	Clydach and Acton Refineries	Defined benefit	1.6	83%
USA(4)	Inmetco e Novamet	Defined benefit	0.5	68%
Norway	Vale Manganese Norway	Defined contribution	0.08	N/A
Australia	Broadlea, Carborough Downs and Integra Coal	Defined contribution	0.7	N/A
Total			28.9	

(1) For those plans, in general employees do not participate in plan costing.
(2) Includes active and assisted employees (retirees and pensioners).
(3) The degree of coverage refers to data from the accounting valuation of December 31, 2009.
(4) Our Inmetco operation was sold in December, 2009. Pension information for this operation is included in the table as Vale Inco Limited maintained the liability for pension benefits of Inmetco employees and pensioners of record as the closing date of December 31, 2009.

3 Other companies which do not fall under the scope of this report are also covered by Valia.

4 This nomenclature reflects Brazilian legislation.

5 Net result of the application: amounts contributed by the member and payments made by the plan.

6 Vale Inco Newfoundland & Labrador Limited, subsidiary of Vale Inco, already offered a defined contribution plan.

eliminated in July 2009 for new employees, with a defined contribution plan adopted, in order to ensure the sustainability of the plan for new generations.

Vale Inco maintains various company-sponsored arrangements to provide post-employment pension income for its employees. Most pension benefits are provided by way of registered pension plans that must comply with legislation, with some additional pension benefits provided from non-registered arrangements. The obligations of the latter are met directly by the company's general resources.[7] In 2009, the value of these liabilities was about US$92 million.

COLLECTIVE AGREEMENTS

In 2009, the percentage of employees covered by collective bargaining agreements was 95% (see chart below for more details), which meets and in some cases exceeds legal requirements.

In 2007 in Brazil, Vale adopted a two-year collective agreement, covering our own employees and employees of certain companies controlled by Vale, regardless of whether they were trade union members or not.

In our international operations, such as Canada, Australia, Peru and Norway, the union represents only those employees who decide to become union members.

At Vale Australia, 72% of the employees are covered by collective bargaining agreements. Due to changes in local legislation, current individual agreements are being replaced by collective agreements.

In 2009, at Vale Inco, 81% of employees were covered by collective bargaining negotiations (compared to 78% in 2008, and 73% in 2007).

These employees are represented by more than 10 bargaining units. In July 2009, three of the bargaining units that represent employees at our operations in Sudbury, Port Colborne and Newfoundland and Labrador elected to go on strike citing three key issues proposed by Vale Inco: conversion of the Vale Inco pension from a defined benefit to a defined contribution plan for new employees; alignment of the bonus structure with the system in place at Vale in Brazil; and changes to improve productivity.

Substantial efforts have been made to reach an agreement, however at the time of reporting, the labor dispute at these sites had not been resolved. We are searching for solutions in line with our market practices, employee needs and business sustainability.

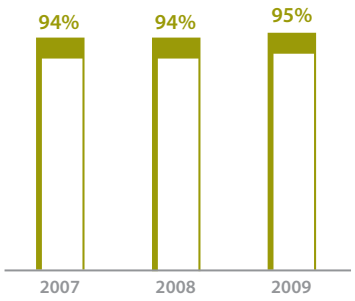
As determined by our Code of Ethical Conduct, discrimination due to labor association membership is not tolerated. The dialogue with legitimate representatives of our employees, being unions or other labor associations, is the basis that guides our labor bargaining. Due to this approach, we have no records of sanctions or warnings issued by inspection agencies resulting from occurrences related to freedom of association and collective bargaining. Although our position is based on dialogue, the prior notification of major changes[8] is not a standard procedure and is not established in our collective agreements.

8 According to the Global Reporting Initiative, major changes refer to alterations in the production standard, such as restructuring, closing activities, acquisitions or fusions.

7 In these cases, the employee does not participate in the costing of the funds.

Employees covered by collective bargaining agreements

%



Employees included in this indicator (LA4) represent 97% (2009) of the total number of employees reported (LA1).

We invest in the continual qualification of our employees and in the workforce of the mining production chain.

Turnover by gender

	2008	2009
Overall Turnover	8.0%	10.6%
Turnover Men	7.6%	10.3%
Turnover Women	11.7%	13.0%

Turnover by age bracket

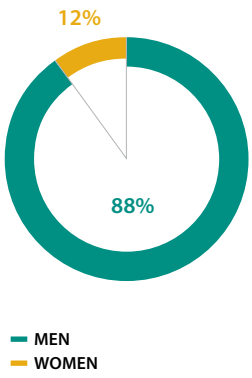
	2008	2009
Under 30	7.0%	8.0%
30 to 50	6.7%	7.8%
Over 50	19.0%	37.0%

Turnover by region

Country	2008	2009
Brazil	8.0%	9.2%
Canada	5.0%	19.7%
Indonesia	7.0%	9.1%
Australia	18.0%	13.4%
China	32.0%	16.7%
Others	7.0%	16.5%

Own employees in this indicator (LA2) correspond to 95% (2009) of total reported employees (LA1). Projects are excluded.

Turnover by gender



TURNOVER

In 2009, the total turnover rate[1] (including retirements and dismissals) at Vale was 10.6%. This result is in line with that of other companies in the mining sector. We carry out quarterly monitoring, which takes into account indicators such as turnover, retention and usage of internal resources.

The age bracket above 50 years had the highest level of turnover, at 37%, due to the implementation of the Retirement Incentive Program. The rate for women (13%) was higher than for men (10%), while women represented 12% of the number of employees who left the company in the period and 10% of the total workforce.

In China, the 16.7% rate reflects the characteristics of the local market and operating changes.

The rate observed in Canada (19.7%) was attributable to factors including a large number of retirements (accounting for approx 58% of departures); voluntary departures (12% of total departures) and forced reductions through downsizing (25% of total departures). Impacted employees were provided with enhanced severance benefits and career transition support.

OUR GREATEST STRENGTH IS OUR PEOPLE

Since 2003, Vale's area for personal development, Valer – Vale Education, in conjunction with the regional Human Resource departments, has been responsible for the continuous education of our employees and for training the workforce for the productive processes involved in mining. We provide actions for personal and professional development inside and outside Vale, in the areas of basic education, technical skills, management training, corporate citizenship, and culture and arts.

In 2009, we published our internal document Valer Educational Principles, which describes the current educational practices of the area and which explains how we position education in terms of sustainability. In addition, in Brazil alone we invested approximately US$34.5 million in training and development.

In addition to its actions in the Brazilian units, Valer acts internationally in order to support the company in its operations and in the implementation of new projects. Valer's international expansion has been based on the establishment of physical units abroad and the implementation of programs to develop the workforce, such as the Professional Training Program already underway in Mozambique and Oman. Vale has also carried out continued education programs for the managerial segment, including the Rites of Passage program that was carried out in China, Argentina, Oman and Mozambique.

Externally, for contractors, suppliers, and communities, we continued with our strategy of encouraging the development of a qualified workforce for the productive processes of the mining industry by providing seven development programs, which attracted over 3,200 people in Brazil and overseas.

INTERNAL EDUCATION

The global, highly competitive nature of business means that companies and their employees increasingly have to be able to learn quickly, to keep up with the pace of development of knowledge and know-how. In this context, corporate education takes on an important strategic role, and becomes a key instrument for learning and for developing qualified human resources.

With this intent, our Internal Education actions provide Vale employees with continued opportunities for learning, segmented into three areas: technical operators, specialist technicians, and leaders. Each of these segments has a Vale training program, with educational actions that are structured into Technical Plans, Development Maps, and Management and Leadership Training, in line with the demands of the business areas.

The continuous improvement of processes and the development of our company are closely related to the technical training of our employees, who are recognized in the market for their high level of qualification. In partnership with the business areas, we

1 The turnover rate corresponds to the total number of employees that voluntarily left the organization, layoffs and retirements, divided by the total number of employees.

map out priority technical training actions in order to achieve the goals of our business. Valer structures customized actions and signs partnerships with educational institutions across the world.

The Global Program for Mineral Exploration and the Program for Integrated Logistics, which were both launched in 2009, are examples of our actions in this area. The first was implemented in partnership with the Mineral Exploration Department of Vale and aimed to improve the understanding of 107 employees from all five continents of the process of mineral formation and about exploration techniques. The classes were held in Brazil and in South Africa, and were complemented by technical visits to mines in Zambia, Peru and the US. Meanwhile, the Integrated Logistics Program, which was designed with the Department for Planning and Logistical Development at Vale, trained 120 employees in the main concepts and instruments of logistics, management, and finances.

Average hours of training fell at the end of 2008 and continued to decline in 2009, as a result of the global economic crisis that led to the suspension of various Vale operations and which impacted investment in the training of our teams. With this in mind, we prioritized offering focused training sessions to acquire competencies needed to carry out current job functions.

Vale is maintaining its practice of offering internal courses, and in more specific cases financial support, for external training, with a focus on developing critical technical competencies for Vale's business.

In addition to technical preparation, another initiative is the Program for Retirement Planning, which aims to prepare employees for transition in their career and to stimulate interest in new challenges, while increasing awareness of the importance of planning in making a success out of the challenge of retirement. The Program is voluntary and is carried out on a regional basis. For dismissed employees, Vale provides the Professional Transition Program, which aims to minimize the impacts of the dismissal process, while preparing the employee for career transition, and changed security over a short period of time.

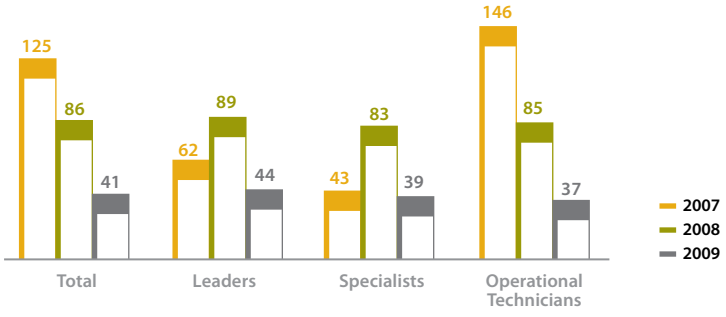
CASE

A qualified workforce

One of the main landmarks of 2009 was the launch of the Vale Center for Excellence in Logistics (CEL), in the city of Vitória, Espírito Santo, Brazil. The CEL combines at one site the structure needed to provide training in railroad, port and shipping technologies, with a combined theoretical and practical approach, based on the educational processes that have been structured by Valer.

This five-storey building in the Terminal of Praia Mole, which was inaugurated in November, includes railroad simulators, a technical library, training rooms, a simulator for loading wagons, a scale model used to illustrate the rules for railroad operations and signaling, a training room for the control center for loading yards, signaled lines and port operations, and a reception room for content to be used in educational material.

Hours of training
(annual average*)



Employees included in this indicator (LA10) represent 95% (2009) of the total number of employees reported (LA1). Projects not included.

*The average number of annual hours is calculated by dividing the total number of training hours by the number of employees.

Management and leadership

In 2009, about 300 leaders from across Brazil participated in the Rites of Passage, the first step in the Vale management training program. Outside Brazil, over 90 professionals, including directors, general managers and area managers, working in Oman, China, Canada, Switzerland, France, Peru, Chile, Paraguay and Argentina, also participated in this program. The Learning Curve program, which is a later stage in the training of Vale leaders and is run in partnership with renowned executive development institutions such as the Institute for Management Development, the leading business school in Switzerland, had the participation of nearly 90 leaders from all levels of the company.

In a company where the first level of leadership is constituted mainly by professionals from technical backgrounds, in 2009 the Training Program for Supervisors was developed and implemented with 90 participants. The aim of this initiative is to train supervisors in management processes and tools necessary for exercising leadership. In 2010, the aim is reach 50% of the Vale supervisors in Brazil, training about 800 leaders.

In 2009, the management and leadership segment prioritized providing opportunities for bringing management thinking together from across Vale, in a year in which the company was dedicated to finding ways of transforming the economic crisis into an opportunity. Two major management events were organized, with the attendance of Vale executives from across the world. In the workshop *Breakthrough Process Innovation at Operations*, run in partnership with MIT Sloan School of Management, company managers debated management tools for leveraging innovation in our businesses. Additionally, in 2009 (i)nova Vale! [Innovate Vale] was launched, aimed at promoting a culture of innovation at Vale (read more on page 47).

In the third Vale Leaders Forum, the 130 leading managers of the company worldwide discussed the lessons learnt from the global economic crisis and debated strategy, management, leadership, and the outlook for 2010.

Global education

As part of the globalization of its businesses, each year the educational action of Valer expands into overseas operations. As well as meeting the requirements of each area and business, the programs also include elements which reflect the social and cultural diversity of the communities where we act. In this way, the globally implemented programs are customized for the local context. An example of this is the Professional Training Program that was implemented in 2009 in Oman, in the Middle East, in order to train 120 operational technicians to work in our pelletizing plant in the country. This training effort is contributing to meeting the commitment that Vale signed, of filling 80% of the vacancies created by the new plant with local labor. The course lasts 18 months and is composed of three stages (theoretical, practical and on the job). It was implemented in partnership with the Russayl Institute, a leading school in the region, which opened a new training center in the city of Sohar in order to meet Vale's needs.

To implement the on-the-job stage of the training in 2010, Vale will receive program participants in its Brazilian operations to ensure that they are completely prepared for the Oman operation. Reflecting the community's wish for women to be included in the labor market, the training course includes 13 young women, who are being prepared to work in a sector in which the workforce is predominantly male.

This Vale initiative supports the policy of the Oman Government to strengthen the inclusion of women in the labor market. This is one of the actions of the government's Sustainability Agenda, which has four strategic branches: Omanization (hiring local workforce), Development of the Local Chain and Suppliers, Environmental Responsibility and Respect for Local Culture.

We also organized an encounter between Executive Officers and our Omani employees to discuss challenges and possibilities for internal improvement. Although the government is also implementing initiatives to include women in the workforce, these actions still represent a shift in the culture of the local labor market.

Education for life

Vale's mission of transforming mineral resources into prosperity and sustainable development requires from our employees a range of competencies that go well beyond technical knowledge. With this in mind, Valer offers extensive training, for life as well as for work, and this is complemented by educational initiatives in the areas of Corporate Citizenship, and Culture and Arts, including training in areas such as sustainability, environment, continuous improvement, multiculturalism, and ethics and transparency.

One of the flagships of this commitment to education is the Educational Training Program, which provides Basic and Intermediate Education to employees of Vale contractors, in order to address illiteracy. In 2009, 205 employees participated in this course, in the states of Minas Gerais and Espírito Santo, Brazil. We also continued to offer our Environmental Attitude Program, which encourages debates about sustainability between employees, contractors and the people of the communities where we are present. In parallel to these meetings, in 2009 the course was updated, to reflect the current positioning of the company and our Sustainable Development Policy.

Program	Objective	Scope	Participants in 2009
Professional Training Program	Trains young people for their first employment in operational and administrative activities at Vale.	Brazil	1,857
Intern Program	Trains students in technical and higher education, based on practical experience at Vale.	Brazil	1,068
Professional Specialization Program	Trains specialists in post-graduate courses in Mining, Railroads and Ports.	Brazil	60
Inclusion Program for the Disabled	Recruiting and training people with disabilities for corporate and operational areas at the company.	Brazil	282
Graduate Program	Trains young people for technical positions in Vale, based on advance training in mining.	International	20
Global Trainee	Trains recent graduates for leadership positions in Vale.	International	----
Summer Job	Offers MBA students from the world's most prestigious universities training in Vale businesses and interaction with our executives.	International	----
Total			3,287

EXTERNAL EDUCATION

The need for qualified personnel is a challenge for mining companies, which is why Vale invests constantly and consistently in the training of professionals to work in the sector. This is the main aim of the External Education section of Valer, which operates seven programs designed to attract and develop professionals in the market, as shown in the following chart.

In 2009, despite the global economic situation, we were able to hire 100% of participants in the postgraduate Professional Specialization Program in Railroad Engineering we provided to 60 professionals in the market in São Luís and Belo Horizonte, in partnership with the Dom Bosco University (UNDB) and the Catholic University of Minas Gerais (PUC Minas), respectively.

In addition, in the Professional Training Program, over 1,800 young people attended class to learn a trade. At the end of the year, as the economy picked up, over one thousand vacancies were opened in various states of Brazil. In Minas Gerais, we were able to call again the 500 finalists in our 2008 selection process, which was interrupted when the global economic crisis was at its worst. In 2009, the program was also offered in Mozambique, Africa, training 25 apprentices in the Mining Operations course. Internationally, the Graduate Program is providing advanced training in mining to 20 young people in Australia, Mozambique, Canada and Brazil.

The Intern Program was again employed as the main gateway for young talent to enter Vale, with 1,068 vacancies over 2009 (900 in the selection process of the second half of the year alone), which had a record number of candidates: over 93 thousand young people signed up to the opportunity of joining the company.

FUTURE SCENARIOS

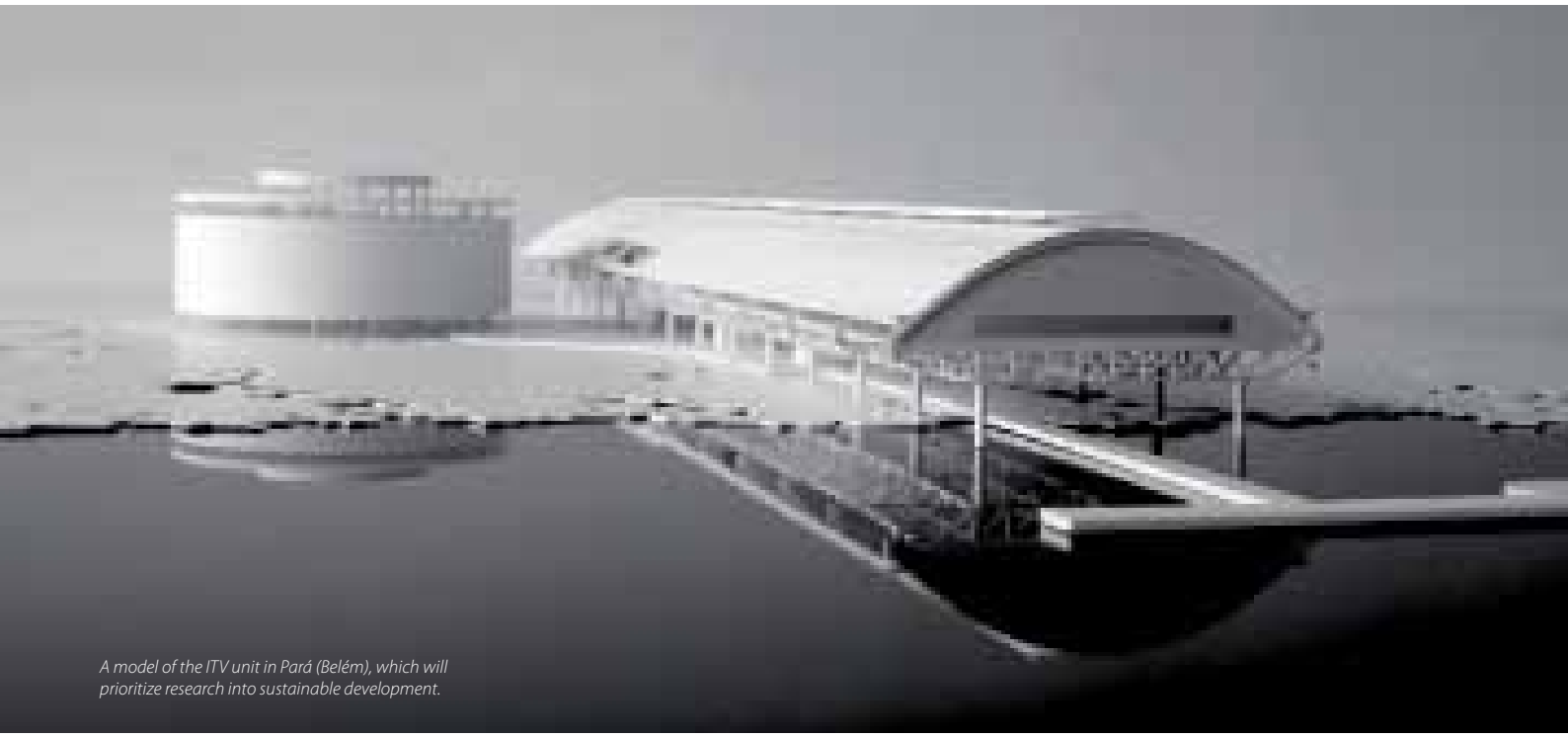
How can we maximize mineral use? How can other natural resources such as water be used in an increasingly sustainable way? We have broadened the scope of the Department of the Vale Technological Institute to include analyzing these future scenarios. Established to stimulate and strengthen Vale's relationships with academic institutions, government, and units of science, technology and innovation. In 2009 our work focused on three areas: the management of technology and intellectual property; coordinating cooperation and development with the Vale Technological Institute.

The Management of Technology and Intellectual Property is the area that is responsible for observing technological trends. Based on the innovations that arrive in the market, we monitor best practices and aim, based on competitive intelligence, to carry out research. For 2010, a new action is planned which will assess what is of interest to Vale out of this portfolio, from the management of the choice of area to the results obtained from the research that we support.

Based on long lasting partnerships, we want to contribute to scientific development in Brazil

The Coordination of Cooperation and Development represents Vale's interface with the community of science and technology. More than just looking for occasional services from the academic community, we want to establish long lasting partnerships which will contribute to the scientific development of Brazil. In 2008, the agreement signed between Vale, the Foundation for Supporting Research in the State of Pará (Fapespa) and the Secretariat of State for Development, Science and Technology of Pará (Sedect) supported the offer of 22 scholarships for doctorates and 63 for Master's degrees in areas of interest to Vale. This initiative provides scholarships to all applicants. Another first in Brazil was the partnership of Vale with three renowned bodies that encourage research and development (*more information on page 45*).

At the end of 2009, we established another important partnership with the National Council for Technological and Scientific Development (CNPq). We launched a publication dedicated to selecting and supporting research proposals along the lines drawn up by the study *Mineral Sector Project – Technological Trends for Brazil 2015*. The document established a set of priorities for investment in the mineral sector. The initiative provided a total of US$3.9 million, of which US$2.7 million was provided by Vale, with the rest financed by the Mineral Sector Fund (CT-Mineral). Various knowledge areas presented a total of 113 proposals. The projects chosen will be announced in the first half of 2010.



A model of the ITV unit in Pará (Belém), which will prioritize research into sustainable development.

VALE TECHNOLOGICAL INSTITUTE

The Vale Technological Institute (ITV) was planned in 2009 to encourage scientific research and the economic development of the technology base in Brazil, as well as to generate and distribute new knowledge about progress with social, economic and environmental aspects of sustainable mining. The goal is to construct one ITV unit in three Brazilian states, each with a specific vocation. The unit in Minas Gerais will be located in the city of Ouro Preto and will – specialize in mining. The unit in Pará will be located in Belém and will prioritize research into sustainable development. The São Paulo unit will be focused on innovation in energy, with one of its main partners the technological center of Vale Soluções em Energia (VSE), in São José dos Campos.

The ITV will be a corporate legal entity established under Brazilian law, with a non-profit purpose, and of undetermined duration. The units will follow the same corporate model in terms of management, with similar operating processes, but will also be autonomous. The establishment of these units as legal entities should be completed in the first half of 2010. The aim is to create a multi-disciplinary team of researchers, who can exchange experiences among themselves and address problems and issues that will be identified over time.

CASE

Incentivizing research

In an unprecedented partnership, Vale, via the Vale Technological Institute (ITV), has joined with three renowned bodies that encourage research and development in Brazil, to develop and support scientific and technological research projects. US$68.9 million will be invested in the program, in which the Foundations for Supporting Research in the states of Minas Gerais (Fapemig), Pará (Fapespa) and São Paulo (Fapesp) have joined forces.

The research will contribute to advancing scientific and technological knowledge in the areas of mining, ferrous processes in steel making, energy, ecoefficiency and biodiversity, while at the same time working to apply the knowledge generated in the development of Brazilian technology. Around US$41.4 million will be invested by Vale, with the rest divided between the other partners.

The agreement establishes the sharing of costs and financing of bursaries granted by the foundations involved – introduction to scientific research, Master's, doctorates, and post-doctorates. A project will have a greater chance of being approved if it involves research in networks across Brazilian states, for example, a university in Pará in partnership with a university in Minas Gerais or in São Paulo and vice versa. With this relationship between a private company, academia, and government, Vale is opening the way to other companies establishing partnerships. In addition, the initiative encourages the development of more specialized human resources, and stimulates the expansion of scientific programs in academic institutions.

The proposed research lines include areas such as indirect methods for mineral exploration, improvements to systems for monitoring tailings dams, the reuse of waste, new production processes for biofuels, efficiency improvements in hydroelectric generation, the conservation of ecosystems, and the discovery of new products.

HEALTH AND SAFETY

Important achievements, new challenges

Health and safety are increasingly global concerns at Vale. Our commitment to prioritizing life and safety is reflected in our efforts to internationalize our actions

An important step in this direction was the publication of our Global Health and Safety Policy, as well as our Global Rules for Accountability in Health, Safety and the Environment. These principles were developed taking into consideration the legislation and culture of the various countries in which we operate.

Since 2006, the strategy that Vale has adopted to invest in administration, education, infrastructure and technological innovation related to health and safety has been yielding positive results. Most notably, we have observed transformation in our company's health and safety culture.

The result of the 2009 *(i)nova Vale!* [Innovate Vale!] Award is an illustration of how important health and safety is for the company. Of the 7,162 ideas presented to improve processes, 2,250 referred to safety (*read more on page 47*). In 2009, we also invested more than US$110 million in capital projects to achieve improvements in health and safety.

We are aware, however, that in spite of progress this is a process that requires continuous effort.

In addition to our investments and the introduction of the *(i)nova* Program, we launched a pilot Health and Safety Management System in five areas in Brazil: Itabira, North Logistics, Serra Sul, Taquari Vassouras and Carajás. The system is part of the Excellence Program, initiated in December 2006, which forms the basis of our health and safety strategy. Vale used what was learned from the pilot experience to review the management system, the rules and instructions, the critical activities requirements (RACs) and the training plan for health and safety. In 2010, our objective is to begin the implementation of the Health and Safety Management System in the rest of our Brazilian units.

The health and safety culture is increasingly present in our daily activities.

NEW RAC FOR ELECTRICITY SERVICES

In 2009, we surpassed our goal of having 70% of our critical activities requirements (RACs) implemented in our Brazilian operations, achieving 72.4%. The RACs are fundamental instruments for accident reduction. Requirements include the adoption of standards, training events, and investment in infrastructure, aiming at safe execution of the ten operational activities that, historically, account for 91.7% of fatalities[1].

Vale revised all of its requirements in order to improve and adapt them for our international operations outside Brazil. A special requirement for electricity services was also created. In 2010, our objective is to implement the critical activity requirements (RACs) in all our international units.

JOINING FORCES

Another initiative that has reinforced Vale's concern for preventative action was the merging of our Occupational Health and Safety and Security departments. This merger has allowed for an expanded inspection schedule at operating units and national and international projects and the sharing of best practices. Inspection results are consolidated and distributed to the inspected areas for resolution. If any situation involving serious and imminent risk is detected, the activity is suspended immediately.

In 2009, Vale also created alerts for corporate safety. These are messages sent to Vale's operations and projects around the world, highlighting a particular critical activity, its associated risks, and potential controls to reduce risks to acceptable levels. In addition, we established a schedule for global meetings with all health and safety managers. Conference calls are held weekly with Portuguese and Spanish-speaking countries, biweekly with Canada, and monthly with Australia. The idea is to share best practices and align health and safety procedures throughout the company.

1 Critical activities include: working at elevated heights; electricity, operating motor vehicles; mobile equipment, blocking and signaling; load displacement; working in confined spaces; operating machinery; stabilizing slopes; handling and detonating explosives and working with chemical products.

CASE

Incentivizing innovation

To encourage the development of creative and easily implemented ideas that contribute to process improvements, in 2009 Vale's Department of Innovation and Development launched the *(i)nova Vale!* [Innovate Vale!] Award. In 30 days more than 7,000 proposals were presented, in the areas of safety, energy saving, recycling and process speed.

Seven winning ideas were chosen: the best in each of the four categories identified above, as well as the most creative, the idea with the greatest potential for improving results, and the one with the highest chance of replication. The winners won postgraduate, training and certification courses with the support of Valer. In addition, all of the submitted proposals were incorporated into Vale's innovation and intelligence database, for potential future implementation. The initiative contributed to spreading an innovation culture within the company. The objectives for future years are to extend the prize to facilitate involvement by suppliers, research institutes and universities, among other partners.

The winning idea in the health and safety category was the creation of a device that eliminates the need for manual handling of an existing component of our road rollers. With this simple, easy to implement device, the operator's hands are removed from a hazardous area, eliminating the risk of accidents, and increasing productivity while reducing the physical effort needed to perform this job function.

Among the most popular ideas in the area of health and safety was the use of an electric forklift in the movement of ore samples. Use of a forklift increased productivity by reducing the number of employees required for this task from six to one, as well as minimizing risk exposure, and diminishing the probability of workplace injuries such as back pain and work-related musculo-skeletal disorders and limb injuries. Another popular proposal in the health and safety category involved playing informative health and safety videos on the buses used to transport workers. The objectives are to increase the perception of risk, show relevant topics and address safety considerations outside the work environment.

We encourage our employees to adopt a preventative attitude in the locations where we operate.

CHALLENGES AND PARTNERSHIPS

In spite of our various efforts to manage risk and a significant reduction in our accident rates, in 2009 we had nine fatal accidents in operations and projects involving Vale employees and contractors, as well as three fatalities at our road transport service providers.

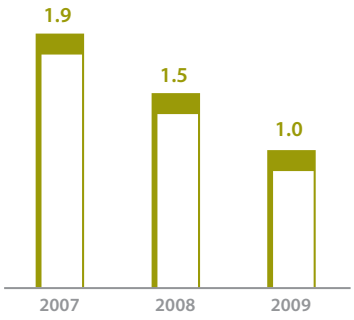
The loss of these lives, which is a cause of great sadness to us, reinforces our commitment to develop our work systems to include more effective accident prevention methods. In parallel, we are striving to influence our value chain, encouraging the adoption of safety measures, awareness campaigns, inspections and audits.

Colors, security allies

In 2009, to facilitate the identification of new employees (whose understanding of employee safety practices and procedures is in the developmental stage), our Thompson operation adopted a policy for color-coded hard hats underground. All employees with less than one year in the mines use orange hard hats. This allows for easy identification of less experienced employees who may benefit from leadership and guidance on safety best practices from more experienced employees. The policy applies to all employees who may work underground – including those in the maintenance, engineering and geology departments. After one year of service, the employee adopts the standard yellow hard hat. With this initiative, we hope to reinforce in our employees the idea of a culture of safety at the beginning of their career and encourage them to share knowledge and experience as they progress through their career.

Lost time injury frequency rate

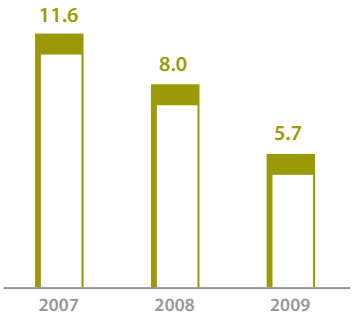
(Number of lost time injuries per 1,000,000 hours worked)



The figures include company employees and contractors.

Total injury rate

(Number of total injuries per 1,000,000 hours worked)



Figures include employees and contractors but do not include first aid cases. Figures for Vale Inco were included as of 2007, a period in which contractors were not considered. If the 2008 criteria were adopted in 2007, the injury rate value for 2007 would be 10.7.

- Figures include injuries with and without lost time. The rate does not include occupational illness.

For Vale Brazil, health and safety indicators are based on monthly person-hours worked estimated for its workforce. Figures include mineral research companies, including international. For Vale Inco, Vale Australia and Moatize Project, real person-hours worked are used.

DIALOGUE WITH LEADERS

Vale's operational units and projects are increasingly active in the Behavioral Dialogue program. Created in 2007, the aim of this program is to promote the exchange of experiences and to reflect on the day-to-day situations encountered in the area of health and safety. In 2009, we held a training event designed specifically for project leaders, showing how this behavioral dialogue can be used to discuss health and safety in our projects. The leaders concluded that the dialogue is a simple and effective way to promote awareness.

FURTHER INCENTIVES FOR HEALTH AND SAFETY

In 2009, the percentage of variable compensation connected to goals for health and safety at work increased from 6% to 10%. For 2010, the health and safety component will continue to account for 10% of employees' variable compensation, except in projects that are considered strategic, where we have increased the health and safety component to 25% of total variable remuneration. The increased percentage acknowledges the efforts of leaders and all employees' toward a preventive approach and the prioritization of life and safety.

ASSISTANCE FOR EMERGENCY SITUATIONS

We implemented, in 2009, the Instruction for Analysis and Administration of Health, Safety and Environmental Risks (INS-0037), based on the System for Health and Safety Management. With this, we began our review of our units' emergency plans and mutual assistance plans, better defining emergency scenarios and, consequently, the allocation of resources and the development of specific procedures for each location. In addition, the Instruction allowed us to standardize our risk analysis. The objective is that all Vale operational units and projects visualize and address risk in the same way.

In 2009, preliminary risk analysis was carried out in the following Brazilian operational units, led by the health and safety and environment departments: Itabira, Taquari Vassouras, North Logistics (São Luís), Carajás Railroad (EFC), Bauxita Paragominas Mine, Mineral Research Department (Exploration), Vitória to Minas Railroad (EFVM), and Project S11D (expansion of Carajás).

We also held training events to coach employees in risk analysis , in partnership with Det Norske Veritas (DNV), Bureau Veritas (BV) and ABS Consulting. Over the course of 2010, we will continue to implement INS-0037 in the rest of our operational units and projects, in order to turn this into a global action.

Our units adopted a range of procedures to enable us to provide fast and efficient responses in emergency situations, including: Emergency Plans; Emergency Action Plans (PAE); Plans for Mutual Assistance (PAM) (for emergencies involving neighboring companies); Rules for Attention to Railway Incidents; our Manual for Crisis Management, and Basic Risk Guidelines. To guarantee adequate assistance in emergency situations, we regularly carry out training for the responsible teams, often with simulation exercises.

PREVENTION AND CONTROL OF HEALTH RISKS

We maintain an identification and measuring system for health, safety and environmental risks in all of our units, and have established partnerships to support these efforts. This system allows us to protect the health of our employees and ensure creation of programs that address local circumstances but can also be replicated across the company. The principal objectives of our health and safety programs are to promote health and encourage a preventative attitude, with our employees, their families and members of the communities in which we operate.

Main actions

Public	Education/ training	Counseling	Prevention/ risk control	Medical treatment
Employees	Prevention campaigns for H1N1 virus; workshops on alcohol and tobacco; prevention campaigns for cancer and diabetes; support groups for diabetics, people with hypertension and cardiovascular risk	PAE (Program of Assistance to Employees) addressing various topics, such as emotional and financial problems, relationship difficulties, alcoholism, drug abuse and stress	Prevention campaign for STDs/AIDS; prevention campaigns for cancer and diabetes; flu vaccinations; inspections and prevention and treatment of dengue and yellow fever	Health insurance and medical attention
Family members	Prevention campaigns for H1N1 virus; workshops about alcohol and tobacco use; prevention campaigns for cancer and diabetes; support groups for diabetics, people with hypertension and cardiovascular risk	PAE (Program of Assistance to Employees) addressing various topics, such as emotional and financial problems, relationship difficulties, alcoholism, drug abuse, and stress	Flu vaccinations; inspections and prevention and treatment of dengue and yellow fever	Health insurance
Communities	Prevention campaigns for H1N1 virus; prevention campaigns for STDs/AIDS	-	Sexual education program (*Vale Juventude* [Vale Youth] – developed by the Vale Foundation), with sexual counseling and preventative actions for sexually transmitted diseases	-

Our health and safety actions are based on our Global Policy

The diversity of health conditions in the places where we operate requires us to explore a range of solutions that respond to unique local circumstances. As a result, we offer varying programs of training, counseling, risk prevention and control, and medical treatment for our employees and their families. We continue to make efforts to increase community participation in our programs. Below is a list of actions that we have implemented in some of our units.

We created, in 2009, an H1N1 flu pandemic prevention program, which includes spreading information about the subject (by means of educational campaigns and the creation of a specific intranet page), and the monitoring of suspected cases affecting employees, contractors and their families. Another initiative was to temporarily suspend projects that were scheduled to be carried out in countries with high rates of H1N1 cases. These projects have now been resumed.

We also signed a partnership with the Social Service for Industry (Sesi) to support our Worker Health program in Vale operations within Brazil. This program encompasses not only employees but also contractors.

Vale is working to improve processes and prevention programs for occupational illness, to allow for better identification and monitoring of new cases of occupational illness. For 2010, we will hold further discussions of this subject in the ICMM Working Group, discussing the indicators for illnesses, uniformity of concepts and reporting.

AGREEMENTS WITH LABOR UNIONS

Health and safety is increasingly part of the dialogue between Vale and its employees, and is in many cases included in the scope of collective bargaining.

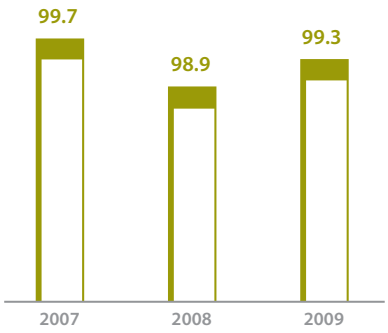
At Vale's operations in Brazil and abroad our health and safety aspects are based on our Global Policy. Additionally, we respect local regulations and legislation and the specific demands of our employees' representatives, which define the mechanisms and requirements for prevention of accidents and occupational illness, such as maintenance of joint committees for health and safety, provision of personal protection equipment and providing information about the right to refuse unsafe work.

PARTICIPATION IN HEALTH AND SAFETY COMMITTEES

In 2009, more than 99% of Vale employees were represented in joint health and safety committees (called Internal Commissions for Accident Prevention—Cipa in Brazil). The aim of these committees is to contribute to the prevention of work-related accidents and illness.

Workforce representation in formal health and safety committees

Percentage of Vale Employees Represented in Committees on Health and Safety by year



In some units, the number of representatives did not reach 100% due to factors such as: the number of unit workers was lower than the legal requirement to constitute the committee, new projects that have not yet established health and safety committees, and new employees hired during 2009.

SINGLE INFORMATION SYSTEM

In 2009, through revision of all health and safety processes, Vale concluded implementation of a single Information System for Health and Safety in all Brazilian operations. With this tool, health and safety records are entered in a single system, which enables better archiving of information, monitoring of initiatives and analysis of health and safety processes. In 2010, the goal is to implement an Information System for Health and Safety in our international units.

Through our partnership with IUS Natura we began, in Brazil, to implement a system for the identification, tracking and monitoring of legal requirements for health and safety in our operations and projects. We also held training events to inform our employees about these requirements. This process allows us to have more uniform actions, offer wider assistance and share experiences and solutions across our facilities. In 2010, we will finalize the implementation process in our operational units and will begin auditing the system.

ACTIONS IN THE VALUE CHAIN

EMESRT

Since 2008, Vale has participated in meetings of The Earth Moving Equipment Safety Round Table (EMESRT), a group created in 2006 by large mining companies worldwide and supported by the ICMM.

Based on the partnership between large equipment suppliers and mining companies, EMESRT is designed to support the adoption of measures that influence the development of equipment by manufacturers and minimize health and safety risks for users. The group is composed not only of health and safety professionals, but also individuals involved in maintenance and production.

BEST PRACTICES

To share best practices in the safety, health, environment and community areas in the mining sector, the ICMM manages a database that gathers information from mining companies across the globe. It is called Safety, Health, Environment and Community Benchmarking (SHEC Benchmarking), and promotes this exchange of experiences using an online portal. Vale has been a member of the group since 2007 and seeks to participate actively.

Fulfillment of actions forecasted for 2009
• Global publication of Health and Safety Policy (January 2010)
• Implementation of 70% of the Requirements for Critical Activities (RACs) in our Brazilian operations
• Expansion of the Behavioral Dialogue process to all Vale managed units in Brazil
• Implementation of the Information System for Health and Safety in Brazilian units
• Implementation of the Information System for Applicable Legal Requirements for Health and Safety in Brazilian units
• Began implementation of the Instruction for Analysis and Administration of Health, Safety and Environmental Risks (INS-0037)
• Implementation of Accountabilities Norm in Health, Safety and Environment

We incentivize the manufacturing of equipment that minimizes risks to users.

ENVIRONMENT

Developing and conserving

We invest continually in the management of environmental issues and risks, in accordance with our commitment to the conservation of the environment, and we are seeking to strengthen our sustainable development activities

One of the cornerstones of our sustainability strategy is our commitment to the conservation of the environment. In our actions, we aim to find a balance between the socioeconomic development of the regions where we operate and the maintenance of the quality of natural resources, biodiversity and life in those regions. We continually invest in managing the environmental aspects and risks of our activities, products and services, as well as the recovery of degraded areas and research into new technologies that can enable us to improve our environmental control systems.

The Vale Sustainable Development Policy guides all our actions, from the decision to make an investment to the procedures for closing operations. This Policy, which was approved in 2009, replaces the Environmental Policy, extending our commitments and integrating our goals in environmental management with other aspects of sustainability, such as health and safety and social development.

In order to reinforce the principles of sustainability in all our units, in 2009 we revised our Rules for Accountability in Environment, including health and safety measures, reinforcing the role of company managers and employees. This new corporate document establishes roles and accountabilities for sustainability at all levels of the company hierarchy, with a focus on compliance and risk management related to our operations. This has strengthened our global management model, which combines centralized corporate guidelines and performance monitoring with decentralized actions for continuous improvement in the operating areas.

In 2009 we also introduced, in Brazilian operational sites, a new environmental audits dynamic, in a two-phase approach. In the first half of the year, every operating area carries out an internal audit that is focused

We strive to reduce water consumption, minimize the generation of effluents, and increase the proportion of reuse.

on analyzing the effectiveness of their own management systems and identifying aspects for correction and opportunities for improvement. In the second half of the year, an external corporate audit is carried out to identify continual improvement practices for environmental management and confirm the conclusions of the internal audit. With this new system for audits, we will encourage the decentralization of activities and ratify our operations' responsibility for environmental management.

In 2009 we also started the implementation of an online system to monitor the legal compliance of each unit. This enables us to identify, assess and monitor legal requirements in the area of Health, Safety and Environment that are applicable to the activities, products and services carried out by each company unit. The system is updated automatically every month to incorporate new legislation and even new trends, and aims to maintain compliance and also to anticipate new requirements. In 2010, the system will be operating in all the Brazilian units of Vale.

As planned, we concluded the development and implementation in Brazil of the Waste Dams and Pile Management System (SGBP). This has enabled us to collect and consolidate information about these geotechnical structures and to manage them better. Thanks to this system, we now have in a single technology and information platform, data and performance indicators about the disposal of waste material in waste dams and tailings piles, allowing for geotechnical and environmental risk control and maintenance at adequate levels.

Units with ISO 14001 certification

Business area	Units
Iron ore and pelletizing	Alegria, Timbopeba, Água Limpa, Fábrica Nova, Fazendão, Cauê, Conceição,Córrego do Feijão, Brucutu, Gongo Soco Fábrica, Mutuca, Capitão do Mato, Pico, Capão Xavier, Abóboras, Mar Azul and Pelletizing Plants and Port Terminals at Tubarão and Fábrica
Ferroalloy plants and manganese mining	Azul and Morro da Mina mines and Vale Manganèse France
Nickel	Clydach refinery in the United Kingdom, Vale Inco Japan – Matsuzaka Plant, Nickel Refinery in Taiwan and INMM (Dalian)
Copper	Sossego mine
Precious metals	Acton Refinery – United Kingdom
Aluminum	Alunorte, Albras and Valesul
Kaolin	PPSA and Cadam

The companies Samarco and MRN are also ISO 14001 certified.

One of our objectives is to increase the percentage of water reuse

ENVIRONMENTAL INVESTMENTS

The volume of financial resources allocated to the environmental area at Vale in 2009 was US$580 million, or 14.5% less than in 2008. This reduction is due to the suspension of activities at some Vale units, as part of the response to the global financial crisis. Even with this fall in expenditures, the amount of investments in the environmental area in the year was higher than in 2007, as the chart shows.

As in the previous year, most of the financial resources were allocated to three areas:

- The acquisition and implementation of environmental control equipment, intended to ensure compliance and performance improvement in existing operations;
- Environmental geotechnical maintenance of our dams and tailings piles;
- Reforestation and reclamation of degraded areas, as part of the Vale Florestar Program and agreements with particular Brazilian states.

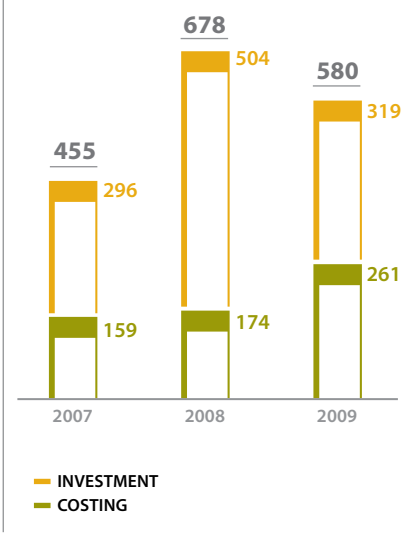
MANAGEMENT OF WATER RESOURCES

The Management Plan for Water Resources establishes the guidelines for Vale's actions and supports the preparation of programs in operating units. The main aims of these programs are to reduce water consumption per unit of output, minimize the generation of effluents, and to increase the percentage of water that is reused.

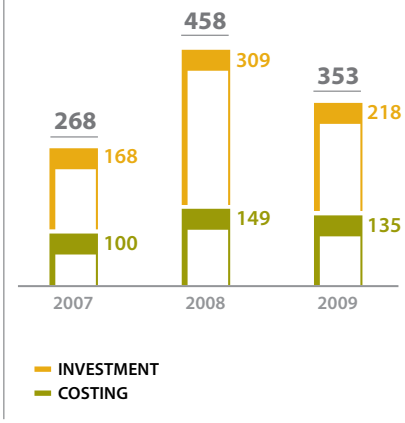
Water is a vital input for company processes, and most of our activities require us to access surface and underground water resources. The most intense use of these resources occurs in dewatering activities for mining operations in saturated areas; in plants, where the water is used to treat the minerals and for cooling; and in cleaning access roads and storage yards for raw materials and products. We also consume water in pelletization processes, in transporting ore and in the washing of equipment and pieces.

In 2009, our Environmental Technology Workshop opened a debate on new technologies to treat effluents and on opportunities for water reuse, with the participation of all the operating areas of the company. This event was a chance

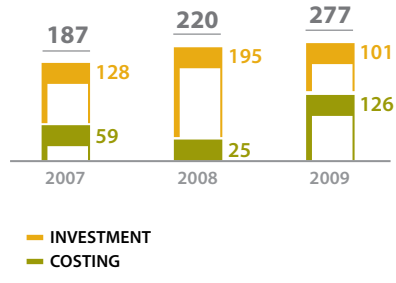
Environmental expenditures
(US$ million)



Environmental expenditures – Brazil
(US$ million)



Environmental Expenditures – Other Locations
(US$ million)



to homogenize and diffuse the technical know-how of our team, and to identify new opportunities for improvement in the management of this natural resource.

In 2009, Vale recorded a volume of 292 million m^3 of water withdrawal.

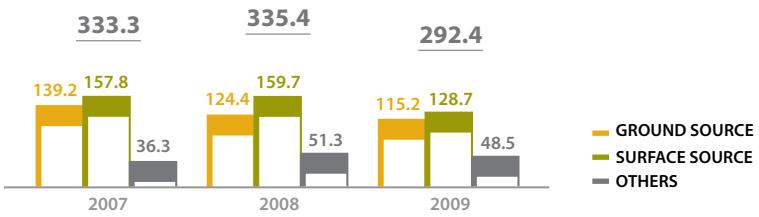
The reduction in the total volume of water withdrawn in comparison to previous years (2008 and 2007) was approximately 13%. This decrease was principally due to the fact that 2009 was an atypical year, in which the majority of the company's business areas experienced a reduction in production, and in other areas activities were suspended. Another fact that contributed to this decrease was updating our data collection methodology carried out in some of our iron-related units.

Vale invested in the improvement of water resource management. In the iron mining unit in Carajás, for example, the implementation of a new processing technology using natural humidity allowed for the elimination of water use in eight processing lines. This led to a 63% reduction in the total amount of new water withdrawn from the dams and increased the percentage of reused water at the plant.

We also continued to progress with the implementation of our projects to replace the use of new water with reused or recycled water. In 2009, 76% of water was recycled/reused. This means that of the 1.2 billion m^3 of water needed for Vale operations during 2009, 288 million m^3 were withdrawn from nature, and the rest was provided by recycled/reused water. This result is due mainly to the recycling of water for industrial use. Our objective is to optimize this practice, continually reducing the amount of water withdrawn from natural sources.

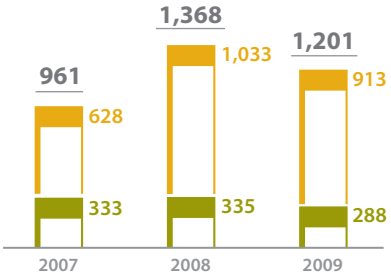
The initiative for recycling/reusing water that has the greatest impact, in terms of water volume, occurs in the production process. The majority of the water used in production is reused from the dewatering process that is carried out for mineral extraction. Where water quality is suitable, the water from the dewatering process that is not reused or recycled is then returned to natural water courses. This water is counted as being withdrawn.

Total water withdrawal by source
(million of m^3/year)



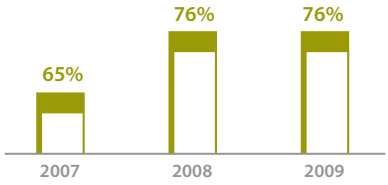
Ground Source: water arising from wells, including mining dewatering.
Surface Source: water arising from rivers and lakes.
Others: rainwater, water supplied by public utilities (concessionaires). Includes third-party collection.

Total water consumption: recycled and/or reused + withdrawal water
(million of m^3)



To calculate the percentage of recycled and/or reused water for this indicator, water withdrawal does not include collection for third-party use.

Percentage of recycled and/or reused water*
%



*Calculated by dividing the total amount of recycled and/or reused water by the total consumption of water. If we had used this same calculation method at Vale Inco, the estimated percentage of water recycling at Vale would have been 70% in 2007.

The reduction in the volume of water withdrawn and the maintenance of the percentage of water recycled indicate Vale's improvement in environmental performance, in terms of its use of water resources. The 2009 numbers confirm our expectation for improvement in this indicator. Two thirds of the business units recorded higher percentages of water reuse than in the previous year, with a noteworthy performance by business units in the aluminum, iron mining and coal sectors (Vale Australia), where currently close to 90% of water demand is being supplied by reused water.

We invest in improving the management of water resources in our operations.

DISPOSAL

Water resources management in Vale includes actions that we carry out to reduce the generation of effluents and to improve our system for disposing of them. Each unit has treatment systems for liquid effluents which vary in accordance with the specific demands of the different productive processes involved.

The main objective of our effluent treatment systems is to preserve bodies of water such as rivers and lakes and to encourage the reuse of water, reducing our usage of new water.

The way that we treat effluents depends on the characteristics of the effluent, the nature of the receiving water (such as a lake), the possibility for reusing the water, and the specific legal requirements of the local jurisdiction. Before we make any decision on what treatment system to use for a particular effluent, it is essential to consider its physical, chemical and biological characteristics in order to assess the potential for reducing its concentration and volume, in accordance with the principle of cleaner production.

The most common systems include those based on the decantation/sedimentation of industrial effluents from processing, which have a high content of solid particles. Many units also have physical, or combined physical and chemical systems (coagulation/flocculation), which are more suitable for the treatment of oily effluents, generally from repair facilities.

CASE

Canada

Living with Lakes

Vale Inco is investing in the establishment of the Living with Lakes Centre at Laurentian University in Sudbury, Ontario, Canada, which will be focused on carrying out scientific research into the protection of water sources for future generations. The goal is for the Centre to become a leader in environmental technology and to serve as a catalyst for the growth of the ecological industries that are now expanding in northeastern Ontario.

The Centre, financed by Vale Inco in partnership with other organizations, will be the home for the Cooperative Freshwater Ecology Unit (CFEU), an institution with an international reputation for research into the restoration and remediation of damaged freshwater lakes. The information and data made available by the CFEU have enabled Vale Inco to analyze the tangible environmental benefits of our actions in environmental impact reduction.

Construction of the Centre began in June 2009 and is following the principles of sustainability. The architectural project for the Living with Lakes Centre has already been awarded a prize by the Holcim Foundation for Sustainable Construction. Activities at the Centre are expected to begin in the first half of 2011.

In 2009, Vale generated 114 million m^3 of effluents, a lower volume than in 2008[1]. The Água Limpa and Gongo Soco units implemented measures to reuse treated oily effluents from repair facilities, in the same processes that generated these effluents, such as in the cleaning of equipment and components.

The company has also used practices such as controlling waste and adapting procedures and equipment, which is essential to reduce water demand and to reduce the volume and concentration of effluents.

This is only the second year in which we have reported information on the generation and destination of liquid effluents, and it is the first year in which we are analyzing the quality of these effluents. As a result, we needed to make certain adjustments to our methodology for data collection and presentation, which explains some of the differences with the data in last year's report. In addition, several units have implemented improvements, such as increasing the number of sensors in their water network and implementing measuring devices.

1 In its collection of data for this indicator, the company does not report as effluents the volumes of water that come from its dams, to avoid interference with the contribution of rainwater, of natural drainage around the dams, and natural water flows. Volumes of effluents are measured where they are generated. In addition, tailings, which contain water, are reported under the MM6 indicator. Hence it is not possible to use the indicators EN8, EN10 and EN21 to analyze our overall water use.

Water awareness and savings

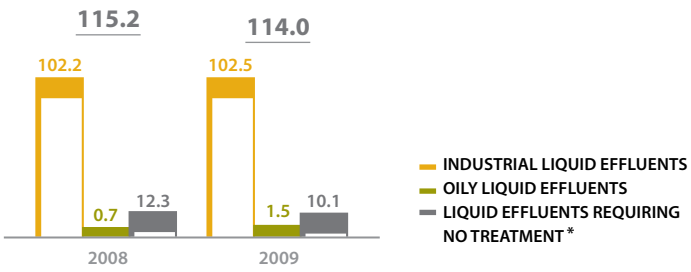
Vale's production unit for manganese ferro-alloys in Bahia, in Brazil, has cut its consumption of water used in the cooling of compressors by 86% since August 2009. This reduction was the main result of a project for environmental improvement, the Time Machine, that was created by a group of employees from the operating area. The project won a prize from the Convention for the Control of Quality in the Bahia Complex.

The initial goal of the project was to reduce daily water consumption from 203 m^3 to 81 m^3, which would represent a saving of 60%. But the efficiency of the system has exceeded expectations and beaten this goal. The unit currently consumes, on average, just 30 m^3 of water, which is about 86% less than before the project. The estimated annual reduction in water consumption is 62 thousand m^3.

The system is fairly simple, based on the basic 3Rs principles of recycling - Reduce, Reuse and Recycle. It could be installed in other units with similar processes. Another positive feature was its low cost, as it was constructed using material from the Waste Materials Storage Unit, such as piping, valves and radiators.

Before the project, water was withdrawn from a local lake, treated internally, passed through the equipment to cool the compressors, and then disposed of. Now, after being used, the water goes into an internal cooling system and then back to the compressors. As well as reducing the environmental impact, this initiative will lead to annual savings of over US$32.7 thousand, by eliminating the costs of the chemical products that were used to treat the water when it was withdrawn from the lake.

Total volume of liquids effluents generated by type
(million of m^3)



*This refers to water that is used in cooling and other processes that have the characteristics of disposal according to the legal criteria for the generation of effluents.

PT Inco and Thompson, in our Nickel business, did not report effluent data this year, as we identified a need to update the data collection methodology used in these areas.

One factor that has had a direct impact on water consumption data in 2009 was the level of rainfall in regions where some of our units have measuring systems. The smaller decline in the generation of effluents in the year than the decline in the withdrawal of water is due to the increase in rainfall which entered the treatment system, increasing the total volume of effluents that were treated.

Of the 114 million m^3 of effluents generated in 2009, about 86% ended up in rivers, dams or reservoirs, 10% in the ocean, and 4% in lagoons and lakes.

In terms of the qualitative characteristics of these effluents, the consolidated data reflect the appropriate parameters for each business area and process. We intend to align the data collection methodology for these parameters in the coming year across all of Vale's operations. This will enable us to improve the collection and traceability of data. The chart shows the distribution of the estimated final destination of the effluents.

WASTE MANAGEMENT AND DISPOSAL

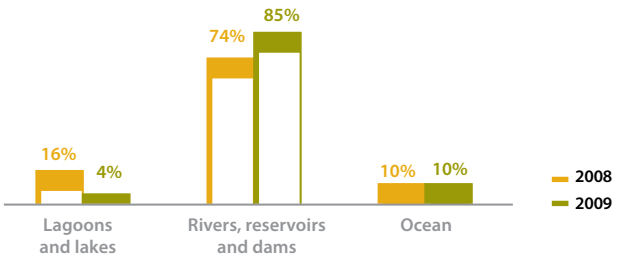
The waste management programs at Vale's operating units aim to reduce internal generation of waste and may provide for treatment prior to its final disposal. This may involve a number of actions, ranging from the separation of the different materials to the implementation of new reprocessing technologies that enable the reuse of waste in other productive chains. Vale has also invested in the development of local projects to incentivize the reuse of waste in new applications.

The Vale Environmental Technology Workshop encouraged debates on new technologies for enabling wastes to be used to generate electricity, and identified other opportunities for improvement in waste management.

The cornerstones of Vale's waste management are the correct storage of waste, the final disposal of waste materials, and the ability to track the waste. All companies receiving waste from Vale are subject to rigorous inspection and certification, in order to assess their environmental controls and performance.

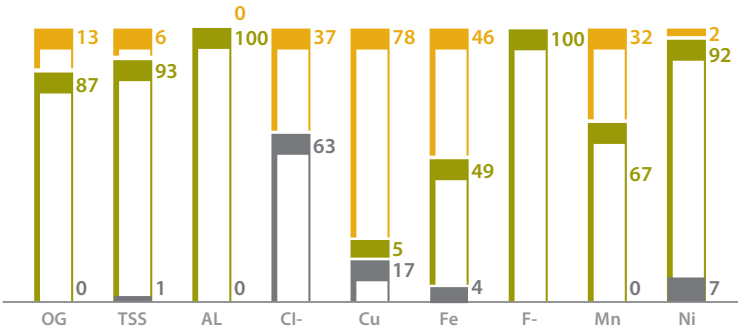
If reprocessing is not possible, final disposal takes place in landfills which are governed by appropriate environmental controls. The characteristics of the waste, including whether it is hazardous or non-hazardous, determine its final destination.

Total discharge of liquid effluents generated by destination



Distribution of effluents parameters by destination – 2009

%



The metals were analyzed in their dissolved form, except for Nickel production units where nickel was reported in its total form.

OG – oils and greases

TSS – total suspended solids

GENERATION OF WASTE

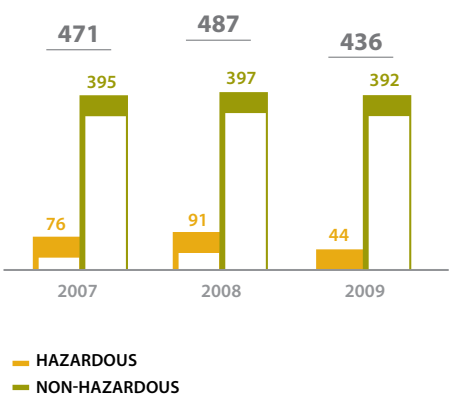
In 2009, Vale generated a total of 436 thousand tons of waste, and 10% of this amount was hazardous waste.

There was a decline in the volume of waste generated in nearly all business areas, with an average reduction of around 10% from 2008. This reduction is due mainly to the lower level of activity at the operations, as a result of the fall in global demand during the economic crisis. However, some units took advantage of this period of lower production to carry out large scale maintenance operations, which led to more waste generation in specific areas.

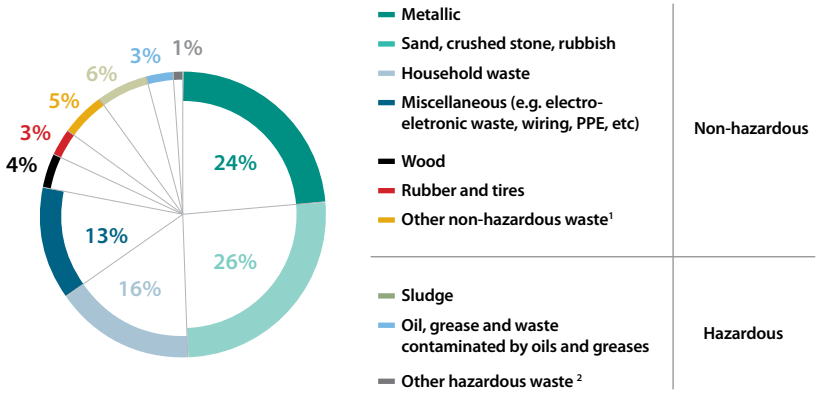
The areas with the highest levels of waste generation were: nickel (30%), iron ore (23%) and aluminum (20%), because of the nature of nickel and aluminum production and due to the large scale of our iron ore activities.

Our main aim in waste management is to reduce the internal generation of waste and its final disposal in landfill.

Consolidated amount of waste generated
(thousand tons)



Total generation 2009 by type of waste
(total = 436 thousand tons)



[1] Plastic, paper, cardboard, glass, fabrics, canvas and polymers.

[2] Waste from health care products, batteries, asbestos waste, waste containing mercury (e.g. fluorescent lights), paints and varnishes.

There was a significant reduction in the generation of hazardous waste, especially in the aluminum area, which exceeded more than 42 thousand tons in 2008 and in 2009 was reduced to 4.4 thousand tons, as a result of a change in the calculation criteria. Until 2008, the total volume included the waste from aluminum production sub-processes that were automatically reused by the plant. As of 2009, these materials were no longer considered waste.

In 2009 there was change in the profile of final waste disposal. Whereas in the previous year, most waste was recycled, in 2009 the majority of waste was disposed in landfill sites. This change does not reflect a trend, but is just the consequence of one specific action that was carried out. Vale Inco carried out in the year maintenance on its large smelters, and this led to an extra volume of inert waste, which was disposed of in approved internal landfill sites.

Throughout 2009, the operating units carried out actions to maximize the reuse of waste in their processes or in other productive chains, whenever economically and technically viable.

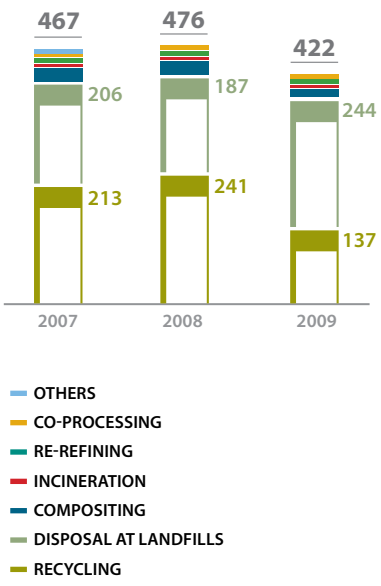
One of the priorities of the company is to develop markets for waste materials, and a specialist area is working on this initiative. A significant result of this effort has been seen in our sales of metal scrap. Despite the reduction in the generation of scrap, because of the fall in production, we were still able to maintain a high level of scrap metal recovery. The Brazilian units sold a total of 76 thousand tons of scrap in 2009. There was also a significant rise in the sales volume of rubber waste, increasing from 3 thousand tons in 2007 to 8,500 tons in 2009.

Vale did not transport any hazardous waste to other countries in 2009, as defined by the Basel Convention about the Control of Transboundary Movements of Hazardous Wastes and their Disposal.

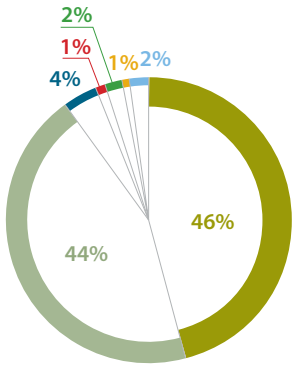
MINING AND METALLURGICAL WASTE

In 2009, Vale implemented the Dam and Pile Management System (SGBP) in the Brazilian units, in order to improve the handling of waste in dams (for tailings, water and sediments) and piles (of waste rock and ore). As a result, Vale now has an online management tool for making decisions about investments in new structures, for strategies to increase production, and for monitoring the action plans that result from

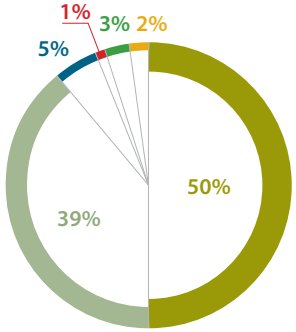
Total waste disposal
(thousand tons)



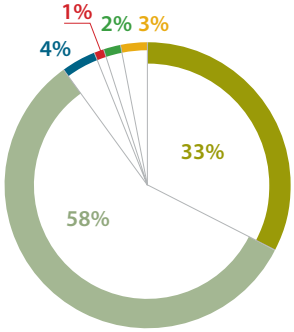
Final waste disposal 2007
467 thousand tons



Final waste disposal 2008
476 thousand tons



Final waste disposal 2009
422 thousand tons



The differences between the amount of waste generated and the amount of final waste disposal are due to temporary stocks.

local and corporate audits, license conditions or operational demands on our dams and piles. In addition, the SGBP enables us to consolidate and make available in real time information on geotechnical structures, creating indicators and risk matrices for operational and corporate areas.

The management of this waste includes carrying out a technical audit every three years on the 270 dams and the 230 waste piles of Vale in Brazil. The result of the latest audit, in 2008, reflected the stability of these structures and generated a compilation of recommendations and instructions for improvements that was converted into a series of action plans with clearly defined deadlines, responsibilities and budget. The next audit will take place in 2011.

Because of the level of risks involved with tailing dams and pile structures, all management of this area complies with control requirements detailed in the Sarbanes-Oxley Act (Sarbox) and undergoes regular auditing.

At Vale Inco's Sudbury unit, dam and pile stability risks are assessed annually by an external specialist board (Geotechnical Review Boards), which provides an overview with recommendations and guidelines for improvements. The board assembles once a year to review all aspects concerning the structure, construction and operation of the tailings areas.

At our operation in Newfoundland and Labrador, the leaching potential of metals in waste rock was assessed in the early stages of project planning and development. Results of these studies were used to develop effective segregation and disposal strategies for mineralized waste rock generated from ongoing open pit mine operations. These issues are also addressed through our mine closure plans to ensure adequate management after the life of the operation.

Vale Inco is part of the International Network for Acid Prevention (INAP), a global initiative aimed at developing ways to manage environmental contamination risks due to materials resulting from mining waste.

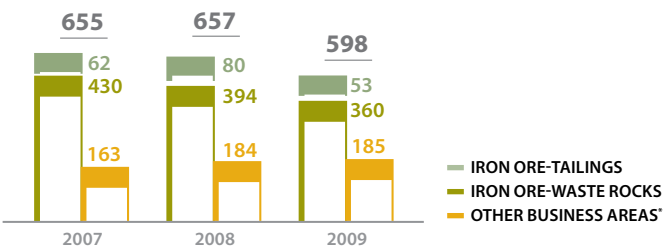
In 2009, in order to respond to the fall in demand in the global market, Vale cut its production of iron ore, which led to a 33.3% decline in the generation of waste rock and an 8.5% fall in tailings, compared to 2008. The reduction in the generation of waste rock was due to the implementation of dry iron ore processing.

There was a 0.5% increase in ore and metallurgical residues when compared with 2008, basically because of the increase in waste generation at Vale Australia, which reported an increase of 20 million tons. This waste consisted of non-hazardous rock material, or overburden, that is removed during open pit coal mining.

Overall, the total production of waste rock, tailings and mining and metallurgical residues fell by 9%, when compared with the production of these materials in 2008.

Total ore and metallurgical waste

(million tons)



*Includes tailings and waste rocks from mining nickel, potash, manganese, coal and copper, slag (manganese alloy), red mud (alumina) and Spent Pot Liner (SPL) (aluminum).

RECYCLING

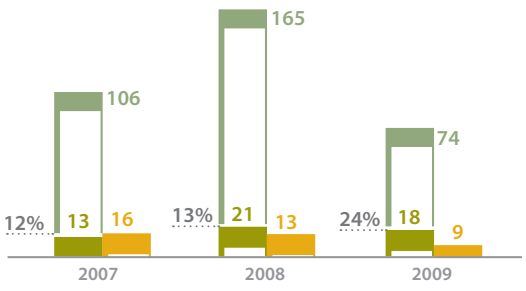
In mining, logistics and energy generation activities, there are generally limited opportunities for recycling within internal production processes. However, some areas, such as aluminum and nickel, perform post-consumer product recycling.

The Valesul plant in Brazil, which transforms alumina to aluminum, monitors the percentage of internal scrap recycling and of the remelting of recovered products in order to increase external scrap use and allow for increased production. The amount of internal scrap generated is influenced by a number of elements, such as the production mix, process efficiency and operating practices. In general, the objective is to reduce the generation of internal scrap to minimize the need to smelt the same input material twice. The reduction allows for increased remelting of external scrap, in other words, the reuse of products after their consumption. In April 2009, the decrease in the production of liquid aluminum led to an increase in the use of external scrap, increasing the percentage of recovered products in spite of the decrease in production.

Our nickel operations also include activities which recycle the products sold, but these were heavily affected by the decrease in production in nickel operations, such as Vale Inco Europe (Acton Refinery), in addition to the sale of the Inmetco unit in the United States.

The reuse of products derived from secondary material (post-consumption and industrial scrap) is a particular feature of Valesul and at Sudbury and Vale Inco Europe (Acton Refinery). The decrease observed in 2009 was due to the suspension of operations in Sudbury and to the decrease in aluminum production.

Post-consumption materials used, percent of sales
(thousand tons)



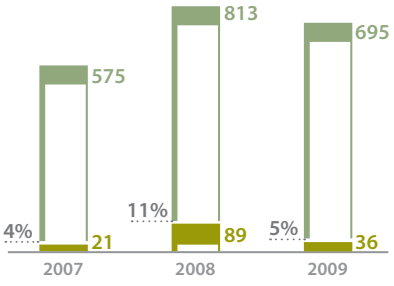
- AMOUNT OF PRODUCT SOLD
- AMOUNT OF POST CONSUMPTION RECYCLED MATERIAL
- AMOUNT OF PRODUCTS AND PACKAGES INTERNALLY RECYCLED

% Post-consumption recycled material/ product sold:

Percentages above do not include internal recycling, according to GRI methodology.

The data include aluminum operations (Valesul) and Nickel (Clydach Refinery and Inmetco, the latter only for 2008).

Secondary material used, percent of sales
(thousand tons)



- AMOUNT OF PRODUCT SOLD
- AMOUNT OF REFUSE FROM INDUSTRIAL SOURCES AND POST-CONSUMPTION RECYCLED MATERIAL

% (Post-consumption recycled material + industrial refuse)/ product sold:

Percentages above do not include internal recycling, according to GRI methodology.

The data include aluminum operations (Albras and Valesul) and Nickel (Sudbury, Thompson, Acton Refinery and Inmetco, the latter only for 2008).

Material	Volume purchased in 2008	Volume purchased in 2009
Ammonium nitrate	146.1 thousand tons	122.9 thousand tons
Conveyor belts	330.8 thousand meters	303.0 thousand meters
Crossties	1.4 million units	1.1 million units
Explosives	25.3 thousand tons*	25.8 thousand tons
Lubricant oil	23.7 million liters	23.1 million liters
Off road tires	6.9 thousand units	4.3 thousand units**

* Vale Inco data revised and estimated based on volume of production.
**Not including Vale Inco data.

MATERIALS USED

Materials management within Vale seeks to optimize the use of materials, with targets for cost reductions and stock levels. In 2009, we held workshops with the operating areas in order to establish and implement improvements in the use and disposal of materials.

The table below lists the six most significant input items that are acquired and used in our productive processes without forming part of our final products. Apart from the crossties, which come from certified wood, the other materials are all classified as non-renewable items.

To assess the proportion of recycled input material (not virgin material) acquired by Vale, a study was carried out of our corporate purchasing in Brazil, with our main suppliers[1]. According to the survey, the utilization rate of recycled products ranged from 0% to 5%.

Fuel consumption is another major input material at Vale. More detail on this is provided in the energy section (pages 66 and 67).

1 **The study was carried out with our main suppliers of ammonium nitrate, conveyor belts, explosives and lubricant oil and off-road tires, representing approximately 45% to 85% of the total volume of Vale's purchases of these inputs.**

ENVIRONMENTAL RISK MANAGEMENT

The use of products that are classified as hazardous is an inherent feature of mining activities. This means that Vale and other companies in the mining sector, in general terms, must have efficient management systems that ensure the protection of people and of the environment in the storage, handling, use, transfer and disposal of the various chemical products that are involved in operating processes.

The management of these materials is based on aiming to reduce the risk of environmental incidents in our operations, using technical procedures, trained teams, specialist consultants, and regular audits. In this way, we are also able to ensure compliance with applicable legal requirements and best practices for risk management.

We carried out, in 2009, an evaluation of the highest risk situations in our operations, by means of external auditing, in order to verify the degree of implementation of risk management in the operational units in Brazil. This evaluation consisted of the recognition of hazards, assessment of risks, implementation of controls and plans for mitigation and emergency response. The evaluation identified an adequate management level, with a recommendation that procedures for carrying out simulations should be improved.

In addition to this, we continued to implement the Process for Analysis and Risk Management of Health, Safety Environment. This process is based on a vision for the integrated management of environment, health and safety risks.

We published, in 2009, a Corporate Instruction for Communication of Environmental Issues, the aim of which is to establish a methodology for classification of incidents and to assure rapid communication of incidents to environmental managers. The implementation of this instruction will enable us to homogenize, in all of our businesses, classification criteria and the communications procedure for environmental incidents, and thus optimize our emergency response.

In 2009 there were five cases involving the leakage of hazardous products, which were classified as critical incidents (*) in our classification framework. Using their emergency action plans, all units acted to remedy the impacts of the incidents and to investigate their causes, to avoid future spills.

Product spills	Volume **	Location of spill
Sulphuric acid	3 m^3	Goro Nova Caledônia – Vale Inco
Flakes of urea	200 t	Bom Sucesso/ MG – FCA
Hydrocarbons	1.5 m^3	Divinópolis/ MG – FCA
Hydrocarbons	0.3 m^3	Barão de Camargos/ MG – FCA
Hydrocarbons	0.1 m^3	Mangaratiba/ RJ – Terminal Ilha Guaíba (TIG)

* "Significant spill" in the GRI corresponds to the definition of "critical incident" used by Vale, that which extends beyond the operational unit's property limits and causes residual impact on the environment and/or health and safety within and surrounding the operational unit following the conclusion of mitigation procedures.
**Estimated volumes.

CONTROL OF EMISSIONS

In 2009, we started reporting in our list of indicators measurements of our emissions of sulfur oxides (SOx), nitrogen oxides (NOx) and particulate matter (PM). When these substances have a presence above a certain level in the atmosphere, they can be harmful to human health and to flora and fauna. Unlike GHG emissions, these pollutants do not have a global effect, and their impact on air quality depends on their local concentration. Likewise, the level of local concentration depends on the location of the sources of the pollutants and of other factors such as topography and the meteorological conditions of the region.

Emissions of particulate matter

Data for volumes of emissions of particulate matter were obtained using the data from the chimneys of our operating units and on occasion by applying emission factors. We did not calculate emissions from mobile or fugitive sources.

Mining operations do not generally produce significant levels of emissions of particulate matter from stationary or point sources. The highest levels of emissions in our operations come from our industrial nickel, aluminum and pellet plants. Combined, these areas contribute around 96% of Vale's total emissions.

All the stationary or point sources of particulate material are controlled using measures such as electrostatic precipitators, air filters, and washing towers. These control measures can remove pollutants with an efficiency of over 98%. Therefore, the total of our emissions represents those emissions which were not removed by this equipment.

Total emissions of particulate matter in 2009 were 5.1 thousand tons.

Emissions of nitrogen oxides (NOx)

The emissions of NOx are directly related to the quantity of fuels used in our combustion processes. The calculation of our emissions is based on specific emission factors applied to the amount of each type of fuel used and the various combustion processes for the fuels, which allows us to calculate the amount of NOx produced. In the industrial processes used by Vale Inco, the emissions were calculated from the direct monitoring of combustion gases emitted into the atmosphere.

The most significant generators of NOx in Vale's business areas are our operations of logistics, iron mining, aluminum and nickel. In the logistics area, mining, and nickel, emissions are high because of the extensive use of internal combustion machines (trains and diesel powered mining equipment), which have a high rate of generating NOx. The pellet plants and the nickel plants, although intensive users of fuel, made a relatively lower contribution to emissions as their equipment uses external combustion (boilers, smelters and in calcination). This technology generates only a low level of NOx, and production levels were also low in 2009. Aluminum operations emitted more NOx, due to the intense demand for primary energy in the refining process.

Total emissions of NOx in 2009 were 84 thousand tons.

The emissions from our trains and equipment in the mining area make up about 70% of the total emissions of Vale, but as they are mainly located in uninhabited or sparsely inhabited areas, the impact on air quality is significantly reduced.

Emissions of sulfur oxides (SOx)

Vale's emissions of SOx come from two main activities: the burning of fuels and productive processes. The calculation of our emissions from fuels is based on our consumption of fuel and the respective sulfur levels of the fuel, with all the sulfur in the fuel being converted into either SO_2 or SO_3. Emissions from our processes were calculated based on mass, with all the sulfur added in the process, and not present in either end products or waste, calculated as SOx emissions. At Vale Inco, emissions from processes were calculated based on monitoring, sampling of exhaust gases, as well as mass balance calculations according to regulatory requirements.

Total emissions of SOx in 2009 were 323 thousand tons.

Vale's most significant SOx emissions come from nickel production processes, especially the smelters (reduction) and the refineries, where sulfide ores are processed. Elsewhere, operations in the aluminum and, to a lesser degree, logistics and pelletization, also produce SOx. Emissions from our logistics area depend mostly on the level of sulfur in the fuel that is used. At our aluminum plants, 78% of emissions come from the burning of fuels, and 22% from the processes. In the pelletizing units, emissions from the burning of fuel represent just 1% of total emissions, reflecting the use of natural gas in nearly all the furnaces.

COMPLIANCE

Vale's management of environmental compliance is based on continual monitoring and evaluation. We aim to act rapidly to find solutions for any incidents of non-compliance.

In 2009[2], there were two cases that are considered significant or relevant[3]. During the year, no fines were paid, and no non-monetary sanctions were imposed[4]. Concerning the administrative fines imposed by the municipality of Guapimirim for a railroad accident at Vale subsidiary Ferrovia Centro Atlântica (FCA), in the city of Itaboraí, in Rio de Janeiro, we obtained a positive result in the court of first instance and the appellate court, with the fine cancelled. The two environmental fines imposed by the Inea (State Institute for the Environment) have been suspended pending the completion of the changes that the company has been ordered to make.

Among relevant lawsuits, two are continuing to progress, involving the Vale iron mine operations in Itabira, Minas Gerais, Brazil, for alleged damage. There are also four other lawsuits associated with the MBR's Capão Xavier mine licensing, in Belo Horizonte, Minas Gerais, Brazil, and, in the city of Vitoria, Espírito Santo, Brazil, a lawsuit was filed in response to alleged air pollution. In all of these, the company is arguing that the accusations are unfounded.

CASE

An innovative technology for controlling dust pollution

In September 2009, to prevent the dispersion of particulate substances by the wind, Vale installed its first Wind Fence in the Tubarão Complex, the first time that the technology has been used in Latin America. By 2011, the company will have invested about US$ 287.2 million in implementing environmental control improvements, including the installation of four more Wind Fences, to minimize the emission of particles.

Wind Fences are composed of a metal structure that is covered by polypropylene, and can resist wind currents of up to 120 km/h. Vale is installing these structures around its stockyards, in order to improve our control of particulate emissions from our stockpiles of mine ore, pellets and coal. A total of nine kilometers of covering will be installed, and each wind fence will be one and a half times the size of the stockpile, with an average height of 24 meters, the same as an eight-storey building.

The first Wind Fence is already in use around the stockyard for pellets, in Plants I to IV of the complex. By the end of 2010, Wind Fences will be constructed in the stockyards of Plants V to VII, and in the stockyard for pellets and mine ore at the Port Terminal. The final Wind Fence will be installed by July 2011 in the coal yard.

Proven efficiency

Analysis for the implementation of Wind Fences in the Tubarão Complex began in 2005, when the Federal University of Rio Grande do Sul started wind tunnel tests. These tests demonstrated the viability of this sort of structure, and established the parameters needed to ensure the efficiency of the Fences, such as their height, porosity and geometry. In 2007, Vale hired Midwest Research Institute (MRI), a US institute that specializes in environmental controls, to determine the ideal size and configuration of Wind Fences for our stockyards.

Subsequently, the Wind Fence projects were designed and installation began. During the implementation process, we repeatedly measured and analyzed emissions of dust, before and after the Fence was finished, in order to assess the efficiency of this environmental control system in reducing emissions of particles. Four towers, each 23 meters high, were built around the stockyard, on which we installed sensors for particulate material and wind speed and direction. After four months of monitoring, the results showed that the Wind Fence cut emissions of dust by 77.4%.

As well as the Wind Fences, Vale invested in improvements designed to reduce particulate emissions. One of the most significant of these was the decision to enclose 57 transfer points on our conveyors of ore, pellets and coal, in order to prevent the dispersion of particles when the material is transferred from one conveyor to another. The company is also installing a total of 21 additional electrostatic precipitators in the pelletizing plants. These devices can filter 99% of the particulate emissions that come from the pelletizing furnaces.

2 The 2008 report said that the lawsuit relating to the fuel depot in Carajás railroad in Pará had been closed. However, this is not correct, as we have filed an appeal with the Brazilian National Environmental Council (Conama).

3 The significance of compliance processes is assessed based on the following criteria: a) the monetary value, including indemnity claims and fines; b) effect on the interests of the company or the public at large, regardless of monetary value; c) non-monetary sanctions imposed.

4 The processes include actual and estimated fines (based on the values requested in the actions), however it does not represent a real, defined amount, since there is no liquidity expressed in a final court decision or in an instance of acknowledgement by Vale, until the case is resolved. In view of the above, and to comply with the scope of GRI indicator EN28, we are including existing cases which match the relevant criteria, and reporting only those values representing a defined amount acknowledged as due by Vale, or already paid, in order to prevent possible distortions regarding the reality of judicial and administrative processes, which, pending final decision, have no definition or precision of values under discussion.

In Canada, a civil action is ongoing, alleging a decline in the value of real estate as the result of alleged long term soil contamination associated with the refinery at Port Colborne. The company is pursuing its defense.

The two new lawsuits recorded in 2009 involve Alunorte and Vale. The Brazilian Institute for the Environment and Natural Resources (Ibama) has reported Vale subsidiary Alunorte for allegedly causing pollution of the Murucupi river by discharging effluents into the water course during the processing of bauxite. In the other case, the environmental body has requested clarification about the crossties of the Carajás railroad. Legal defenses have been presented in both cases, and we believe that we should obtain a favorable result.

Energy

Energy is one of the fundamental inputs in terms of the sustainability of Vale's activities. Therefore, guaranteeing the availability of adequate energy supplies at appropriate cost is a priority of the management strategy for our various units. We also aim to continuously improve our energy supply mix with a range of short, medium and long term actions. Our main focus is to contribute to the global objective of reducing greenhouse gas emissions and environmental conservation, so that the availability of energy resources can be guaranteed today and in the future.

We act in three main areas: in the development of new renewable sources of energy; the establishment of mechanisms to reduce total energy consumption; and the maintenance of an energy mix that ensures the competitiveness of our operations.

The purpose of energy management is to maintain and improve the activities that we carry out in accordance with our Corporate Guidelines on Climate Change and Carbon (further information can be found at www.vale.com). Every year, we carry out new initiatives focused on the use of renewable energy sources and on collecting information that will help us to make strategic decisions and reduce risks.

These integrated energy efficiency initiatives include conceptual and basic engineering studies that identify energy efficiency projects by focusing on the consumption of electricity and fuel. In addition to the study mentioned in the 2008 Sustainability Report carried out at the Pelletizing plant in Fábrica, Minas Gerais, Brazil and finalized in June 2009, in the second semester of 2009 Vale concluded studies at the following Brazilian units: Pelletization in Vitória (ES), Vale Manganese and mines in Conceição, Algeria, Fábrica Nova, Fazendão and Timbopeba in Ouro Preto (MG). Studies were also concluded at the following Vale Inco units: Sudbury, Thompson, Clydach, Voisey's Bay and PT Inco. These studies were designed to support the target at Vale Inco of reducing energy intensity by 5% from 2008 levels. We also studied energy efficiency projects for the Barão de Mauá building, the company's administrative headquarters. The implementation of these projects will begin in 2010.

The portfolio of energy efficiency projects will be updated annually, based on a continual process of analysis.

We established Energy Efficiency Technical Groups to support the execution of energy projects, as well as carrying out communication activities and specific technical training.

More information about energy efficiency projects can be found on pages 102 and 103.

DIRECT ENERGY CONSUMPTION

In 2009, Vale consumed 127 terajoules (TJ) of fuel material, about 12% less than in 2008. The decline in consumption reflects the impact of the economic crisis, which led us to suspend operations at some units and reduce production elsewhere.

Because the suspension of operations took place mainly in pelletizing plants, there was also a reduction of approximately 44% in the consumption of natural gas. The reduction in production at Vale mines impacted the consumption of diesel fuel, which fell by 17% from the level of 2008. In Brazil we are gradually replacing petroleum-based diesel with biodiesel, therefore we are recording larger percentage declines in the use of the former. While the consumption of petroleum-based diesel fell by 42%, the reduction in the consumption of biodiesel (B3 and B4) was just 8%. Our consumption of gasoline also fell, by 33%.

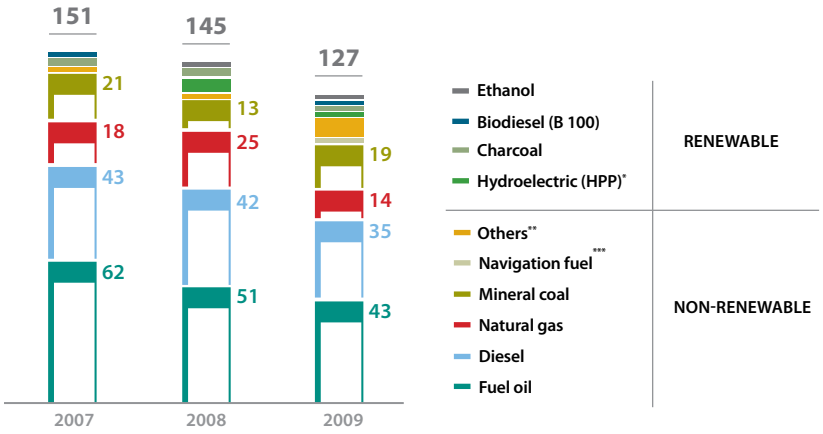
There was a 17% reduction in the amount of propane used by our international units. There was a 556% increase in the consumption of LPG, which is only used in the food preparation area, because of the inclusion of data from sectors at units that had not previously been reported for this indicator. This gas is not used in production processes and represents an insignificant share of our energy supply, at under 0.01%.

The reduction in the consumption of fuel oil was influenced by the sharp fall in pelletization, where consumption fell by over 95%, from 116 thousand tons in 2008 to just 964 tons in 2009. This reduction was due to two main factors: the suspension of activity at the São Luís unit, and the replacement of fuel oil by natural gas in other units. The kaolin units also reduced their consumption of fuel oil to 21 thousand tons from 57 thousand tons in the previous year.

The consumption of mineral coal increased by 40% in 2009, due to the start of full operations of the co-generation power facilities of Alunorte, which uses mineral coal as a fuel.

Aggregate consumption of fuel materials

(thousand TJ/year)



*HPPs—Small owned hydroelectric power plant.

**Propane, LPG/Propane, Kerosene, Gasoline, Coke and CO rich gas.

***Fuels used by Vale's shipping fleet - Intermediate Fuel Oil (IFO) and Marine Gas Oil (MGO).

Total direct energy consumption in usual units

Fuel	2008	2009	Units
Charcoal	155	75	thousand metric tons
Coal	906	600	thousand metric tons
Natural Gas	703	381	million m^3
LPG	2,338	3,502	tons
Fuel oil	847	721	thousand metric tons
Gasoline	4	2	million liters
Diesel	239	139	million liters
B2, B3, B4 Diesel	959	684	million liters
Kerosene	6	3	million liters
Propane	428	280	thousand m^3
Coke	23	14	thousand metric tons
CO Rich Gas	8	15	million m^3
HPPs	2.2	2.1	TWh

The data from Vale's *2008 Sustainability Report* for natural gas, LPG, fuel oil, gasoline, diesel and propane were updated.

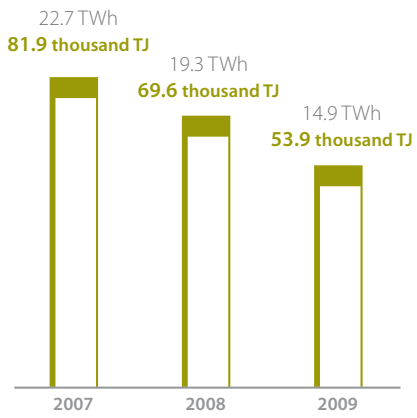
In 2009, our hydroelectric plants increased their share of our energy supply

INDIRECT ENERGY CONSUMPTION

2009 was an unusual year as a result of the international crisis, and Vale's indirect energy consumption fell by around 23% to 14.9 TWh from 2008 (19.3 TWh). Our electricity consumption was impacted mainly by the suspension of activities in some units such as the pelletizing plants of São Luís and Fábrica, the mines of Água Limpa and Urucum Ligas, and the reduction in the rate of production in other units.

In international operations, the energy consumption of Vale Inco fell by 34%, as a result both of the global economic crisis and the suspension of some activities in Canada. Vale Manganèse France recorded a reduction of 20% from the previous year, while Vale Manganese Norway reduced its consumption of energy by just 3%.

Total consumption of indirect energy



TOTAL CONSUMPTION OF ELECTRICITY

As large energy consumers, by investing in energy production to supply our global operational demands, we protect ourselves against price volatility, and minimize regulatory, climate and supply risks.

Vale generates 39% of its electricity demand, either with hydroelectric power plants or with generation using fuel.

Of the total consumption, 6.1 TWh were produced by our own hydroelectric plants in Brazil and abroad (with 63% produced by plants in which we participate through consortia and by our HPPs in Brazil, and 37% by Vale Inco hydroelectric plants in Canada and in Indonesia).

The fall in grid electricity consumption in Brazil resulted from Vale's hydroelectric plants (HPPs and consortia) representing an increased share of our energy supply, from 13% in 2008 to 16% in 2009. Under Brazilian legislation, only units that are 100% controlled by Vale can receive electricity generated by these hydroelectric plants. In terms of the total energy consumed by these units, the share of our hydroelectric plants rises to 48%.

We also used 0.8 TWh of electricity generated by the following thermal sources:

- energy cogeneration at Alunorte makes use of process steam to generate 0.23 TWh (23% of consumption);
- the Cadam process uses fuel oil generators to supply the entire unit with 0.49 TWh;
- PTInco generated 0.09 TWH of electricity (just 4% of the site's total electricity demand) with fossil fuels.

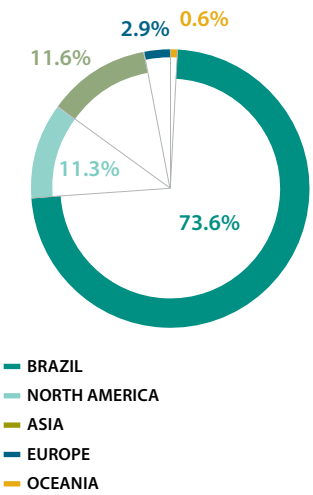
The rest of Vale's electricity demand (61%) was supplied by purchasing electricity from the respective national networks.

SUPPLY MIX

Vale's consumption of energy from all direct and indirect sources is shown in the supply mix chart below. As the chart shows, 73% of our indirect energy (acquired electricity) comes from hydroelectric sources, contributing to low levels of indirect CO_2 emissions. This percentage is much lower than the 76% reported in 2008, because of the increase in the energy supplied by our hydroelectric plants (HPPs), which enabled us to purchase less electricity from outside sources.

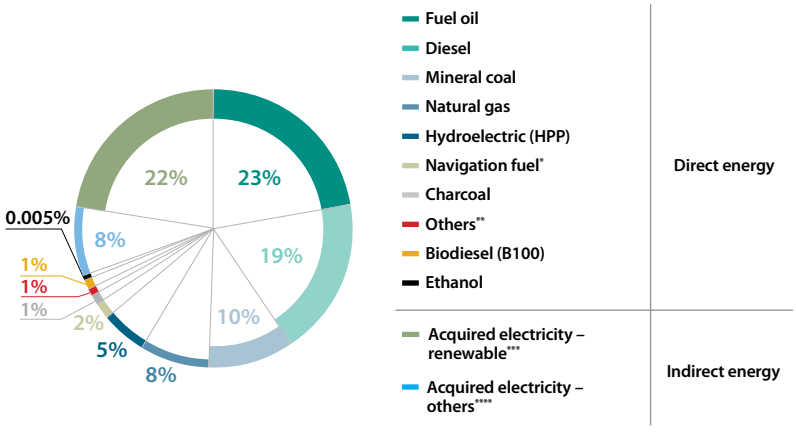
We invest in energy production to meet the demand of our global operations.

Distribution of total energy consumption



Aggregate energy supply mix – Vale 2009

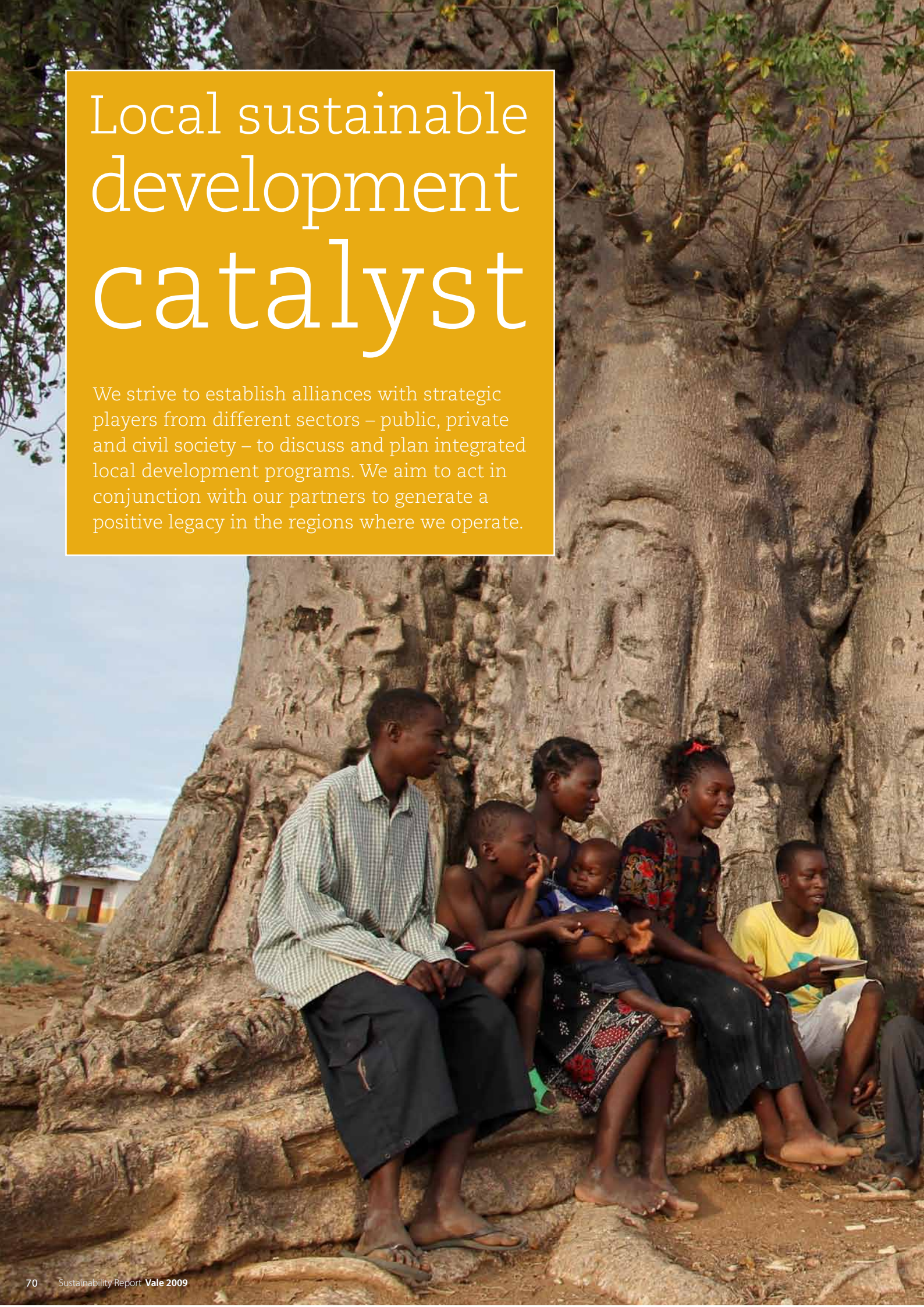
(total = 181 thousand TJ)



*Intermediate Fuel Oil (IFO) and Marine Gas Oil (MGO).
**Propane, LPG/Propane, Kerosene, Gasoline, Coke and CO rich gas.
***Hydroelectric and biomass.
****Nuclear and thermal.

Local sustainable development catalyst

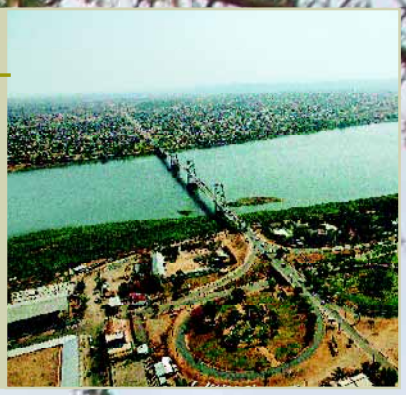
We strive to establish alliances with strategic players from different sectors – public, private and civil society – to discuss and plan integrated local development programs. We aim to act in conjunction with our partners to generate a positive legacy in the regions where we operate.



TETE

MOZAMBIQUE

Our coal mine project in Moatize follows our principle of strengthening our relationship with communities in the regions where Vale operates and carrying out actions to support sustainability. Under the shade of the baobab tree, we are engaged in dialogue with the local population.



LOCAL DEVELOPMENT

Developing networks

In partnership with governments and society, we strive to promote the sustainable development of the regions where we operate

Investments in mining bring opportunities to territories— increased tax collection, job creation, higher salaries and consequently increased household income, among other benefits. Vale's greatest challenge is to capture these opportunities, in order to create a legacy (social, economic and environmental) of sustainability in the areas where we operate.

Based on a series of programs, we strive to mitigate risks and maximize opportunities in the regions where we operate.

Through integration with governments and society, we seek to maximize the opportunities that derive from the presence of Vale in the region, stimulating the allocation of tax revenue to investments in infrastructure, the qualification of workers and suppliers, and economic diversification. In this way, we contribute to medium and long-term local development.

LOCAL DEVELOPMENT MANAGEMENT

We possess diverse programs and instruments in our different areas and regions of operation to manage the socio-environmental impacts that derive from our activities.

In the viability analysis of project implementation, we adopt the Front-End-Loading method (FEL), which encompasses social, health, safety, security and environmental aspects, as well as economic and operational risks.

In addition to this, and based on the environmental, social and economic study made in the EIA/Rima (Environmental Impact Assessment and Environment Impact Report) and other environmental and socio-economic studies, we consider the potential impacts of our presence in each region right from the licensing and implementation phases of our projects.

These tools are used in conjunction with the Integrated Socio-Economic Diagnostics carried out by the Vale Foundation. These studies

estimate, by means of socio-economic forecasts, the possible impacts of Vale's presence in these territories, at the local and regional levels. So far, Integrated Socio-Economic Diagnostics were performed in the following regions: Barcarena, Abaetetuba and Paragominas; Estrada de Ferro Carajás (Carajás Railroad); Estrada de Ferro Vitória a Minas (Vitória to Minas Railroad); Minas Gerais (mines in the South and Southeast system); Rio de Janeiro; the southeast region of Pará and Vitória, all in Brazil; and in Mozambique in Africa. In 2009 an evaluation was initiated in Sergipe, in the municipalities that are impacted by Projeto Carnalita, in the potassium area. Updates of the evaluations are scheduled for 2010, commencing with the southeastern part of Pará. Through these initiatives we look for mechanisms to avoid or minimize negative impacts and to maximize the positive impacts of our operations. The main impacts generated by our activities are described in the chart.

	Direct	Indirect
Positive Economic Impact	• Job creation • Professional qualification • Increase in tax revenues • Procurement of local products and services • Investments in service and infrastructure	• Economic development • Indirect job creation • Wage increases • Promotion of other economic sectors • Attraction of suppliers • Development of local suppliers • Attraction of investment in diverse spheres of the public and private sectors • Improvement of local infrastructure
Negative Economic Impact	• Environmental impact • Interference with land use • Risks of accidents	• Pressure on infrastructure and public services because of demographic increase • Real estate speculation in remote areas connected to low housing supply and high demand • Creation of the economic leakage effect resulting from hiring suppliers and workers from other regions because of the lack of specialized local companies and workforce

PROGRAMS AND PRACTICES FOR IMPACT MANAGEMENT

Aware of the potential consequences of our activities, we strive, through different programs, to mitigate the risks and maximize the opportunities in the territories where we operate.

Knowledge of the area where we will operate and the forecast of impacts that the project could cause allows us to elaborate plans for specific and detailed socio-environmental management, applicable to the local situation.

These plans are an important instrument for decision-making in the administration of Vale's social investments.

The initiatives that we carry out for impact management also contribute to sustainable local development. Among these, we would like to note the following programs: professional qualification, relationships with local and traditional communities, cultural appreciation and other social programs (read more about these programs at www.vale.com).

Programs and Practices by Project Phase	Licensing/ Implementation	Operation	Closure
Study of Environmental, Social and Economic Impact	■		
Management of Environmental, Social and Economic Impacts	■	■	■
Mine Closure Plan			■
Development of Suppliers		■	
Professional Qualification (employees and communities)	■	■	
Relationships with Communities (including traditional communities)	■	■	■
Appreciation of Cultural Patrimony			
Social Programs		■	

■ INTENSE FREQUENCY ■ MODERATE FREQUENCY

Also worth mentioning is the role of the Suppliers Development Program (PDF), in the regions where we are present, in which we work with associations, government bodies, and educational institutions. This program involves investment in the qualification and development of our suppliers to develop new business opportunities. Since 2008, we have implemented the Inove Program, which integrates the actions of the various areas of Vale that are focused on the strengthening of small and medium suppliers. Especially in more remote areas, we seek to develop regional suppliers with the objective of contributing to local development and better social and economic conditions of the populations (more information in the Value Chain chapter).

Our objective is to contribute to reduce the deficit in urban infrastructure

VALE FOUNDATION

The Vale Foundation has as its mission to contribute to the integrated development—economic, environmental and social—of the territories where Vale operates in Brazil, articulating and leveraging social investments, strengthening human capital within the communities and respecting local cultural identities.

In our international units, Vale's social contributions are carried out by local teams. Our strategy includes the creation of international Vale Foundations, in accordance with the guidelines of Vale Foundation in Brazil, always respecting the particulars of each region. We already have Vale Foundations in Colombia and in Mozambique. We are currently in the process of establishing a new Vale Foundation in New Caledonia[1].

Our actions consider the unique characteristics of each territory and are based on the Policy for Sustainable Development. We carry out Integrated Socio-Economic Diagnostics, wide ranging studies that gather information from each territory and allow us to identify the specific needs and potential of each one. These studies serve as a base for the elaboration of Management Plans for Social Investments (PGIS), with a focus on the areas of operation of the Vale Foundation: urban and residential infrastructure, public administration, and human and economic development.

We believe in inter-sector dialogue and we value collective development based on the integration of the common interests of the government, private initiative, and organized civil society. Thus, we seek to leave a legacy of sustainability in the areas where Vale operates, acting to improve the living conditions of these populations, strengthening our relationship with the communities and carrying out important actions.

INFRASTRUCTURE

Our objective is to contribute to reduce the deficit in urban infrastructure (basic sanitation, treatment of solid waste, drainage and roads) and housing. We operate in partnership with local governments, developing executive projects and supporting the collection of available resources in the state and federal spheres in order to implement the projects. We also monitor the implementation of the projects and support the local governments in process management. By December 2009, 72 executive projects had been concluded or were being prepared in 40 municipalities in the states of Pará, Maranhão, Espírito Santo and Minas Gerais, important areas of operation for Vale in Brazil. Of these projects, 30 have already been registered for the allocation of resources from the Brazilian government's Accelerated Growth Program (PAC).

1 The New Caledonia Foundation is a key element of the Pact for Great South sustainable development, signed by Vale Inco Nouvelle-Calédonie and the Kanak populations from the southern part of the island in 2008. In the 2008 report, reference was made to the creation of the mentioned Foundation. Its implementation is pending the completion of legal procedures for the starting of operations. Two other key elements of the Pact for Great South sustainable development are the Indigenous Environmental Consulting Committee (created in 2009) and the reforesting association (scheduled for 2010).

Our actions in the territories reflect the specific characteristics of each location.

PUBLIC ADMINISTRATION

By means of protocols of intention signed with local governments, we work alongside public authorities to strengthen public administration. We develop major programs in education, health, order, and urban cleaning, and we support local governments in the improvement of their administrative and financial management, in order to reduce costs and raise financing.

We also participate in the improvement of public administration by means of programs such as:

- ***Ação Educação* [Action Education]:** works to improve public administration of public education, following plans of the Education Policy in four areas: educational administration, continued training, student teaching and infrastructure. This allows public offices to identify opportunities for coordination and mobilization, combining efforts in favor of the commitments assumed in the municipal and state spheres.
- ***Ação Saúde* [Action Health]:** works to improve collective and family health, prioritizing maternal-infant health. It promotes the formation of active cells, comprised of health professionals, educators, community leaders and, principally, women and youths, with an objective to reduce infant morbidity and mortality.

The table below describes other programs worth mentioning (read more at www.vale.com):

Program	Implementation period	Number of beneficiaries
Escola que Vale [Vale School]	2000 to 2009	more than 170 thousand
Vale Alfabetizar [Vale Literacy]	2003 to 2009	120 thousand
Novas Alianças [New Alliances]	2007 to 2009	more than 1,050

HUMAN AND ECONOMIC DEVELOPMENT

Vale Knowledge Stations, designed by the Vale Foundation, are the principal initiative for human and economic development. They consist of core groups for human and economic development, following a rural or urban model. The objective is to contribute to improved quality of life and the integrated and sustainable development of communities. The core groups are civil society organizations of public interest (Oscips), enabled by local partnerships with public authorities and organized civil society entities.

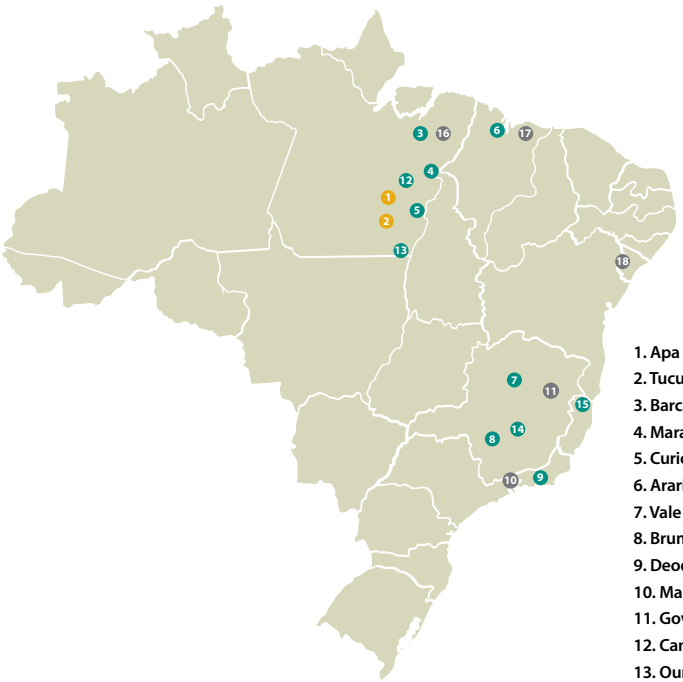
The priority target public of the Knowledge Stations is children and adolescents from 6 to 18 years of age. The intention is to promote long-term integrated actions that contribute to integrated personal development. In the core groups, participants are stimulated through sports activities (swimming, track and field activities, judo and soccer), cultural activities, in social gatherings and entrepreneurship. Among the social programs already developed are: *Rede que Vale—Empregabilidade* [Network that Matters-Employability], *Vale Juventude—Participação Juvenil* [Vale Youth—Youth Participation], *Vale Música—Cultura* [Vale Music—Culture] and *Brasil Vale Ouro—Esporte* [Brazil is Worth Gold—Sports]. Read more about this program on the following page.

In the area of local productive vocations, the Stations utilize the appropriate knowledge for each region, choosing production chains with the greatest possible added value and that allow for economies of scale. These chains are organized with the help of the producers, who through the Stations receive technical support and have access to the knowledge and coordination necessary for the processing and commercialization of their production.

The Knowledge Stations also aim to disseminate new technologies and methodologies for learning among professionals. The majority of these are public employees assigned by the partnering local government and/or state government, who are trained to promote educational practices related to the day-to-day education of students and of the communities. It is a legacy of knowledge, organized and institutionalized for regions and municipalities where we are present. Approximately 30 thousand adolescents will benefit from 18 Stations that will be built by 2012 in the states of Maranhão, Minas Gerais, Espírito Santo, Pará, Sergipe and Rio de Janeiro. The map below illustrates the planned implementation of the Knowledge Station units in Brazil.

In Mozambique, two Knowledge Stations are being implemented as part of the Moatize coal project, in Tete. In Colombia, a Knowledge Station has been inaugurated in the region of La Loma, near the El Hatillo coal mine, and a Knowledge Station is planned in the Ciénaga region.

Knowledge Station



- IN OPERATION (02)
- IN IMPLEMENTATION (11)
- PLANNED (05)

A TOTAL OF 18 OPERATIONS BY 2012

1. Apa do Gelado Parauapebas
2. Tucumã
3. Barcarena
4. Marabá
5. Curionópolis
6. Arari
7. Vale do Jequitinhonha
8. Brumadinho
9. Deodoro
10. Mangaratiba
11. Governador Valadares
12. Canaã dos Carajás
13. Ourilândia do Norte
14. Nova Lima
15. Serra
16. Concórdia do Pará
17. São Luís
18. Capela

CASE

Creating Champions

In its search for sporting talent, the Vale Foundation launched the *Brasil Vale Ouro* [Brazil is Worth Gold] program, which seeks to identify and prepare athletes in judo, swimming and track and field in the Brazilian cities where Vale operates. This is one of the largest talent-seeking programs in the country and represents Vale's support of high performance athletics. Its principal objective is to help Brazil become an Olympic power and, in addition to this, leave a legacy for future generations of organized knowledge in sports training, sports science and the training of sports professionals.

The program operates within the Knowledge Stations' core groups for Human and Economic Development, whose administration is shared by Vale, the local public authority and civil society. The core groups act as articulating agents for social networks dedicated to local development in the areas where Vale operates.

The *Brasil Vale Ouro* [Brazil is Worth Gold] program counts on the support of the National Center for Excellence, which will have its headquarters at the *Círculo Militar de Deodoro* [Deodoro Military Circle] in Rio de Janeiro. There, in partnership with the Ministries of Defense and Athletics, Vale will construct a professional track for track and field activities and two housing units that will accommodate up to 100 athletes. In December 2009, the new judo gymnasium was inaugurated downtown, with six simultaneous training areas and stands for 1,500 people.

All Knowledge Station youths who reach Olympic levels will have the opportunity to be transferred to the Center of Excellence, where they will receive financial support and professional monitoring from a multidisciplinary team made up of doctors, nutritionists, physical therapists, psychologists, physical education instructors and social workers. With this structure, we strive to contribute to the better preparation of the Brasil Vale Ouro athletes for the 2016 Olympic Games, which will be hosted for the first time in South America, in the city of Rio de Janeiro (RJ), Brazil.

CASE

Fishing at Boqueirão Beach

Vale, aware of the social responsibility derived from the impacts caused by the construction of Pier IV of the Port Terminal of Ponta da Madeira, in São Luís, is carrying out the Social and Economic Development Program for the Community of Artisanal Fishermen of Boqueirão Beach.

The Environmental Impact Assessment (EIA) defined the areas affected by the operation. As a result, via the Vale Foundation, we proposed establishing a participative support program for artisanal fishing at Boqueirão beach. Meetings were held with fishermen, community leaders and associations such as the Brazilian Support Service to Micro and Small Enterprises (Sebrae), the National Service for Commercial Apprenticeships (SENAC), and the Shipyard School. Visits were also made to the Vale facilities in the port.

The Foundation team participated in the public hearings at which the main aims of the program were presented: to acknowledge the value of the culture of artisanal fishing and to preserve it, to work together to generate income, and to contribute to the exercise of citizenship. The first stage of the program, carried out in 2009, included carrying out a survey which classified the fishermen into three groups, depending on their beach fishing activity, in order to better determine the service. In addition, a specialist in marine biology monitored local production and analyzed the potential for income generation by the groups.

As of December 2009, 51 fishermen have signed up for the program, with their families, and are participating in courses, thanks to an agreement with the National Service for Rural Apprenticeship (Senar), receiving each month a stipend that is linked to their participation in the courses. The program also includes the distribution of artisanal fishing materials, a safety kit, and support in obtaining personal documents. By 2012, the forecast duration of this action, the community of Boqueirão Beach will have the opportunity to learn about the local development experiences of other communities, thanks to technical visits.

We strive to stimulate transparency and dialogue between different social sectors

PUBLIC-PRIVATE SOCIAL PARTNERSHIP

International debate has emphasized the importance of the Public-Private Partnership (PPP) in terms of the economic dimension of territorial development. The Vale Foundation, based on its experience of cooperation with governments and society, suggests a new proposition for PPPs, inserting a social dimension and creating the Public-Private Social Partnership (PPSP).

The PPSP requires a new position from companies, governments and society in general. In the framework of the PPSP, private social investment is planned on a medium to long term basis that is based on a process of socioeconomic diagnosis, and is integrated with empowering social policies, all combined with results-based goals and indicators. This way, it stimulates dialogue and transparency for the construction of a common vision, capable of combining efforts in favor of generating local opportunities and improving the allocation of resources, in a convergence of interests of the parties involved.

With this new perspective, the PPSP responds to the diversities of the regions and to the potential of each, permitting the coordination between public authorities and companies. In this way, we are able to integrate the different agents' actions based on a common vision, in order to maximize results and contribute to the sustainable development of territories. Examples of PPSP can be found in the initiatives that Vale is carrying out, such as the agreement to stimulate solidarity tourism in the Jequitinhonha Valley in Minas Gerais; the partnership for the establishment of infrastructure projects; and the creation of Knowledge Stations in different locations to encourage entrepreneurship and offer art, culture and sports activities to adolescents.

SOCIAL INVESTMENTS

Vale's sustainable development strategy is anchored in our capacity to generate and distribute prosperity. In addition to the direct and indirect mechanisms for distribution of wealth, such as payment of taxes, salaries and benefits, and the purchase of products and services, we carry out social investments in projects that bring benefits to the local community.

These investments include projects for education, culture, income generation and strengthening of social capital, by way of Vale Foundation programs, sponsorships[1] and donations, among others. Vale's total investment in this area in 2009 was US$ 200.9 million. This was a 13% decrease from 2008, due to the cost reduction strategy adopted by the company in response to the global economic recession, highlighting that the decrease is inferior to that of sales/production.

As shown in the chart, nearly 16% of total investment, or US$ 31.4 million, was directed to projects for improvement of urban infrastructure. The fall in investments in this sector from 2007 to 2008 (as illustrated in the chart below) is due to the conclusion of some projects. The total amount invested in the last three years was US$ 168 million.

1 Vale's sponsorship management contemplates, in its approval process, the appropriateness and relevance of projects given their situation and how this lines up with our strategy for sustainable development. The areas of priority are: cultural, environmental, social and technical.

CASE

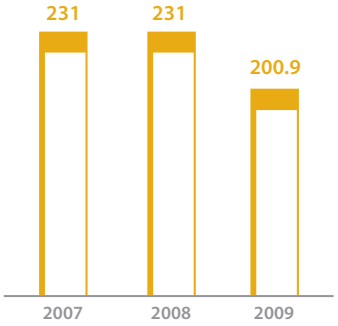
Strengthening municipalities

The Vale Foundation takes part in and supports the union of efforts to create mechanisms capable of improving public administration, as well as promoting actions that contribute to the human and economic development of the areas where we operate. One initiative of this sort was the partnership signed between the Vale Foundation and the local government of Abaetetuba, in Pará, one of Vale's areas of influence.

In 2009, we held a seminar that led to beginning the government's strategic planning. In two days of work, led by a specialist consultant in public administration, a governmental framework and goals attainable within the mayor's mandate were elaborated. The idea was to set goals that were concrete, measureable and attainable. In addition to this, existing programs to reach these objectives were developed. A strategic group was also created to monitor the actions required to realize the goals going forward.

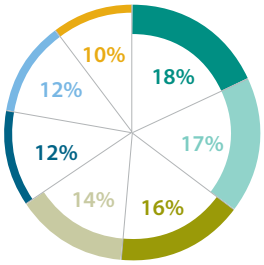
Total social investment

(US$ million)



Social investment by type

(2009 – US$ 200.9 million)



Investments in infrastructure		2007	2008	2009
Total US$ million		99.2	37.7	31.4
By kind	Support for public services	6%	19%	60%
	Construction works	94%	81%	40%
	Total	100%	100%	100%
By format	*Pro bono*	14%	18%	1%
	Commercial engagement	13%	40%	26%
	Materials/products	73%	42%	73%
	Total	100%	100%	100%

By kind – Support to public services: payment for services such as remuneration of nurses, teachers etc. **Construction works:** road construction, school and hospital building, among others.
By format – *Pro bono*: activity developed for public benefit, such as allocation of people with defined function in activities during the entire working period, using Vale funds. **Commercial engagement:** activity generating public benefit, but that primarily generates economic benefit or return on investment for the company. **Materials/products:** in kind investment in infrastructure, through service supply, or through delivery of a product.

CASE


Brazil

Development of Greater Vitória

In 2009, Vale finalized the preparation of the Socio-Economic Diagnosis of the municipalities of Grande Vitória, in Espírito Santo. In this region, Vale operates pelletizing and iron mining plants and the Tubarão Port. The study, based on the analysis of official data and interviews with leaders, home-owners associations and authorities, will guide the actions and social investments of the company for the development of the region, which includes, in addition to the capital, the cities of Cariacica, Serra and Vila Velha.

Upon delivering the diagnosis to the state authorities, Vale announced the realization of five projects within the initial months of 2010, that represent an investment of US$28.7 million. These projects were created taking into consideration the principal demands identified in the study:

- To partner with the Municipality of Vila Velha, an executive project for engineering will be carried out for the dredging of the Marilândia Canal which is important as it will minimize flooding in Av. Carlos Lindemberg, hence preventing the closure of one of the main connections between Vila Velha, Cariacica and Vitória on days of heavy rainfall;
- A partnership was struck with the Municipalities of Serra and Vitória for a project to improve the waste sanitation system in the Hélio Ferraz neighborhood, and contribute to the clean-up process associated with a project for the regularization of land titles for part of the community, benefitting nearly 650 families;
- An executive project with the Municipality of Cariacica will see paving and drainage implemented on 25 kilometers of public roads, given that the lack of urban mobility was identified by the diagnosis as one of the city's principal structural issues;
- Vitória will benefit from an executive project to restore two historic buildings: the municipal library in the Domingos Martins Palace and in the Cerqueira Lima house. The initiative is in line with the project for revitalizing the central region of the regional capital;
- The State Government will receive as a donation the area known as the Morro da Companhia, where the State Institute for the Environment (Iema) is located. On this land, located in Cariacica, the Center for Research, Innovation and Development (CPID) will be set up. The Institute will have the capacity to provide scientific and technological support to the industries on environmental projects.

JOB AND INCOME CREATION

More and more, we invest in hiring locally, generating opportunities for work for the populations surrounding our operations, in order to foster the socio-economic development of the community.

As a large part of our business takes place in remote areas where access is difficult, we operate in partnership with public and private initiatives to encourage training in basic services, such as housing and health, and to train professionals for our production chain.

In Brazil, in addition to the education programs outside of *Valer—Educação Vale* [Valer—Vale Education], the Vale Centers of Professional Education (CEPs), developed in partnership with educational institutions, exemplify how our local hiring strategy works. The CEPs are trade schools, built and equipped by Vale, where training courses are given for activities related to the mining production chain and with a focus on sustainability and developing regional vocations, such as courses in civil construction and hotel management. With four current units, three in Pará and one in São Luís, the CEPs trained 13,623 people in 2009 in various technical courses.

In 2009, Vale invested US$1.5 million in projects and equipment for the CEPs. In Parauapebas (PA), the implementation of the welding laboratory, the most modern in the region, was fundamental in order to offer training for welding technicians, in partnership with the Federal University of Uberlândia (UFU) and Senai PA.

In São Luís, a local workforce-training program was implemented for the construction of Vale's Port Ponta da Madeira Pier IV, which trained 300 youths from the Itaqui Bacanca area, which neighbors our project in the area. In the CEP in São Luís, based on the Knowledge Industry project for

CASE

Initiatives to support communities

At our international nickel operations there are various examples of investments in infrastructure. At Vale Inco Newfoundland & Labrador, for example, a fire station is under construction that will serve the needs of the community as well as providing support to our operation. The fire station will be equipped with an office, training room and a garage area suitable for a full size fire truck, in addition to communication equipment that will serve as an Emergency Control Center. Construction is scheduled to be completed during the first semester of 2010.

At our Goro operation in New Caledonia, we are supporting several projects, including the renovation of two churches and one market. These initiatives are being coordinated by the South Province and will benefit local communities. In 2009, an agreement was made to provide funding for construction of an Environmental Education Center that, in addition to providing information on environmental issues, will host educational activities for children.

Another initiative in the area of urban infrastructure is taking place in Thompson, Manitoba. Vale Inco operates the city's water treatment plant and supplies drinking water free of charge to all residences and businesses in the community. The company's investments have supported improvements to the plant. Vale Inco representatives also participate as members of the City of Thompson's Infrastructure Committee, assisting in the planning of actions requested by the community.

We seek to generate employment opportunities for the inhabitants of the towns near our operations.

digital inclusion and incentives for reading, more than 8 thousand people received training in 2009. This project is the result of a partnership with Sesi and Senai MA.

We design initiatives that stimulate the development of a network of services and local providers. We also implemented the *Programa de Formação Profissional* [Professional Training Program], which will train technicians for our operations (*read more in the Human Resources chapter*).

Our hiring strategies are based on mapping of demand in the local job market. In addition to increasing the quantity of necessary professionals in each stage of our operations, we also identify other relevant areas for local hiring, as shown in the box to the right.

In 2009, local hiring[2] represented 77%[3] of total hiring within Vale. For leadership positions, the percentage was 48%, given that the qualifications required for management positions are more specific.

The strategy to promote community sustainability and self-sufficiency by means of job and income creation is also being taken to our operations abroad. In Oman, in the Middle East, where we are implementing a pelletizing plant and a docking complex, we made a commitment in partnership with the local government to implement the "Omanization" program. This plan seeks to increase local labor from 60% to 80% in our operations in the country, with the aim of maximizing the employment of professional Omanis in the private sector.

In Mozambique, in Africa, where we are developing the Moatize coal project, we are acting to create qualified local labor and hence contribute to regional development. To this end, we are offering courses and training in the areas of carpentry, metalworking, tailoring, general electricity, and also civil construction, fashion, and apparel. In 2009, using Valer, we started the Professional Training Program which is training professionals in mining operations and welding. The training is being provided in partnership with Senai Brasil, due to the lack of technical schools in the region. In order to provide continuity in the qualification of professionals, we have also invested in the development of the local educational infrastructure, constructing schools, classrooms and laboratories.

Diagnosis	• Mapping of professionals by business, area and competencies • Mapping of local infrastructure • Mapping of social context • Mapping of suppliers/partners
Recruitment and Development	• Identification of recruitment sources • Definition of remuneration package • Training and specialization of professionals • Development of institutions for professional education • Partnerships and development of necessary infrastructure for the realization of training
Retention of workers	• Design of the Plan for the Transition of People, to support the professionals' moving process • Support for the development of local infrastructure: health, housing, education and leisure • Continual Education • Performance Management • Career and Succession

CASE

Canada

Building Capacity to Grow

In 2009, Vale financed two initiatives in its Canadian operations aimed at providing capacity building for remote and Aboriginal communities. The first was the renewal of Vale Inco's partnership with the Canadian Executive Service Organization (Ceso), a non-profit organization that helps independent communities achieve self-sufficiency and reduce poverty. Between 2010 and the end of 2012, Ceso will receive annual funds to develop training and mentoring projects.

The projects will respond to needs identified by individual Aboriginal communities across Canada. Ceso's volunteers will provide onsite training and mentoring, both in communities and urban centers. Typical training projects will include setting up a business, community economic development, financial management, human resources and communications. The objective is to achieve a more efficient Aboriginal business or governing group, leading to a more economically healthy Aboriginal community.

The other initiative is a partnership with Cambrian College, an educational institution in Sudbury, to develop a traveling classroom that will bring skilled trades training to remote communities across Northern Ontario, Canada. Using a high-tech trailer that generates its own electricity and is equipped with compressed air, gas and heat and a satellite dish, the classroom will offer a variety of courses, such as electronics, welding, metalwork and mechanics, among others.

2 Although the calculation of the indicator considers the state of birth of the employees as local, the hiring practice adopted, where applicable, prioritizes residents of the state, and not necessarily those merely born there.

3 This indicator contemplates global results, but does not include Canadian operations, where this monitoring is not carried out. Employees of this indicator (EC7) correspond to 84% (2009) of the total employees reported (LA1). Projects not included.

ARTISANAL AND SMALL SCALE MINING

Artisanal or small-scale mining provides work and income to thousands of families around the world, and plays a major role in the social and economic development of many countries.

As a global company, we strive to help in the transfer of good practices in technology and in health and safety, mainly in developing countries. In 2009, we approved the Human Rights Policy of Vale, part of which covers questions relating to artisanal and small scale mining. This will also be included in the Human Rights Guide that will be prepared during 2010.

In the Brazilian state of Minas Gerais, in 2008 Vale granted the free and voluntary transfer of the mining rights for the Santa Efigênia quarry to the Labor Cooperative. In December 2009, with the support of the company and the Federal University of Ouro Preto, the Cooperative filed the Formula for Recognition of an Integrated Enterprise at the Regional Authority of Minas Gerais and at the National Department for Mineral Production. The process for obtaining tillage rights is underway.

In 2009, in Minas Gerais, the Corporate Security area of Vale inspected operating units of the company where there is a risk of clandestine mining activities. The aim of these actions is to raise this question in the meetings held with the communities that are located close to the operations. Over the course of the year, 42 incidents of clandestine mining were identified, and, with the action of the Civil Police, 22 people were arrested.

In 2008, PT Inco registered artisanal and small scale mining-type activities in some concession areas in Indonesia, especially during the period of high nickel prices. The economic crisis in 2009 has led to a significant reduction in incidents of this type in our concession areas.

In the Trés Valles Project in the community of Salamanca, Chile, 70 artisanal miners who worked in areas belonging to Vale were relocated. An agreement with the Mining Association of Salamanca (Asomi) has been in force since 2007, under which, in addition to relocating miners to authorized areas, Vale is committed to contributing to improvement of productivity, safety, and health, by installing and transferring mining camps and by implementing a system of technical assistance at the site.

Other actions to be carried out include: helping the workers to comply with the production and safety standards established by current legislation and by the Clean Production Agreement; the construction of two camps, meeting the health and safety conditions required by mining activity; and technical assistance in the areas of safety, geology and mineral exploration. Each month, the Vale team also carries out training in areas that are of interest to the group.

CASE

New Caledonia

Getting Our Hands Dirty

Residents of the South Province of New Caledonia celebrated the inauguration of its Community Building in December 2009. The seven-month renovation was partially financed by Vale Inco Nouvelle-Calédonie. The project employed nine apprentices who learned about various building trades such as painting, electric work, brickwork and carpentry, while gaining essential experience in the field.

The renovation was part of the Community Projects Program launched by Vale Inco Nouvelle-Calédonie in 2006, in partnership with the South Province and Djubéa Kapone Traditional Council, which is one of eight traditional councils in New Caledonia. One of the goals of the program was to provide training for young people from the local tribes. Through projects already underway about 60 young people have received training in building trades.

We identify and analyze risk situations, using specific tools that are compatible with our productive processes.

INCIDENTS

Significant features of Vale's management of its relationship with communities are preventative actions and the permanent monitoring and search for solutions to incidents that have the potential to affect the people who live in the regions where we work. Based on the involvement of the community, we act to prevent risks, minimize incidents and rapidly address any incidents that occur.

Vale has a system for recording and monitoring incidents, which forms a fundamental part of the process preventing incidents and reducing their consequences.

Vale Railroads in Brazil

In Brazil, Vale operates about 11 thousand[1] kilometers of railroads. The lines run through ten states, and close to 400 municipalities. In many areas, communities around the railroads have grown, increasing the risk of incidents.

Despite the continuing improvement in the number of accidents per million kilometers traveled by our trains, we are aware that we have to make more progress.

The major initiatives underway are:

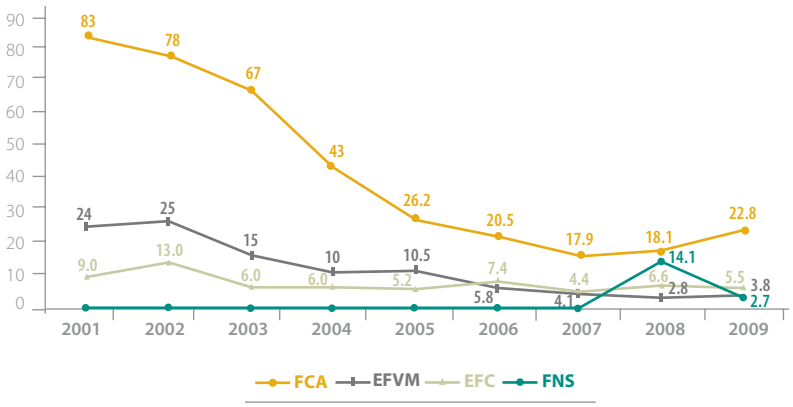
- analysis of vulnerability to risks;
- improvement of the system for managing railroad incidents;
- expansion of the railroad training center;
- education and awareness campaigns;
- assessment of new technologies such as electro-pneumatic brakes;
- improvement of signage;
- a program for controlling training and recycling for operational areas.

ANALYSIS OF RISKS

Our activities, products and services involve the acquisition, storage, handling, use, transfer and disposal of various chemical products, including solvents, lubricants and fuels, some of which are potentially dangerous. The management of these products aims to evaluate and minimize the risks of our operations, based on technical procedures, trained teams, specialist consultants, and regular audits, in order to remain in compliance with legislation and other applicable requirements.

Incidents on railways operated by Vale in Brazil per MTKm

(million of train-km)



*Source: Unigofer – Vale's system for managing railway incidents in Brazil, which coincides with the records operated by the ANTT, the National Authority for Terrestrial Transport in Brazil. Vale began operating the North-South Railroad (FNS) in 2008. There are 580 km built, of which 452 km are operated by Vale, between Açailândia and Colinas.

1 Including FNS.

The risk situations that are associated with our operations are identified and analyzed using specific tools that are compatible with our productive processes, and this makes it possible to adopt appropriate preventative measures. Each operating unit has a specific Emergency Action Plan, in addition to trained personnel, in order to minimize losses, including harm to people or the environment.

In 2009, we carried out an assessment of risk situations, based on an external audit, in order to assess the level of implementation of risk management at our operating units in Brazil, by identification of hazards, identification and implementation of preventative actions to reduce risks, and implementation of emergency action plans to recover from incidents at each unit. The audit found that the level of implementation was adequate, while a recommendation was made to improve procedures for carrying out simulations.

The process for the Analysis and Management of Risks in Health, Safety and the Environment, which began in 2008, continues to be implemented. It has already made possible the homogenization and rationalization of resources and materials available for the prevention and mitigation of risks to the environment and to health and safety in the various stages of the life cycle of our businesses (more details on page 49).

The process for the communication of environmental incidents has been improved with the publication of specific instructions for communications. A Corporate Instruction for the Communication of Environmental Incidents was published, with the aim of establishing a methodology for classifying incidents and for ensuring that the environment area is informed of any environmental incidents, for support, management and monitoring. In addition, this procedure provides for homogenous classification, in all our businesses, of incidents, and criteria for the communication of these incidents, optimizing decision-making by the areas involved.

The following table shows the significant incidents[2] with a potential impact on communities, the causes that were identified, and the preventative actions taken in our operations[3]:

2 **The GRI's "significant incident" corresponds to the definition of "critical incident" used by Vale, an incident that extends beyond the operational unit's property limits and causes residual impact on the environment and/or on health and safety within and surrounding the operational unit.**

3 **Railroad incidents are reported separately, using the internationally adopted indicator (train incidents per million of train kilometers). Data for spills are reported in the Environment chapter, Indicator EN23, on page 63.**

Location	Company	Incident	Cause(s)	Preventative Actions
Pará	PPSA	Combustion of sodium hydrosulfite	Leakage and contact with water	• Storage in containers • Containment dams • Regular inspection of the storage area
Pará	Alunorte	Overflow of red mud	Intense rain	• Re-dimensioning of storage ponds • Re-dimensioning of the pumping system
Maranhão	Vale	Overflow of effluent containing iron ore	Intense rain	• Re-dimensioning of containment basins • Review of the regular maintenance program for the drainage network
Minas Gerais	FCA	Oil in the Itapecerica river	Underdimensioned network for draining oil	• Re-dimensioning and segregation of the network for draining oil and rainwater • Review of the maintenance and inspection program
Minas Gerais	Vale	Slippage of iron ore into the Vargem Grande stream	Absence of containment structures	• Establishment of containment dikes • Review of the maintenance and inspection program
Manitoba	Vale Inco	Interruption of the water supply	Equipment failure at the water treatment plant that provides drinkable water to the city	• Immediate messages to the population by local authorities • Monitoring of the water supply until it has been normalized in accordance with government parameters • Adaptation of equipment for outflow of water treatment and improvement of drinkability parameters, aiming to meet the demand of the community and identify new ways to prevent process equipment failure
Newfoundland and Labrador	Vale Inco Newfoundland & Labrador (Long Harbour plant, under construction)	Forest fire affecting 25 hectares	The investigator could not decisively state the cause	• Control of the fire with the support of local authorities to minimize the affected area • Reinforcement of communication measures with the communities about the risks of fire and maintenance of cleared areas[1]

1 Terrain cleared of vegetation, around or in densely wooded areas, which serves to prevent forest fires from spreading.

CASE

Mozambique

Resettlement in Mozambique

In Mozambique, the Resettlement Action Plan aims to provide complete attention to over 980 families to the end of 2010, in 300 residences in Chipanga, Mithethe and Bagamoio. These families will be resettled in the 25 September district of Moatize, where new residences will be established and existing health and education facilities will be expanded and improved, in order to meet the needs of the inhabitants.

Out of this total, over 650 families will be resettled in the region of Cateme, which is 36 kilometers from Vila de Moatize. Most of these families have a rural profile. For the resettlement, plans have been made to provide a range of basic infrastructure, services in education, culture, health, and sport, and space for carrying out agricultural activities (fields and gardens called machambas) for domestic consumption and for sale.

The two regions that are receiving the displaced families will receive a Knowledge Station, which are centers for human and economic development that encourage activities in culture, sport, professional training and health. In Cateme, the activities of the Knowledge Station will be complemented by the construction of a model farm and by agricultural education programs. The model farm will aim to produce food for school meals and fortified flour for the nutritional program, as well as areas for grazing.

The main actions carried out in 2009 included the following:

- field visits to monitor the impact of the works, and the planning and monitoring of detonations and works done with large scale machinery;
- home visits to deliver food aid packages;
- surveys of residences identified for assisted compensation, monitoring of the regularization of land ownership for resettled persons;
- monitoring of traditional ceremonies;
- identifying, negotiating and paying compensation for any machambas (agricultural areas) and commercial and seasonal property impacted by the work;
- providing services in the social offices to the home communities and to the Cateme resettlement area;
- field visits to plan the removal boundaries and to make an inventory of animals to be transferred;
- transfer of animals (in herds of cattle and goats, and by road for others);
- monitoring the process of transferring the families.

The Resettlement Action Plan was based on a wide-ranging social and economic census of the communities that border the project and of the areas which host the resettlement area. All of the process followed the guidelines of the World Bank, which included actions such as: consulting the communities and people affected; establishing a communications channel for receiving complaints and delivering solutions, in the area of compensation and relocation; carrying out a social and economic census to identify the persons to be resettled by the project; and the informed participation of the communities at each stage.

INVOLUNTARY RESETTLEMENT

Mining, logistics and other activities can sometimes require the displacement of communities. Whenever possible, Vale strives to avoid or at least to minimize any displacement, and to find alternative projects.

By preparing resettlement plans, Vale seeks to adopt practices that are aligned with the principles of the World Bank in this area. These recommendations include actions for mitigating the social and economic impact of involuntary resettlements.

Vale is preparing guidelines for Resettlement Processes, including social monitoring. Our aim is to ensure the equitable treatment of displaced families, and to provide access to opportunities for social and economic development.

The aims of the document are to:

- adopt a single principle for the actions of the businesses, including good practices in corporate and social responsibility;
- reproduce and adapt the performance standards of the World Bank, the ICMM, and the Global Compact, among others to meet the needs of our businesses;
- align the various processes at Vale that involve the displacement of people;
- contribute to social and economic studies;
- reduce the impacts caused by displacement;
- establish appropriate standards for quality of life, and social inclusion mechanisms, for the families involved.

Our expectation is that this document will support the implementation of our projects, by identifying ways to deliver sustainable, economically viable and socially just programs for affected communities.

In Minas Gerais, in 2009, 17 households were displaced by the implementation of projects (Mina do Baú and Apolo) or due to the impact of operational activities in areas close to Itabira. The resettlement process involved financial compensation and in-kind assistance, in accordance with the agreement between the parties involved. This process was the result of the Social Dialogue meetings held with the community.

In Peru, the Environmental Impact Assessment of the Bayóvar Project indicated the need to resettle three families whose main activity was raising livestock. New homes were constructed for resettled families.

Vale's largest resettlement process in 2009 occurred in Mozambique, in the area close to the Moatize coal project. By the end of 2009, 217 families had been displaced, of which 203 families opted for resettlement without compensation and 14 families for compensation, as agreed upon by involved parties. The commitments assumed by Vale in implementing supporting infrastructure for the resettled families involved the planning of an urban project and the construction and supply of new residences, social facilities, and services, such as schools, health centers and police stations, among others (read more in the case study on page 86).

ACQUISITION OF PROPERTY

In Vale's managed units in Brazil, the process of acquiring property follows a formal legislative procedure, defined by the assets team. The Vale Foundation is also involved, as are the areas of Regional Communication, Corporate and Occupational Health and Safety and the Environment. The processes aim to guarantee that all the information needed for the identification of needs is collected and that customary rights are respected. Based on a social and economic survey, families in a socially vulnerable situation are identified. In these cases, the process for acquiring the asset is monitored by the Vale Foundation, which directs teams in the field and provides support for development of flexible conditions. In specific cases, social assistance and monitoring may be needed, as well as making infrastructure available.

The focus is on avoiding conflict situations between the parties involved, through: respecting local legislation and the procedures proposed by the International Finance Corporation (IFC), guaranteeing that the negotiating process is just and seeking to deliver the same or better living conditions for local communities. In terms of indigenous communities, in Brazil, legislation does not allow mining activities on indigenous lands. Therefore acquisition of indigenous property for mining or associated activities is not possible, even in partnership with these communities.

In Australia and in the Vale Inco operations, the process of identifying and acquiring property is similar to the process in Brazil, in terms of communications plans, the assessment of property, the role of the Vale legal department, analysis of social vulnerability, socioeconomic studies, and property registers. Although the process is similar, each region follows its own specific local legislation, including those cases that involve indigenous peoples.

In Canada, there are a range of specific processes for identifying indigenous communities which may be affected by the activities of Vale Inco. Where there may be impacts, the company works directly with the representatives of the indigenous communities to mitigate them.

The Vale Manganèse France and Vale Manganese Norway operations are located in industrial areas and, for this reason, do not have property acquisition processes.

MINE CLOSURE

Vale has established corporate principles in its *Mine Decommissioning Guide* to assist professionals at its operating units in the closure process. In 2009, as a result of discussions in 2008 in a working group that involved various areas of the company, the guidelines for preparing closure plans for mines were revised. The new guidelines, which continue the process of improving the management of mine closure, ensure that all mine closure plans include social and economic impacts, as well as the environmental impacts related with the ending of operations.

In 2010, these guidelines will be assessed when they are applied in some pilot projects in the iron ore and bauxite areas. The aim of this initiative is, in the coming years, to update the closure plans for all the mining units of Vale.

In addition, to meet the requirements of the US Securities and Exchange Commission, Vale also makes provisions for asset retirement obligations at the company's mining projects. The estimated amounts of the provisions are reviewed each year and are reported in accounts. In 2009, provisions of an estimated US$ 1.12 billion were made for the asset retirement obligations at Vale.

VALUE CHAIN

Incentivizing local procurement

To stimulate the economy of the regions where we operate, we encourage local business, as well as the development of our supply chain

SUPPLIERS

To meet our commitment to building a sustainable business model and contributing to a more just, environmentally balanced and economically prosperous society, we know that it is essential to positively and proactively influence our partners and parties who are involved in our production chain. For this reason, in 2009 we launched the Supplier's Code of Conduct (available at www.vale.com), which defines Vale's vision of ethical conduct in commercial relationships with companies that provide services and products to Vale. Likewise, we hope that our suppliers extend these criteria internally, in their companies and in their own supply chains.

We encourage our suppliers to understand and act in accordance with international pacts, agreements, treaties and conventions such as: the United Nations Universal Declaration of Human Rights, the Agenda 21, the Millennium Pact, the International Council on Mining and Metals (ICMM), as well as the documents of the International Labor Organization (ILO).

Included in the issues addressed by our Supplier's Code of Conduct are adherence to legislation, norms and contracts; transparency; ethics in commercial relations; health and safety in the workplace; human rights; and protection of the environment. We also emphasize the importance of supplier reporting practices that would be considered questionable from an ethical point of view and that do not correspond to our values and policies, such as situations of abuse of power, fraud, embezzlement and bribery. To identify such issues, we provide a Reporting Channel, as described on our website (www.vale.com).

GROWING WITH THE SUPPLY CHAIN

Launched in 2008, the Inove Program seeks to promote the development of small and medium sized regional suppliers, by strengthening relationships with associations and government entities. Additionally, it is focused on training, increasing competitiveness, incentivizing business, and preparing suppliers to meet market demands. By the end of 2009, we offered nearly US$48.8 million in credit, benefiting 169 supplier companies in seven Brazilian states.

DISTANCE EDUCATION

In 2009, the distance education platform of Inove Program had more than 1,300 students registered and nearly 400 companies participated in the 21 courses designed by Valer-Vale Education, called *Trilha Inove* [Inove Trail]. The objective of the courses is to increase the competitiveness of small and medium sized suppliers through education. Today, in addition to Trilha Inove, which is aimed at developing suppliers by improving business management, we also offer 37 courses developed in partnership with Consist, the official representative of Harvard Business Publishing in Brazil, with participation by more than 20 states. (Read more in the case study to the right).

INOVE IN BRAZIL AND THE WORLD

The promotional activities for the Inove Program include both internal and external communication, as well as holding a range of events. Communications have included a Supplier's Day event, an initiative that gathers approximately 800 suppliers and employees in the states of Minas Gerais, Espírito Santo, Maranhão, Pará and Rio de Janeiro. In this event were discussed topics as Health and Safety, Supplier's Performance Index (IDF - which assesses products and services), new business opportunities and ethics and sustainability. On this occasion, we launched our Supplier's Code of Conduct.

Another Inove event that is worth noting is the internationalization workshop held in December 2009 in Minas Gerais, involving Vale project managers from Oman, Mozambique, Peru and Colombia. This initiative presented new business opportunities and contributed to a possible international expansion of local suppliers.

In 2009, through the Inove Program, we also continued to perform supply diagnostics for specific regions, to increase our knowledge of the supply and demand conditions of products and services in the areas where we operate. Based on the results of this, we identified shortcomings and bottlenecks in the supply chain, but also ways to maximize opportunities for gearing our businesses towards local suppliers. The 2008 pilot diagnostic for the state of Para was updated and diagnostics were performed in the Brazilian states of Minas Gerais and Maranhão.

CASE

Recognizing good practices

For the second consecutive year, Vale issued a Suppliers Award as a way to stimulate the search for excellence in the quality of materials and the provision of services. The selection was based on the Supplier's Performance Index (IDF) rankings and corresponded to the period from September 2008 to November 2009. The IDF is an instrument that seeks to rate the level of service and materials supplied, as well as to encourage the development and innovation of partnerships throughout Brazil.

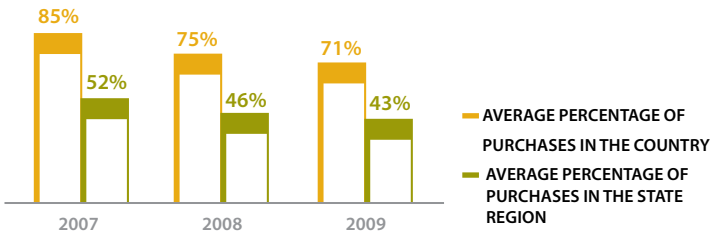
The competition was divided into five editions, four regional and one national, and attracted the participation of 5,874 companies. Sixteen suppliers were recognized in the categories of *Best Regional Services Supplier*, *Best National Materials Supplier* and *Best National Services Supplier*, all divided by the contract size: small, medium and large. Suppliers were also recognized in the categories of *Outstanding Health and Safety*, *Outstanding Supplier Development Program* (PDF), *Outstanding Environment and Outstanding Education*. This last award recognizes companies that invested the most in training their employees through educational initiatives offered by the Inove Supplier's Development Program.

At the awards ceremony, held in December 2009 in Rio de Janeiro, Vale announced two developments: the package of courses offered in partnership with Consist, representative of the Harvard Business Publishing in Brazil; and our Supplier Kit.

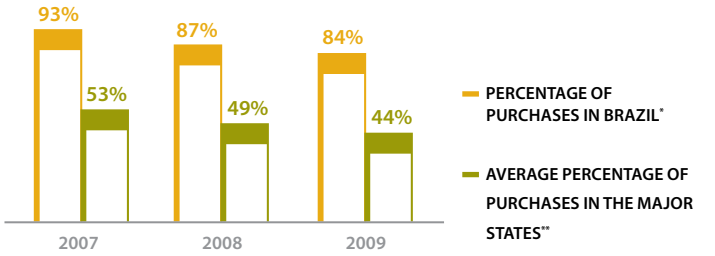
The partnership with Consist provides online courses targeted leadership, business administration and personal development, all designed by Harvard Business Publishing. With this initiative, Vale intends to share even more knowledge with regional suppliers. At the end of the courses, the participants receive a certificate issued by the Inove Program and by Consist.

The Supplier Kit is an initiative that assists suppliers in adapting to Vale's safety requirements. Based on agreements with insurers and personal protection equipment supply companies, the kit also allows for a substantial reduction in costs for small and medium suppliers, by giving them access to improved supply conditions such as better scale, logistics, and prices.

Proportion of local procurement, percent of total value – Global



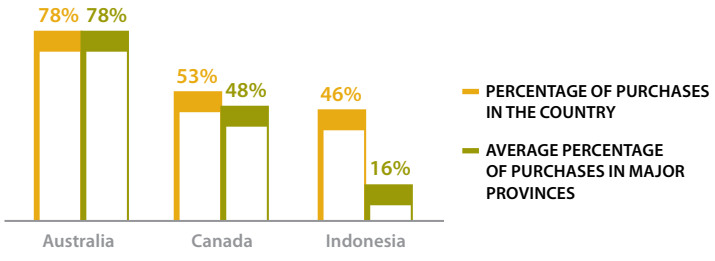
Proportion of local procurement, percent of total value – Brazil



*In 2007, the percentage of purchases in Brazil considered only own units. In 2008, figures from controlled companies were incorporated.

**The average percentage of purchases in states considers acquisitions by our main operations in Espírito Santo, in Maranhão, in Minas Gerais and Pará – Brazil.

Proportion of local procurement, percent of total value – Other Countries 2009



LOCAL PROCUREMENT

Even during the global financial crisis, we maintained our local procurement commitments and activities, as an important measure to stimulate the economy in remote areas where we operate, as illustrated in the chart.

Vale reinforces its strategy for the development and qualification of local companies by means of programs such as Inove and participation in the Supplier's Development Program (PDF) that aim to generate positive impacts in the medium and long term. We also act as an anchor company for the mining sector in Brazil through the Tear Program ('tear' means 'loom' in Portuguese)—Weaving Sustainable Networks. This program represents a successful initiative for coordination among diverse social actors. It is the result of an agreement between the Ethos Institute for Social Responsibility and the Multilateral Investment Fund of the Inter-American Development Bank (IDB).

CONTINUAL IMPROVEMENT

In Brazil we manage our relationship with our suppliers in three stages: qualification based on our values, evaluation of performance, and development. These actions aim to contribute to the continual improvement of our production chain.

All of our suppliers have undergone selection and registration processes that adhere to legal, fiscal, tax, health and safety and environmental criteria. Our registry of eligible suppliers is frequently updated, with regular verification of the completion of these requirements. Additionally, all of our suppliers in Brazil are monitored with regular checks of the list published by the Ministry of Labor and Employment identifying companies involved in slave labor and other legal issues (read more in the chapter on Human Rights, pages 115 and 116).

In the process of negotiating contracts, we also verify whether suppliers have registered irregularities with, among others, the Brazilian National Institute for Social Security (INSS,) and the Brazilian Government Severance Indemnity Fund (FGTS). In the event that irregularities are identified and the companies are unable to resolve them, these companies will be removed from our supplier database.

New category in the Supplier's Performance Index (IDF)

The Supplier Performance Index is an instrument that we use to evaluate all our suppliers of materials, regardless of the value of the contract, and services with contracts above US$270 thousand. The purpose of the IDF includes providing information for updating our supplier database, establishing a ranking of our supply partners, and ensuring transparency within the market. In addition, it encourages the development and innovation of our partnerships throughout Brazil. In 2009, we created a new category in the IDF: Outstanding Education, which is given to companies that have invested the most in training their employees during the year through the Inove Program Distance Education initiatives.

By adopting these monitoring mechanisms, we contribute to raising management standards in our production chain. This is a commitment that we have already put into practice and that we aim to expand with the creation of our Code of Ethics.

Through IDF Services, managers at Vale perform quarterly assessments of our suppliers in a total of six areas: Technical-operational (43.5%), Health and Safety (20.5%), Environment (18%), as well as Labor, Civil and Tax Obligations (18%). Results are disclosed on an internal portal for communications with suppliers.

With IDF Materials, we generate monthly information on the supplier database from assessments based on: Punctuality (50%), Conformity (40%), and Competitiveness (10%). Results are also available on the internal portal.

After evaluation and classification, we prepare action plans for those suppliers with a performance lower than 50%, and the companies with the best evaluations are recognized in our Supplier Awards (read more on page 89).

CUSTOMERS

Communication of values

We endeavor to find solutions that meet the needs of our customers and their businesses, investing in the quality of our products and strengthening our long-term relationships.

Our business is predominantly conducted with other enterprises (business to business), and not with end users (business to consumer). Therefore, our communication strategy assigns priority to specific actions intended for corporate customers.

Activities targeted at other links in the value chain, such as suppliers and other partners, follow the same line and are carried out through events such as technical visits, meetings, trade shows, exhibitions and customer satisfaction surveys.

The ongoing contact with our customers allows us to monitor and assess their perception of the quality of our products and services, and the technical assistance provided. Different tools also allow us to identify improvement opportunities for our products and services and monitor our compliance with the ISO 9001 international quality standard in our certified business units. The methodology, frequency and comprehensiveness of our practices must be varied to meet the specific needs and characteristics of each market segment.

For the general cargo Logistics segment of our business, we conduct assessments aimed at monitoring the quality and performance of our services. Since 2006, the assessments have guided Logistics in their search for operational excellence.

For the passenger transportation segment in Brazil, we conducted satisfaction surveys from 2006 to 2009 in the Vitória-Minas and Carajás Railways. Additionally, customer relationship channels are available for input and opinions from users.

We adopt a proactive approach and seek to anticipate and respond to legal or regulatory trends for communications, to ensure the transparency and legislative compliance of operations and businesses, in conjunction with delivering the efficiencies that are required by a competitive market.

Besides complying with all legislation and directives from regulatory bodies in the areas where we operate, our communications strategy is in line with our Mission, Vision and Values and it respects our Code of Ethical Conduct.

In 2009, we did not record any cases of non-compliance or fines related to sponsorship, publicity or promotion, or cases related to the supply and use of products and services[1].

Vale's institutional communication actions have the core objective of strengthening our Mission to transform mineral resources into prosperity and sustainable development.

PRODUCT AND SERVICE SAFETY

We manage risks at all stages of the mineral extraction process, paying special attention to the extraction/processing and distribution phases. Risk management procedures are clearly defined in our Instruction for Analysis and Administration of Health, Safety and Environmental Risks (INS-0037).

1 Processes are considered relevant based on the following criteria: a) due to the monetary value, including indemnity claims and fines; b) due to topics of interest of the company or the public at large, regardless of monetary value.

We implemented practices such as making improvements to the eco-efficiency of processes

In 2009 we made progress in compliance with the European Regulation for the Registration, Evaluation, Authorization and Restriction of Chemical Substances (REACH). As a result of our strong participation in various REACH consortia, we obtained and updated scientific data related to nickel products and intermediates, as well as iron pellets, aluminum, cobalt and precious metals. This new information will enable us to continue improving the risk management of these substances in our operational units. At the same time, it will allow us to improve communications with our customers, so they can manage potential risks more effectively.

We have also requested that our suppliers of chemical products send us material safety data sheets and are in compliance with REACH Regulations, where applicable. In this way, we have a better knowledge and understanding of the risks involved in the handling, transfer, use and disposal of these key raw materials. In 2010 we plan to register the majority of the chemical substances, in accordance with the REACH Regulation, with the conclusion of the process scheduled for June 2018.

In Vale's Brazilian units, we began implementing the Management System for Health and Safety (System Requirements RS 03—Risk and Change Analysis and Management and RS 08—Operational Control) and the Instruction of Analysis and Administration of Health, Safety and Environmental Risk, reinforcing risk management at all stages in the life cycle of our products and services. In addition to this, we aim to identify risks by using the NFPA 704 standard for all hazardous products that circulate at Vale (NFPA 704 is a symbol-based system for identifying hazards and risks).

The logistical services associated with the transportation of hazardous products carry out analyses of risks to health, safety and the environment during the entire operational and maintenance cycle for the vehicles, as well as the qualification of the people involved in these processes.

Principles of prevention

Vale's business departments have adopted pollution prevention principles in their operational processes, based on the implementation of an integrated strategy that addresses technological and productive variables, as well as environmental quality and occupational health and safety.

Following the preparation of process flowcharts, mass and energy are measured in the operations, allowing for the identification of the most significant environmental issues and the quantification of losses from the generation of waste, effluents and emissions into the atmosphere.

Based on this approach, we have made changes to the primary and raw materials used in some processes. We have altered our technological processes and implemented best practices in manufacturing. We have also proposed actions for control and improvement in the eco-efficiency of processes. The table summarizes some examples of these practices.

Examples of our eco-efficiency programs include: increased water recirculation and, consequently, reduction in water withdrawals in our pelletizing plants, along with the use of highly energy efficient equipment (motors and pumps) in processing plants.

Process	Practice implemented	Environmental gains
Aluminum	Change in the productive process	• Reduction in emissions of fluoride and particulate material • Reduction of water consumption
Manganese	Optimization of the transportation routes for finished products	• Reduction of CO_2 emissions
Copper	Utilization of trucks covered with tarps.	• Reduction in emissions of particulate material
Railway	Application of polymer in wagons and optimization of loading procedures	• Reduction in emissions of particulate material

In terms of the control and reduction of input toxicity, Vale, in accordance with legislation, does not use substances classified as persistent organic pollutants or substances that contain benzene. We also have rules that prohibit the use of other substances for which acute and chronic toxicity tests have exceeded the legally specified levels.

Vale is working to improve product management. Life cycle analyses are being conducted for nickel and manganese in cooperation with the corresponding mineral associations, the Nickel Institute and the Manganese Institute, respectively. Additionally, for 2010 we are planning to carry out a life cycle analysis of iron ore (pellets). Nickel, manganese and iron ore (pellets), copper and aluminum are products subject to REACH Regulation. Vale is a leader in technological innovation, searching for alternatives to reduce mineral and industrial waste through studies of the utilization of sinter feed from tailings, of waste from aluminum processing for construction, and of more clean and efficient energy in pelletization and logistics processes, among other initiatives.

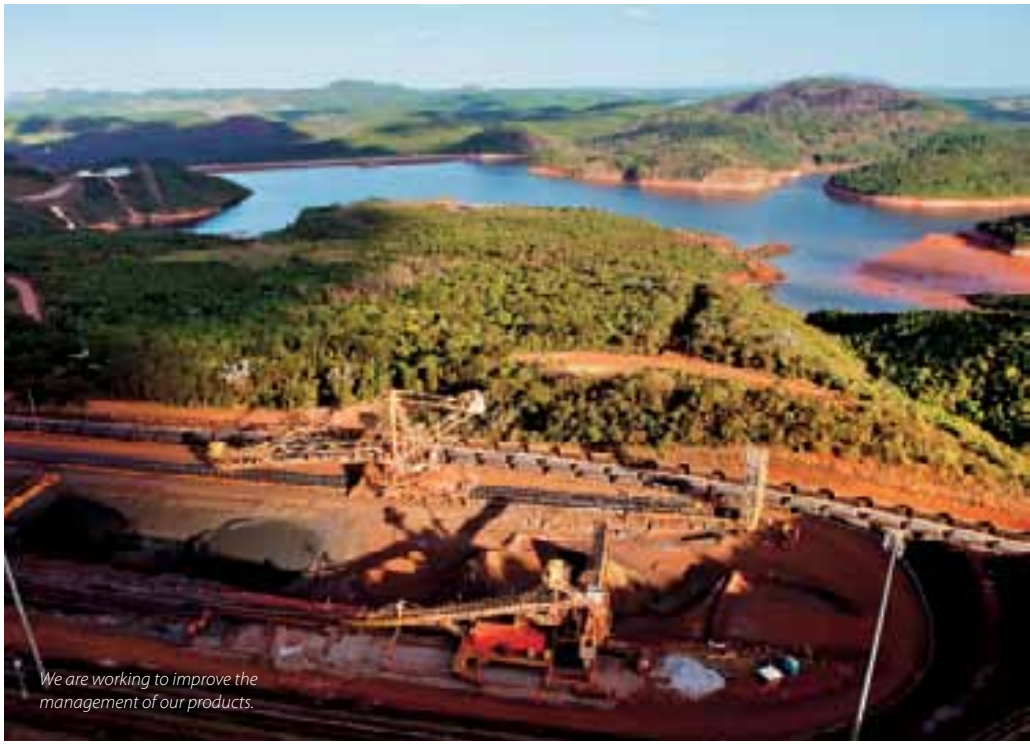
LABELING

The 170th Convention of the General Conference of the International Labor Organization establishes that labeling procedures are obligatory only for hazardous chemical products. Given that the majority of Vale's products are not classified as hazardous, labeling requirements are, for the most part, not required.

Nevertheless, Vale has Material Safety Data Sheets for its products that describe their physical and chemical properties, handling care and measures to control the risks involved, as well as procedures in the event of an emergency.

The REACH registration process will support improvements to the processes described above, as new scientific data becomes available through the work of the various REACH consortia. Aligned with REACH, the material safety data sheets of our products already take into account the requirements of the Globally Harmonized System (GHS).

Some nickel compounds are already subject to classification and labeling requirements (with which Vale Inco complies). Customers are provided with information on Origin of Components, Contents, Safe Use of Product or Service and Disposal of the Product. Vale Inco conducts specific studies for the toxicological and ecotoxicological evaluation of its nickel-based products, based on which it identifies the main dangers and possible routes of exposure, measures and monitors exposure levels, and proposes appropriate preventative actions in order to manage risks.



We are working to improve the management of our products.

Global
sustainability agent

We are aware of the importance of achieving a balance between the social, environmental and economic aspects of our businesses, and we aim to maintain a global perspective on sustainability, complying with international standards of performance. We want to generate long term value for all our stakeholders and to guarantee our adaptation to and respect for local cultures and local circumstances.

NEWFOUNDLAND AND LABRADOR CANADA

Our actions are designed to respect local communities in the regions where we operate. For example, the schedule for the ice breaker in Canada is discussed with our aboriginal neighbors. With this initiative, we aim to respect the local culture.

CLIMATE CHANGE

Leaders in climate protection

Our actions and investments reflect our commitment to respond to the challenges of climate change, based on the priorities established by the Vale Carbon Program

In 2009, Vale stepped up its actions toward meeting its commitment to contribute worldwide to addressing the challenges and consequences of potential global climate change. We became more closely involved with a range of stakeholders, and positioned ourselves more strongly on this issue, coordinating joint actions with sector organizations, other companies, and governments.

In its daily activities, Vale acts in accordance with our Corporate Guidelines on Climate Change and Carbon, which were established in 2008. In 2009, we continued to implement actions that were based on the Vale Carbon Program, which forms a key part of these guidelines. The goal of the program is to establish standards of excellence in relation to the management of greenhouse gas (GHG) emissions by 2012.

The various measures that we undertake to address the challenges of climate change and its potential consequences include: investments in the protection of forests and other ecosystems; energy efficiency actions, including the use and development of renewable energy technologies; and initiatives to reduce the consumption of water and other strategic natural resources in the countries where we are present. The efforts of our employees, combined with the search for partnerships and with continued investments in innovative technologies and awareness raising campaigns, encourage ongoing initiatives for the reduction of GHG emissions.

In 2009, Vale oversaw the publication of an *Open Letter to Brazil on Climate Change*, in conjunction with the Ethos Institute and the Sustainable Amazonia Forum. The letter included voluntary commitments by 30 large Brazilian companies to contribute to global efforts for reducing climate change impacts. For more information about this initiative, which is associated with the fourth pillar of the Vale Carbon Program, see the case study to the right.

In 2007, in partnership with the BNDES[1] and Sygma Tecnologia, we established Vale Soluções em Energia (VSE), [Vale Solutions in Energy], to research and develop clean technologies and renewable energy. VSE acts mainly in the research and

Fundamental Principles of the Vale Carbon Program
1 – Strategic evaluation of the impact of climate change on business, and capacity building across the company to enable us to operate in the new competitive environment.
2 – Support for, and implementation of, initiatives for reducing GHG emissions and promoting sequestration of carbon dioxide.
3 – Cooperation and partnership for research and development of technologies and implementation of mitigation and adaptation measures in the territories where we operate.
4 - Engagement with governments and productive sectors to monitor and contribute to the preparation of regulatory frameworks necessary to tackle climate change.
5 – Transparency and continuous improvement.

1 Brazil's National Bank for Social and Economic Development

development of integrated systems for the distribution and generation of energy, in the areas of gasification, gas and steam turbines, combustion engines and multifuels, and is focused on research and development of clean technologies and renewable energy.

DIAGNOSES AND INITIATIVES

Vale analyzes its climate change performance by monitoring the relevant indicators established by the Global Reporting Initiative (GRI) as well as indicators on emissions intensity by revenue and by production.

In 2009, according to the Carbon Disclosure Project (CDP), Vale continued to record the lowest intensity of emissions per revenue of all the large mining companies, with 522 tons of CO_2 equivalent/US$ million in revenues. More information can be found in the box *A consolidated leadership position*.

In accordance with the first principle of the Vale Carbon Program, each year we measure our direct and indirect emissions of greenhouse gases. Every year, we make improvements to this inventory; in 2009, we started to gradually implement the tracking of Scope 3 indirect emissions, as mentioned on page 100.

Each year, the emissions inventory of Vale is submitted to an external verification process, in accordance with the guidelines defined in the "Greenhouse Gas (GHG) Protocol: A Corporate Accounting and Reporting Standard – Revised Edition" of the World Resources Institute (WRI) and of the World Business Council for Sustainable Development (WBCSD).

The five principles of the Vale Carbon Program form the foundations for our actions to contribute to the area of climate change.

CASE

A joint commitment

Vale, with the support of the Ethos Institute and the Sustainable Amazonia Forum, oversaw the publication of an "Open Letter to Brazil on Climate Change." This document is a landmark in positioning Brazilian industry on the development of a low carbon economy. For the first time, a group of companies with a major role in the Brazilian economy came together and made a series of specific joint commitments to reduce greenhouse gas (GHG) emissions. By the end of 2009, about 30 companies had signed the document.

The letter, which was launched during the "Brazil and Climate Change" seminar attended by companies, government and civil society in August 2009, specifies five voluntary commitments that have been adopted by the signatories, such as the preparation of inventories of greenhouse gas emissions, and engagement with government, civil society and our economic sectors to contribute to the debate about the regulation of this issue. In addition, the letter provided suggestions about the position of the Brazilian government at the 15th Conference of the Parties of the United Nations on Climate Change (COP15), which was held in December, as well as ideas which are contributing to the shape of the Brazilian regulatory framework for the management of climate change.

This letter was recognized as a significant climate change initiative by the United Nations Leadership Forum on Climate Change of 22 September, in New York in the US.

A consolidated leadership position

In 2009, Vale maintained its position as the most transparent Latin American company in terms of climate change information, according to the global report of the Carbon Disclosure Project (CDP). Vale earned 74 points out of a possible 100 on the CDP's transparency assessment (the CDLI, Carbon Disclosure Leadership Index), well above the average of 59 points for the Materials Sector, which includes companies in the mining, steel-making, chemicals, manufacturing and paper and cellulose industries.

The ranking, which was released in September, has Vale in second place among companies in non-Annex I countries (countries with no commitments to reduction targets in the Kyoto Protocol), behind only Samsung Electronics of South Korea.

The Global 500 report is produced each year by the CDP, which represents a group of 475 major investors whose combined assets are worth US$55 trillion. The NGO sends questionnaires to over 3,700 large companies, requesting information about their GHG emissions, about potential risks and opportunities from climate change, and about their climate change management strategies. Vale voluntarily responds to the questionnaire each year.

In the Goldman Sachs report on climate change[1], published in May 2009, Vale led the company ranking in the Abatement Leaders category that assessed performance on climate change and forecast return on investments. In the report, Goldman Sachs concluded that Vale manages its emissions more efficiently than its peers. The public reports of about 800 global companies from 24 sectors were analyzed, with a market value of about 90% of the MSCI World Index that is composed of shares in companies from 48 countries.

1 GS Sustain – Change is coming: a framework for climate change – a defining issue of the 21st century.

Based on the information contained in our emissions inventory, we aim to carry out actions, both in the short and long term, which strengthen our strategy for increasing our energy efficiency and for reducing the consumption of energy and our GHG emissions.

The transparency objectives described in the fifth principle of the Vale Carbon Program are met through annual disclosure of our GHG emissions, and by the climate change policies and strategies of the companies we manage. This disclosure is contained in our sustainability report, in regional reports that are published in Canada and Australia, and through our submission to the Carbon Disclosure Project (CDP).

Over the course of 2009, Vale encouraged a wide ranging internal strategic debate that was based on regulatory and market scenarios, and which aimed to identify the potential challenges and opportunities from climate change for each of the company's business areas. This project involved the departments of aluminum, coal, copper, energy, iron ore, holdings in steel-making, nickel, and others.

We also increased the portfolio of our emission reduction and carbon sequestration projects. This portfolio contains a series of potential projects which have already been identified at our operating units, as well as other opportunities in the area of renewable energy that have been identified by the new business development team of VSE (see the detailed description of the projects that have been implemented and which are underway on page 102).

We continue to participate in discussions in Brazil about the regulatory frameworks and development of carbon markets, working with institutions such as the Brazilian Business Council for Sustainable Development (CEBDS) and the Ethos Institute for Companies and Social Accountability, as well as with sector bodies such as the Federation of Industries in the State of São Paulo (FIESP) and the National Industrial Confederation (CNI). We also participated in public fora such as the Sustainable Amazonia Forum and the World Economic Forum. In Canada, Vale Inco participated in ongoing provincial and federal government consultations with the private sector about the regulatory regime that is under development.

OUR CONSOLIDATED EMISSIONS OF GREENHOUSE GASES

As in previous years, Vale's 2009 GHG inventory followed the guidelines established in the Greenhouse Gas Protocol[2] using the calculation methodologies and emission factors from the IPCC and guidance documents from governments of the jurisdictions where we operate[3].

2 A Corporate Accounting and Reporting Standard – Revised Edition by the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD)

3 IPCC 2006 Guidelines for National Greenhouse Gas Inventories (GNGGI). In some international units, Vale used the following methodologies, based in national legislation: "Metal Mining - Greenhouse Gas Quantification Guidance", Canada; the "National Greenhouse Accounts (NGA) Factors", Australia; the "U.S. Inventory of Greenhouse Gas Emissions and Sinks 1990-2004 (EPA 2006)", US; "The Norwegian Emission Inventory 2008 - Documentation of methodologies for estimating emissions of greenhouse gases and long-range transboundary air pollutants", Norway; and the "National Greenhouse Gas Inventory Report of Japan, Ministry of the Environment, Japan Greenhouse Gas Inventory Office of Japan (GIO), CGER, NIES", Japan.

The inventory includes significant absolute emissions of greenhouse gases (tons/year) for all the activities carried out by the company[4] in 100% of the units that are covered by the scope of this report. Emissions from companies in which Vale has partial ownership, but not operating control, have been excluded from the inventory.

Scope 1 of our inventory includes emissions from direct sources of GHG, derived from the burning of fossil fuels, from productive processes (the use of explosives, the pelletizing process, the production of ferroalloys, nickel, aluminum, charcoal and pig iron), from fugitive sources in coal mines, and from equipment and facilities that are owned or operationally controlled by Vale.

Scope 2 includes emissions from indirect sources, such as electricity from the grid[5].

In addition, Vale employs a pro-active approach and separately records and discloses the direct emissions of CO_2 that are associated with the consumption of renewable sources such as biodiesel, ethanol and charcoal.

In 2009, Vale continued with its efforts to provide further detail on its emissions sources, in order to reduce the uncertainties associated with our inventory. As a result, we also monitored the direct emissions that are associated with the internal waste treatment processes of Vale in Brazil, in landfill sites, compost, and incinerators. Overall, emissions from these sources proved to be immaterial.

The reduction in the volume of emissions is primarily due to the contraction of the global economy, which led Vale to reduce production in several units, thereby reducing our fuel consumption. Another factor in the reduction was the closure of the aluminum smelter operations of Valesul in April 2009, when the unit started producing billets based on ingots of aluminum and scrap.

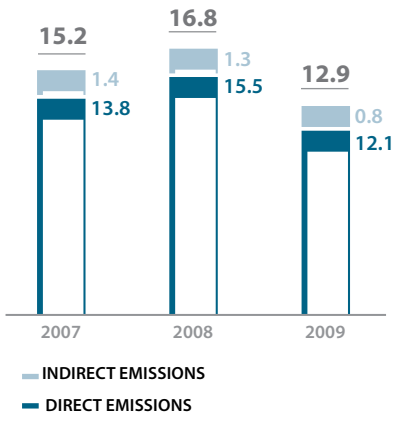
In accordance with the Australian protocol for the calculation of GHG emissions, Vale deducts from its emissions the coal seam gas (basically methane), which is released in the Integra underground coal mine in Australia. Deduction of the coal seam gas, which is sold for electricity generation, represented a reduction of around 70% in the mine's emissions from the previous year.

At the same time, emissions at some units increased, due to an increase in the fleet of ships at Seamar Shipping and to increases in production of bauxite at the Paragominas mine, alumina production at the Alunorte refinery, increased coal production at the Carborough Downs mine, and potassium production at the Taquari-Vassouras mine.

Total direct emissions in 2009 were 12.1 million tons of CO_2 equivalent, which represents a decrease of 22% from 2008 levels. Indirect emissions of CO_2 equivalent in 2009 totaled about 770 thousand tons, a reduction of 40% from the previous year.

Performance of direct and indirect emissions of GHG (Scopes 1 and 2)

(million tons of CO_2 equivalent)



Emissions in 2009 - Scope 1 (direct emissions), Scope 2 (indirect emissions) and Renewable Sources

		2009 (million tons of CO_2 equivalent)
Scope 1	Fuel inputs	8.7
Scope 1	Non-fuel inputs	3.4
Scope 2		0.8
Scope 1 + Scope 2		12.9
Renewable Sources		0.3

4 CO_2 (carbon dioxide), CH4 (methane), N_2O (nitrous oxide), and PFCs (perfluorocarbons CF_4 and C_2F_6).

5 In 2009, there was no steam consumption from contractors (Scope 2).

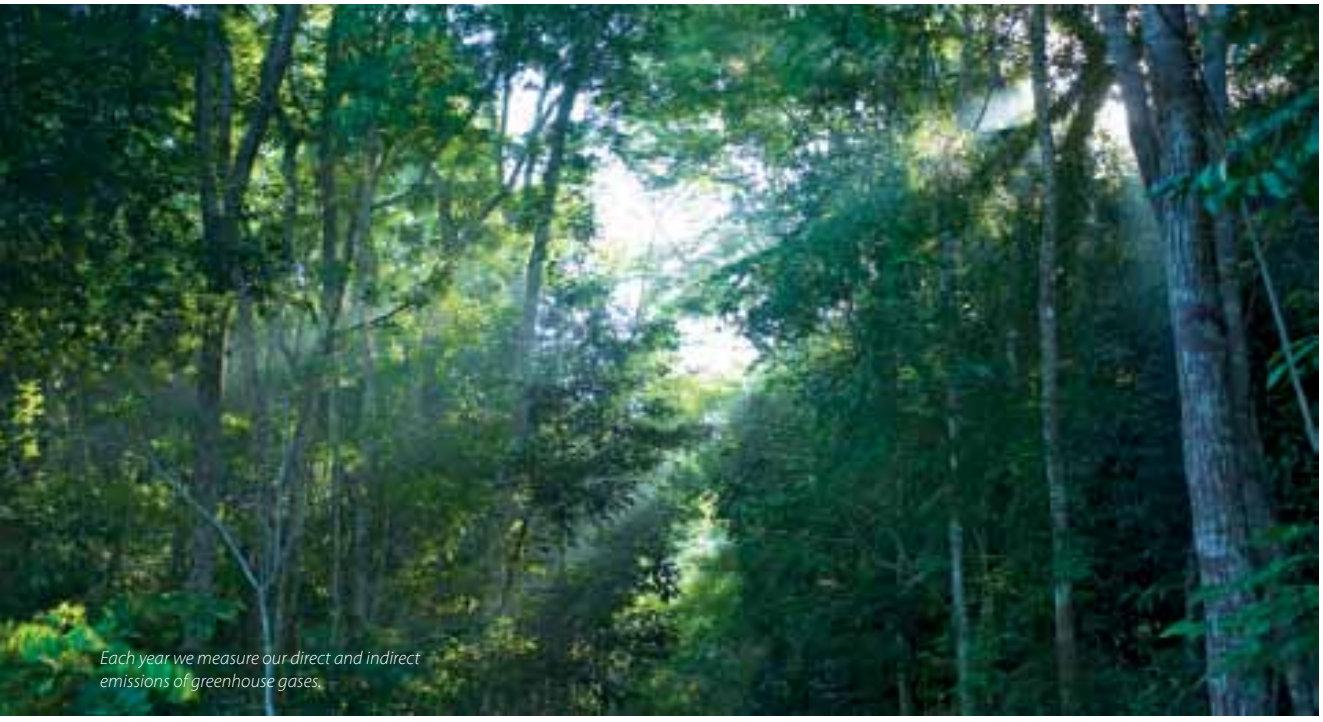
We act in accordance with our Corporate Guidelines on Climate Change

The reduction of our indirect emissions is related to the 23% reduction in electricity consumption by Vale units, which reflects a decrease in production. In addition, the use of a new emission factor (tCO_2e per MWh consumed) for inventories in Brazil, which is modified each year[6], resulted in a decrease of about 60% in 2009 in the indirect emissions from Vale units in Brazil. The emissions factor in the Brazilian electricity distribution network was reduced by almost 50%. This is due to the fall in electricity demand in Brazil in 2009 that led to a reduction in the load factor at Brazilian thermal power plants at periods of peak consumption and an increase in the participation of renewable energy.

Responding to increased demands from investors and other stakeholders to include Scope 3 indirect emissions in our inventory (including external waste treatment processes, air travel by employees, and the transport by contractors of products, raw materials, supplies and waste, and travel by employees) we also started a preliminary analysis of the emissions associated with certain aspects of our supply chain.

Emissions from these sources resulted in the generation of 0.6 million tons of CO_2e, mainly from the maritime transport of products to Asia and Europe. Vale aims to improve the data collection process for these emissions, and to expand the scope of this indicator to include emissions associated with the extraction and production of the raw materials and fuels that we buy, and also the use of the products that we sell, considering the materiality of the emissions and critical activities for our businesses

6 The National Transmission System Operator (ONS in Portuguese) started to disclose separately the emission factors for the Brazilian interconnected national network used for CDM projects (Clean Development Mechanism) and factors used in the preparation of inventories.



Each year we measure our direct and indirect emissions of greenhouse gases.

OZONE DEPLETING SUBSTANCES

In 2009, ozone depleting substances (ODS) emitted by Vale totaled 1.58 tons. The significant rise in the mass of emissions from the 0.35 tons reported in 2008 is due to improvements in data collection and to normal variations in the use of this sort of gas.

Vale units in Brazil consumed about 5 tons of CFC and HCFC refrigerant gases. Our units in Australia, the US, Canada, Europe and Asia consumed only HCFC gases. Vale is phasing out the use of CFCs in Brazil, where we have most of our operations, replacing refrigeration equipment that use CFCs with products that have lower ozone depleting potential.

RISKS AND OPPORTUNITIES

Vale's Corporate Guidelines on Climate Change establish a wide range of actions for the management of the risks and opportunities associated with climate change.

The Strategic Assessment that we carried out in 2009, based on an analysis of regulatory and market scenarios, identified the potential challenges and opportunities derived from climate change in our business areas. The analysis noted that Vale has the lowest intensity of CO_2 emissions per unit of revenue among diversified mining companies[1], and consequently, is at a lower risk of impact on our cost base, compared to other companies in the sector.

In 2009, as a result of the protocol of intentions signed in 2008 with the National Institute for Space Research (INPE), Vale prepared the second report of the physical impact of climate change in the Brazilian states of Pará and Maranhão. This study was focused on potential impacts on the availability of groundwater, of surface water resources and the levels of aquifers in the basin of the river Tocantins, as well as on ecosystems in the region. The potential for secondary impacts, such as the potential for wildfires, as well as the impact on economic activities (primarily agricultural) were also assessed.

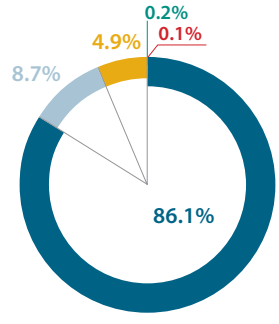
Over the course of 2010, we are planning to continue our work on identifying physical impacts, in order to identify the potential consequences on Vale operations, and, based on this information, to plan our future actions of mitigation and adaptation.

1 The global report of the Carbon Disclosure Project (available at www.cdproject.net) for 2009 revealed that the indicator of the intensity of emissions per revenue at Vale was 522 tCO_2e/ US$ million, showing that the company continues to have the lowest CO_2 intensity of any large mining company.

	Regulatory risks	Physical risks	Opportunities
Revenues	• Reduction in general economic activity; • Indirect impact of the introduction of new technologies that promote the replacement of products in the long term; • Indirect impacts on market conditions, due to changes in the steel-making production chain costs in the medium term.	• Changes (positive or negative) in the volume and source of production, caused by the regional physical impacts of climate change on companies in the sector; • Potential impact (positive or negative) on logistics services due to changes in production in areas of influence.	• Development of carbon credit projects within the precepts of the Clean Development Mechanism, in industrial and forestry processes; • Development of carbon credit projects in the area of voluntary markets, in industrial and forestry processes; • Develop projects in the area of REDD (Reduced Emissions from Deforestation and Degradation). • Research and development into cleaner generation; • Development of analysis of risks associated with climate change in the development of capital projects.
Investments	• Investment in adaptations of production processes because of regulatory changes in the medium term.	• Additional investment in adaptation (infrastructure) in the medium and long term; • Deadline changes related to the implementation of projects due to increasing occurrence of extreme climate events.	
Costs	• Introduction of mandatory emission targets, and tax costs on GHG emissions; • Higher costs of supplies in metal and mining operations (coal, water, energy, for example); • Potential imposition of trade tariffs to avoid competitive advantages for countries without taxation.	• Potential demand for social and environmental actions in areas of influence; • Additional cost of insurance for production facilities.	• Energy efficiency projects and reduction of GHG emissions; • Potential financial incentives for cleaner energy generation.

Total emissions of ODS

(total: 1.58 tons)



We invest in energy efficiency and in reducing greenhouse gas emissions

EMISSION REDUCTION INITIATIVES

As part of our strategy to increase energy efficiency and to reduce greenhouse gas emissions, and consistent with the second principle of the Vale Carbon Program, we analyze a range of opportunities and assess the viability of implementing certain specific measures in our operating units.

Energy, in all its forms, is an essential component of Vale's activities, and we have established the following set of principles for the management of energy in our business:

- **Optimization of supply costs** – striving for the lowest cost for the production or acquisition of energy inputs;
- **Security of supply** – striving to ensure the supply of energy to meet the demands of Vale's business units, as well as meeting the quality levels required;
- **Environmental sustainability** – supplying energy demands while also protecting the environment;
- **Energy efficiency** – the conservation and rational use of energy.

A range of energy efficiency and GHG reduction initiatives have already been implemented including:

1. **Pelletizing Plants in Tubarão – in Brazil:** we are continuing to substitute fuel oil with natural gas, which is less carbon intensive, in Plants 5 and 6 (Nibrasco) and Plant 7 (Kobrasco) in the Tubarão complex in the state of Espírito Santo. These voluntary initiatives, which became operational at the end of 2007, resulted in an effective reduction in GHG emissions in 2009 of 31.5 thousand tons of CO_2 equivalent (tCO_2e) in Plants 5 and 6 and 16.5 thousand tCO_2e in Plant 7.
2. **Carborough Downs – Australia:** coal seam gas (mostly methane) is pre-drained from areas to be mined and then burnt in a flare[1], thereby reducing its global warming potential. A amount of 23.4 thousand tons of methane were captured during 2009, representing a reduction in emissions of 426.8 thousand tons of CO_2e[2], after deducting 65.4 thousand tCO_2e generated by the gas burnt in the flare.
3. **Integra Underground Mine – Australia:** in this unit, some of the gases released from the coal seam are captured and sold for electricity generation at the Glennies Creek Power Station (with a capacity of 10MW), which was established and is operated by a third party. In 2009, there was an increase in the number of connections from the gas drainage network to the power station, increasing the amount of gas available to generate electricity. This action led to a 10.1 thousand ton reduction in the emission of methane, or 211.6 thousand tons of CO_2 equivalent, when compared to the baseline scenario of releasing the gas directly to the atmosphere.
4. **Clydach Nickel Refinery – United Kingdom:** in September 2009, the Clydach Refinery replaced an obsolete drive system with variable speed drives, which led to a reduction in electricity consumption of about 700 MWh per year. This has led to a reduction in emissions of an estimated 380 tons of CO_2 equivalent per year[3].
5. **The Vitória to Minas Railroad (EFVM) and the Corumbá mine (Urucum Mineração) – Brazil:** in these units we are using ethanol rather than gasoline in our light vehicle fleet. Since the first half of 2009, these changes have been applied in the fleet of the contracted companies who provide transport for Vale employees, reducing emissions by about 80 metric tons of CO_2e per year.

1 A flare burns the gases from the process

2 The global warming potential of methane is 21 times more than that of carbon dioxide. The total capture of methane represents 492,127 tons of CO_2e.

3 Calculated using the standard conversion factor in the United Kingdom (Defra)

6. **Valesul – Brazil:** Energy efficiency actions including adaptation of the software used to control the furnace burners, reducing the consumption of gas; the implementation of a pressure control system, with a consequent reduction in heat loss to the atmosphere; and the implementation of a control system for mixing air and gas, enabling flame trimming and greater control over the combustion process; and leading to significant reductions in the consumption of natural gas. These initiatives saved approximately 73.8 thousand m^3 of natural gas with a corresponding reduction of 150 tons of CO_2e.

Our strategy is to intensify the use of renewable sources, in order to reduce atmospheric emissions.

We have also identified a range of emission reduction opportunities that are still in the development stage, for example:

1. **Albras – Brazil:** In January 2009, Albras had its first project approved and registered with the UN in the context of the Clean Development Mechanism (CDM), for the reduction of emissions of perfluorocarbon gases (PFCs). Its complete implementation allows for an estimated emission reduction of 80 thousand tCO_2e per year. Monitoring required for the certification carbon credits from the project is expected in the first half of 2010.

2. **Biodiesel Project and Biopalma Consortium– Brazil:** Through its consortium with Biopalma da Amazônia S.A., Vale will produce palm oil, a raw material used in the production of biodiesel, starting in 2014. As well as being a member of the Consortium, Vale will be responsible for establishing and operating the biodiesel plant. Part of the plant's production will feed the North System's entire fleet of locomotives, as well as heavy machinery and equipment for the Carajás mines in Brazil. The fuel used will be B20 diesel, which is 80% pure diesel and 20% B100 biodiesel.

3. **Karebbe Project– Indonesia:** A third hydroelectric generating facility is under construction at Karebbe, on the river Larona, at Sorowako, Indonesia. The project will increase hydroelectric power generation by 33%, i.e. by 90 MW, and will reduce costs by replacing expensive thermal power in our operations. The project represents an investment of US$410 million and is the cornerstone of the program for reducing energy costs at PT Inco.

4. **Voisey's Bay, Newfoundland and Labrador – Canada:** There are currently three energy efficiency initiatives under development:

   a. Adaptation of the diesel generators, to improve their rated capacity (as operating below the equipment's maximum power reduces efficiency). This will result in an improvement in thermal efficiency of 27%, and a fuel efficiency increase of 1.8%.

   b. Deactivation of the electric block heaters and utilization of a glycol heating system (anti-freeze additive and heat transporter) in order to maintain the temperature of the generator motors at 40ºC and minimize wear caused by cold starts, reducing the consumption of diesel by the generators.

   c. Utilization of the existing glycol distribution network to heat two areas of the unit that were originally served by oil furnaces, reducing the consumption of oil.

In addition to projects in various stages of development and implementation, we have also initiated feasibility studies for a number of projects. For example, the Clydach nickel refinery is trialing Heat Transfer Fluid technology in the nickel pellet plant, with the aim of replacing the flue gas heating system for nickel liquid using natural gas.

We are also exploring the technical assessment of using natural gas and different mixtures of biodiesel in our railway engine fleet, in order to verify the impacts on power, energy efficiency, maintenance, and the emission of pollutants.

Vale's strategy is to continue to intensify its use of renewable sources and its rational use of energy, in order to achieve better results in energy efficiency and the reduction of atmospheric emissions.

BIODIVERSITY

Protecting the riches of nature

We are committed to investing continually in research and new technologies to ensure the sustainability of our operations, at the same time as striving to conserve biodiversity in all its forms

We invest in actions that are aimed at the protection of ecosystems, the conservation of species, and the sustainable use of natural resources, to help meet the demands of today and protect the quality of life for future generations. In addition to continuously monitoring and assessing the impacts of our operations on natural environments, we develop technologies that are focused on improving the reclamation of areas that have been mined or otherwise altered by human activity.

To manage biodiversity in our business areas, we comply with the governmental regulations in force in the countries where we operate, applying Brazilian legislation as a minimum standard of action. Internally, we have established a series of procedures that are obligatory for all operating units, and clearly define accountabilities across the organization. We are a member of the International Council on Mining and Metals (ICMM), therefore our actions are also based on guidance in the ICMM publication 'Good Practice Guidance for Mining and Biodiversity'.

We are preparing a set of Biodiversity Guidelines and Guidelines for the Recovery of Degraded Areas. These two documents outline the procedures and tools that must be employed by all operating units. The documents, which are expected to be published in 2010, are designed to encourage best practices and continual improvement. Their main principle is to require accountability and commitment to biodiversity conservation and the sustainable use of natural resources.

In parallel, we are developing the necessary indicators to measure our performance in biodiversity conservation. These indicators will reflect the unique circumstances in the countries where we operate as well as the fact that our activities are carried out in various ecosystems and in areas with different environmental conditions, in terms of the history of occupation and of land use. Some of the indicators are complementary to those included in the Global Reporting Initiative (GRI) and are related to the norms and principles established by the Convention on Biological Diversity (CBD). The application of these indicators will contribute to the management of biodiversity in our operating areas as well as to transparency in the implementation of our activities.

Main actions in 2009

- At the Vale Natural Reserve (Linhares/ES), recognized by UNESCO as an Outpost of the Biosphere Reserve of the Atlantic Forest in 2008, 127 research projects were carried out, including studies conducted by Vale and studies in partnership with other institutions. These projects included demographic and ecological studies, and research into forestry dynamics, the structure of vegetation, and climate change. In conjunction with these biodiversity initiatives (that have also been carried out in the Sooretama Biological Reserve (Sooretama/ES) since 1998), technologies and procedures have been developed for the recovery of degraded areas, the production of seedlings, and environmental education activities.
- In the Ilha Grande State Park (Angra dos Reis/RJ), we renewed the protocol of intentions that we have signed with the

We are preparing our Biodiversity Guidelines and Guidelines for the Recovery of Degraded Areas.

state government, and continued to implement the Sustainable Development Plan for this Conservation Unit.

- In the Iron Quadrangle of Minas Gerais, to protect areas that have been classified as Private Reserves of Natural Heritage (RRPNs), we continued to carry out the actions of our Management Plans and to construct and maintain fire breaks. We also engaged in Ecosystem Protection activities, as in the Vale Natural Reserve (Linhares/ES).

- At the Center for Biodiversity Research and Conservation in the Iron Quadrangle of Minas Gerais (CeBio—Sabará/MG), which is included as part of the closure plan for our Córrego do Meio mine, the vegetation of the area was mapped and a "Green Area Management Plan for the Córrego do Meio mine" was prepared. We continued to implement technical programs, including the recovery of seedlings, the collection and processing of seeds, the production of seedlings and supplies, and the establishment of the largest bank of germplasm from significant plant species in the Iron Quadrangle, and a database to manage the information coming from these activities.

- An agreement on recovery and maintenance of the arboretum at the Rio de Janeiro Botanical Gardens (Rio de Janeiro/RJ) was signed and implemented. Following this agreement, a plant bed called the Vale Space has been opened in the arboretum, which will be dedicated to the growing of rare Brazilian species, including those indigenous to areas of low population density, and/or species which are considered to be at risk of extinction.

- In the City of Greater Sudbury in Canada, an action plan for the conservation of biodiversity was developed, in partnership with the government, local community and businesses in the nickel sector. The initiative was carried out in response to the results of a comprehensive Ecological Risk Assessment that identified a priority area of 80 thousand ha to recover in the Sudbury basin that was impacted by historic nickel production practices and other industrial activities.

Joining forces in Espírito Santo

Vale has partnered with the Government of Espírito Santo on three initiatives for the recovery of degraded areas and the conservation of biodiversity in the state.

The Vale Proteger [Vale Protect] Program focuses on the ecological restoration of priority areas in the Atlantic Forest that are located in Conservation Units and rural property in the state of Espírito Santo, and in 2009, the program was involved in restoration work on 259 hectares of land. Vale contributed technical expertise and assistance to the project, as well as donating seedlings and acquiring supplies.

We also established an Environmental Extension Program, which works on ecological restoration in protected areas, including riparian forests and springs in rural areas of Espírito Santo. Vale supports the state government by contributing providing technical assistance, seedlings and supplies. In the program's first year, we supplied 330 thousand seedlings, destined for use in the recovery of about 272 hectares of Atlantic Forest.

Our third action with the Government of Espírito Santo was the creation of a Pilot Forests project, which is designed to implement and maintain model forests, for both productive and protected forests, in areas of the state that have been disturbed. In 2009 technical visits were carried out to assess and characterize the areas to be considered by the initiative. A technical plan was also prepared for the implementation of two model forest units, one of which will be wholly maintained by Vale, and which should be established as early as 2010.

MANAGEMENT OF SENSITIVE AREAS

Location and size of land occupied by Vale

Vale owns approximately 3,517 sq km of land for its operations, of which 3,508 sq km are on the surface and 9 sq km are underground. These areas are occupied by extraction activities and by infrastructure for processing, industrial production and transportation of products, including railways and ports. The increase in area relative to the 2,713 sq km reported in 2008 is due to the expansion of select operating units and the inclusion of projects outside Brazil that had not been reported the previous year.

Approximately 9% of our total land is located within legally protected areas (conservation units) while 28% is within areas of high biodiversity value (outside protected areas), as defined by local national governments (Table 1). Areas adjacent to legally protected land total 516 sq km (Table 1).

Of our total operational land, 2,644 sq km are located in global areas of biological diversity that are considered to be hotspots or wilderness areas[1] (Table 2). Our occupation of this type of land increased by 337 sq km as compared to 2008, principally due to expansion of operations as well as accounting for areas outside Brazil that were not reported in the previous year.

Hotspot areas include our operations in the Cerrado (the Brazilian Savanna), the Coastal Forests of Eastern Africa (Mozambique), the Atlantic Forest (Brazil), and Wallacea (Indonesia), as well as areas of Japan and New Caledonia. Hotspots represent 48% of the high biodiversity value areas in which Vale operates. Our operations in wilderness areas, including the Amazon Rainforest (Brazil), the Boreal Forest (Canada) and the Pantanal wetland area (Brazil), account for the remaining 52% of high biodiversity value land we occupy.

Although some of Vale's operating units are located in regions that are classified as hotspots and wilderness areas, in many cases the company's activities are established in locations where the original environment was already altered by previous human activities (such as timber extraction and cattle raising), or which are exclusively used for industrial activities (mainly for municipal industrial districts and urbanized areas). In all cases, however, regardless of the state of conservation prior to construction of our operations, Vale designs each site to minimize alterations to the associated natural environment, and implements a range of environmental initiatives to make a positive contribution to the conservation of local biodiversity.

Table 1: Size and position of Vale's operations in relation to sensitive areas – Protected and High Biodiversity Value Land, as defined by local governments – 2009

Operating area in relation to sensitive areas	Relative position	Sq km
Protected area	Adjacent	516.1
	Within	309.8
	Total	825.9
Area of high biodiversity value	Within	974.2
	Total	974.2

We are in the process of improving our analysis of biodiversity value in order to consistently address land considered valuable by local governments in different countries. In 2009, in order to calculate the area adjacent to sensitive land, we measured a radius of influence from the external boundary of each protected area (excluding indigenous land and unprotected areas of high biodiversity value). When an operating unit is adjacent to more than one protected area or area of high biodiversity value, we have opted to include the entire operational area as on or adjacent to sensitive lands.

Table 2: Vale operational activities and their location in areas of high biodiversity value – hotspots and wilderness areas – 2009

Type of operation	Area (sq km)	Percentage
Total areas (hotspots + wilderness areas)	2,644.3	
Extraction	971.0	36.7%
Processing/Production/ Transportation	1,673.3	63.3%
Hotspots – subtotal	1,274.0	
Extraction	405.6	31.8%
Processing/ Production/ Transportation	868.4	68.2%
Wilderness Areas – Subtotal	1,370.3	
Extraction	565.4	41.3%
Processing/Production/ Transportation	804.9	58.7%

1 Hotspots and wilderness areas are large geographical areas considered to be material for world fauna and flora conservation and are officially recognized by a number of international organizations. Hotspots are endangered areas with high biological value for the planet, with a large number of endemic vascular plants reduced to no more than 30% of its original vegetal coverage. Wilderness areas, in turn, are large areas of land (over 1 million hectares each) with representative biodiversity that has not been substantially changed (wild areas), having over 70% of relatively pristine original coverage and human density lower than or equal to five people per sq km.

IMPACTS ON BIODIVERSITY

As a mining company, our actions may have direct and indirect impacts on biodiversity. We employ a wide range of tools to prevent, control and minimize these impacts on our sites. All of our projects are constructed with systems to address the specific characteristics of each project, the type of activity to be carried out and the location, in an effort to control biodiversity impacts to the greatest extent possible. In each case, these systems can be improved or altered, based on conditions observed throughout the operational stage of the site.

DIRECT IMPACTS

The most significant direct impacts of our business are related to the suppression of vegetation during the implementation or expansion of our projects. Land clearing can result in the direct loss of individual plants and animals as well as the displacement of species to neighboring areas, which even temporarily can alter the environmental quality of these areas. As a result of the loss and/or reduction of natural habitats, alterations may occur in the structure of vegetal and animal communities. The intensity of these changes will depend on local environmental conditions and on the level of conservation of the remnants, both in the directly affected areas and the areas indirectly impacted.

INDIRECT IMPACTS

Vale's activities can also lead to significant indirect impacts by altering landscapes that support complex ecosystems. Potential indirect impacts include:

- various changes to the landscape, based on the movement of soil (surface and sub surface) and the alteration of bodies of water or the creation of reservoirs;
- emissions of gases and particulates, which can affect air quality;
- generation of liquid effluents, which can affect the quality of water and soil;
- generation of solid waste, which can cause siltation of bodies of water and which can affect the quality of the water and soil;
- generation of noise and vibrations related to drilling and the use of explosives, which can affect flora and especially fauna.

To prevent, control and minimize possible impacts on biodiversity, we carry out a wide range of actions.

STRATEGIES FOR IMPACT MANAGEMENT

The actions taken to manage the impacts on biodiversity comply with national regulations and with the best practices recommended by a range of international organizations. In addition, we implement our own initiatives that go beyond local legal requirements. With the aim of maintaining the quality of all the locations where we operate, this impact management system is based on a standardized set of procedures, which are regularly reviewed and updated, with continuous monitoring of the measures that the various units have implemented. This allows us to identify opportunities to improve and enhance the procedures, as well as to propose and develop new technical solutions.

The actions taken by Vale to manage the impact of our operations on biodiversity, which form part of our Operational Procedures and are therefore obligatory for all operating units, include:

- Identifying opportunities to reduce greenhouse gas emissions, by investing in measurement equipment and systems which control atmospheric emissions; and monitoring the use of fossil fuels;
- control of particulate emissions, based on specific actions such as the watering of roads and the establishment of green belts, which reduce the dispersion of particles by the wind, and by continually carrying out research into new ways to minimize such emissions;
- integrated waste management, by segregating materials at source for subsequent recycling, or by directing hazardous waste to appropriate treatment;
- implementation of surface drainage and installation of devices to reduce water velocity, in order to control soil erosion and sediment transportation;
- reshaping of disturbed land and stabilization of slopes, by installing structures which serve as physical barriers to sediments being washed away in rainfall, and by planting of vegetal species, to stabilize the soil and promote the long term sustainability of the land;
- preparation of operating plans for vegetal suppression, including researching alternative sites and analyzing aspects related to flora and fauna and the presence of rare ecosystems, in order to avoid the loss of endangered species;
- carrying out flora and fauna rescue and recovery activities, such as collecting seeds and epiphytes, according to the characteristics of each local environment and other regional features of the operating site;
- development and implementation of projects to restore ecosystems and reclaim degraded areas.

These actions are operating norms in all of Vale's undertakings, and are implemented or are being implemented across our units, according to their applicability in each stage of the development of the projects and operation.

We protect, by ourselves or based on partnerships, 10,321 km² of natural areas.

BIODIVERSITY MANAGEMENT PLANS

The set of actions that is obligatory in all of our operating units constitutes our Basic Plan for Biodiversity Management, and covers activities from the planning stage to the implementation of projects and decommissioning. Although these actions are standardized, the plan is implemented in such a way as to respect the history, the environmental context, and the individual characteristics of each location.

Specific biodiversity management plans are prepared for operating units that are located in protected areas and/or areas with a high level of biodiversity. Examples of this practice include the specific actions that have been carried out in the Amazon region, in northern Brazil, such as:

- The Plan for the Prevention and Combat of Fires in the Ecosystems in the Conservation Units of the Mining Province of Carajás. This plan covers conservation areas included within Vale operations, and also neighboring protected areas;

- The Survey and Monitoring of Fauna in the National Forest of Carajás and the National Forest of Tapirapé-Aquiri – long term studies of fauna for the conservation of species, and environmental licensing, which are standardizing the methodology applied to the research of fauna, generating scientific data, eliminating gaps in knowledge, and enabling technical training and regional development.

In southeastern Brazil, a Plan for Conservation of the Biodiversity of the Iron Quadrangle region of Minas Gerais is under preparation. This will focus on the transitional region between the Atlantic Forest and Cerrado biomes. This is the location of various operations on Vale owned land in areas with a high level of biodiversity.

CONSERVATION OF SPECIES

According to the environmental impact studies that we carry out for each of our operating units, there are approximately 2,850 recorded vegetal species and 3,400 animal species, in the areas influenced by our activities, including invertebrates and vertebrates (fish, amphibians, reptiles, birds and mammals). Out of this total, 114 species are classified as internationally endangered, according to the Red List of the International Union for Conservation of Nature (IUCN) (Table 3), and 165 species are on official national lists of endangered species (Table 4).

We prepare specific biodiversity management plans for each operating unit

Table 3: Number of endangered species* appearing in the international list (IUCN) and present in regions where Vale has operating units

International List	Extinct**	Critically endangered	Endangered	Vulnerable	Near Threatened	Low Risk	Total
Fungi	-	1	-	-	-	-	1
Flora	-	2	15	29	-	23	69
Mollusks	-	-	-	-	-	2	2
Arthropods	-	-	-	1	-	-	1
Fish	-	-	-	1	-	-	1
Reptiles	-	-	-	1	-	-	1
Bird Fauna	1	1	3	8	6	-	19
Mammalian Fauna	-	1	5	6	8	-	20
Total	1	5	23	46	14	25	114***

Table 4: Number of endangered species* appearing in official national lists of each country and present in regions where Vale has operating units

Brazil	Extinct**	Critically endangered	Endangered	Vulnerable	Special Concern	Total
Fungi	-	-	1	-	1	2
Flora	-	-	49	2	1	52
Mollusks	-	-	3	-	-	3
Arthropods	-	-	8	1	2	11
Fish	-	-	6	-	3	9
Amphibians	-	-	1	-	2	3
Reptiles	-	-	2	1	1	4
Bird Fauna	1	2	32	16	6	57
Mammalian Fauna	-	1	4	14	5	24
Total	1	3	106	34	21	165

*The same species can be reported in both lists (National and IUCN).

**Species with a historic record in the region where a Vale operating unit is active.

***Data are included from projects outside Brazil which were not included in the previous year.

PROTECTED AREAS

Currently, we protect approximately 10,321 sq km of natural areas, including owned sites (4%), leased areas (3%) and official conservation units protected in partnership with local governments (93%). The areas protected by Vale include regions in the Amazon Rainforest biomes (82%), Boreal Forests (1%), Atlantic Forest (6%), New Caledonia (<1%) and Wallacea (11%), in addition to properties located in the transition region between the Atlantic Forest and Cerrado (1%). (Table 5).

Part of the operational units of the company are located within protected areas that we help to protect, such as the Carajás National Forest and the Tapirapé-Aquiri National Forest, as well as the Private Reserves of Natural Heritage in Minas Gerais, which are located in the transition area between the Atlantic Forest and Cerrado biomes. The protection efforts that Vale carries out in the Carajás region are extended to all nature reserves within the Mosaic of Conservation Units, including the Itacaiúnas National

Table 5: Areas that Vale either protects (own areas) or helps protect (third-party areas)

Protected Area	Location	Biome	Ownership	Area (sq km)
Tubarão Botanical Park	Brazil (Espírito Santo)	Atlantic Forest	Own	0.3
Tubarão Green Belt	Brazil (Espírito Santo)	Atlantic Forest	Own	5.5
Vale Natural Reserve	Brazil (Espírito Santo)	Atlantic Forest	Own	217.9
Sooretama Biological Reserve	Brazil (Espírito Santo)	Atlantic Forest	Partnership / ICMBio*	242.0
Convento da Penha	Brazil (Espírito Santo)	Atlantic Forest	Partnership / State Government	0.5
São Luis Botanical Park	Brazil (Maranhão)	Amazon Rainforest	Own	1.1
Ponta da Madeira Green Belt	Brazil (Maranhão)	Amazon Rainforest	Own	1.2
12 Private Reserves of Natural Heritage in Minas Gerais	Brazil (Minas Gerais)	Atlantic Forest/ Cerrado	Own	70.4
Protection Areas for 4 HPPs (Small Hydro)	Brazil (Minas Gerais)	Atlantic Forest	Own	3.3
Carajás National Forest	Brazil (Pará)	Amazon Rainforest	Partnership / ICMBio*	4,119.5
Tapirapé-Aquiri National Forest	Brazil (Pará)	Amazon Rainforest	Partnership / ICMBio*	1,925.5
Itacaiúnas National Forest	Brazil (Pará)	Amazon Rainforest	Partnership / ICMBio*	824.5
Tapirapé Biological Reserve	Brazil (Pará)	Amazon Rainforest	Partnership / ICMBio*	997.0
Igarapé do Gelado Environmental Protection Area	Brazil (Pará)	Amazon Rainforest	Partnership / ICMBio*	206.4
Albras/Alunorte Buffer Zone	Brazil (Pará)	Amazon Rainforest	Own	25.3
Protected Areas by Vale Florestar Project	Brazil (Pará)	Amazon Rainforest	Leased (third-parties)	323.0
Valesul Green Belt	Brazil (Rio de Janeiro)	Atlantic Forest	Own	0.7
Ilha Grande State Park	Brazil (Rio de Janeiro)	Atlantic Forest	Partnership / State Government	120.5
Sergipe Green Belt	Brazil (Sergipe)	Atlantic Forest	Own	0.5
Canadian Boreal Forests	Canada	Boreal Forests	Own	56.1
Sorowako Tropical Forest	Indonesia	Wallacea	Partnership / Indonesian Government	1,180.0
Forêt Nord Nature Reserve	New Caledonia	Maquis Shrubland**	Partnership / New Caledonian Government	0.01***
Total				10,321.2

*Source: ICMBio –Chico Mendes Institute for Biodiversity Conservation—Ministry of the Environment.

**Type of natural vegetation occurring in the hotspot called New Caledonia.

***Additional biodiversity measures, including protection of areas, are under development aiming for the Vale Inco Nouvelle Calédonie start of operations.

Forest, the Tapirapé Biological Reserve and the Igarapé do Gelado Environmental Protection Area, which do not host any Vale operations. We also manage other protected areas of our own and areas included in partnerships that are not related to our activities, such as the Vale Natural Reserve (Linhares/ES), the Sooretama Biological Reserve (Sooretama/ES) and the Ilha Grande State Park (Angra dos Reis/RJ).

AREAS AFFECTED AND UNDER RECLAMATION

In the period from 2007 to 2009, the total area affected by Vale was 90 sq km. In the same period, reclamation activities were started on 68 sq km, including activities in areas undergoing permanent reclamation (72%) and also in areas undergoing temporary reclamation (28%) (Table 6).

The total area of land under permanent and temporary reclamation was lower than the total area impacted by Vale activities each year, as a result of the expansion of existing operations and the implementation of new projects in this period. However, there has also been a tendency for an annual increase in the total amount of areas made available for long term reclamation actions in this period, especially in areas undergoing permanent reclamation. This is a natural consequence of the cycle of extraction and decommissioning at some sites (Table 6).

An analysis of the areas affected by Vale activities in 2009, by biome type, shows that there were more impacted areas in the Coastal Forests of Eastern Africa and in the Amazon Rainforest (Table 7). This is a result of the implementation and expansion of projects in Mozambique (the Moatize project) and in Brazil (particularly at the Sossego plant, the Paragominas project, the Salobo project and the Carajás project). For areas undergoing permanent reclamation, the highest volume is found in the Amazon Rainforest, as a consequence of work in the areas related to the Vale Florestar Project, which includes actions for the ecological restoration and protection of native vegetation in areas owned by Vale and on leased land, and also the plantation of industrial forests, although these are not included in the table. In areas in temporary reclamation, the highlight is the transition area between the biomes of the Atlantic Forest and the Cerrado, where there is a combination of long standing operational activities and areas which have been developed more recently, and where a significant amount of land has been reserved for reclamation but could be used again for operations at a later date.

Table 6: Area impacted and area in permanent and temporary reclamation by Vale, 2007 – 2009 (in sq km)

Year	Impacted Area	Area undergoing reclamation		
		Area undergoing permanent reclamation	Area undergoing temporary reclamation	Total area undergoing reclamation
2007	17.7	7.5	6.2	13.7
2008	32.6	12.8	7.2	20.0
2009	39.4	29.7	5.4	35.1
Total	89.7	50.0	18.8	68.8

The reclamation of degraded areas is a gradual process, demanding medium and long term actions. The term "undergoing reclamation" denotes areas in which the activities have been implemented and are in progress (initial reclamation of certain functions of the ecosystem and gradual increase of species, with the aim of returning the vegetation to as close to its original state as possible). "Undergoing permanent reclamation" means areas that will no longer be affected by the company's activities, and "undergoing temporary reclamation" means those areas subject to possible new operational activities.

Table 7: Area impacted and undergoing reclamation (permanent and temporary) by Vale in 2009, by biome (in sq km)

Biome	Impacted area	Area undergoing reclamation		
		Area under permanent reclamation	Area under temporary reclamation	Total area under reclamation
Coastal Forests of Eastern Africa	16.7	0.2	0.0	0.2
Amazon Rainforest	8.6	21.7	0.5	22.2
Atlantic Forest/ Cerrado (transitional)	5.9	0.6	4.7	5.3
Australian Tropical Forests	4.5	4.1	0.02	4.1
Boreal Forests of Canada	2.1	1.6	0.2	1.7
Wallacea	1.3	1.4	0.0	1.4
Others *	0.4	0.2	0.0	0.2
Total	39.4	29.7	5.4	35.1

*The Others item includes small impacted areas and areas undergoing permanent reclamation in other biomes in Brazil (Cerrado, Atlantic Forest and the Pantanal) and in New Caledonia.

CASE

Harpy eagle

The Carajás National Forest, one of the main environmental conservation areas in Brazil, was the setting for a study carried out by researchers to better understand and preserve the harpy eagle (*Harpia harpyja*), one of the largest and strongest birds of prey in the world. Following the discovery of a nest with a family of harpy eagles, a partnership was established between Vale, the Chico Mendes Institute for Biodiversity Conservation (ICMBio) and the National Institute for Amazon Research (Inpa).

This partnership led to the creation of the Harpy eagle Conservation Program, which incorporates activities aimed at preserving the species, currently listed as near threatened in Brazil and internationally. Vale guaranteed funding, ICMBio granted permission to use the forest and Inpa coordinated the specialists' activities.

One element of the project was monitoring the two harpy nests within the Carajás National Forest during an eight month period. The result of this work is described in the book *Harpia*, released by Vale in 2010, highlighting the relevance of this bird within Brazilian biodiversity. The book's 144 pages, with photos by João Marcos Rosa and text by Frederico Drumond Martins and Tânia M. Sanaiotti, provide details of the eagle's daily life, all illustrated with new photographs.

IMPACT BALANCE

The volume of areas impacted by mineral exploration activities was higher than the amount of land where permanent reclamation processes were started in the 2007 to 2009 period. This is because of the extension of operations at some sites and the implementation of new projects. However, a clear trend can be observed of annual increases in the amount of land in permanent reclamation.

In the 2007 to 2009 period, Vale's mineral exploration activities affected 86 sq km of environmentally sensitive areas. Permanent reclamation activities were started on 49 sq km, leading to a final net balance of 534 sq km in 2009 (Table 8).

In every operational unit, Vale's reclamation efforts are based on its Mine Decommissioning Plan, which is prepared in the planning stage of each project and which reflects the specific requirements of each unit and the environmental conditions of the region. The Mine Decommissioning Plan is enhanced at every stage of the operations, and aims to guarantee that the environment is restored as close as possible to the state that it was in before the start of the operations. However, in some cases, the site can be used for another purpose, such as the Center for Biodiversity Research and Conservation in the Iron Quadrangle of Minas Gerais (CeBio—Sabará/MG), which was established as part of the Decommissioning Plan for the Mine of Córrego do Meio.

We carry out actions to reclaim degraded areas, based on the Mine Decommissioning Plan for each project.

In 2009, including the reclamation and revegetation activities carried out voluntarily on leased land and land owned by third parties, and not associated with our extractive activities, we achieved in excess of 1 hectare reclaimed/planted for every hectare impacted worldwide, meeting the commitment that we made in last year's report.

To achieve this, we continued to reclaim and replant leased land in the Vale-Florestar Project in the State of Pará, Brazil, which in 2009 covered a total of 570 sq km. Under the Vale Proteger Project and the Environmental Extension Project, both in the state of Espírito Santo, Brazil, by 2009 we voluntarily reclaimed approximately 5.3 sq km. And in 2009, our Sudbury operations reclaimed 1.5 sq km of areas not owned by Vale, as part of the action plan for conservation of the city's biodiversity, carried out with the participation of other nickel companies, local governments and the community.

Table 8: Opening and final balances of mineral extraction activities carried out by Vale in the period 2007-2009 (in sq km)

Year	Impacted areas (Opening Balance)	Impacted areas in the referred year	Areas in permanent reclamation in the referred year	Impacted areas (Final Balance)
2007	488.9	16.5	7.4	498.0
2008	506.3	30.1	11.9	524.6
2009	524.6	39.1	29.6	534.1

The annual Opening Balance represents the position at the beginning of the year regarding total land yet to be reclaimed.
The Final Balance represents the position at the end of the year regarding total land yet to be reclaimed.
The difference between the Final Balance of 2007 and the Opening Balance of 2008 is due to the acquisition of new operating assets by Vale.
Logistics operations are not included. Only extraction, processing and mineral transformation activities are included.
Only areas in permanent reclamation are included, not temporary reclamation.

HUMAN RIGHTS

Spheres of influence

As a global company, we understand that we not only have a part to play in the international debate about human rights, but that we must also contribute to improvement of global living conditions

The protection of human rights is upheld by a range of international principles, laws and conventions. The protection of human rights demands the attention of all sectors of society. We believe that companies have an important role to play in this area, above all in the way that they manage human rights issues within their own businesses, and in the influence that they can exert on their value chain and on other stakeholders with whom they have a relationship.

Working with the UN

In 2009, we participated in the regional consultations for Latin America and the Caribbean led by the special envoy of the Secretary General of the United Nations for Human Rights and Business, Professor John Ruggie. The aim of our participation was to contribute to the preparation of the document *Protect, Respect and Remedy: A Framework for Business and Human Rights.*

Additionally, the 2007 and 2008 Vale Sustainability Reports were recognized by the UN Global Compact for their quality and transparency as Communications on Progress, based on the evaluation criteria adopted by the institution.

In 2009, we approved our Human Rights Policy. Under this policy, guidelines and principles are being developed for the actions of Vale in regard to human rights issues at our projects and operations, throughout the life cycle of our activities and in our value chain in the regions where we are present. The policy reinforces the ethical ideas and principles that are established by our Code of Ethical Conduct.

In accordance with this policy, we promote human rights in our sphere of influence in the following ways:

- For employees, we provide working conditions which respect human dignity and aim to provide educational opportunities which assist personal and professional development, always looking to maintain a healthy working environment. We do not tolerate any form of discrimination or abuse, of whatever nature, including intimidation or sexual. We respect the freedom of association, collective negotiation, and diversity.

- In the value chain, we seek to improve awareness of human rights, with a special focus on the eradication of forced labor and child labor and on the promotion of the rights of children and adolescents. We aim to establish relationships with suppliers, partners and clients under which they share our principles and values, promoting awareness and the application of human rights protection, and continuously monitoring any risks of human rights violations.

- With local and indigenous communities and quilombolas, our actions are based on dialogue and on mutual respect, and we aim to maintain a relationship of continuous engagement, supporting initiatives which contribute to the social, economic and environmental development of the regions where we act, from the start of our activities to the end.

- In the governmental area, we observe the legislation and regulations of the locations where we act, and we cooperate with authorities in the promotion of internationally recognized human rights. We also cooperate in the investigation of any incident involving an infringement of human rights anywhere in our supply chain.

For more information on our Human Rights Policy, go to ***www.vale.com***

- Our commitment to society is expressed in multiple ways. We are a signatory to the United Nations (UN) Global Compact, which is a voluntary commitment to guarantee fundamental human rights in compliance with the UN's Universal Declaration of Human Rights. We are also a member of the International Council on Mining and Metals (ICMM) and are aligned with the International Labor Organization (ILO), whose guidelines inspire our actions.

We are currently preparing a Human Rights Guide. Our aim is to implement the guidelines and principles established in the Policy in the daily activities of the company. We believe that this will contribute to ensuring that Human Rights issues are increasingly integrated and in focus in our activities, wherever we operate.

This guide will educate our employees and support the improvement of and the definition of processes that ensure that our activities are based on the respect for and promotion of human rights.

At the same time, Vale is developing an instrument for the management of issues related to human rights, which will be implemented in our operations during processes of analyzing significant acquisitions and during post-acquisition integration processes.

We are also preparing an internal instrument for the assessment of social issues, including human rights, and in particular child labor and forced labor. The aim is for the continuous improvement of our performance in this area.

WE ACT THROUGHOUT THE VALUE CHAIN

We seek to establish relationships with institutions that share the same principles and values as Vale. Our contract model contains clauses regarding labor and social security, taxing, health and safety and quality. We are aware of the importance of encouraging sustainable practices in our value chain, and we act proactively in this area.

In 2009, we prepared a specific contractual clause that mentions the need to observe the Code of Conduct for Suppliers, the Sustainable Development Policy, and the Human Rights Policy of Vale. This clause was applied, in a pilot initiative, in the contract for the implementation of the Wind Fence in the Tubarão plant, in the state of Espírito Santo in Brazil. We expect that, in the course of 2010, this clause will be gradually adopted in the other contracts of Vale.

In Brazil, in the area of suppliers to our managed units, we have a monitoring mechanism that is based on the list published by the Ministry of Labor and Employment (MTE) that identifies cases of companies which have been reported for possible incidents of forced labor. We use this list to crosscheck our records of suppliers. This verification process uses not just the company identification number but also the tax code of the owners, in order to guarantee that no supplier to Vale, either as a company or as a company owner, is involved with these matters.

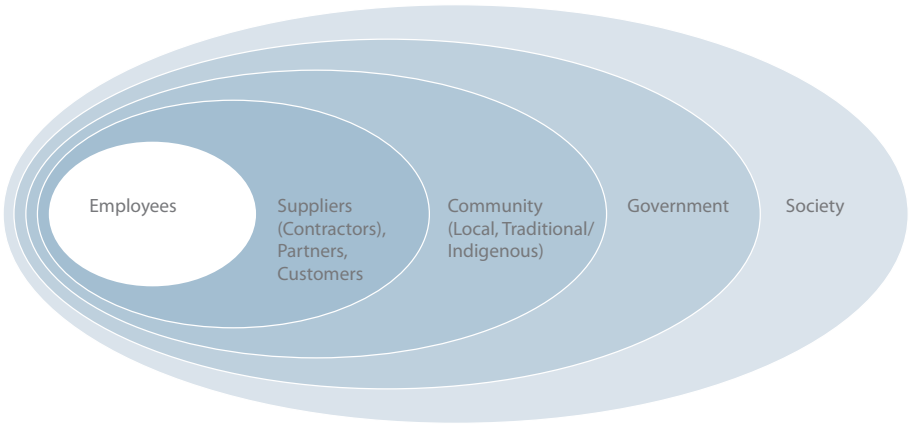
We also adopted other preventative measures, such as auditing of contractors and sub-contractors and carrying out social assessment surveys of suppliers, in addition to professional training programs (read more on page 88).

In the event of any infringement of human rights that has been duly proven by governmental authorities and by the means established in law, we notify the supplier/ partner or client of the need to adopt corrective measures. In the event that these measures are not implemented, we may terminate this commercial relationship.

In 2009, no occurrences of child labor were identified in our operations or our value chain. Nevertheless, in that period a supplier of personal protection equipment (PPEs) was identified as having degrading working conditions in its value chain. The contract with this company was suspended and its registration as a Vale supplier was revoked.

Vale`s spheres of influence

to respect and promote human rights



Broadcasting human rights

The series *Que trabalho é esse?* [What sort of work is that?] was aired again in 2009 on the Futura Channel, which broadcasts throughout Brazil. The video educates society about the risks of labor in conditions that are similar to slavery. The initiative is part of Vale's efforts to promote human rights.

We recognize that the critical suppliers of our own units in Brazil, in terms of Human Rights, are those that work in the corporate security area and in the supply of wood, charcoal and pig iron. We carried out analyses of all these suppliers, following the list of the Ministry of Labor and Employment (MTE) as described above.

In addition, in order to identify the risk of using uncertified charcoal, which could possibly use forced and/or child labor, in our supply chain of pig iron producers we have contractual clauses which allow the mineral supply contract to be terminated in the event of any irregularities being detected. The clauses refer to environmental protection, to socioeconomic development, and to not using child labor and/or slave or analogous to slave labor, or any other form of irregular labor.

Below is a list of other initiatives in the human rights area adopted in our value chain:

- Since 2006, we have participated in the Tear Program, developed by the Ethos Institute in Brazil, carrying out the role of anchor-company for the mining sector. The objective is to help our suppliers incorporate social responsibility in their business strategies. In 2010, we held a second round of the program, involving suppliers from the state of Minas Gerais.
- The companies Alunorte[1], Albras and Valesul, from the aluminum chain, are certified in the SA8000 social accountability standard, an international standard that depends on compliance with human rights laws and conventions, in the workplace and also in the supply chain.
- In the operations of PT Inco, in Indonesia, in addition to contracts that contain human rights clauses, we monitor the performance of items that are identified in the contracts, and we carry out audits to confirm compliance.

We also have a Reporting Channel (described at www.vale.com) that can be used to report issues related to human rights, depending on local legislation. Our website also has a communication channel, Talk to Us, which includes a Sustainability category for any questions to be raised.

SECURITY: A STRATEGIC ISSUE

In 2009 we concluded our refresher training in human rights for almost 2 thousand outsourced security professionals and over 70 of our own employees. We also started the training in Canada, Colombia, Mozambique, Peru and the United Kingdom. In Colombia, in addition to corporate security professionals, soldiers of the Colombian army who operate in areas close to Vale operations also received the training.

In 2010, we will expand the training programs into other global operations. In addition, we will prepare an implementation handbook that will assist managers and employees in understanding and applying human rights issues in their daily work.

Vale is supporting the initiative to implement a telephone line[2] to denounce abuses in the southeast of Pará, in Espírito Santo and in Rio de Janeiro, underlining our voluntary commitment to guarantee human rights. In the Brazilian states of Minas Gerais and Espírito Santo, we are supporting the Educational Program for Resistance to Drugs (Proerd), which is of a social and preventative nature, led by the Military Police, and involving children and families.

1 The company Alunorte obtained this certification in 2009.

2 This is a communications channel for receiving complaints about abuses and forwarding them to the appropriate governmental authorities.

INDIGENOUS RIGHTS

In 2009, we carried out activities that benefited over 5.5 thousand Indigenous People in various Brazilian states, such as the Xikrin people in Pará.

Building alliances

We base our relationship with indigenous communities and quilombolas on continual dialogue and respect for the local culture

In order to strengthen our dialogue and our respect for indigenous communities and quilombolas, we are preparing a set of principles for relationships with Indigenous Peoples, as well as policies and training programs to educate employees and contractors who interact with these communities.

These documents are being produced with the cooperation of specialists and internal teams who are responsible for relationships with Indigenous Peoples in their operations. These principles will be based on the historical relationship we have had with indigenous communities near our activities, on the legislation of the countries where we operate, as well as on international conventions, United Nations (UN) directives on human rights, and good practice in the area of indigenous rights.

The internal discussions about the development of this guide started in 2008, and have underlined the need for our indigenous rights policy to be aligned globally, and for our teams to be trained for this continuous dialogue. We understand that these actions must also involve the outsourced contractors of companies and service providers who interact with Indigenous Peoples.

Another area for continuous improvement is the assessment of the indigenous component in the preliminary stages of the licensing processes, which enables possible direct and indirect impacts to be detected, as well as allowing any actions needed in terms of relationships, mitigation, and compensation to be identified.

MULTI-PARTY ACTIONS

In order to continue with our activities for ethnodevelopment[1], in 2009 we carried out actions that benefited over 5.5 thousand Indigenous People in the Brazilian states of Pará, Maranhão and Minas Gerais. To implement these actions, we counted on the support of government bodies, universities and NGOs.

We highlight the following initiatives:

The Kayapó people

- support and partnership with the NGO Floresta Protegida to carry out expeditions on the Rio Branco river, removing blockages, improving navigability, detecting vulnerable areas, land invasions, and other situations which could put the Indigenous Land at risk;

- partnership with the National Indian Foundation (Funai) to support the harvest of Brazil nuts, by providing materials which made the nut harvest more efficient and which improved product quality. This initiative aims to deliver a higher market value, and as a result an improvement in the life of the Kayapó people;

The Xikrin people

- a partnership with the National Health Foundation (Funasa) to improve the quality of water by disinfecting the artisanal wells used by the Xikrin people of the indigenous land of Cateté;

- a visit by indigenous leaders to the facilities of the Salobo and Sossego operations, enabling cultural interchange;

- training Vale employees and contractors who interact with Indigenous Peoples such as the Salobo in new operations, and cooperate with indigenous people during the harvesting period for Brazil nuts;

- the participation of employees in celebrations of the Day of the Indian and traditional wedding ceremonies;

The Krenak people

- to support the dairy production program that is being implemented, training was provided to the representatives of the four communities, in partnership with the Federal University of Viçosa, including demonstrations, simulations, and visits to model units and farms of various sizes;

The quilombola communities of Jambuaçu

- visits to the facilities of the Knowledge Station of the Area of Permanent Preservation (APA) of Gelado, where alternative models for human development could be demonstrated to rural inhabitants.

Actions of Vale volunteers

- The distribution of toys to children of the Kayapó and Krenak peoples, in Pará and Minas Gerais.

In other countries where Indigenous Peoples have a strong presence, we also implemented cultural revival actions. In 2009, Vale Inco Nouvelle-Calédonie signed an agreement with local educational institutions to teach the native language of the Kanak people in high schools. This effort supports the initiatives that we implemented in 2008, the UNESCO International Year of Languages, such as producing textbooks in the native language of the Kanak, which has been affected by French colonization.

As a result of the Pact for Great South sustainable development, signed by Vale Inco Nouvelle-Calédonie and the Kanak populations, in October 2009 we established the Indigenous Environmental Consulting Committee, which guarantees the participation of indigenous authorities in the environmental monitoring of the operation in the south region, as well as the preservation of the culture of the traditional Kanak people. Two other key elements of the Pact are the creation of a Foundation and the reforesting association (scheduled for 2010).

In Ontario, our Aboriginal Working Group, composed of representatives of different business areas including environment, mineral research, projects and human resources, continues to carry out regular activities in the Aboriginal communities in our Canadian operations. This initiative aims to keep Aboriginal leaders up-to-date regarding questions about sustainability and business issues that are relevant to Vale and to the community. Currently, the working group and members of the Sagamok Anishnawbek people are negotiating an Impact Benefit Agreement for the development of the Totten Mine, located on the border of the traditional lands of the Sagamok. The negotiation should be finalized in June 2010.

In Australia, Vale includes representatives of Indigenous Peoples in decision-making processes. Before starting operations, we aim to identify social and cultural needs and values. We also seek to encourage members of the indigenous communities to work in our operations.

Our aim is to establish constructive, mutually beneficial relationships that respect the rights and cultural diversity of Indigenous Peoples. However, we continue to face legal action. A lawsuit involving the Xikrin community of Cateté is in progress, and a suit has been filed by the National Indian Foundation (Funai) against Pará Pigmentos S.A., which is controlled by Vale, concerning financial benefits for the Tembé community.

Another law suit has been brought by the Indigenous Missionary Council (Cimi) and the Association for the Development and Preservation of the Araguaia and Tocantins rivers, against Ibama and the Estreito Energia consortium, alleging inadequate assessment of the indigenous element during the licensing process. In 2009, a Cooperation Agreement for carrying out projects was proposed between the Consortium, Funai and Ibama.

In Minas Gerais, the Hydroelectricity Consortium of Aimorés continued to implement the project agreed with the Krenak community, which includes social, environmental and cultural actions. In the state of Pará, Vale is waiting for the response of the Quilombola Communities of the territory of Jambuaçu before it can continue with the actions that had been agreed.

1 The notion of ethnodevelopment refers to the construction of a development model that respects the rights and incorporates the perspectives and interests of the indigenous populations. Among its principal guidelines are: meeting basic needs, incorporating the indigenous "endogenous vision" of development, improving indigenous knowledge, technology and resources, favoring a balanced relationship with the environment, and strengthening indigenous participation in decision-making processes. This notion of ethnodevelopment has been used by various institutions in Brazil, such as the National Indian Foundation (Funai) and the Ministry of Environment (MMA), among others, and by international institutions such as the World Bank.

REPORT SCOPE (BOUNDARY)

Completeness of the report

The methodology for defining this report's boundary is the same as that adopted in the Sustainability Reports of 2007 and 2008. The list of companies covered by the report is updated annually. The main change has been Vale Australia, included since 2008 after being acquired in 2007. The information on companies acquired in 2009 will be included in the performance indicators in future reports, in accordance with our policy of gradually extending the scope of the report.

The chart below shows how the main companies of Vale, in terms of sustainability, have been included in this report.

Business	Performance indicators	Management approach	Issues and dilemmas
Iron ore and pellets	• Vale [1] • Companhia Ítalo-Brasileira de Pelotização – Itabrasco [2] • Companhia Coreano-Brasileira de Pelotização – Kobrasco [2] • Companhia Nipo-Brasileira de Pelotização – Nibrasco [2] • Companhia Hispano-Brasileira de Pelotização – Hispanobras [2] • Urucum Mineração S.A. [3] [4] • Vale Oma Pelletizing LLC	• Samarco Mineração S.A. • Zhuhai YPM Pellet Co., Ltd.	
Manganese and ferroalloys	• Vale Manganês S.A. • Vale Manganèse France • Vale Manganese Norway A S • Urucum Mineração S.A. [3] [4]		
Logistics	• Vale [5] • Ferrovia Centro-Atlântica S.A. – FCA • Ferrovia Norte Sul S.A. • Companhia Portuária Baía de Sepetiba – CPBS [3] • Seamar Shipping	• Log-in Logística Intermodal S.A. • Consórcio de Rebocadores da Barra dos Coqueiros • Consórcio de Rebocadores da Baía de São Marcos	• MRS Logística S.A.
Potassium, kaolin and phosphate	• Vale • Cadam S.A. • Pará Pigmentos S.A. – PPSA • Compañía Minera Miski Mayo S.A.C. (Bayovar Project)		
Copper	• Vale • Salobo Metais S.A. [3]		
Aluminum	• Vale • Alunorte – Alumina do Norte do Brasil S.A. • Albras – Alumínio Brasileiro S.A. • Valesul Alumínio S.A. [3] • Companhia de Alumina do Pará - CAP	• Mineração Rio do Norte S.A. - MRN	
Steel	• Vale	• California Steel Industries – CSI	• ThyssenKrupp-CSA – Siderúrgica do Atlântico Ltda. – CSA • Usinas Siderúrgicas de Minas Gerais S.A. – Usiminas [6]
Coal	• Vale Moçambique Limitada (Moatize Project) • Vale Australia (Carborough Downs, Broadlea and Integra Coal)	• Shandong Yankuang Int. Coking Co. Ltd. • Henan Longyu Energy Resources Co. Ltd. • Vale Australia (Isaac Plains)	
Energy		• Energy Consortia: Igarapava, Porto Estrela, Candonga, Capim Branco, Funil, Aimorés, Estreito and Gesai – Geração Santa Isabel [7] • Vale Soluções em Energia S.A. – VSE	
Nickel [8]	• Vale • Vale Inco Limited • Vale Inco Newfoundland & Labrador Limited • Vale Inco Metals (Shanghai) Co., Ltd. • Novamet (Novamet Specialty Products Corporation) • Vale Inco Europe Limited (Clydach Refinery and Acton Refinery) • PT International Nickel Indonesia Tbk (PT Inco) • Vale Inco Nouvelle-Calédonie S.A.S. • Inco Advanced Technology Materials (IATM Shenyang) Co., Ltd. • Inco Advanced Technology Materials (IATM Dalian) Co., Ltd. • Vale Inco New Nickel Materials (Dalian) Co. Ltd. • Vale Inco Japan Limited • Taiwan Nickel Refining Corporation • Exide Group Incorporated	• Korea Nickel Corporation	

(1) Includes operations of Minerações Brasileiras Reunidas S.A. – MBR, Minas da Serra Geral S.A. – MSG and Baovale Mineração S.A. – Baovale. (2) Assets operated by Vale. (3) As of November 2007, these companies adopted the Vale brand, although their corporate names have not changed. Corporate names as of December 2009. (4) Includes operations of CPFL (Companhia Paulista de Ferroligas – CPFL). (5) Includes operations of Estrada de Ferro Carajás – EFC, and Estrada de Ferro Vitória a Minas – EFVM. (6) Vale sold its stake in Usiminas in April 2009. (7) We maintain our efforts to obtain the environmental licenses needed to build the Santa Isabel hydroelectric power plant. (8) Vale sold its stakes in Inmetco (International Metals Reclamation Company, Inc.) and Jinco Nonferrous Metals Co. Ltd. in December 2009.

COMPANIES IN THE CHART ON THE PREVIOUS PAGE ARE CLASSIFIED IN ACCORDANCE WITH THE FOLLOWING CRITERIA:

Performance Indicators

Including Vale subsidiaries, companies we control[1] and companies we operate. The performance indicators are presented throughout the report.

Management approach

Companies over which Vale has significant influence, including affiliates with Vale ownership, direct or indirect, from 20% to 50% of voting capital and shared control. Vale has positions in different administrative bodies at such entities, and might participate in committees dealing with issues related to environment, health and safety, human resources, finances, among other topics. Through these actions, Vale participates in strategic decision-making and influences the creation of norms and policies at such companies[2], including sustainability issues.

1 Due to their low impact on sustainability, data on mineral research companies were not included in the calculation of most performance indicators.

2 Observing legislation in effect in the company's place of establishment.

Issues and dilemmas

Companies over which Vale has influence, including affiliates with Vale direct or indirect ownership of up to 20% of voting capital.

Company	Products and/or services	Equity stake of Vale	Material issues
Usiminas*	Steel products	5.9% of common shares and 2.9% of total capital	Form part of Vale's long term steel strategy of developing the sector in Brazil, adding value to iron ore and generating national prosperity and development
TKCSA	Steel slabs	26.87% of the share capital of joint venture after September 2009	
MRS	Railroad transportation	Direct and indirect stake (37.9% of voting capital** and 41.5% of total capital)	Traffic in urban community areas

* Vale sold its stake in Usiminas in April 2009.

** Vale, because of certain issues associated with competition, has waived the voting rights of the common shares that it directly holds in MRS Logística S.A., as established in the company's shareholder agreement.

EXTERNAL ASSURANCE

ERNST & YOUNG

Limited Assurance Report of Independent Auditors on the Sustainability Report of Vale S.A., based on the Global Report Initiative – GRI G3 guidelines

The Board of Directors and Shareholders of
Vale S.A.

1. We have applied limited assurance procedures to certain information presented in the Sustainability Report of Vale S.A., for the year ended December 31, 2009, prepared under the responsibility of Vale S.A. ("Company") Administration. Our responsibility is to issue a limited assurance report on information disclosed in the referred to Sustainability Report.

2. The limited assurance work was carried out in accordance with Assurance Standards and Procedures - NPO 01, issued by the Brazilian Institute of Independent Auditors - IBRACON, related to assurance services that are not audit services or review of historical financial information, and comprised: (a) planning of the work considering the significance and volume of qualitative and quantitative information, as well as the corresponding internal controls; (b) inquiries of and discussion with Vale S.A.'s officials to attain understanding of the main criteria, assumptions and methodologies used in preparing the Sustainability Report, as well as the processes for management and consolidation of indicators and profile items; (c) validation, through sampling tests, of evidence supporting qualitative and quantitative data of the Sustainability Report; (d) crosscheck of information presented in the Sustainability Report with the Global Reporting Initiative - GRI-G3 requirements; (e) visits to Brazilian units Minas Cauê and Plant, in Minas Gerais state; Tubarão Port, Mills One and Two and Vitória Minas railway, in the Tubarão Hub, in Espírito Santo state and Taquari Vassouras unit, in Sergipe state, as well as Open Cut and Underground units, of Integra Coal, in Australia.

3. The objective of our work was that of verifying whether data included in the Sustainability Report of Vale S.A., referring to qualitative information, measurements and calculation of quantitative information, is presented in conformity with GRI-G3 guidelines. Historical information, market information, descriptive information, targets, projections and opinions subject to subjective evaluations are not encompassed by the scope of the work performed, therefore, our report does not provide limited or reasonable assurance on such information.

4. According to GRI-G3 guidelines, Vale self-declared A+ Reporting Level in its Sustainability Report for the year ended December 31, 2009, which reports 86 indicators, amongst essential, additional and Mining & Metals Sector Supplement. The procedures applied by us were considered sufficient to confirm that the reporting level self-declared by Vale is in accordance with GRI-G3 guidelines.

5. Based on our work, described in this report, we are not aware of any significant modification that should be made to the information presented in the Sustainability Report of Vale S.A., for the year ended December 31, 2009, for it to be presented in accordance with GRI-G3 guidelines.

6. Information presented in the Sustainability Report of Vale S.A., for 2007 and 2008, presented for purposes of comparison, was reviewed by other independent auditors, who issued limited assurance reports thereon on June 12, 2008 and July 24, 2009, respectively.

Rio de Janeiro, June 07, 2010.

ERNST & YOUNG
Auditores Independentes S.S.
CRC – 2SP 015.199/O-6-F-RJ

José Carlos Costa Pinto
Partner
CRC 1 RJ 066.960/O-9

ERNST & YOUNG

Limited Assurance Report of Independent Auditors on the Sustainability Report of Vale S.A., based on ICMM's Sustainable Development Framework Assurance Procedure guidelines

The Board of Directors and Shareholders of
Vale S.A.

We have applied limited assurance procedures to information presented in the Sustainability Report of Vale S.A. for 2009 ('Report'), specifically related to the guidelines of the Sustainable Development Framework Assurance Procedure, issued by the International Council on Mining and Metals - ICMM, as detailed below.

Responsibilities of Vale S.A.

The Report was prepared by Vale S.A. ("Company"). The Company is responsible for collecting and presenting reported information and for maintaining defined internal controls to support this reporting process. At the time of conclusion of the independent verification of the Report there were no mandatory requirements of preparation, publication and independent verification of Sustainability Reports.

Responsibilities of Ernst & Young

Review certain information disclosed in the Report, for the year ended December 31, 2009 and prepared under the responsibility of Company management, with subsequent issue of a limited assurance report. Our work was carried out in accordance with Assurance Standards and Procedures – NPO 01, issued by the Brazilian Institute of Independent Auditors - IBRACON, related to assurance services that are not audit services or review of historical financial information, and with the guidelines of the Sustainable Development Framework Assurance Procedure ("Framework"), issued by the International Council on Mining and Metals- ICMM.

Subject Matter

Vale S.A. is a member of the International Council on Mining and Metals- ICMM, therefore is committed to obtaining assurance in connection with its Report, in accordance with the Framework issued by ICMM. Based on the Framework, we reviewed the following subject matters:

Subject Matter 1: Company alignment with the 10 Sustainable Development principles and the Position Statements of ICMM.
Subject Matter 2: material sustainable development risks declared by the Company and opportunities based on its own business review and the view and expectations of its stakeholders.
Subject Matter 3: existence and status of systems implementation and approaches used by the Company to manage risks and opportunities identified by it as being material.
Subject Matter 4: Company performance during the Report period for the risks and opportunities identified by it as being material.
Subject Matter 5: self-declared reporting level according to GRI G3 guidelines.

For all the Subject Matters we considered the boundary of the report defined in page 119.

Work scope

Our limited assurance work comprised inquiries of Company management about the following aspects:

Materiality

- Performance indicators, declarations and other reported information reflecting the Company's significant social, environmental and economic impacts;
- Internal and external factors considered in the determination of performance indicators, declarations and other significant information presented in the Report.
- Information related to Company performance in the period to which the Report refers.

Extension

- Information on sustainable development performance related to material risks declared by the Company, in accordance with the limits and period of the Report.
- Presentation of data from the operating units related to material risks declared by the Company, if relevant.

Accuracy

- Reliability and accuracy of data from the operating units related to material risks declared by the Company, if relevant.

The risks declared by Vale S.A. were selected based on the materiality evaluation performed by the Company and specified in the wording of the Sustainability Report in its section Sustainabillity Strategy , including media coverage analysis in the period of the Report, interview with agents considered decisive, the Company's public position and matters considered to be relevant in the relationship with stakeholders in prior years. The three risks considered to be material by Vale S.A. were:

- Environmental impact of its operations
- Employment and labor issues
- Business performance

Procedures performed

In line with the verification recommended by ICMM, our limited assurance work included the following procedures:

- Interview with selected Company executives in charge of occupational health, safety, environment, community relations and corporate governance, in order to confirm material matters for the business;
- Analysis of the policies and directives of the Company to determine its alignment with ICMM principles, its mandatory requirements and position statements;
- Review, on a sampling basis, of documentation and public information related to sustainability and performance management;
- Review, on a sampling basis, of existence and implementation status of systems and approaches used to manage declared material risks;
- Visits to the Brazilian units Minas Cauê and Plant, in Minas Gerais state; Tubarão Port, Mills One and Two and Vitória Minas railway, in the Tubarão Hub, in Espírito Santo state and Taquari Vassouras unit, in Sergipe state, as well as the Open Cut and Underground units, of Integra Coal, in Australia, and
- Review of the final text of the Report to verify reporting adequacy in relation to declared material risks and performance data identified in the course of the verification process.

Scope limitations

Our work scope did not include:

- Verification of accuracy, fairness and materiality of data banks, declarations, information, systems or approaches related to different areas from those involving the declared material risks;
- Future Company declarations, as well as targets, intentions and projects to be developed in the future;
- Comparison with historical data;
- Verification of effectiveness of any Company management systems;
- Assessment of Company risks and of effectiveness of its management tools.

Conclusion

Based on our work, described in this report, we are not aware of any significant change to be made in the information contained in the Sustainability Report of Vale S.A., for the year ended December 31, 2009, in relation to adherence of the reported Subject Matters to the Framework of ICMM and the materiality principles, extension and accuracy prescribed by the Global Report Initiative - GRI G3.

Rio de Janeiro, June 07, 2010.

ERNST & YOUNG
Auditores Independentes S.S.
CRC – 2SP 015.199/O-6-F-RJ

José Carlos Costa Pinto
Partner
CRC 1 RJ 066.960/O-9

GRI APPLICATION LEVEL

Application of guidelines

This report reaches the A+ application level of the GRI, reporting all profile items, information on management approach and core performance indicators as well as indicators from the Mining and Metals Sector Supplement.

		C	C+	B	B +	A	A+
Mandatory	Self declared		Report Externally Assured		Report Externally Assured		 Report Externally Assured
Optional	Third party checked						
	GRI checked						

		C	C+	B	B+	A	A+
Standard Disclosures	G3 Profile Disclosures	Report on: 1.1; 2.1 - 2.10; 3.1 - 3.8, 3.10 - 3.12; 4.1 - 4.4, 4.14 - 4.15;	Report Externally Assured	Report on all criteria listed for Level C plus: 1.2; 3.9, 3.13; 4.5 - 4.13, 4.16 - 4.17	Report Externally Assured	Same as requirement for Level B	Report Externally Assured
	G3 Management Approach Disclosures	Not required		Management Approach Disclosures for each Indicator Category		Management Approach disclosed for each Indicator Category	
	G3 Performance Indicators & Sector Supplement Performance Indicators	Report on a minimum of 10 Performance Indicators, including at least one from each of: social, economic, and environment.		Report on a minimum of 20 Performance Indicators, at least one from each of: economic, environment, human rights, labor, society, product responsibility.		Respond on each core G3 and Sector Supplement indicator with due regard to the materiality Principle by either: a) reporting on the indicator or b) explaining the reason for its omission.	

ICMM
International Council on Mining & Metals

Global Compact Principles	
Human Rights	
	1. Businesses should support and respect the protection of internationally proclaimed human rights
	2. Make sure that they are not complicit in human rights abuses
Labor Standards	
	3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining
	4. Uphold the elimination of all forms of forced and compulsory labor
	5. Uphold the effective abolition of child labor
	6. Uphold the elimination of discrimination in respect of employment and occupation
Environment	
	7. Businesses should support a precautionary approach to environmental challenges
	8. Undertake initiatives to promote greater environmental responsibility
	9. Encourage the development and diffusion of environmentally friendly technologies
Anti-Corruption	
	10. Work against corruption in all its forms, including extortion and bribery

ICMM Principles
1. Implement and maintain ethical business practices and sound systems of corporate governance.
2. Integrate sustainable development considerations within the corporate decision-making process.
3. Uphold fundamental human rights and respect cultures, customs and values in dealings with employees and others who are affected by our activities.
4. Implement risk management strategies based on valid data and sound science.
5. Seek continual improvement of our health and safety performance.
6. Seek continual improvement of our environmental performance.
7. Contribute to conservation of biodiversity and integrated approaches to land use planning.
8. Facilitate and encourage responsible product design, use, re-use, recycling and disposal of our products.
9. Contribute to the social, economic and institutional development of the communities in which we operate.
10. Implement effective and transparent engagement, communication and independently verified reporting arrangements with our stakeholders.

As a signatory to the Global Compact and to the ICMM, Vale is committed to adopting in our business practices the principles established by these organizations. In this report, case studies have been described which illustrate our actions. The chart below shows how the case studies relate to these principles.

CORRELATION OF PRACTICES OF VALE WITH THE GLOBAL COMPACT AND THE ICMM

Cases	Global Compact Principles	ICMM Principles	Pages
Sustainability beyond our operations	1, 7, 8	7, 9	12
A qualified workforce	-	-	41
Incentivizing research	7, 8, 9	6, 7, 8	45
Incentivizing innovation	1, 7, 8	5, 6, 8	47
Living with Lakes	7, 8, 9	6, 7	56
An innovative technology for controlling dust pollution	8, 9	6	65
Creating Champions	-	9	77
Fishing at Boqueirão Beach	1, 8	3, 9, 10	78
Strengthening municipalities	1	9	79
Development of Greater Vitória	1, 8, 9	9, 10	80
Initiatives to support communities	7, 8	3, 9	81
Building Capacity to Grow	1	3, 9	82
Getting Our Hands Dirty	1, 8	3, 9	83
Resettlement in Mozambique	1, 7, 8	3, 9, 10	86
Recognizing good practices	-	9	89
A joint commitment	7, 8	2, 6, 10	97
Harpy eagle	7, 8	7	112

GRI SUMMARY AND CORRELATION WITH GLOBAL COMPACT AND ICMM

Summary	Global Compact Principle	ICMM Principle	Pages
Strategy and analysis			
1.1. Statement from the most senior decision maker.		2,10	4-7 ●
1.2. Description of key impacts, risks, and opportunities.		4	11-13 ●
Organizational profile			
2.1. Name of the organization.		10	Corporate Information ●
2.2. Primary brands, products, and/or services.		10	2 ●
2.3. Operational structure.		10	2 ●
2.4. Location of organization's headquarters.		10	2 ●
2.5. Countries where the organization operates.		10	2 ●
2.6. Nature of ownership and legal form.		10	Corporate Information ●
2.7. Markets served.		10	2 ●
2.8. Scale of the reporting organization.		10	2 , 17 ●
2.9. Significant changes during the reporting period.		2, 10	9 ●
2.10. Awards received in the reporting period.		10	Corporate Information ●
Report parameters			
Report profile			
3.1. Reporting period for information provided.			9 ●
3.2. Date of most recent previous report.			9 ●
3.3. Reporting cycle.			9 ●
3.4. Contact point for questions.			9 ●
Report scope and boundary			
3.5. Process for defining report content.			10 , 11 ●
3.6. Boundary of the report.			119, 120 ●
3.7. Specific limitations on the scope.			119, 120 ●
3.8. Basis for reporting.			119, 120 ●
3.9. Data measurement techniques and the bases of calculations.			119, 120 and throughout the report ●
3.10. Explanation of the effect of any re-statements.			119, 120 and throughout the report ●
3.11. Significant changes from previous reporting periods.		2	119, 120 and throughout the report ●
GRI content index			
3.12. Location of standard disclosures.			126-128 ●
Assurance			
3.13. External assurance.			121, 122 ●
Governance, commitments and engagement			
Governance			
4.1. Governance structure.		1	21 ●
4.2. Indication whether the Chair of the highest governance body is also an executive officer.		1	21 ●
4.3. Statement of the number of members of the highest governance body that are independent and/or non-executive members.		1	21 ●
4.4. Mechanisms for recommendations to the highest governance body.		1	21 ●
4.5. Linkage between compensation / economic and environmental performance.		1	22 ●
4.6. Processes to ensure conflicts of interest are avoided.		1	21, 22 ●
4.7. Qualifications and expertise of the members.		1	21 ●
4.8. Internally developed statements of values, codes, and principles.		1	23 ●
4.9. Procedures of the highest governance body.		1, 4	21 ●
4.10. Processes for evaluating the highest governance body's own performance.		1	21 ●
Commitments to external initiatives			
4.11. Precautionary approach.			27 ●
4.12. Social charters, principles, or other initiatives.			24, 25 ●
4.13. Memberships in associations.			25 ●
Stakeholder engagement			
4.14. List of stakeholder groups.			10, 11 ●
4.15. Basis for identification and selection of stakeholders.			10, 11 ●
4.16. Stakeholder engagement.			10, 24, 25 ●
4.17. Key topics and concerns raised through stakeholder engagement.			10 ●
Economic performance			
Economic management approach (goals and performance, policy, additional contextual information).			16-19 ●
Economic performance			
EC1. Economic value generated and distributed.		9	17 ●
EC2. Risks and opportunities due to climate change.	7	9	101 ●
EC3. Defined benefit plan.			38, 39 ●
EC4 - Significant financial assistance received from government.			18 ●
Market presence			
EC5. Standard entry level wage compared to local minimum wage.	1	9	36 ○
EC6. Spending on locally-based suppliers.		9	90 ●
EC7. Local hiring.	6	9	81,82 ●

● Indicators fully reported
○ Indicators partially reported

GRI SUMMARY AND CORRELATION WITH GLOBAL COMPACT AND ICMM

Summary	Global Compact Principle	ICMM Principle	Pages
Indirect economic impacts			
EC8. Development and impact of infrastructure investments.		9	79 ●
EC9. Indirect economic impacts.			72, 73 ●
Environmental performance			
Environmental aspects management approach (goals and performance, policy, organizational responsibility, training and awareness, monitoring and follow-up, additional contextual information).			52-69, 96-113 ●
Materials			
EN1. Materials used.	8	6	63 ●
EN2. Percentage of materials used that are recycled input materials.	8, 9	6	63 ●
EN3. Direct energy consumption.	8, 9	6	66, 67 ●
EN4. Indirect energy consumption.	8	6	68, 69 ●
EN5. Energy saved due to conservation and efficiency improvements.	8, 9	6	66, 102, 103 ○
EN6. Eco-efficient products and services.	8, 9	6	66 ●
EN7.Initiatives to reduce indirect energy consumption and reductions achieved.	8, 9	6	66, 102, 103 ○
Water			
EN8. Total water withdrawal by source.	8	6	54, 55 ●
EN10. Water recycled and reused.	8, 9		55 ●
Biodiversity			
EN11. Location in, or adjacent to, protected areas or areas of high biodiversity.	8	7	106 ●
EN12. Impacts on biodiversity.	8	7	107 ●
EN13. Habitats protected or restored.	8		110, 111 ●
EN14. Strategies for managing impacts on biodiversity.	8		108 ●
EN15. IUCN Red List species.	8		109 ●
Emissions, effluents, and waste			
EN16. Direct and indirect greenhouse gas emissions.	8	6	98, 99 ●
EN17. Other relevant indirect greenhouse gas emissions by weight.	8	6	100 ●
EN18. Initiatives to reduce greenhouse gas emissions.	7, 8, 9		102, 103 ●
EN19. Emissions of ozone-depleting substances.	8	6	101 ●
EN20. NOx, SOx, and other significant air emissions by type and weight.	8	6	64, 65 ●
EN21. Water discharge.	8	6	56 - 58 ●
EN22. Total weight of waste.	8	6	59, 60 ●
EN23. Significant spills.	8	6	63 ●
EN24. Transported waste deemed hazardous.	8		60 ●
EN26. Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	7, 8, 9	6	91-93 ●
Products and services			
EN27. Products and packaging materials that are reclaimed.	8, 9		62 ●
Compliance			
EN28. Monetary value of significant fines.	8	6, 8	65 ●
Overall			
EN30. Environmental protection expenditures.	7, 8, 9		54 ●
Social performance – Labor practices and decent work			
Labor aspects management approach (goals and performance, policy, organizational responsibility, training and awareness, monitoring and follow-up, additional contextual information).			32-51 ●
Employment			
LA1. Total workforce by employment type and region.		3	33, 34 ●
LA2. Rate of employee turnover.	6	9	40 ●
LA3. Benefits provided to employees.			37 ●
Labor/Management relations			
LA4. Collective bargaining agreements.	1, 3	3	39 ●
LA5. Minimum notice period(s) regarding operational changes, including whether it is specified in collective agreements.	3	3	39 ●
Occupational health and safety			
LA6. Workforce represented in formal health and safety committees.	1, 3	3, 5	50 ●
LA7. Occupational diseases, lost days, and work related fatalities.	1	5	48 ●
LA8. Education, counseling and prevention programs regarding serious diseases.	1	5	49 ●
LA9. Health and safety topics covered in formal agreements with trade unions.	1	3	50 ●
Training and education			
LA10. Average hours of training.	6	2	41 ●
LA11. Programs for skills management and lifelong learning.		3	41 ●
LA12. Performance and career development reviews.			37 ●
Diversity and equal opportunity			
LA13. Composition of governance bodies.	1, 6	3	35, 36 ●
LA14. Ratio of basic salary of men to women.	1, 6		35 ●
Social performance – Human rights			
Human rights aspects management approach (goals and performance, policy, organizational responsibility, training and awareness, monitoring and follow-up, additional contextual information).			114, 118 ●

● Indicators fully reported
○ Indicators partially reported

GRI SUMMARY AND CORRELATION WITH GLOBAL COMPACT AND ICMM

Summary	Global Compact Principle	ICMM Principle	Pages
Investment and procurement practices			
HR1. Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening.	1, 2	2, 3	115 ●
HR2. Percentage of suppliers that have undergone screening and actions taken.	1, 2, 3, 4, 5, 6	3	115, 116 ●
Freedom of association and collective bargaining			
HR4. Total number of incidents of discrimination and actions taken.	1, 2, 6	3	35 ●
HR5. Operations in which the right to exercise freedom of association and collective bargaining may be at risk.	1, 2, 3	3	39 ●
Child labor			
HR6. Operations identified as having risk of child labor.	1, 2, 5	3	115, 116 ●
Forced and compulsory labor			
HR7. Operations identified as having risk of forced or compulsory labor.	1, 2, 4	3	115, 116 ●
Security practices			
HR8. Security personnel trained in aspects of human rights.	1, 2	3	116 ●
Indigenous rights			
HR9. Violations involving rights of indigenous people.	1, 2		118 ●
Social performance - Society			
Social aspects management approach (goals and performance, policy, organizational responsibility, training and awareness, monitoring and follow-up, additional contextual information).			72-93 ●
Community			
SO1. Management of impacts of operations on communities.		4	73 ●
Anti-corruption			
SO2. Units analyzed for risks related to corruption.	10	1	30 ●
SO3. Employees trained in anti-corruption policies.	10	1	30 ●
SO4. Actions taken in response to incidents of corruption.	10	1	29 ●
Public policy			
SO5. Participation in public policy development and lobbying.	1-10		24 ●
SO6. Contributions to political parties.	10		24 ○
Anti-competitive behavior			
SO7. Legal actions for anticompetitive behavior, anti-trust, and monopoly practices.			31 ●
Compliance			
SO8. Fines and total number of non-monetary sanctions for noncompliance with laws and regulations.			31 ●
Social performance – Product responsibility			
Product responsibility aspects management approach (goals and performance, policy, organizational responsibility, training and awareness, monitoring and follow-up, additional contextual information).			88-93 ●
Customer health and safety			
PR1. Impacts assessed.	1	8	91-93 ●
Product and service labeling			
PR3. Product and service information required by procedures.	8	8	93 ●
PR5. Practices related to customer satisfaction.			91 ●
Marketing communications			
PR6. Adherence to laws.			91 ●
PR7. Non-compliance with laws and regulations.			91 ●
Compliance			
PR9. Fines concerning the provision and use of products and services.			91 ●
Sector indicators – Mining and metals*			
MM1. Identify those sites where the local economic contribution and development impact is of particular significance and interest to stakeholders (e.g. remote sites) and outline policies with respect to assessing this contribution.		9	78, 81, 90 ●
MM2. Value-added disaggregated to country level.			17 ●
MM3. The number/percentage of site identified and requiring biodiversity management plans, and the number/percentage of sites with plans in place.		7, 9	109 ●
MM4. Percentage of products derived from secondary materials.			62 ●
MM5. Describes the policies for the evaluation of the eco-efficiency and sustainability attributes of the products (for example, recyclability, use of material, use of energy, toxicity, etc.).	8, 9	8	91-93 ●
MM6. Describe approach to management of overburden, rock, tailings, and sludges/residues.		6, 8	60, 61 ●
MM7. Describe significant incidents affecting communities during the reporting period, and grievance mechanisms used to resolve the incidents and their outcomes.		9	84, 85 ●
MM8. Describe programs in which the reporting organization has been involved that addresses artisanal and small-scale mining (ASM) within company areas of operation.		9	83 ●
MM9. Describe resettlement policies and activities.		3	86, 87 ●
MM10. Number or percentage of operations with closure plans, covering social, including labor transition, environmental and economic aspects.		2	87 ●
MM11. Describes the process for identifying the properties and customary rights of local communities, including indigenous peoples, and the mechanisms used to resolve conflicts.	1, 2	3	87 ●
MM12. Describe approach to identifying, preparing for, and responding to emergency situations affecting employees, communities, or the environment.		4	49 ●
MM13. Number of new cases of occupational illness by type. Describes occupational illness prevention programs.	1	5	50 ●
EN23 MM. Total amount of land owned, leased, and managed for production or extractive use.		7	112, 113 ●

*Draft version.

● Indicators fully reported
○ Indicators partially reported

Corporate Information

GLOBAL HEADQUARTERS

BRAZIL
Avenida Graça Aranha, 26
20030-900 – Rio de Janeiro – RJ – Brazil
Tel: 55 21 3814-4477

For information on other Vale locations, please access **www.vale.com**

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