SUSTAINABILITY REPOR









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Cerrejón and La Guajira

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Introduction



For the last ten years, coal has been the second source of power generation, after oil (IEA, World Energy Outlook, 2011). It produces 41% of the electrical power consumed in the world and it is the second most important fuel in terms of primary power usage.

Cerrejón, considered the largest open-pit export coal mine in the world, has garnered a notable share of the international coal market (4.6% of the global export market and 40.5% of Colombian exports), with an annual production of 32.3 million tonnes in 2011. Coal quality is no longer measured solely by its heating power or its low sulphur content (environmental restrictions mean that the international market places a premium on coal with low sulphur content), but also by the social, economic, and environmental responsibility of the producer throughout its production chain.

Consequently, Cerrejón has made a commitment to operating responsibly in terms of extraction and sales based on its vision of positioning itself as an efficient, reliable, world-class producer and exporter that complies with standards in health, safety, the environment, and sustainable development. Our exemplary ethical behaviour respects human rights, contributing to the welfare and development of the communities neighbouring our operation while promoting the participation, development, and progress of their inhabitants.

The management of the operation in 2011 is described throughout this report.

It includes the open-pit mine and 150 kilometres of railway in La Guajira, the loading terminal in Puerto Bolívar, and Cerrejón's administrative headquarters in Bogotá.



About this report



This report is the result of an evolutionary process of the reporting of social, economic, and environmental management that Cerrejón has been carrying out with our stakeholders since 2005.



* The assurance of this report was limited to nine indicator



It covers the management of the coal mining operations of Carbones del Cerrejón Limited and CZN S.A. (see legal description, page 12), both hereinafter referred to as Cerrejón.

Period: January 1 to December 31 of 2011

Covers: Operations in Bogotá, the Mine, and Puerto Bolívar **Guidelines:** GRI G3.1

Level of GRI application: A+ Mining and Metals Supplement

Report assurance: SGS Colombia S.A.

Financial status: Audited by Deloitte Colombia

Advanced Communication On Progress, according the UN Global Compact Local Network. The report chapters highlights La Guajira landscapes

What is the Global Reporting Initiative (GRI)?

- Independent institution, created in 1997.
- Provides guidelines to create sustainability reports.
- Guide recognised by the United Nations.
- Recognised by more than 600 organisations involved and benefiting from the collaboration of nearly 30,000 representatives.
- www.globalreporting.org.

Report drafting process 2011



Errata in the 2010 report

The data on total greenhouse gas emissions, direct and indirect, reported in the 2010 edition of this report (for the years 2009 and 2010) was modified due to an error in calculation. See page 57 for more information.

In 2010, there were 30 households requiring relocation in Tamaquito. In some printed versions of the 2010 Report in Spanish, on page 45, there was a graph error that showed a different figure.



Universal Principles of the United Nations Global Compact.



To support and respect the protection of human rights.



To ensure we are not complicit in the violation of human rights.



To respect freedom of association and recognition of the right to collective bargaining.



To support the elimination of forced labour or labour under coercion.



To support the erradication of child labour.



To support the abolition of discriminatory practices in employment and occupation.



To maintain a preventive focus that favours the environment.



To back initiatives that promote greater environmental responsibility.



To favour the development and widespread use of technologies that are respectful to the environment.



To work against corruption, including extortion and bribery.



Letter from the president

Roberto Junguito Pombo

During the first quarter of 2012, Roberto Junguito Pombo, an industrial engineer from the University of Los Andes, became president of Cerrejón.

Junguito Pombo has worked in six countries and obtained master's degrees in Business Administration and International Relations in the United States. In recent years, he worked in the airline industry as vice president of Avianca's Restructuring and Operations department, and subsequently as president of Copa Airlines. He was also an executive at international consulting firms Chase Securities and McKinsey.



Challenges for 2012

What are Cerrejón's main goals for 2012?

First, we have two large production challenges: maintaining an operation with zero fatalities and exceeding 32 million tonnes of coal exported.

In terms of the environment, we will continue to promote initiatives to prevent, mitigate, and compensate for the impacts of our operation. We will meet this challenge by implementing goals in eco-efficiency to reduce the consumption of electrical power, diesel, and water; we will participate in declaring four protected areas in La Guajira, in partnership with Conservation International, Corpoguajira, and The Nature Conservancy, and we will continue our rehabilitation programme for disturbed land to exceed 3,000 hectares of rehabilitated land.

Additionally, we will keep our promise to reduce inequality in access to basic opportunities for the population of La Guajira through the strengthening of our social engagement programmes and through the work led by the Cerrejón Foundations System. We would like to highlight the continuation of, and compliance with, the works scheduled for the P40 upgrade project, which was begun in 2011, and through which we expect to export 40 million tonnes annually from 2015.

Why is this historic moment opportune to Cerrejón's expansion?

It is appropriate to reinforce the operation and raise production levels in the short and mediumterm in response to the global demand for coal. It will sustain growth over the next 20 years, after which, according to sector analysts, it will decline and be replaced by alternative energy sources.

This is the moment to grow and take advantage of the benefits of coal production at Cerrejón. Ultimately, this translates into more infrastructure investment for La Guajira, a significant increase in the payment of royalties and taxes to the nation, the creation of thousands of quality jobs, and the positioning of Colombia as one of the main coal-export countries on the international market.

How can Cerrejón promote sustainability for La Guajira?

We are committed, through direct initiatives and through the Foundations System, to the guidance, promotion, and structuring of projects that contribute to the development of La Guajira. In particular, expanding the scope of healthcare and education; promoting long-term production projects; and implementing mechanisms to effectively distribute resources from the royalties and taxes that Cerrejón pays. These payments represent a major economic contribution to helping eliminate extreme poverty and inequality.

This region faces many future challenges. Its sustainability is a responsibility that requires both public and private sectors to identify strategic areas in which to focus our efforts.



Message from the president

For the seventh consecutive year, Cerrejón presents its Sustainability Report. It is a useful tool that enables us to share with our stakeholders the progress of the operation, the social and environmental programmes carried out, and the goals and achievements of 2011. As well, it details the challenges we have taken on for 2012, in accordance with our commitment to operating as a company dedicated to the regional development of La Guajira.

2011 was a special year for Cerrejón: the company reached the milestone of 32.03 million tonnes of coal exported. We also moved forward in strengthening our social capital through the five resettlements carried out, and in initiating the P40 expansion project. This involves an investment of USD \$1.3 billion for modifications to the Mine and Port areas to produce and export 40 million tonnes of coal annually, from 2015 on.

The figure of zero fatalities in the operation during 2011 is a special source of satisfaction for Cerrejón employees and contractors, complemented by the excellent results obtained in our safety rates. These results were achieved due to the commitment of the entire team, and the updating of the Risk Management System (RMS) protocols, which is a key strategy for preventing accidents and guaranteeing the health and well-being of our collaborators. Thanks to our track record, the Colombian Safety Council (CCS) presented us with the Emerald Cross in the Excellence category in 2012, the highest recognition awarded to a company for its industrial safety standards.

Cerrejón's social investment exceeded COP 16.8 billion in 2011, enabling us to strengthen our programmes to benefit La Guajira. This intensive work was recognised through the Portafolio Prize, naming us the most socially responsible company in the country. We were also honoured with the 2011 Britcham Lazos prize, awarded by the Colombian-British Chamber of Commerce, in addition to a special mention for our innovative programme and its positive impact on La Guajira.

With regard to environmental management, we invested COP 79.5 billion, targeted at developing actions in accordance with current regulations. Last year, we reached the figure of 2,890 hectares of rehabilitated land, and signed, in conjunction with the communities of Bahía Hondita and Punta Gallinas, an agreement for the preservation of the threatened sea turtle and American crocodile species. The latter forms part of our environmental effort that exceeds legal requirements.

Cerrejón intends to continue being a good partner for La Guajira through the strengthening of strategic alliances and economic production chains, to guarantee the department's sustainable development. The challenge we have taken on from the beginning of 2012 is to

continue our daily work of mining responsibly, governed by our conduct policies and guidelines, which feature integrity as their fundamental principle. This principle is also promoted among our collaborators and is reflected in our unwavering commitment to health, safety, environment, and the community.

All of these actions result in Cerrejón's interest in making use of the knowledge obtained concerning corporate social responsibility during these past three decades of operation, to thereby contribute to strengthening the region, its production capacity, cultural diversity, natural riches, and tourist destinations.

In the same vein, this 2011 report reaffirms Cerrejón's voluntary support of the United Nations Global Compact promoting the ten universal principles governing human rights and labour issues, preservation of the environment, and the battle against corruption. It also reinforces our commitment of transparency to our stakeholders with regard to the environmental, social, and economic performance of our operation.

History

Nature and legal status

Cerrejón refers to the mining operation of Carbones del Cerrejón Limited and of Cerrejón Zona Norte S.A., companies operating in Colombia by virtue of their partnership for the exploitation of two of the five mining areas and of the operations integration agreement signed with the Colombian government.

- · Partnership contracts North Zone (Carbones del Cerrejón Limited, Cerrejón Zona Norte S.A., and the Colombian government).
- · Large-Scale Mining Contract for the Area of Patilla (Carbones del Cerrejón Limited, Cerrejón Zona Norte S.A., and the Colombian government)
- · Large-Scale Mining Contract for the Area of **Oreganal** (Carbones del Cerrejón Limited and the Colombian government)
- · Large-Scale Mining Contract for the **South** (Carbones del Cerrejón Limited and the Colombian government)
- · Mining contract with the **Community of El Cerrejón** (Carbones del Cerrejón Limited)

Carbones del Cerrejón Limited (formerly International Colombian Resources Corporation, Intercor) is a foreign-owned company whose registered address is in Anguilla, British West Indies, with a branch in Colombia domiciled in Bogotá.

Cerrejón Zona Norte S.A. (CZN). is a Colombian public company, with its main office in Bogotá. To this company was transferred the contractual interest of Carbocol in the Partnership Contract originally underwritten with Intercor (now with Carbones del Cerrejón Limited) via the signing of the Contract for Mining Operations and Transfers (CEMT).

Both companies belong in equal parts to the subsidiary companies of Xstrata plc, Anglo American plc, and BHP Billiton plc.

During the exploration and construction phases, this mining operation was partly owned by the State (1976 to 2000) via the North Zone Partnership Contract through the intermediary of Carbocol S.A. The shares of the latter were transferred to Cerrejón Zona Norte through the undersigning of the Contract for Mining Operations and Transfers. Therefore, the Colombian government does not form part of the shareholder structure of either of the two companies.

















The Cerrejón Foundations System promotes and drives sustainable development in La Guajira (pp. 70-75)



After several years of pre-feasibility and feasibility studies, Cerrejón receives all the necessary approvals to proceed with the P40 Expansion Project. The aim is to gradually expand production and export capacity to reach 40 million tonnes a year by 2015.

Glencore sells its shares to the European company Xstrata plc, whose subsidiaries are current owners of Cerrejón together with BHP



Cerrejón manages to enter the Asian market for the first time in 25 years.

2010 2011



Corporate goals

1. OPERATIONAL INTEGRITY

Establish an accident-free culture, continuously decreasing accident rates while identifying and controlling risk and minimising the likelihood of occurrence of **occupational disease.**

2. SOCIAL RESPONSIBILITY

As a responsible private company, promote and support the sustainable development of the communities located within the area of influence of our operations so that we effectively contribute to progress at the regional and national levels; carry out our activities with integrity, respecting principles of conduct and action with regard to human rights, labour relations, and combating corruption; carry out all of our operations in accordance with the concept of sustainable development by means of the application of the best practices regarding the effective control, mitigation, and compensation for adverse impacts on the environment.

3. EFFICIENCY AND COMPETITIVENESS

Continuously improve, optimise resource use, and innovate with regard to all of our processes, both in operational areas and in marketing and administration and their interactions, in order to bring about conditions that enable us to maintain our position in the lowest-cost quartile of global thermal coal export mines while maintaining our expansion goals and ensuring the long-term stability of the mining operations. In addition, identify and develop business opportunities that create added value in coal production and sales.

4. QUALITY AND CLIENT SATISFACTION

Satisfy the necessities and expectations of **clients and consumers** of our coal with regard to quality, opportunity, performance, and technical assistance by means of integrated, coordinated efforts on the part of planning, mining operations, crushing, transport, loading, and marketing. Establish operational and sales plans that are suitable for the product extracted from the Mine and our operational capacity and ensure compliance. In addition, ensure product quality at each stage of our operational processes.

5. ORGANIZATIONAL PERFORMANCE AND GROWTH

Identify opportunities that maximize the value of Cerrejón and successfully exploit them. Attain an annual production level of 40 million tonnes by 2015. Promote and maintain excellent relations with our neighbouring communities, local, regional, and national authorities, as well as other stakeholders in order to establish conditions conducive to the subsequent **expansion of the operation** at higher levels over the middle term, and prepare the company for further growth.

Create conditions within the organisation that serve to attract, motivate, train, develop, and ensure the retention of **ideal human talent** while at the same time effectively ensuring that employees possess the training and knowledge necessary to perform our operations at a world-class standard; likewise, provide an **excellent work environment** for all members of our team.

Values and goals

Principles of the Cerrejón Way

- 1. Operate the business while increasing our external focus and awareness of the outside world.
- 2. Aspire to have the **communities pleased** that we are part of their environment.
- Rely on external benchmarks to seek improvements and align our operation with international standards.
- 4. Work to ensure sustainable living conditions in the communities within our area of influence, recognising that Cerrejón itself is sustainable only to the degree that development in La Guajira is.
- 5. Do the maximum possible and not the minimum necessary. Particularly in the context of social responsibility, mere compliance with the law is not enough.
- 6. Recognise that transparency is fundamental in our relations with communities.
- 7. Build trust with our stakeholders.
- 8. Commit ourselves to being at the **forefront of responsible mining** in Colombia and the world.
- **9.** Work to be more **innovative**, **more open to change**, **and encourage more participation** in both our internal and external relations.
- 10. Generate more trust in our relations with our employees.
- Promote a culture of greater empowerment, self-monitoring, and autonomy for our employees.

Corporate values

In order to promote clear processes and effective behaviour which contribute to an efficient and responsible organisation, the Cerrejón Way employs several values that shape our corporate philosophy.

- Health, safety, and environment
- Respect
- Responsibility
- Ethics
- Transparency
- Integrity
- Empowerment
- See definition of corporative values

http://www.cerrejon.com/site/english/our-company/cerrejon-way/values.aspx

Strategic allies

Cerrejón has established alliances with a wide variety of organisations, allowing us to move forward in implementing strategies focused on the sustainability of the business.

- See the list of affiliations, agreements, and memberships at
- http://www.cerrejon.com/site/english/sustainable-development-•-socialresponsibility/alliances.aspx

P6

P7)

P8

Materiality

"Materiality" refers to the total sum of all relevant matters, both for the stakeholders and Cerrejón, and is validated by three sources of input:

- 1. Preliminary results of the "Social Impacts Study", conducted by the Environmental Resources Management (ERM) (see more information on page 23).
- 2. "Image and Reputation Study", prepared by the National Consulting Centre in 2010.

Collection technique Personal surveys. Methodology Quantitative. Sample

- 450 men and women over 18 years of age and resident in La Guajira (Barrancas, Riohacha, Uribia, Maicao, Albania, and Hatonuevo).
- **51** indigenous Wayuu residents of La Guajira.
- 152 Cerrejón employees.
- 150 leaders of La Guajira at the regional and municipal level, belonging to the regional government and municipal bodies, representatives of political parties, legislators, military forces, the Church, trade guilds, civic associations, media, leaders in the healthcare and educational areas, micro-entrepreneurs, trade union and private sector leaders.
- **30** opinion leaders in Bogotá.
- 20 representatives of national news media.
- **100** male and female residents of Bogotá.

 Survey of upper management on material aspects to validate their relevance with respect to Cerrejón and its stakeholders, prepared by PwC.

Collection technique

Survey sent by email. Sample 11 representatives of Cerrejón senior management.

Issues of greatest relevance for stakeholders and Cerrejón in 2011



Area of influence of operation

Mine

21 communities (224,491 inhabitants)

Railway

243 Wayuu communities (19,551 inhabitants)

Port

15 communities (1,236 inhabitants)

Stakeholders

- Departmental and local authorities and bodies
- Local, rural, and indigenous communities
- Employees and trade union
- Mining sector companies
- National government
- Regional, national, and international communications media and opinion leaders
- NGOs
- Suppliers and contractors
- Clients

About La Guajira



Economic value generated and distributed

The main reason for the increase in generated and distributed economic value is the increase in the average price per tonne of purchased coal. It rose to USD 101.02/t in 2011, representing an increase of 38.84% compared to the average price in 2010, which was USD 72.76/t.

As a result of this increase, in 2011 profits increased in comparison to 2010, resulting in increased tax revenues for the government. This explains the increase in its share of the results of 2011.

It is noteworthy that, although the percentage distribution to suppliers, contractors, and employees decreased, the real value received by these stakeholders increased.

Economic value generated and distributed Millions of pesos

	National suppliers and contractors	Foreign suppliers and contractors	Employ
Partial	• I		

		National suppliers and contractors	Foreign suppliers and contractors	Employees	Government	Royalties	Taxes	Private royalties	Depreciation /amortisation (reinvestment)	Shareholders	Total distribution
	Partial					579,319	1,072,779				
2011	Total	560,867	1,364,633	547,376	1,652,098]		88,880	348,213	1,575,179	6,137,246
	Share	9%	22%	9%	27%]]	1%	6%	26%	100%
	Parcial]			338,818	541,193				
2010	Total	509,081	1,076,586	478,204	880,011		J	35,446	469,754	1,022,523	4,471,605
2	Share	11%	24%	11%	20%			1%	11%	23%	100%
	Partial]]		533,603	654,762				
2009	Total	516,182	1,193,118	489,479	1,188,365			79,203	358,100	1,178,704	5,003,151
2	Share	10%	24%	10%	24%			2%	7%	24%	100%
	Partial	·				547,158	746,438				
2008	Total	460,659	1,454,543	390,420	1,293,596			65,342	312,726	1,352,562	5,329,848
2	Share	9%	27%	7%	24%			1%	6%	25%	100%

Purchases and Contracts 2011 Millions of pesos

		2008	2009	2010	2011
	La Guajira	\$7,341,775,888	\$6,145,987,394	\$4,005,039,228	\$9,937,444,762
SES	Regional suppliers	23	19	25	21
RCHA	National total	\$108,213,375,642	\$89,071,734,431	\$100,659,694,010	\$140,389,849,249
PUR	National suppliers	596	597	666	612
	La Guajira share in total national purchases	7%	7%	4%	7%

These figures include purchases of fixed assets and investments.

			2008	2009	2010	2011
		Contract value	\$61,734,082,771	\$64,370,721,898	\$54,904,648,272	\$60,227,492,709
	La Guajira	# Suppliers	166	134	145	189
		Contract value	\$403,691,646,571	\$445,275,841,226	\$470,927,720,280	\$566,405,481,918
S	Other national	# Suppliers	989	661	693	703
CONTRACT	Total national	Contract value	\$465,425,729,342	\$509,646,563,124	\$525,832,368,552	\$626,632,974,627
ENO	Total national	# Suppliers	1.155	795	838	892
Ŭ	late an effected	Contract value	\$27,716,393,542	\$34,518,405,640	\$26,802,512,020	\$33,681,560,210
	International	# Suppliers	78	75	77	84
	Total	Contract value	\$493,142,122,884	\$544,164,968,764	\$552,634,880,572	\$660,314,534,837
	TOTAL	# Suppliers	1.233	870	915	976

Sustainability Dashboard

Category		Indicator	Indicator GRI	More information (location in report)	Goal 2011	Outcome 2011	Status 2011	Trend (next two years)	Challenges 2012 and future
erational Ires	1	Coal production (millions of tonnes)	Not applicable	Infographics – Coal production process	32 million tonnes	32.3 million tonnes			
	2	Fatalities	LA7	11, 32 and 79	0	0		\diamond	
	3	Recordable injury frequency rate (RIFR)	LA7	32	Limit: 0.34	0.30 for operation total (0.33 for employees and 0.28 for contractors)		♥	The main safety challenge continues to be operating without fatalities. In addition, maintaining the trend for a decrease (minimum 5% yearly) in recordable injuries.
abour – afety	4	Classified injury frequency rate (CIFR)	LA7	32	Limit: 0.20	0.21 for operation as a whole (0.27 for employees and 0.16 for contractors)		<₽	a accrease (minimum 576 years) in recordable injunes.
	5	Implementation of fatal risk control protocols	Not applicable	32 and 33	Finish implementation of protocols begun in 2010.	In 2011, this implementation finished and work began on incorporating the risk management in fatalities in order to provide a more structured means of preventing and mitigating accidents in the operation.		٨	Incorporation of fatality risk management to operation as an ongoing process assimilated and applied by all employees and contractors.
Health	6	Cases reported as professional diseases	LA7	84	Less than two cases for every thousand employees.	Six cases, equal to 1.1 for every 1,000 employees.	•	٨	 The rising trend is due to legislative changes in the country's social security system. Actions to mitigate this situation are: Maintaining a healthy, productive workforce. Carry out operations minimising the occurrence of occupational diseases. Control work-related health hazards. Gradually reduce hygiene risk levels in Similar Exposure Groups (SEGs).
raining in uman rights nd international umanitarian ghts	7	Stakeholders trained	HR8	28	New employees (100%) Private security 279 security personnel (26% of total 1,100 security personnel. The remaining 74% had been trained in 2010) Public security forces 700 soldiers (100% of whom protect Cerrejón's infrastructure, Guajira Task Force)	New employees (100%) Private security 271 trained, (97%) Public security forces 839 soldiers trained (120%, due to service circumstances, the number of soldiers was expanded). In addition, 821 members of the public security forces in the area of interest were trained.	•	۶	New employees 1. Evaluation of impact of human rights training. 2. Maintain 100% of training and review quality. Public and private security forces 1. Public and private security forces 2. Measure the training impact.
omplaints hechanism	8	Complaints resolved	HR11	31	70% of complaints received between January and September of 2011 (the period for addressing complaints is a minimum of three months)	84%. A total of 80 complaints were logged in this period, and 67 were resolved. In addition, a further 83 complaints were resolved (pending from 2010).		۲	 Systematize lessons learned to prevent recurrent impacts. Standardize process and response in complaints processing. Optimize work between departments to coordinate response to complex complaints.
Vlonitoring and assessment	9	Contracts with security companies, analysed in accordance with human rights clauses.	HR1 y HR2	31 and 86	 100% of contracts contain a clause committing suppliers and contractors to comply with Cerrejón's human rights policy. Verification of 25 contracts. 100% of complaints logged through the Complaints Office on human rights claims were addressed. 	 100% 100%. Verification of 25 companies and eight cooperatives. 100% of complaints logged through the Complaints Office on human rights claims were addressed. 	•	۶	 Random contract verification Monitoring of freedom of association and trade union bargaining in contractor firms. (As of September 2012, eight companies have a collective bargaining process.) For the Complaints Office Provide training on respect for human rights to senior managers of the five largest contractor firms. Continue to address 100% of complaints logged through the Of
ersonnel	10	Direct and indirect employees	LA1	78	Not applicable	Direct: 5,373 Indirect: 4,497			The rising trend in recent years is due to two reasons: • Cerrejón's growth due to the expansion project. • A generational changeover process.
aining	11	Training hours per worker (professionals and technicians)	LA10	83	247,099 man-hours of training	The goal was surpassed by 7%, with 296,728 man-hours of training.			The challenge over the next three years is to train around 1,200 ne employees (more than 100 professional staff and 1,100 technical s
Vater	12	Reuse of domestic discharges	EN10	39 and 45	80%	83%			Reuse 80% of domestic wastewater.
-	13	Maintain compliance with WQI impact indicator within parameters	Not applicable	Not applicable	-0.3	-0.28			> - 0.30
ydrocarbons	14	Recovery of used oil	EN2	39 and 49	55%	59%			2012 - 2013: 57% 2014 - 2016: 60%
aste	15	Solid waste recovered for recycling	EN22	39 - 50	45% of total waste produced	45%			2012: 45% 2013 - 2014: 47% 2015 - 2016: 50% of total produced
		TSP in LMN**	EN20	39, 46 and 47	90 µg/m³	54 µg/m³		Þ	Less than 90 µg/m ³ for TSP
_		PM10 in LMN**	EN20	39, 46 and 47	45 μg/m³	29 µg/m³			Less than $45 \ \mu g/m^3$ for PM10
		TSP in PBV** PM10 in PBV**	EN20 EN20	39, 46 and 47 39, 46 and 47	90 µg/m³	33 µg/m ³			Less than 90 µg/m ³ for TSP
		Sanctions and fines of Cerrejón	EN20 EN28	39, 46 and 47 Not applicable	45 µg/m ³ Zero	20 μg/m³ Zero			Less than 45 µg/m ³ for PM10 Zero fines or sanctions
	21	Preparation of lands (Reclamation of land disturbed by mining programme)	MM1	39 and 55	Lero 130 hectares	Lero 136 hectares		₽	2012: 180 hectares 2013: 200 hectares 2014 - 2015: 400 hectares 2016: 500 hectares (with annual adjustment according to mining plan)

Legen



Goal reached Goal not reached Increasing trend Level trend Decreasing trend





Sustainability risk management

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Risk identification and management

At Cerrejón, Risk identification and management are fundamental to achieving business goals and plans. Reducing risks in the operation requires responsibility and leadership, values formed through the processes with standards and discipline.

Cerrejón has developed a decentralised risk-management system in its operation. Each area is responsible for identifying, analysing, preventing, and mitigating those events that could affect achievement of business objectives and plans, related to the role they perform.

This evaluation, which includes both operational and strategic risks, is led by each area of the business and involves personnel at different levels, whose goal is to obtain a holistic overview of situations.

The risk-management process is carried out on an ongoing basis, with well-defined steps that apply BHP Billiton's risk-management methodology, which was adopted by the operation in 2009. Risks from all sources are identified, duly categorised, and formally analysed to observe the causal factors and consequences, as well as the controls that may contribute to preventing the incident from happening, or mitigate its impact in the event that it should happen. Residual risk is assessed by applying probability and severity criteria. The system is designed to categorise the risk in accordance with the type of impact the event would generate in terms of the following aspects:

- Health and safety
- Financial
- Environment
- Social and cultural
- Reputation
- Legal

The process





This is how significant events, including the concepts of maximum foreseeable loss and residual risk thresholds, are identified when the materiality criteria are applied.

Finally, the operation establishes plans of action to improve controls and reduce residual risks. Throughout the year, revision and evaluation processes of the efficiency of the controls take place and the shareholder's committee is informed as to any significant business risks.

In 2011, managers, vice presidents, and division heads were trained in management methods.

We considered that it was at this level of responsibility in the organisational structure that we should guarantee that risks have been identified, and that the prevention and mitigation controls are effective and efficient.

Additionally, in this period, the critical controls associated with the events of significant risk were identified in order to focus efforts on ensuring that these particular controls are in place.

Remaining vigilant in the identification and management of risks is critical to the success of the operation. For this reason, Cerrejón is committed to making risk management an essential part of all decision-making activities and processes.

This individual and collective responsibility framework strengthens the commitment of Cerrejón, its shareholders, employees, and business partners to preventing risks and mitigating the operation's impact on the environment, the communities, our human resources, and other stakeholders.

The main risks and associated management plans are presented in the following sections.

Study of the operation's social impacts

In 2011, Cerrejón completed the first integrated study on the operation's social impacts with regard to the potential violation of human rights. This study complies with the United Nations Guiding Principles for Business and Human Rights, the United Nations Global Compact, and the recommendations of the ISO 26000 Guide on the need to carry out processes of due diligence in Human Rights that allow identification of the operation's impacts.

The diagnosis principally examined two aspects:

1. Impacts, risks identified, and recommendations.

Analysis covered indirect priority impacts, related to the creation of direct and outsourced employment, payment of taxes and royalties, migration, and security in La Guajira. The analysis of the operation's primary and secondary impacts covered aspects relevant to the environment, health and safety in the workplace, discrimination, and displacements, among others.

2. Risks in relation to the social engagement programmes.

Those risks related to Cerrejón's level of awareness of its stakeholders, social investment, and involvement in corporate social responsibility (CSR) programmes.

In 2011, the study was socialised internally with senior management to review its findings and analyse its recommendations. In 2012, the goal consists of socialising and validating these results with the communities in the area of influence, and to build, through dialogue, a shared vision of Cerrejón's impact on them.

The goal is to generate plans of action based on the study's findings and recommendations and the results of the dialogue sessions.









Company structure



Cerrejón has a Shareholders' Committee made up of representatives from the three shareholder companies, affiliates of Xstrata plc, Anglo American plc, and BHP Billiton plc. The operation has no minority shareholders and the president is independent of the Shareholders' Committee.

Corporate policies

The Cerrejón behavioural policies and quidelines manual lists the most important policies and quidelines that govern the conduct of the operation, its employees, and third parties linked to its business. No person or company linked to Cerrejón has the authority to make exceptions to said policies, nor is there any objective that justifies their violation.

- Ethics policy
- Conflict of interests policy
- Human rights policy
- Corporate social responsibility policy
- Political activity policy
- Senior management positions policy

- Health, safety, environment and communities policy
- Alcohol and drugs usage policy
- Equal opportunities policy
- Productive work environment policy
- Client relations and product quality policy

- Communications policy
- Management control policy
- Fraud control policy
- Risk management policy

http://www.cerrejon.com/site/english/our-company/policies.aspx

• Systems security policy

For more information, please see

• Policy on travel expenses and other expenses

Senior management and committee structure

Committee	Objective
Shareholders' Committee	Meets three times a year to monitor the actions proposed in t the budget for the following year and five year plan are app practices and ensuring its compliance with good governance
Financial Committee	Meets three times a year to review the financial report, the update in detail.
Financial Committee	Meets twice a year to review all aspects related to external a
Technical and Operational Review Committee (TORC) and Geological Review Committee (GERM)	These meet four times a year to review the operation's perfor among other issues, in detail. These are then approved at the
Management Committee	Decisions that require high levels of approval, such as capital during monthly meetings.
Internal Control Committee	Evaluates ethical deviations and conflicts of interest when the
Management Development Committee (MDC)	Meets every month to evaluate human management issues, s the establishing of new programmes and policies, or adjustm performance, development of talent, compensation, labour ar execution.

P1

P2

24 Sustainability report 2011

the annual plan and approve investments. Each year pproved. Responsible for monitoring the company's e standards.

e corporate risk report, and the legal and tax issues

and internal controls and auditing.

ormance, mining planning, and capital distribution, e shareholders' meeting

al investment projects and contracts, are made

ney arise.

such as changes in the organisational structure and nents to the existing ones, in relation to workforce, and occupational health, and their relevant

Members

One main representative and a substitute for each of the affiliate companies: BHP Billiton plc, Anglo American plc, and Xstrata plc. Cerrejón's senior management.

The financial vice president from each shareholder company and from Cerreión

The financial vice president from each shareholder company and from Cerrejón.

A member and a technical representative for each of Cerreión's shareholder companies. Cerrejón's senior management.

President, executive vice president of operations, financial vice president, and manager of Cerrejón's Legal Department.

President, executive vice president of operations, financial vice president, and manager of Cerrejón's Legal Department.

President, executive vice president of Operations, Finance vice president, Human Resources manager, and the manager of Cerrejón's Legal Department.



Internal control and fraud

Fraud prevention, the correct handling of conflicts-of-interest, and strict anti-corruption management are some of the tasks Cerrejón's Department of Internal Control undertake to ensure compliance with conduct guides and policies, which establish guidelines in relation to the unconditional commitment to operate with integrity.

This department is responsible for ensuring the maintenance of a culture in keeping with Cerrejón's legal, ethical, and social responsibilities. They achieve this by: running various training courses, publishing the policies and the principles of transparency and integrity, developing prevention programmes, implementing processes to report and investigate deviations in ethics, and reviewing various administrative processes.

2011 Programmes

Lessons learned

Socialisation of real experiences of ethical deviations with a view to avoiding their recurrence.

Course on conduct policies and guides

Reinforcing awareness of Cerrejón policies and the commitment to comply with them.

Internal Control tips

Specific messages on the principles established in the general interest policies.

Additional programmes for 2012

Certification in policies

Reinforcing the knowledge of four of Cerrejón's policies and its commitment to comply with them.

Comprehensive programme for the prevention of fraud, bribery, and corruption

Based on the provisions of the United States government's Foreign Corrupt Practices Act (FCPA), the UK Bribery Act, the Colombian Anti-Corruption Statute, and Cerrejón's internal policies, a programme is to be incorporated that will include the principles contained therein, including the evaluation and mitigation of corruption risks.

Newsletter

To share subjects of ethical interest and other companies' experiences, or provide information regarding programmes or situations from the world of global ethics.

Procedure to investigate deviations from ethics policies, conflicts of interest, and fraud control.

Logging a case	It begins as a claim received through channels or as part of a review process by Internal Control.
Preliminary analysis	Prior assessment to determine whether the claim is a case of ethics, conflict of interest, or fraud.
Investigation	Verification of the claim (interviews, document review, and analysis of findings).
Report	Preparation of a document establishing whether the claim is valid and including recommendations for the Internal Control Committee to consider.
Internal Control Committee evaluation	Analysis of recommendations and definition of sanctions (from a warning to termination of contract).
Corporate feedback	Programme of Lessons Learned • TIPS programme • In-person meetings on policies (cases analysed) • Online courses

The investigative process is based on the internal work regulations and the collective bargaining agreements.

There is a flowchart that defines the corporate levels at Cerrejón that should be aware of the complaint in order to guarantee the integrity of the process.

Cerrejón's shareholders are informed of all investigation processes by means of a fraud and irregularities report.

Complaints may be anonymous or confidential.

Number of internal control risk evaluations made

• 2010: 12 • 2011: 21



Conflict of interest policy

Through this policy, Cerrejón requires all employees to avoid any conflict between their interests and those of the operation in dealing with suppliers, clients, contractors and third parties, or in the conducting of their own business.

Potential non-compliance with said policy involves, in most cases, some personal benefit stemming from the employee's position within the operation or the use of confidential information obtained in carrying out their duties. For these events, the disciplinary action taken has usually been the termination of the work contract of the person in question.

The following situations are considered conflicts of interest for an employee, spouse, or any member of their family if these have not previously been declared and approved by senior management:

Maintaining an interest, working as an employee or manager/consultant in any organisation that has or may in the future have business with Cerrejón.

Acquiring or possessing coal leases or royalty rights.

Accepting commissions, shares in profits, or cash gifts.

Using employees, buildings, equipment, or supplies belonging to Cerrejón for personal use.

The purchase, sale, or letting of any type of property belonging to Cerrejón.

In 2011, 391 employees had potential conflicts of interest in the Annual Declaration Programme. For each case, recommendations were made to the employee or their superior, and three of them were presented to the Internal Control Committee. In all these cases, the potential conflicts declared were managed with solutions such as transfer to another work area, obligatory abstention from participation in specific decisions, segregation of duties, and the seeking of higher levels of authorisation.

Employees trained in policies relating to ethics, transparency, and anti-corruption.

Circularisation of Policies and Declaration of Conflicts of Interests Programme covered 100% of professional staff (MPT).

The Annual Declaration of Conflicts of Interests Programme covered 100% of the workforce at the managerial and professional levels.

Between June 2010 and June 2011, 62 conferences on conduct policies and guides were attended by 1,095 employees as part of the programme.

Business units analysed due to risk of corruption

During 2011, all situations related to reports of fraud and deviation from ethics policies, conflicts of interest, fraud control, and managerial control were investigated. In the case of confidential reports, the requested confidentiality was maintained, in addition to providing the informant with basic information on their case.

At the same time, within the Risk Evaluation Programme, specific reviews were carried out in two

Measures taken in response to corruption incidents

At Cerrejón there is a process to report deviations from the ethics policy. In each case, the complaint was investigated, generating a report; these reports included the conclusions of the investigation and the Internal Control Committee made the respective decisions, which were followed up during the period.

In addition, lessons learned were prepared, disciplinary measures were implemented when

Reporting channels

- Colombian ethics line
- Telephone number and e-mail address of BHP Billiton's internal auditing department
- Telephone numbers and e-mail address of the Department of Internal Control

Please see the reporting channels for ethical issues at http://www.cerrejon.com/site/english/our-company/policies.a:

1,682 technical staff members (PTC) received the Conduct policies and guides manual in an easy-read teaching version.

Conferences were held on conduct policies and guides as part of the induction programme for 100% of new employees.

Circulation of seven lessons learned from real cases of deviation, six recommendations on compliance with policies, and information regarding the reporting channels through the operation's internal channels of communication.

departments (Materials and Finance and Tax Accounting), which took fraud vulnerability into account, with the respective evaluations of mitigation controls.

Cerrejón maintained three open reporting channels, which include 16 means of access, including: email addresses, internal and external telephone lines, and lines that can be called from abroad.

required, and the necessary adjustments to the Control Systems were ordered. During 2011, various measures were taken due to violation of the conduct policies and guides, among them the dismissal of six employees.

	policies and guides, among them the six employees.	P2
		P3
Year	Number of employees dismissed	P4
2008	3 employees dismissed	P5
2009	5 employees dismissed	P6
2010	9 employees dismissed	P7
2011	6 employees dismissed	P8

Human rights

Main achievements 2011

Adjustment of the Human Rights Policy, based on the United Nations Guiding Principles for Business and Human Rights, in accordance with the Cerrejón Way, its conception of sustainable development, and other operation policies.

Training of middle and senior level officials with regard to human rights issues and social standards, by means of the Cerrejón at Law electronic bulletin.

The performance of the first integrated study with regard to social impacts of the operation (page 23).

Reinforcement of the work on the standard of Voluntary Principles on Security and Human Rights, by means of training in the practices and customs of the Wayuu culture and round-table discussions.

See: http://www.cerrejon.com/site/Portals/1/Documents/pdf/policies/Cerrejon_Human_Rights_Policy.pdf

Cerrejón Human Rights Policy forms part of the Community Engagement Plan, the Cerrejón mission, and responsible mining practices, in addition to contributing to the implementation of the above.

Training in human rights and voluntary principles

Target public		2010		2011	
		Hours	N.°	Hours	N.°
	Employees	23	813	17	476*
Public security forces	Guajira Task Force	2	40	86	839
Fublic security forces	Other authorities	Not applicable	Not applicable	56	821
Private security service		44	821	22	271
School children from area of influence		18	813	10	430
	Total	87	2,487	191	2.837

*100% of new employees were trained and re-inductions were held.

Employee training

Cerrejón carried out preventive actions as well as actions to promote human rights among employees in order to fulfil its policy and commitments with international standards, which require the implementation of due-diligence processes in human rights. Workers are required to be informed regarding human rights policy and to take the relevant class during their induction period.

Round-table discussions

In 2011, Cerrejón facilitated round-table discussions between public security forces and the region's indigenous communities in order to establish a forum for discussing security and human rights. The meetings were attended by Colombian army officers responsible for protecting mining infrastructure, traditional leaders of the indigenous communities located near the railway line, and by local authorities. The round tables took place in the Ware Warao, Nortechon, Kamüsüchiwo'u, and liperain indigenous communities. Thirty traditional authorities and over one hundred members from surrounding communities participated. Taken together, 17 indigenous communities participated in the round-table discussions, representing 7.3% of the total number of communities located near the railway line.

Training of public and private security forces

Private and public security forces received training regarding the content of voluntary principles in the areas of security and human rights as well as regarding the main practices and customs of the Wayuu culture in order to improve and foster appropriate relationships between private security services and the communities residing along the railway line.

Indicators for measurement of human rights training

In order to comply with one of the recommendations made by the independent TPR panel, Cerrejón contracted the Resource Centre for Conflict Analysis (CERAC, its acronym in Spanish) and entrusted it with the task of constructing indicators that would measure the results of its human rights training, provided as of 2005, the year in which the Human Rights Office was created. The construction of the indicators was completed in 2011, and these indicators shall permit the evaluation and redesigning of the strategy used for human rights training. In addition, it is expected that 2012 shall see the implementation of the indicators and the development of a perception survey regarding human rights training, as well as adjustments to training strategy in this area.

Human rights promotion

Cerrejón promoted increased knowledge of human rights in the communities in the area of influence through work undertaken jointly with the La Guajira branch of the Red Cross. Five entertaining workshops were presented (puppet plays and playground games) in accordance with the Cerrejón activities schedule.





Results of Cerrejón actions with regard to human rights

Objective	Goal	Result	Challenge 2012
Adjust Human Rights Policy at Cerrejón.	Maintain a new, fine-tuned, approved, and participatory policy with employees.	Accomplished.	 Disseminate Human Rights Policy within the organisation as well as to the communities in the area of influence. Undertake a campaign encompassing dissemination and communication. Identify the implications of the new policy.
Draw up a human rights bulletin intended for senior and mid-ranking civil servants.	Send out five bulletins.	Accomplished.	Provide training on respect for human rights to senior managers of the five largest contractors.
Complete the social-impacts study.	Follow up on the social-impacts study.	Accomplished.	Select actions that mitigate social impacts and carry them out.Validate studies on impacts and measures with the communities.
Promote human rights in neighbouring communities.	Get 500 children from neighbouring communities to participate in entertainment-oriented workshops that focus on human rights.	10 sessions (22 hours) took place involving 430 children from the area of influence (86%).	Hold round table discussions with communities in order to evaluate conduct during the performance of tasks related to security and protection.
Train private security personnel.	Train private security personnel, missing in 2010.	Accomplished	Guarantee that new private security personnel receive adequate training with regard to voluntary principles in the areas of security and human rights.
Train public security forces in Wayuu practices and customs.	Train 100% of those public security forces that provide security to Cerrejón.	Accomplished.	Ensure that new members of public security forces receive appropriate training on voluntary principles in the areas of security and human rights as well with regard to the customs and rights of indigenous communities.
Train new employees.	Train 100% of new employees.	Accomplished.	Maintain training at 100% of employees at recruitment and review training quality.
Maintain a set of indicators with regard to human rights training.	Establish a system of indicators that measure impact and result.	The indicators were obtained and shall be tested in 2012.	Manage the training indicators and apply them in order to establish a baseline.
Reinforce the Complaints Office.	Reinforce human talent.	See chapter Complaints Office.	For more information, see the Complaints Office page 30.
Improve the software of the Complaints Office.	Ensure that the software is always fully operational.	Accomplished.	

Complaints Office

In 2006, the secretary general of the United Nations Organisation designated Professor John Ruggie as its Special Representative for Human Rights and Business, an issue it considered to be of great global importance. As a result of his work, a report was issued in 2008 which established the framework for corporate activities, based on the protection that the State should provide to society in terms of human rights, the respect that business should guarantee in complying with current legislation, and agreement as a procedure for the remediation of any incidents that might arise.

Cerrejón decided to join professor Ruggie's pilot project to put the United Nations Organisation's framework of "protection, respect and remediation" into practice. Therefore, in 2010 it created the Complaints Office to respond in an appropriate, efficient, participative, and transparent manner to the concerns of employees, contractors, and members of the communities due to possible impacts of the mining operation.

Thus, the Complaints Office was one of the five experiments that John Ruggie promoted on a global scale, which helped him to apply the framework that led to the first version of the United Nations Guiding Principles for Human Rights and Business. Cerrejón is one of the five companies internationally that participated in the United Nations' pilot for the implementation of a complaints office based on rights.

The operation principle of the Complaints Office is dialogue. To speak and to listen is the best way to solve problems.



Compatible

with human

Predictable

in terms of

the process

rights

Legitimate

and reliable

Public and

Accessible



Transparent

Based on

dialogue



Fairness and

equality

Source of continuous learning

Management of the Complaints Office

Status of c	complaints	2010	2011
Logged		183	129
In process		99	62
Closed		84	67

Classification of complaints	2010	2011	
Related to human rights and safety ¹	12	10	L
Land use	9	0	L
Indigenous rights ²	66	99	L
Railway incidents involving people	3	1	Ľ
Railway incidents involving animals	40*	84	Ĺ
Affecting mobility	9	1	ĺ
Incidents related to security services	7	11	Ĺ
Reserve set up in Puerto Bolívar	5	0	İ.
Environmental impacts of operation	2	2	İ.
Other (safety, health, environment, labour rights, social investment, etc.)	96	20	ĺ



¹ The majority of these cases refer to problems that members of the private security service or national police officers experience in relating with the communities surrounding the mining operation and ignorance of the practices and customs of the Wayuu ethnic group. Ten complaints of this nature were received in 2011, and two of them were resolved simply by bringing the parties involved together. In both cases, agreements were reached regarding the community's use of water and the nature of the relationship between the respective authorities of the public security forces and the community. The remaining complaints of this nature are following the necessary process for reaching a satisfactory conclusion for the parties involved.

² The Office resolved 59 of these complaints in 2011. Regarding the running over of animals from communities bordering on the railway line, Cerrejón adopted a policy of solidarity payment as a means for making amends for this kind of accident. Therefore, solidarity payments were made in response to 52 of the recorded complaints. Additionally, Cerrejón continued training members of the private security service and public security forces in the indigenous areas so they became aware of their practices and customs and thus bring about improved relations (see Human rights).

* The change in the number (38) reported in 2010 is due to a review and later recounting of the number of incidents involving animals for that period.

Safety

From the inception of the operation, safety has been one of our paramount corporate values. It is reinforced by the commitment the entire organisation has made to risk management, implementation of safety procedures, proper use of resources and equipment, responsibility for our product in the mining and processing operations, and publicising the necessary information to prevent and mitigate any potential accidents.

Every one of our operational areas carries out daily tasks in conjunction with employees and contractors related to the identification, prevention, control, and evaluation of risks to anticipate possible effects on stakeholders, clients, the environment, the operation, and assets, thereby promoting a culture free from accidents and fatalities.

Strategies 2011

- Reinforce our clear leadership in safety.
- Reinforce the management processes in the control of catastrophic risks.
- Strengthen operational discipline (compliance with regulations).
- Ensure the safe performance of contractors.

Safety results

Recordable Injury Frequency Rate (RIFR). This rate is calculated based on 200,000 hours of exposure and includes all personnel injuries, except those involving first aid.

This rate was 0.30 for the entire operation in 2011, compared to a maximum limit of 0.34. The rate was 0.33 for employees and 0.28 for contractors.

Classified or Disabling Injury Frequency Rate (CIFR). This rate is calculated based on 200,000 hours of exposure and only includes incapacitating injuries (lost time and limited work).

Despite the fact this rate exceeded the maximum limit established for the entire operation, the results continue to be relevant. The CIFR was 0.21 for 2011 compared to the set limit of 0.20. The best result was obtained by the contractors, who recorded a CIFR of 0.16 compared to their maximum limit of 0.17.

Important actions during 2011

2011 marked the one year anniversary of the tragic accident at Silo 1, which prompted the revision and updating of the following systems based on the recommendations of the Investigation Committee:

Contracting and Project Management. Strengthening control of fatal risks (critical).

Risk Management and Change Management. The company had a consultant (Ian Rees, formerly of BHP Billiton) to receive an expert evaluation of the effectiveness of the Cerrejón Risk Management System, including evaluations of risk at the work site, change management, administration of third party projects and services, and purchasing.

The risk analyses of the accidents with multiple fatalities that could take place at Cerrejón (initially 38) were reviewed. The analyses were done using the Bow Tie methodology, with participation by representatives of the people to whom those accidents could happen. The critical controls for preventing and mitigating those risk events were identified.

Achievements 2011

- Fulfulling the goal of zero fatalities for employees, contractors, and third parties.
- Recording the best results in company history with respect to injury rates.
- Recertification of the Cerrejón Occupational Safety and Health system under the OHSAS 18001 regulation, which establishes the requirement allowing companies to control their risks (in occupational safety and health). In turn, this endorsement generates confidence among our stakeholders through our compliance with its requirements. Cerrejón has enjoyed this certification since 2003.





The actions related to the project of capital investments in the Fatal Risk Control Protocols (FRCP) were completed.

The second phase of the leadership training programme in safety was finished. Its goal was to strengthen leadership in safety matters of supervisors, superintendents, and contractor representatives. The key elements of the four day-long sessions were:

Personnel management

Clear and inspiring leadership	
Inclusive communications	
Conversations to stimulate action	

The process for Reporting and Correction of Zero Energy Events began a programme including the identification, investigation, correction, and communication of Zero Energy events. These are substandard or unsafe incidents and conditions that could cause a fatal accident. They are termed zero energy because they have been identified before any incidents happen. Between August and December 2011, 248 events of this nature were reported.

In recognition of outstanding results in safety and health in 2011, the operation received the Emerald Cross Merit Medal in the Excellence category, awarded by the Colombian Safety Council.

Safety training

The training sessions for employees and contractors on issues related to the Operational Integrity System (OIS) continued during 2011.

Close to 1,000 sessions were conducted for employees, representing a total of 57,390 man-hours (the result of multiplying the number of hours of each event by the number of participants). Some of the classes dealt with subjects like anti-collision, control of changes, hand care, guide to hazardous wastes, active breaks, and first aid.

For the contractors, 747 sessions were conducted around four major themes: basic safety, cross-cultural relations, basic defensive handling, and defensive mine handling, amounting to a total of 53,843 man-hours.

Health and safety committees

Comprised of executives and employee representatives, they were established to reinforce the commitment of the operation to compliance with the health and safety standards in the workplace. 21% of employees were part of these committees in 2011.

Joint Occupational Health Committee (Copaso)	Number of representatives
Mine	8 representatives (4 from Cerrejón and 4 from the workers).
Puerto Bolívar	4 representatives (2 from Cerrejón and 2 from the workers).
Bogotá	2 representatives (1 from Cerrejón and 1 from the workers).
Total	14 representatives
Other committees	Number of representatives
Sintracarbón Health Department	4 (1 national, 3 sectional).
CCT Health Committee	10 representatives (4 from Cerrejón and 6 from the workers).
Safety monitors	1,066
Operational Integrity Committee of Production	21 representatives
Operational Integrity Committee of Maintenance	4 (1 representative from electrical and mechanical truck maintenance and tyre storage area, 1 from construction and welding, 1 from power shovels, and 1 from caterpillar tractors and service equipment with tyres).
Operational Integrity Committee of Support to the Operation	 Total of 11 representatives: 1 coordinator from Operational Support. Services to the operation: 4 operational integrity coordinators and 2 PPABC coordinators Coal handling: 3 operational integrity coordinator.
Operational Integrity Committee	25 (vice presidents and managers)
Total	1,141 representativess

P3

Life cycle of the product

Cerrejón is aware that managing the sustainability of its business goes beyond the boundaries of its operations to include all the activities required to ensure the optimum and appropriate use of the coal by its users. This includes all those involved in the coal chain, both before and after the production process.

The operation is aligned with the commitment to implement the Sustainable Development Framework from the International Council on Mining and Metals (ICMM), in terms of responsibility for materials. Its shareholders are members of the ICMM, a scenario that aims to promote responsible practices in the design, use, reuse, recycling, and disposal of the materials, beyond the mining operations, to ensure that the value of coal for society increases.

For more information, please see http://www.icmm.com/page/1389/our-work/work-p rograms/articles/materials-stewardship

Cerrejón has developed a system that focuses on risk management, in which each area is responsible for identifying, analysing, preventing, and mitigating events that have a potential impact on health, safety, the environment, and the communities (for more information please see Risk identification and management, page 22).





Production

Cerrejón does not generate excessive amounts of materials that are potentially dangerous after coal production and that represent an environmental or health risk. The overburden does not contain chemical substances or any other property that would cause it to be considered hazardous. However, its treatment follows a procedure in line with applicable environmental regulations and in compliance with the Environmental Management Plan's instructions for managing dump sites and overburden.

- The operation promotes policies for the management of chemicals used in the production process (for more information see Safety).
- For more information on the prospection, exploration, extraction, and treatment phases, please see Mining process.
- Cerrejón developed a project that aims to reduce the queuing time for tanking of a fleet of 320 tonne trucks. This allowed savings to be made in fuel consumption and a reduction of CO₂e emissions (for more information please see Environmental management).

Transport

The product's Material Safety Data Sheet (MSDS) is given to the captains of the vessels that dock in Puerto Bolívar to load Cerrejón's coal. The sheet includes a general description of the coal, precautions that must be taken into account, and measures to be adopted in the event of any emergency caused by handling of the mineral, and the potential impact if precautions are not taken. This sheet is updated in accordance with international regulations.

Sales and usage

The product's quality sheet (international regulations) provides the information that clients require to quantify the byproducts resulting from the coal combustion and the corresponding environmental impact. This sheet is provided to the client at the beginning of the business relationship.

Client satisfaction is measured and maximised through business visits carried out by CMC, the exclusive marketer of Cerrejón coal. As part of its after-sales service, CMC offers its clients technical advice on various aspects, including the implementation of good storage practices in order to reduce/eliminate dust emissions. Clients interested in finding out about the coal production process are invited to visit Cerrejón's operation. In addition to visits for clients to familiarise themselves with the production process, the company periodically accepts requests for client audits in aspects of quality or management of social and environmental impacts.

Cerrejón maintains the privacy of the information related to its clients' corporate data, as it does with the terms and conditions of the business agreements reached with them.

Reuse and disposal

As regards management in the middle term, the initiative to develop a work plan in relation to analysis of the life cycle, recycling, and eco-efficiency was conceived (for more information please see Environmental management).





Environmental management

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Focus, goals, and results

The fundamental principles of Cerrejón's environmental management form part of the requirements of its Operational Integrity System (OIS), certified under standard ISO 14001, since 2003.

All activities at Cerrejón are carried out in compliance with the obligations established in the Unified Environmental Management Plan (UEMP), which establishes programmes aimed at controlling air and water quality, the rehabilitation of land disturbed by mining, the care of native wildlife and biodiversity, the appropriate management of solid waste, and the efficient use of natural resources. Using this management model, the goal is to identify, prevent, mitigate, or compensate for environmental impacts, as well as to adopt control measures based on international standards and national regulations that allow the operation to protect its surroundings, reduce and compensate for its environmental impact, and carry out actions that can generate positive impacts to contribute to the conservation of the region's biodiversity.

Cerrejón conducts its business seeking maximum harmony with the environment and with society, protecting the health of our workers and collaborating in the development and welfare of the communities in the area of influence of our operations.

2011 Management objectives

To process permits and licences required for the operation in a timely manner.

To use natural resources rationally and efficiently.

To rehabilitate land disturbed by mining.

To care for air quality in the project's area of influence.

To carry out activities in relation to education and environmental communication.

To implement projects within the framework of sustainable development.

Goals for 2011

To maintain concentrations of less than 90 μ g/m³ for TSP and 45 μ g/m³ for PM10 at the regulation air-quality stations.

To reuse 80% of domestic wastewater.

To recover 55% of oil used.

To separate 45% of the total volume of solid waste generated for recycling.

To increase the areas undergoing rehabilitation by 130 hectares.

Cerrejón's environmental management system operates based on two clearly defined lines of action, one operational and the other strategic, comprising the following aspects:



The operational line of management addresses the aspects in relation to day-to-day decisions, elements for which there are regulations and control parameters that are clearly established by law. It can be compared to a city's basic sanitation system, in other words, its control is directly related to public health.

On the other hand, the strategic line of management comprises aspects related to the sustainability of the operation and of the region, the regulations for which have no clearly defined control parameters but rather depend on the regional context. Its actions are based on scientific investigation and case studies, and the decisions focus on middle- to long-term effects.

As a focal point of these management lines, education acts as a mechanism for the broadcasting and communication of Cerrejón's environmental management.

Challenges for 2012

To establish guidelines for the comprehensive management of water resources.

To maintain the daily and annual concentrations of particulate matter below the limits established by Colombian legislation, taking into account the possible scarcity of rainfall due to the El Niño phenomenon.

To implement improvements in the treatment of fats and in the bioremediation system.

To safely dispose of lamps and fluorescent bulbs.

To carry out a feasibility study for the implementation of a conservation programme for the American crocodile.

To conduct a study on the Colombian slider turtle population and produce a diagnosis aimed at determining the degree to which this species is affected by the communities neighbouring the Ranchería River.

To support the declaration of regional protected areas by the environmental authority of La Guajira (Corpoguajira) in the following areas: the Ranchería River delta (municipalities of Riohacha and Manaure), and the transition area of the dry tropical forest in the municipalities of Albania, Riohacha, Manaure, and Maicao.

Materials and supplies in the operation



investment detail 2011*

Total	\$79,547
Soil and landscape	COP 12,021
Environmental management	COP 13,982
Slope stability	COP 2,490
Air	COP 37,092
Water	COP 13,962

Environmental investments *

The amount of environmental investments in 2011 increased by 5.5% with respect to that of 2010. The largest investments are associated with the purchase of equipment for loading and transporting topsoil for the land reclamation programme. In addition, important environmental studies were performed with regard to the diversion of surface water courses and the design and construction of low-permeability

	Annual goals	Achievements
Preparation of land	130 ha	136 ha
Soil stabilisation	130 ha	138 ha (with plant specimens
Revegetation	200 ha	219 ha

Area under reclamation: 2,892 ha, equivalent to 23.9% of the total disturbed area

BCM equivalent: unit of volume in mining, expressed in cubic metres, which links the volume of coal to that of mining waste in a single figure. BCM = Bank Cubic Metre



Work lines

1. Water quality and management

This line includes measures and practices for the prevention and control of possible impacts the operation could produce on natural bodies of water. It involves the following programmes: preferred use of low-quality water for dust control, recycling of the wash water for light equipment, and settling ponds for reuse. The management also determines implementation of control systems such as perimeter channels around the operations and settling ponds for sedimentation of solids, sludge and grease traps, and oil/water separators.



Uptake of 775,372 m³, representing 13% of the licences granted for water uptake from the Ranchería River and its tributaries.

Extraction of 464,642 m^3 of water from the network of groundwater wells, which is 21.1% of the water authorised by the Corpoguajira regional agency.

Consumption of both surface and groundwater for human and domestic use and, in some cases, for various industrial activities.

Monitoring of quality and quantity of the discharges created as a result of mining activities and in the residences, in line with the obligations required according to current environmental regulations.

Programme for reusing domestic wastewater created within the residence area after being treated in the settling ponds. The percentage achieved in that programme was 83%.

Calculation of the ICA Mining Water Quality Index, which involves parameters related to the influence of mining operations.

Supply 4,600,000 l/year of drinking water in tanker trucks for the communities surrounding Puerto Bolívar.

Measurement and report of consumption and kind of water in order to gradually reduce the usage of high-quality water and lessen the impact on the availability of regional resources.

17% decrease in high-quality water uptake due to less consumption of that water for wetting down roadways and a greater effort to repair leaks in pipelines and sanitary installations in general.

Certification under the ISO NTC 17025 regulation: 2005 of the environmental laboratory (in seven parameters) by the Institute of Hydrology, Meteorology, and Environmental Studies (IDEAM).

Use of the WQI-NSF (National Sanitation Foundation of the United States) Index to measure the effect and impact on quality of the Ranchería River.

Additional water-quality monitoring of the Ranchería River through an agreement signed with Corpoguajira. That agreement established a network of 26 stations from a point downstream of the El Cercado dam to the river mouth at Riohacha. Physicochemical, microbiological, hydrobiological, and metals analyses were performed.

2. Air quality management

With the aim of safeguarding the environment, the well-being and health of both our own workers and the communities surrounding our operation, and equally to comply with the regulations established by environmental authorities, Cerrejón developed and implemented a management system that allows it to predict future air-quality conditions, evaluate the current status, plan and apply measures of prevention and mitigation, and monitor and verify their effectiveness.



Employing a mathematical dispersion model for the purpose of predicting the emissions and particulate concentrations for mining plans and projects that could have an impact on the air quality within its area of influence.

Planning and applying measures of prevention and mitigation required in the

18-station monitoring network for total (TSP) and inhalable (PM10) suspended particulate matter, distributed as follows: 12 at the Mine

operations.

and six at Puerto Bolívar

Measuring the concentration of gases (SO_x, NO_x, and CO) in the monitoring stations every two years, and verifying their compliance with the regulations associated with them

3. Management of solid waste

Management focuses on two fundamental areas: education, the aim of which is to promote appropriate handling of waste and separation at the source; and the operational element, which involves the collection, transport, storage, treatment, use, and final disposal of the ordinary and hazardous wastes generated at Cerrejón.



Ensure the correct final disposal of ordinary waste generated.

Ensure the appropriate treatment and disposal of hazardous waste.

Verify that legally authorised, competent handlers are in charge of the external handling of hazardous waste.

Sampling of particulate matter smaller than 2.5 microns (PM2.5) at two monitoring stations

Air Quality Oversight Committee.

Air Quality Forum in the municipality of Albania.

Use of sprinklers for wetting down the active

mining areas in the upper levels of the pits.

Manage the recovery of 45% of all waste generated by means of reuse or recycling.

Provide social benefits subsidised via economic resources obtained from the marketing of recoverable waste to the communities in the area of influence.

ao real time stations monitoring

Three real-time stations monitoring air quality and weather conditions with early warnings online to provide feedback to the operation.

Assignment of environmental observers for follow-up monitoring and support for the operation in controlling emissions in critical areas.
4. Managing biodiversity

It includes all processes involved in the rescue, rehabilitation, and monitoring of wildlife in both the mine and port areas, as well as species preservation programmes and strategic alliances for the creation of protected areas in the region.



Rescue and relocate wildlife before the mining process begins.

Periodic monitoring to evaluate the status of wildlife populations in areas of direct influence of the mining complex.

Attend to emergency rescue calls concerning wildlife found in areas of the operation.

Rehabilitate wildlife affected by the operation.

Operation of the Wildlife Rehabilitation Centre (CRFS).

Establish the threatened species preservation programme (American crocodile and sea turtles) through conservation agreements with the communities of Bahía Hondita and Punta Gallinas (Alta Guajira).

Promote processes for establishing new regional protected areas.

5. Environmental education

Programmes intended to increase environmental knowledge and awareness as well as sensitivity on the part of employees, contractors, and communities, and to promote the rational and efficient use of natural resources.



Attending to 23 visits from communities in the area of influence (592 persons) during which information on environmental management at Cerrejón shall be provided.

The training of 4,273 persons consisting of employees and contractors by means of continuing education and induction talks on the implementation of control measures set out in the Environmental Management Plan.

Radio chats led by analysts in their area of expertise, mainly over the course of the first half of the year, in order to fill the four shifts with topics related to environmentally important dates for each month.

Environmental education campaigns.

Environmental talks for re-induction. They are coordinated with the operation's re-induction programme for the departments of Production (5 talks a month on average), Maintenance (4 talks a month on average), and Coal Handling (2 talks a month on average). In 2011, 387 talks were given, with an average of 11 persons present per session.

Creation of an Air Quality Monitoring Oversight Committee with the participation of 20 representatives from 10 communities: Roche, Patilla, Chancleta, Los Remedios, Barrancas, Las Casitas, Hatonuevo, Papayal, Albania, and Provincial.

6. Land reclamation

This programme is oriented towards achieving the effective reconstruction of lands disturbed by the mining operations and leaving them in a similar or superior condition with respect to the range of ecosystem goods and services, to that which they were originally found in. It incorporates as its main activities land preparation (a stage that includes levelling the land, reshaping slopes, and spreading the topsoil), stabilisation (including the seeding of grasses to protect the soil against erosion), biological enrichment and diversification (re-vegetation stage, which includes reintroducing dry tropical-forest native-tree species) in an ongoing process of growth and evolution. The Cerrejón departments of Production, Technical Services, and Environmental Management actively participate in that process.



Rehabilitate areas disturbed by the mining operation: As of 31 December 2011, the total area undergoing rehabilitation was 2,892 hectares, the equivalent of 23.9% of the total area disturbed.

Set up and maintain two large offset zones: Aguas Blancas-Santa Helena, extending over 1,652 hectares, and Mushaisa, covering another 313 hectares, for a total of 1,965 hectares.

From the beginning of mining operations through the end of December 2011, close to 38.2 million cubic bank metres of topsoil have been moved and preserved. Over 2,400 hectares of the reclamation areas already contain wooded vegetation, in different stages of growth, made up of over 40 species of native trees.

Design, implementation, and leadership of a research programme on rural production systems in the lands of communities in the Cerrejón area of influence. This project has now been in operation for six years and its main discoveries regarding the management of soil, water, and production models are being validated and adopted by members of the communities involved in the process.

7. Management of hydrocarbons

This includes all activities, procedures and practices related to hydrocarbon transport, storage, and distribution, as well as the appropriate disposal of waste derived from hydrocarbon use in the operation. Some of the more noteworthy activities are as follows:

- The storage of new and used lubricants and fuels.
- Definition of standards and procedures for preventing spills.
- Operational procedures for transporting and handling fuels and lubricants.
- Area and equipment inspection plans.
- An emergency plan for dealing with hydrocarbon spills.
- Recovery and final disposal of used oil.



Establishment of the emergency plan for dealing with hydrocarbon spills.

Infrastructure for storing, transporting, and delivering hydrocarbons in accordance with national legislation.

The land reclamation programme was designed and developed with a systematic focus regarding resources, actions, elements, methods, and indicators in a manner that exceeds all stakeholder expectations concerning eco-efficiency and sustainability. It is also becoming an important benchmark for the national and international mining industry. Cultivation of Jatropha curcas in La Guajira as a plant with high potential for biodiesel production. This project is being carried out on lands owned by Cerrejón, under an agreement with Colciencias and the direct participation of the Colombian Corporation for Agricultural and Livestock Research (Corpoica). Implementation programme for recovery of used oil.

Re-use of used oil in emulsion plant process

Installation of vehicular natural gas in the company's light equipment.

Monitoring and recording of consumption of fuel, lubricants, and used oil recovered.

Water quality and management

Cerrejón systematically measures and reports its water consumption, distinguishing between the supply sources and establishing whether the sources are high or low quality. The waters from the Ranchería River and its aquifers are considered high quality, whereas corresponding waters from the coal seam dewatering, coastal waters, and run-off are low quality.

Cerrejón has a licence to collect surface water from the Ranchería River and its tributaries (high-quality water) through permits awarded by the Autonomous Regional Corporation (Corpoguajira, Resolutions 1870/2009, 1454/2011, and 1515/2011), which authorise a total volume of flow of 195 l/second (equivalent to 6.1 million m³/year). The commitment for implementing strategies oriented towards efficient use of the resource is reflected in the volume collected, amounting to 13% of the total allowed. Cerrejón also has the respective permits for collecting low-quality water (Corpoguajira, Resolutions 3968/2007 and 3677/2007), which authorise the total collection of 600 l/second (equivalent to 18.9 million m³/year). The capture of low-quality water in 2011 was 28% of the total authorised amount.

Cerrejón has been significantly reducing the consumption of high-quality water through the reuse of mining water in order to lessen our impact on the availability of regional resources. One example is the initiative to use low-quality water in the washing facilities for light equipment in the Early Start workshop. The same initiative is planned in the other two washing facilities in the industrial area (of heavy mining equipment and the light equipment workshop), and the reuse of domestic wastewater for watering gardens in public areas, sites of sport events, and garden areas in the pilot projects under way in the newly built homes in the residential area.

The 17% decrease in high-quality water capture compared to 2010 is due to several factors. The main one is the reduced consumption of water from the Oreganal uptake, used for wetting down the roadways since a number of haul cycles were cut and that resulted in a cut in the wetting cycles. The rain pattern was another contributing factor in the reduction since more water was captured in the dry months in 2010 than in 2011. Finally, the maintenance works on networks also exerted an influence since more leaks in the pipe networks and sanitary installations were repaired in 2011 than in 2010.

The 20% increase in low-quality water consumption, equivalent to approximately one million cubic metres of water, is due to the fact water consumption for the coal plant and the coastal water for wetting down the roadways in Puerto Bolívar began to be reported in 2011.

Bearing in mind the importance of the Ranchería River in the region, Cerrejón is also undertaking routine monitoring of the river, analysing multiple parameters of interest, and doing follow-up monitoring on the performance through two Water Quality Indices (WQI).

- NSF WQI (focused on measuring parameters of interest with health implications)
- WQI Mining (centred on measuring parameters of interest with mining implications)

Generally, the water quality indices allow Cerrejón to control and do follow-up monitoring of any risk derived from its mining activity, as well as ensuring that the communities downstream of the project have access to water of high quality. Each index is described below:

The NSF WQI, developed by the National Sanitation Foundation (NSF) in the United States, is used to measure the effects of parameters with health implications on the quality of the Ranchería River and its tributary streams. This index permits an evaluation of the stretch of the river between the Palomino station (RIO111), upstream from the mining operations, and the Cuestecitas station (RIO109) on the downstream side (see the NSF WQI 2011 performance chart below).



The WQI Mining index is used to estimate, as well as possible, the degree to which the mining operations affect the quality of the Ranchería River water through the parameters of sulfates, chlorides, conductivity, pH, total solids, and turbidity (see WQI Mining 2011 performance chart above). Based on the WQI Mining index, an impact indicator is set up to quantify the impact on the water quality (very low, low, medium, and high) at any of the sampling sites along the Ranchería River (see Impact Indicator 2011 performance chart above).

Using that data as a base, one can conclude that Cerrejón's operations do not constitute a risk for the natural bodies of water where the water is captured for the following reasons:

- Efforts are made and actions taken to use high-quality waters as little as possible. The total volume of water authorised is not being captured since year after year the number of active uptakes on the Ranchería River has been significantly reduced (currently there are only three operative uptakes out of seven). In turn, measures aimed at the efficient use of water have been implemented.
- Water quality indices with parameters related to mining and health have been implemented and employed in order to learn about the general quality level of the river and whether the mining process is impacting what kind of use can be made of it.



Discharge of wastewater

During this period, the volumes of flow and discharge loads were reported to Corpoguajira by means of the Self-Declaration of Discharges Form, the mechanism for that organisation to receive payments for the loads of suspended solids and DBO_5 , in accordance with the charges established in Colombian regulations and the licences awarded by that entity.

In addition to controlling the quality of its discharges to ensure compliance with environmental regulations, and having a water quality laboratory accredited by the Institute of Hydrology, Meteorology, and Environmental Studies (IDEAM, Resolutions 1922 of 4 August 2011 and 2302 of 8 September 2011) under the ISO 17025:2005 regulation, Cerrejón recycles part of the domestic wastewater from the settling pond and part of the industrial wastewater in one of the washing facilities for light and medium equipment.

The greatest discharges in Cerrejón in 2011 came from waters from the mining process, specifically those related to the controlled discharges of the Samaleón reservoir, from the Tabaco 1, Tabaco Extensión and Puente West pits, which were necessary to continue the mining operation.

Recycled water

The demand for domestic wastewater for watering gardens in common areas and the sports fields of the residential unit, after their treatment in the settling pond, was 3% less in 2011 than the amount consumed in 2010 for the same purposes. This is because the amount of rain during the first quarter of 2011 was above the historic average for the period.

A pilot programme in the residential unit was started for recycling wastewater from the settling ponds in fourteen new homes built in the residential area, forming part of the Programme for Saving and Efficient Use of Water (PAUEDA). The first evaluation is expected in the first half of 2012, and continued implementation of the programme will depend on the results.

In the industrial area, a system went into operation at one of the washing facilities for light and medium equipment at the beginning of the year, allowing for the treatment and recycling of a percentage of the wastewater from washing vehicles. The first monitoring of this system revealed an estimated savings of 40% of the water usually required. This system boasts four chambers that function as filters for the oils and sludge from the washing. The last chamber provides water that can be used again in the process. The final figure at the end of the year slightly exceeded the original estimate as the system achieved total water savings of 42%, the equivalent of 8,967 m³ of low-quality water that was recycled in the washing facility. After confirming the effectiveness of the system, we plan to introduce this system into the other washing facility for light equipment in the industrial area.



Air quality management

A mining operation like Cerrejón requires several fronts of action to carry out environmental management since open pit mining creates particulate matter (dust) that could constitute a risk to both neighbouring communities and the environment itself if not properly controlled. That is why Cerrejón has developed and implemented a system of air quality management that goes beyond compliance with the regulations issued by environmental authorities in this field.

Bearing in mind the atmospheric and weather conditions, as well as the mining plans, they can predict the amounts of total suspended particulate matter (dust) and their effects on the air quality of communities neighbouring the operation. Using this information, the prevention and mitigation measures required of the mining operations are planned and applied, verifying the efficiency of the control measures and compliance with regulations established by environmental authorities through the air quality monitoring network. As a complement to these measures, this management is socialised with the communities, environmental authorities, and other stakeholders.

With this strategy, Cerrejón confirms its commitment to protecting the environment and the communities within its area of influence.

Actions in compliance with the law

Planning

A mathematical dispersion model can be used to predict particulate concentrations in the air for the mining plans and projects to determine the control measures required. It uses historical weather and topographical information for the Cerrejón area, as well as calculations of the emissions created by each operational activity. This model, calibrated for the specific local conditions, incorporates globally recognised techniques and methodologies.

Actions

Managing air quality at the Mine and Puerto Bolívar involves planning and implementing prevention and mitigation measures required in the operations, including:

- Permanent wetting down of roadways by a fleet of tankers with a 20,000-gallon capacity and chemical additives to improve the emissions control. Approximately 3.9 million cubic metres of water were used in 2011, the vast majority was low-quality water.
- Using sprinklers in the active mining areas (upper levels).
- Forming teams to control the coal self-combustion. These teams controlled 202 fires and sealed over 65,000 square metres of coal layers with a high probability of spontaneous combustion.
- Moistening when unloading coal on the hoppers at the crushing plants.
- Covering the coal conveyor belts.
- Moistening and compacting the coal once it is loaded in rail cars.
- Moistening the coal during stacking and reclaiming at Puerto Bolívar.
- Setting up the coal piles at the Mine and Puerto Bolívar so that they are oriented as much as possible in the direction of the prevailing wind. Their design must be trapezoidal in shape with a truncated pyramid and a maximum height of 15 metres in order to reduce emissions caused by wind erosion.



Cerrejón informs the communities of actions aimed at air Care through information pamphlets.

Verification

To verify compliance with the prevention and mitigation measures, Cerrejón counts on its air quality monitoring network of 18 stations (12 at the Mine and 6 in Puerto Bolívar). The network determines the concentration of TSP, PM10 and PM 2.5 particulates in the atmosphere and verifies compliance with national air quality regulations (Resolution 610 of 2010 by the then-Ministry for the Environment, Housing and Land Use (MAVDT), now the Ministry for the Environment and Sustainable Development, (MADS). The monitoring network complies with the guidelines required by Colombian regulations in the Protocol for Air Quality Monitoring (Resolution 2154 of 2010).

In 2011, the concentrations of TSP, PM10, and PM2.5 particulates were well below the limits set by Colombian regulations, thanks to the effective operational controls implemented by Cerrejón, and weather conditions associated with the climatic phenomenon known as La Niña, which brought above historical average rains to the region.



There is bi-annual monitoring of NO_X, SO_X, and CO levels to measure gas concentrations in Cerrejón's area of influence. The results obtained in those samples are far below the limits set by Colombian regulations (Resolution 610 of 2010 of the then-MAVDT, now MADS).



The maximum values recorded during the sampling conducted in 2011 were:

Parameter	Results of 2011 monitoring in µg/m ³	Legal limit per 24 hours in µg/m ³ (Resolution 610 of 2010)	Location of monitoring
NO ₂	43.01	150	Station of community of San Francisco
SO ₂	63.07	250	Station of indigenous community of Provincial

The emissions of total suspended particulates (TSP) are estimated based on each activity in the handling and transport of coal, rock, and soil. These figures are then associated to emission factors developed by the Environmental Protection Agency (EPA).

 NO_{X} and SO_{X} emissions are calculated using EPA emission factors that only take into account the volume of diesel and gasoline consumed in the mining operation and port activity. For that reason, the trend of these emissions is directly proportional to those consumptions.

The following table summarises the emissions produced in the last four years:

Year	Tonnes NO _x	Tonnes SO _x	Tonnes TSP
2008	18,236	2,272	31,281
2009	19,256	2,404	36,577
2010	17,866	2,229	28,417
2011	18,608	2,310	30,028

The 2011 increase in TSP emissions is associated with the lower rainfall figure recorded in comparison with 2010, when La Niña was more intense.

Actions

The results obtained from the monitoring network and the actions of the control system are reported to the environmental authorities in the annual reports on environmental compliance. They are also entered each month in the Information System on Air Quality (SISAIRE), as stipulated in Resolution 2153 of 2010.

Similarly, senior management does monthly follow-up monitoring of emissions in order to take preventive actions when necessary, in accordance with the trends and projections.

Voluntary actions

Planning

An interdisciplinary group drawn from the Cerrejón Production, Technical Services, Maintenance, and Environmental Management departments was set up for the purpose of optimising control measures and finding methodologies that would help to further mitigate the effects of our operations on the air quality in the area of influence.

Actions

Environmental observers have been assigned to continuously monitor and provide operational support in the control of emissions in critical areas.

Sprinklers were also installed to dampen the upper levels of the mining areas, where overburden high in fine-grained fractions is loaded.

Verification

At the end of November, 2010, voluntary sampling of particulates smaller than 2.5 microns (PM2.5) began at the sampling station in the Provincial indigenous reservation. Colombian legislation has required the measuring of this particulate since 2010 only in cases where the PM10 limit is being exceeded, which has not occurred in the area of influence of our operation. As of December 2011, the PM2.5 values recorded ranged from 5 to 24 μ g/m³, values well below the maximum daily limit of 50 μ g/m³ established by Colombian regulations.

The monitoring continues with automatic stations in real time at the Barrancas, Las Casitas, and Provincial stations. They serve as an early warning signal to the operation to adopt additional control measures when special incidents occur.

Actions

As mechanisms for involving stakeholders in the process, the Air Quality Oversight Committee and Air Quality Forum are designed to provide knowledge, analysis, and disclosure of the management Cerrejón is carrying out in this important operational aspect.

The purpose of the Air Quality Oversight Committee, made up of representatives from the communities neighbouring the operations, academia (University of La Guajira), and environmental authorities (Corpoguajira), is to monitor Cerrejón's air-quality management process. It also enables these members to have a multiplier effect by spreading this information in each of their respective communities, and within Cerrejón itself.

The Air Quality Forum, held in November in Albania, hosted 64 participants from the neighbouring communities, among them members of the Air Quality Oversight Committee and the Autonomous Regional Council of La Guajira (Corpoguajira). They expressed their satisfaction with the event, praising the efforts of the Committee and appreciated the opportunity it offered to explain the basic concepts of air quality and its relation to good health, and the monitoring effort by Corpoguajira to ensure compliance with the prevention and mitigation measures for air pollution and Cerrejón's air quality management.

Materials used in the operation

Ammonium nitrate

Emulsion

Tyres

Some of the more important materials associated with the coal production process at Cerreión are ammonium nitrate and emulsion for blasting, and the tyres for mining equipment. Cerrejón monitors and records the consumption of these materials, as well as their disposal as waste. It has implemented indicators to measure the efficiency and use of these materials during mining, some of the most important of which include measurement of the service life of tyres used on heavy mining equipment per kilometre travelled and tonnes of material transported (fleets for interburden and coal haulage), and efficiency in the use of explosives (powder factor, calculated as the amount of explosive used per bank cubic metre of interburden removed).

BCM equivalent: A volume unit in mining expressed in cubic metres relating the volume of coal and interburden in a single figure.

Ammonium nitrate

This is the raw material used in the preparation of the emulsion, which is in turn used as a blasting agent on the rock that must be fractured to be mined. The 3% reduction in tonnes of ammonium nitrate consumed, with reference to millions of BCM equivalents in 2011 in comparison with 2010, or for these two years in comparison with prior years, is due to the replacement of pyrotechnic with electronic detonators. The latter make the blasting process much more efficient due to the accuracy of the sequence during the firings of charged blast holes and pits, thus permitting effective control of the blast force, since it is better in the rock. This permits the enlargement of the drilling patterns (a network of boreholes and a consequent reduction in the consumption of raw materials required for blasting).

Hence, since there is more control over the blast firings the intensity of the vibrations diminishes, as has been confirmed by measuring these in the mine's area of influence.

Emulsion

This element is a blasting agent produced by mixing an oxidizing and a combustible solution. Cerrejón optimises the use of diesel, replacing it with used oil. As a result, we have been able to reduce diesel consumption by approximately 50% (449,000 gallons of diesel per year).

The 8% reduction in emulsion consumption with reference to millions of BCM equivalents, when compared to 2010, is also due to the use of electronic detonators.

Tyres

Tyres must be optimised on account of their cost and scarcity on the international market, which is the result of high demand from mining companies. The greater consumption of tyres with regard to mining equipment originates in the haulage fleets composed of 190, 240, and 320-tonne overburden haul trucks. These fleets used 85% of the tyres (1,781 units) out of a total of 2,096 units in 2011. This increase in consumption was mainly due to the following:

The following table shows the consumption of each material over the course of

61,794

64,145

47,095

50.384

89.059

99,999

81,011

82,151

Units

2,089

2,401

1,847

2,096

Reference units

Ton/millions of BCM-eq

249

247

209

202

358

385

359

329

Unit/millions of BCM-eq

8.40

9.24

8.18

8.39

₹-3%

▶-8%

2%

the last four years with reference to millions of BCM equivalents (BCM-eq)¹.

2008

2010

2011

- 1. Heavy rains that damaged the haulage roads, increasing wear on tyres as well as making them more susceptible to being slashed by rocks on the roads.
- 2. The addition of 18 trucks (equivalent to 108 additional tyres) to the 240-tonne fleet, which increased tyre consumption.
- 3. The use of 240-tonne trucks to haul coal. This fleet is normally used to haul waste rock, which has shorter cycles. Therefore, the increase in rolling distance as a result of coal haulage reduces the service life of tyres in this fleet.

The average service life of tyres associated with the 190- and 320-tonne fleets reached the targets for 2011 (see the tyre performance table for haulage trucks). This achievement is the result of ongoing awareness-raising campaigns directed at truck-fleet operators, who report bad conditions and obstacles such as rocks on the roads and loading areas back to base in real time in order to prevent tyre damage. Nevertheless, the service life of tyres in the 240-tonne fleet, as explained above, was shorter than expected for 2011.

Tyre	Unit	Value reached in 2011	Goal
320T truck tyre	1 x 10³ km	70.03	70.00
240T truck tyre	1 x 10³ km	75.20	78.60
190T truck tyre	1 x 10 ³ km	100.10	100.00

Materials left over from the operation (interburden)

As a result of coal extraction, mining operations generate excess materials such as mud, rocks, and tailings that do not pose a risk to the environment or to health. The interburden contains no chemical substances or other properties that would make it hazardous. Nevertheless, this waste rock is treated in accordance with appropriate environmental regulations and in compliance with the EMP guidelines on dump and interburden management.

Management of solid waste

Cerrejón's solid waste management is an entirely self-sufficient process. It is not dependent on any public sanitation service. The company has its own qualified personnel, and specialised installations and equipment to execute the procedures related to waste management (storage, separated collection, transport, treatment, and final disposal), and performs each of these tasks strictly within the legal/environmental framework in the country. A percentage of the hazardous waste Cerrejón produces is sent outside the mining complex for treatment and final disposal. Given their particular properties, these wastes are sent to a third party specialising in handling these types of materials, with prior verification that all the respective autorisations and corresponding environmental licences are in order.

Actions in compliance with the law

The proper and comprehensive management of approximately 9,400 tonnes of solid waste generated annually by the operation at the Mine and Puerto Bolívar is the result of the effort and commitment of over 250 people who make up the work team responsible for this operation. They work in coordination with the joint direction of the General Services Office and Environmental Management Department. The tables for waste generation, listed according to their nature, treatment methods, and most relevant form of disposal, including the data from the Mine and Puerto Bolívar, are shown below.

Waste generation

Year	Tonnes ordinary waste	Tonnes hazardous waste	Tonnes recyclable waste	Total waste generation ¹
2008	4,982	648	2,767	8,397
2009	4,316	630	4,304	9,250
2010	4,463	578	4,550	9,591
2011	4,528	631	4,210	9,370

Waste disposal and treatment

Year	Tonnes of waste incinerated	Tonnes in bioremediation	Tonnes in encapsulation	Tonnes in landfill	Tonnes in tailings pile ²
2008	67	195	389	3,135	1,458
2009	300	142	202	2,633	1,140
2010	382	124	89	2,161	1,655
2011	440	130	92	2,357	1,382

In terms of installations, Cerrejón has cells for the disposal of ordinary waste, an incinerator for hazardous waste, a security cell for unincinerated hazardous waste, landfarming³ for the bioremediation of oily sludge, a tailings pile, and a warehouse to store recyclable materials, among others. Cerrejón also has equipment that provides support in fulfilling these tasks, such as a fleet of compactor trucks, support vehicles of various kinds and sizes, vacuum trucks for oily waters or sludges, a tractor, and a mini-loader.

The hazardous waste sent outside the mining complex for treatment or final disposal consists of waste that requires very special handling. Radioactive material is returned to the supplier in compliance with Ministry of Mines and Energy regulations, as are other waste materials such as fluorescent lamps and paints that have post-consumer disposal programmes. The waste electrical and electronic equipment (WEEE) are sold to third parties who subsequently recover different materials. Transport on national roadways, required treatments, and final disposal of waste contracted with third parties are done through legally authorised administrators, with prior verification of their suitability for the task through visits and review of licences.

Hazardous waste in Puerto Bolívar is packed within a concrete mold in accordance with the provisions in the file of the PB-02 environmental handling plan and the GU-GAM-0009 waste guide, and deposited in a cell. The oily sludge and greases are treated through bioremediation.



² The figures for tailings piles decreased compared to the 2010 sustainability report due to the fact elements that do not belong in this category were being included before.



Voluntary initiatives

Cerrejón goes to great lengths to extend the service life of the by-products produced. It undertakes proactive management increasing the amount of waste (both ordinary and hazardous) usable through reuse or recycling.

This management took advantage of 45% of the total waste produced in 2011. The waste comprising the recovery figures includes plastics, cardboard, paper, wood, scrap metal, batteries, used oil filters, and electrical and electronic components.

Beyond the tremendous environmental benefits resulting from reuse and recycling (decrease in natural resource consumption, in pollution, and in impacts on climate change), it is a source of pride to Cerrejón to highlight the social benefits deriving from it. Specifically, it funds over 20 regional youth who receive economic support with scholarships to various national universities, healthcare programmes for children and seniors, school supplies for various educational institutions in the area, and yearly Christmas presents for children in communities near the project.

³ A natural process in which micro-organisms in the soil biodegrade oily sludge.

Management of biodiversity impacts.



Managing biodiversity

Cerrejón has mitigated its impact on biodiversity with various strategies seeking the protection of species via wildlife rescue before mining begins: monitoring in transit corridors, review of bodies of water for aquatic habitat offset, wildlife recovery and subsequent release, conservation programmes for threatened species, the creation of protected areas, and education in the protection of biodiversity. Keeping the above in mind, Cerrejón has established the following programmes for biodiversity conservation and for preservation of the environment:

- Wildlife rescue and relocation programme in areas slated for mining
- Wildlife clinical and biological recovery and education programme
- Wildlife monitoring and follow-up programme
- Conservation programmes for threatened species

Cerrejón has a Fauna Recovery Centre that provides veterinary care and educates employees, contractors, and regional stakeholders. It also supports work on the regional prevention of wildlife trafficking.

Voluntary actions

Cerrejón works to protect threatened species both inside and outside the project's area of influence. Since 2007, we have undertaken species conservation programmes for the American crocodile and sea turtles in Alta Guajira and the Colombian slider turtle at the Mine.

These programmes help to increase the wild populations of these species through participatory actions with neighbouring communities.

Based on the wildlife inventory carried out by Cerrejón, there are twenty-five species that are threatened to some extent according to Colombian and international classifications. According to the Colombian category, six of these species are critically endangered, two are endangered, four are vulnerable, and seven are near threatened. According to the International Union for Conservation of Nature (UICN) classification, two of the species are critically endangered, two are endangered, seven are vulnerable, four are near threatened, and three are of least concern.



Inventory of species significantly threatened

classification according to CITES and IUCN categories

Class	Genus and species	Common name	Colombian category (CITES)	IUCN
Birds	Ara militaris	Military macaw	VU	VU
	Egretta rufescens	Reddish egret		NT
Mammalia	Aotus lemurinus	Gray-bellied night monkey		VU
	Leopardus tigrinus	Margay		VU
	Leptonycteris curasoae	Bat		VU
	Lontra longicaudis	Neotropical otter	VU	
	Panthera onca	Jaguar	VU	NT
	Rhogeessa minutilla	Bat		VU
	Marmos a xerophila	Guajira mouse opposum	NT	VU
	Lonchophylla concav a	Guajira mouse opposum		NT
	Cabassous centralis	Northern naked-tailed armadillo	NT	
	Cebus albifrons	White-fronted capuchin	NT	LC
	Leopardus pardalis	Margay	NT	LC
	Leopardus wiedii	Margay	NT	NT
	Puma concolor	Puma	NT	LC
Fish	Prochilodus magdalenae	Bocachico	CR	
	Ichthyoelephas longirostris	Besote	EN	
	Salminus affinis	Picuda	VU	
Reptilia	Trachemys callirostris callirostris	Colombian slider turtle	NT	
	Dermochelys coriacea	Leatherback turtle	CR	CR
	Chelonia mydas	Green sea turtle	EN	EN
	Caretta caretta	Loggerhead sea turtle	CR	EN
	Eretmochelys imbricata	Hawksbill sea turtle	CR	CR
	Crocodylus acutus	American crocodile	CR	VU
	Chelonoidis carbonaria	Red-footed tortoise	CR	
COLOMBIAN CATEd Endangered (EN) Vulnerable (VU) Near threatened (NT) Critically endangered	CONSERVATION OF NATURE Critically endangered (CR) Endangered (EN)			

Strategies and actions for managing impacts on biodiversity

As part of its commitment to practising responsible mining, Cerrejón has a management plan for Wildlife and Conservation of Biodiversity that covers the necessary actions to prevent, mitigate, and compensate for impacts generated by the mining operations as concerns biodiversity.

The programme covers the following specific goals:

- Timely rescues and relocation of wildlife from areas slated for mining, as established in the mining plan. In 2011, 902 animals were rescued.
- Monitor aquatic and terrestrial wildlife in both the dry season and the rainy season in the surrounding areas (including the Ranchería River and its tributaries), reclamation areas, offset areas, and areas for the relocation of wildlife.

This monitoring has confirmed the existence of 258 bird species, 55 reptile species, 23 amphibian species, and 103 mammal species. Of particular note, we have reported 17 mammal species that were not on national mammal lists for the region.

- Rehabilitating wildlife by providing care for injured individuals and promoting the care and preservation of biodiversity. In 2011, 906 individual animals were rehabilitated.
- 4. Contribute to the conservation of threatened species. Since 2007, Cerrejón has undertaken a conservation programme of threatened species in the Alta Guajira, aimed at preserving the American crocodile and four species of sea turtles in collaboration with the Wayuu community in the area. In 2011, we gained the strategic partners of Conservation International and Corpoguajira, establishing a conservation agreement for these species. This agreement is signed by 450 people and helps to organise a group of beach monitors and patrols to watch over nests, eggs, and landing spots of turtles on the coast. The main goal is to decrease organised captures, sales, and the indiscriminate use of these species.

This programme cares for and releases many sea turtles every year:

- 2009: 504 individuals
- 2010: 1,161 individuals
- 2011: 1,066 individuals

Cerrejón also contributes to the conservation of the American crocodile, improving its nesting possibilities, and protecting eggs and growth against predators to aid the population.

To date, the following releases of American crocodiles have taken place:

- 2009: 100 individuals
- 2010: 170 individuals
- 2011: 312 individuals

Furthermore, in 2011 we celebrated an agreement with The Nature Conservancy (TNC), the Fund for Environmental Action and Childhood, and Corpoguajira to declare a regional protected area on the delta of the Ranchería River and in the transition zone to tropical dry forest in the municipalities of Riohacha, Manaure, Maicao, and Albania. They are currently in the organising phase.

Areas identified that require a biodiversity management plan

Cerrejón does not undertake mining in protected areas as the environmental impacts caused by the operation are prevented and managed through our comprehensive Environmental Management Plan. For aquatic and terrestrial wildlife management, we use forms PBF-07 and PBF-08 of the EMP, and regular monitoring of aquatic and terrestrial wildlife in the dry and rainy seasons is covered by forms S-03 and S-04. These measures allow us to determine the impacts of the mining activities on species in the direct and indirect areas of influence.

Habitats protected or restored

Cerrejón collaborates with local entities such as Corpoguajira and the Maicao Mayor's Office in the conservation of the Montes de Oca protected forest reserve, located in the Serranía del Perijá. It covers an area of 8,494 hectares and is home to over 177 bird species and hundreds of reptile species.



Environmental education

Environmental education visits

In compliance with the Environmental Management Plan (EMP), we invite communities in the area of influence and municipal authorities on visits to educate them about the company's environmental management.

Environmental visits have been successfully carried out since 2006. To date, over 3,000 people have visited, including traditional authorities, leaders, farmers, and ranchers from neighbouring zones, as well as officials from the municipal authorities of Albania, Hatonuevo, Maicao, Barrancas, and Uribia.

In 2011, 592 leaders, traditional authorities from communities, students, and members of the air-quality oversight committee visited the Mine or Port and received information on the topic.

The agenda for each visit includes two video presentations: one on safety and one on the environment. Then there is a tour of the Mine, where visitors observe one of the pits from an overview. From another lookout point they then observe: the process for land reclamation, the incinerator for solid waste, the recycling warehouse, the settling ponds, and finally, the Wildlife Rehabilitation Centre.

These visits include a final question-and-answer period to clarify any visitor queries concerning Cerrejón's environmental management. In addition, a survey is handed out to poll visitors on their visit to Cerrejón and the topics it addressed.



549 people from the neighbouring communities visited the operation in 2011 to learn about Cerrejón's environmental p

The main concerns of community visitors related to air quality; the effects of blasting and control measures; how the Mine will be left after all the coal is extracted; and job opportunities, etc.

On a positive note, when asked if the visit had changed their opinions about Cerrejón's environmental programmes, 92% of the 592 people replied affirmatively. They said that, having visited the Mine and personally witnessed the management of environmental issues, they were much better informed than before about environmental topics and the management of these programmes.

Land reclamation

The land reclamation programme has been gaining attention as a benchmark for good mining practices for over two decades. During this period, it has been an integral part of our operations and has been incorporated in our mining planning and execution exercises.

The programme has always focused on ensuring the reclamation of land disturbed by the mining operation by undertaking efficient practices and methods concerning the management of topsoil, water, biological agents, and vegetation. Thus, when they are returned to the land, their stability and productivity will be similar to, or better than, their original state.

Land reclamation covers a long chain of states and many activities, beginning with identifying topsoil reserves in the areas slated for mining. It continues with the timely removal and preservation of this material in soil banks, and the reshaping and generation of new soil in the areas released by the operations. This is followed by establishing a vegetation cover to protect and stabilise the soil; enriching it with native grasses, trees, and shrubs; and colonisation by local wildlife. We continue to monitor its status and evolution regularly.

Specific activities include: timber harvesting in areas slated for mining; removal, re-handling, and reuse of soils and their management in terms of sources, destinations, volumes transported, equipment used, and amounts in banks; production of grass seeds; ploughing and sowing grass on plains and slopes; producing and applying mulch to ploughed, sown land; constructing drainage structures; harvesting and preserving seeds from native species; producing and planting trees in stabilised areas; constructing protective fences; soil sampling; and defining plant communities, green waste, and water in areas being rehabilitated.

Also included are the management and administration of areas of biotic compensation, and the development of knowledge to prevent and reverse land deterioration in rural production systems other than mining. This latter activity is carried out on land owned by Cerrejón, as well as in neighbouring communities.

The land rehabilitation model developed by Cerrejón is the outcome of a combination of science, technology, and traditional knowledge. Although the model has been enriched by



contributions from various external sources, it has the added value of having been designed and implemented by Cerrejón's team. As a result, it has become an area of work fully integrated into the corporate culture, creating trust and empowerment in terms of direct employees and contractors who comprise this management team.

The land reclamation involved in Cerrejón's mining does not end with the re-vegetation stage. Its implications go far beyond this in terms of time and space. Within the particular context of central-southern of La Guajira, there is a special opportunity to take land that had been deteriorated even before mining and to include it within a sustainable regional management plan for the landscape, transforming it into useful areas for buffering and preserving the region's biodiversity.

The future scenario for extensive rehabilitated areas should lie within their integration as natural corridors, ensuring connectivity between the mountain systems of the Sierra Nevada de Santa Marta and the Serranía del Perijá, and throughout the Ranchería River valley.

It is a big challenge, especially if we take into account the fact that it is crucial to create the social, cultural, and economic conditions necessary to achieve a land management model that optimises relations between society and the land.

The following table shows the hectares of land included in the rehabilitation process at the Mine over the past four years.

Year	2008	2009	2010	2011
Hectares accumulated	2,566	2,690	2,765	2,892

Below the rehabilitation management indicators for land at the Mine in 2011 are summarised:

Stage	Value reached in 2011	Target for 2011
Preparation of land	136	130
Stabilisation of land	138	130
Revegetation of land	219	200

Handling of hydrocarbons

Throughout this period, ongoing improvements were made to the area and the conditions of the fuel islands, including the following:

- Installation of seven metallic dykes on the portable fuel islands to contain spills. These dykes replaced the earlier dykes consisting of berms in cement and a surface made from natural compacted soil.
- Construction of an additional island in the NAM (new area of mining), known as portable island 9, as a result of which fuel- and lubricantsupply capacity in this area was improved. The island was built in compliance with the protocols governing the use of chemical substances and hydrocarbons, adapted to Colombian legislation.
- Updating of the marking and identification of the piping used for fluids in accordance with the colour code established by Cerrejón based on Resolution 2400/79 Industrial Safety Statute.

- Training of island operators in emergency response and environmental awareness.
- Supply of kits for handling hydrocarbon spills on all Cerrejón fuel islands, as a result of which an appropriate response to minor spills was achieved.
- Drills for hydrocarbon spills. Drills are performed to evaluate the capacity of Cerrejón's internal emergency response groups to respond to specific situations, such as a fuel spill in the Ranchería River.

Oil consumption and used oil recovery

Hydraulic shovels and haulage trucks are responsible for most oil consumption at Cerrejón. There were three principal reasons for the 6% increase in oil consumption compared to 2010, using BCM equivalents¹ as a reference (BCM-eq): First of all, the PC8000 frontal and the PC4000 hydraulic shovels consumed more fuel; second, the haulage fleet of 240T trucks was enlarged; and third, oil degradation occurred in the 320T trucks.

1,687,354 gallons of oil were consumed in 2011, from which 992,331 gallons (3,756 m³) of used oil were recovered, corresponding to a recovery rate of 59%. Half of this percentage was used in the emulsion plant for the blasting process (See section on Materials used in the operation).

Total number and volume of accidental spills

Cerrejón maintains plans for responding to hydrocarbon and chemical substance spills. These plans emphasise the control of environmental impacts stemming from these situations. In a similar vein, in addition to maintaining the necessary equipment and personnel to overcome any emergency involving hydrocarbon spills, Cerrejón has developed an adequate infrastructure on the fuel islands for controlling possible emergencies.

In recent years, Cerrejón has invested in the standardisation of the hydrocarbon infrastructure to ensure that hydrocarbons are handled safely.

In 2011, there were nine significant spills, equivalent to a total volume of 4,973 gallons of hydrocarbons. It is noteworthy that the spills were adequately controlled. As a result, biodiversity was not adversely affected.





¹BCM equivalent: A volume unit in mining expressed in cubic metres relating the volume of coal and interburden in a single figure.

It is worth noting that, just as oil consumption increased, there was also a 2% increase in the volume of used oil recovered. Taking the BCM equivalents for 2010 and 2011 as a reference, the amount recovered increased from 877,452 gallons to 992,331 gallons.

The following table shows oil consumption and used oil recovery for the last four years.

	Maari	Referei	nce units	Change compared to 2010 taking into account millions of
	Year	Gallons	Gal/millions of BCM-eq	account millions of BCM-eq
	2008	1,612,309	6,484	
Oil Usage	2009	1,563,431	6,018	€ 6%
	2010	1,439,979	6,381	∠ 0 /0
	2011	1,687,354	6,752	
	2008	974,311	3,918	
Oil recovered	2009	977,977	3,764	▲ 2%
	2010	877,452	3,888	∠∰ ∠ /0
	2011	992,331	3,971	

Climate change

Cerrejón carries out its activities and operations with a focus on eco-efficiency, based on an understanding of the effects of climatic change on the region's ecosystems and the associated environmental, economic, and social risks.

The following are actions that Cerrejón is undertaking in terms of the challenge that adapting to climate change entails:

- Estimating its equivalent carbon dioxide emissions (CO₂e)¹, based on the emission factors of the United Nation's Intergovernmental Panel on Climate Change (IPCC).
- The development and implementation of projects regarding energy efficiency and the efficiency of water use within the operation.
- The definition and application of strategies to adapt to climate change for La Guajira, contributing to the optimisation of water resource management and good practices within the community in terms of water use, sanitation, and hygiene habits. (See Cerrejón Foundation for Water in La Guajira, page 72).
- Implementation of conservation projects for threatened species through strategic partnerships with players from the global environmental sector, such as Conservation International and TNC.

Cerrejón has an eco-efficiency programme for detailed monitoring of fossil fuel consumption (diesel, gasoline, and natural gas) in fleets and mining equipment, which are the largest sources of greenhouse gas emissions (GE) with significant operational costs. Electrical power consumption at Cerrejón is monitored through consumption indicators by product unit and are the basis for establishing reduction targets. On a monthly basis, the performance of the indicators is reported in comparison to targets, and heads of areas are informed of progress and of necessary actions to optimise resource use.

Energy consumption

On average, Cerrejón consumes around 12 million gigajoules annually for its mining operations and related activities. The following table shows energy consumption broken down according to primary sources.

Fuel	Unit	2007	2008	2009	2010	2011
Diésel	thousands of GJ	10,631	11,862	12,550	11,694	12,061
Petrol ²	thousands of GJ	277	293	260	260	267
Natural Gas ³	thousands of GJ	30	36	42	34	84
TOTAL IN GJ	thousands of GJ	10,940	12,192	12,853	11,989	12,413

Fuel consumption

Net consumption of diesel fuel, which represents 97% of the total energy consumed by Cerrejón, increased by 3% as a result of an increase of 18 240-ton trucks. There is a drop of 7% in unit consumption (millions of gallons of diesel/millions of equivalent BCM⁴) from 2010 (375,541) in comparison to 2011 (349,727) due to the implementation of the following measures: purchasing better-quality fuel with less sulphur content, supervision of the fuel filtering chain, and fewer hauling cycles due to alternate transport routes to get to the planned dumps. This is also a result of backfilling of the Tabaco and La Puente pits, and more constant operation of the trucks possible due to the better state of the roads as a result of less precipitation in 2011.

Consumption of electricity

Total electrical power consumption at Cerrejón increased slightly by 2 GWh compared to 2010. The unit consumption (GWh/millions of equivalent BCM) in 2010 (1.29) dropped by 9% in 2011 (1.17) due to three electric shovels (model PH2800XPC) entering into operation and two old, less energy-efficient electric shovels (model PH2800XP) being taken out of service.

² Corrected with the calorific value of the IPCC for gasoline. On the basis of the 2011 Sustainability Report, the factor of 0.124 GJ/gal from the IPCC for gasoline is used, which has a calorific value of 44.3MJ/kg and not the 42.44 MJ/kg given by the FECOC (Colombian Fuel Emission Factors) (UPME - Mining and Energy Planning Unit).

⁴ BCM equivalent: unit of volume in mining, expressed in cubic metres, which links the volume of coal to that of mining waste in a single figure. BCM = Bank Cubic Metre



¹ CO₂ equivalent: The universal unit of measurement to indicate the global warming potential for each one of the six greenhouse gases (CO₂, CH₄, N₅Q, HFCs, FPCs, and SF₆), expressed in terms of GWP of a unit of carbon dioxide (CO₃). It is used to assess the emission of various greenhouse gases in comparison with a common base.

³ Includes vehicular natural gas (VNG) and natural gas for domestic and industrial use (emulsion plant).

Energy savings due to improvements in efficiency

As part of the project "Decrease in queue time for tanking 320T fleet", currently in place (which aims to decrease waiting time for filling up 320-ton trucks⁵ with coal from 6.7 hours to 5 for every 1,000 hours of operation and generate savings in fuel consumption and reduce CO₂ emissions), a computer tool has been implemented that communicates filling priorities to the dispatch centre according to each truck's fuel level, thus avoiding unnecessary queues at fuel islands and reducing the probability of trucks with an acceptable level of fuel going to fill up. The project was launched in August 2011 and in December of that same year, positive results were revealed with calculations estimated at a savings of 4,714 gallons of diesel, the equivalent to the fuel used to keep four 40-ton tractors running (tank capacity of 44 gallons) 24 hours a day for approximately one month. We expect to reap 100% of the benefits in 2012.

Additionally, Cerrejón is working on pilot tests to reduce the diesel consumption of mechanical truck fleets through a computerised device to meter fuel.

Initiatives to reduce electricity consumption

In 2011, twelve houses were built in the Mushaisa residential unit at the Mine and installed with solar water heaters. A nominal savings of 52,000 kWh/year is estimated, the equivalent of the electricity needed to power 17 three-person apartments for a year.

We also changed the transformer at the Corazo-

nal electrical substation, from 3,000 KVA to 250 KVA, which resulted in an annual savings of 108,000 kWh, the equivalent of the electricity needed to power 35 three-person apartments for one year.

This substation is located at the workshop area in the central zone and currently provides electricity to the settlements of Roche, Patilla, and Chancleta. When the central area began to be powered by the electricity grids from the north, the substation was left with a transformer whose capacity was too large for this substation. Upon changing the transformer, the losses it caused were eliminated.

Direct and indirect total greenhouse gas emissions (GHG)

The increase in GHG (measured in tons of CO_2e) in comparison with 2010 is due to a greater net consumption of diesel fuel, mainly a result of the transport of mining waste and coal, which is equivalent to 63% of total CO_2e emissions at the Mine. If unit emissions (tonnes of CO_2e /million of equivalent BCM) from 2010 are compared with those from 2011 (4.78 vs. 4.44), a reduction of 7% is observed in the CO_2e emissions indicator, which is consistent with the increase in efficiency in diesel consumption during 2011.

Total GHG emissions in tons of CO2e

Year	Emissions (t CO ₂ e)	t CO ₂ e/equivalent millions of BCM-eq
2008	1,080,255	4,344
2009	1,157,897	4,457
2010	1,092,942	4,843
2011	1,111,404	4,447

The table shows the tonnes of CO_2e emitted over the last four years corresponding to the consumption of fuel, electrical energy, and coal production, broken down into diesel, gasoline, and natural gas consumed at the mine, railway, and port. It also includes the methane gas (CH₄) emissions produced by the coal-extraction process and the emissions for blasting supplies (ANFO and emulsion) as CO_2e emissions.

The difference in figures for GHG emissions with respect to the 2010 Sustainability Report arises because, in 2011, Cerrejón started calculating these emissions in accordance with the GHG Protocol in order to: (1) provide greater transparency for reported data, (2) avoid counting emissions twice, and (3) achieve a better understanding our GHG emissions as compared to the rest of the industry.



⁵ Current average wait time in lines for tanking of fleet 6.7 hours/1,000 of operation. Average time achieved in 2011: 5 hours/1,000 hours of operation

The GHG Protocol defines three scopes for reporting GHG emissions:

• Scope 1:

Direct emissions (under organisation's total control).

• Scope 2:

Direct emissions plus emissions associated with the consumption of purchased electrical power.

• Scope 3:

Emissions reported in Scope 2 plus other indirect emissions (emissions associated with the operation but outside the operation's control — optional category that implies adding the total emissions generated by contractors, service providers, and uses of the sold product).

In line with the protocol, Cerrejón has defined the organisational limits in terms of operation and

control, and of the scope of the reported emissions, which are Scope 2 (direct emissions plus emissions associated with the electrical power consumption). This alignment is reflected in an adjustment of the emissions for previous years and for the reporting year.

Initiatives to reduce GHG emissions

With the Eco-efficiency programme, Cerrejón has adopted the concept of marginal abatement cost for prioritising engineering and operational efficiency projects. The aim is to reach the proposed targets for the next five years (2012-2016), which comprise a 3% reduction in absolute emissions based on 2010 emissions. In 2011, the project "Decrease in queue time for tanking 320T fleet", which began in August 2011, contributed a decrease of 48 tons of CO₂.

In addition, as mentioned above, the installation of solar heaters in 12 houses being built in the residential unit is expected to save approximately seven tonnes of CO_2 a year.



6 This number refers to the amount of stratospheric ozone destruction caused by a substance.

Emission of ozone-depleting substances

Cerrejón continues with the programme to update air conditioners to decrease the consumption of outdated refrigerants with a high ODP (ozone depleting potential) and substitute new-generation refrigerants with minimal ODPs.

The reduction in high-ODP refrigerant consumption is a result of the 2011 yearly check of all the air conditioners. This check found that, in the old air conditioners that have not yet been replaced, only 904 kg of R22 and 2 kg of R12 had to be replaced.

Initiatives to mitigate environmental impacts of products and services

Cerrejón participates in the Asomineros Chamber and in the National Environmental Committee, which are agencies of the National Industrial Association (ANDI). Through these agencies, we contribute to analysing proposed environmental laws and share practices for the efficient management of the environment in the mining sector.

Significant environmental impacts for product transportation

The coal is transported by railway from the Mine to Puerto Bolívar, which is most efficient as other means of transport produce more emission sources related to carbon dioxide (CO₂) per product unit. Cerrejón uses this means of transport as its environmental impacts are not operationally significant owing to the fact they are controlled by fuel consumption indicators in the eco-efficiency programme.

The coal is exported in large-tonnage ships (up to 180 thousand tonnes), which produces a minimal environmental impact in the transport chain. Once the coal is delivered to our clients' ports, they apply their own measures for handling any potential environmental impacts, as well as the risks to health and safety during the transportation and use of the product. Regardless, Cerrejón delivers technical and safety reports to all clients in order to identify, prevent, and mitigate the potential impacts and hazards of our product.



na and Flora Flamencos–Camarones Sanctuary, La Guajira. Courtesy of Jorge Martínez Gualdrón.



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Life and health

A diagnosis of Cerrejón's area of influence

At the end of 2009, as part of the joint effort undertaken by the National Administrative Department of Statistics (Dane), the Centre for Development Projects (Cendex) of the Pontificia Universidad Javeriana, and Cerrejón, a study was undertaken to achieve a preliminary approximation to a baseline regarding health and quality of life in the Cerrejón mining operation's area of influence.

The purpose of the research, which was completed and published in 2010, is to establish solid bases that can serve as a foundation for the social responsibility programmes at Cerrejón, the aim of which is to contribute to sustainable development in the region. Another goal is to permit an analysis that will lead to the establishment of public policies in the social and economic fields in La Guajira.

The information is accessible, in accordance with Dane regulations, for the quality-of-life data, and in accordance with Cendex regulations, for the health data.



The Human Opportunity Index (HOI) and simulation of years for coverage and equity

As an example of the type of analysis possible using this data, a Human Opportunity Index (HOI) was created, in accordance with international methodology, for children born in the area of influence of Cerrejón. It constitutes an effort to holistically define and observe poverty, as well as its effects on the population. This index "synthesizes the level of coverage of basic opportunities in a society and the degree of equality in the distribution of these opportunities"*. Based on this index, the amount of time that would be required to achieve universal coverage of its population is calculated for six variables making up the index, which are:



- **Sixth grade on time.** This means that the child managed to complete the sixth grade.
- School attendance. This means that school-age children (6–17) attend school at the grade-level appropriate to their age.
- Water. Continuous access to clean water for domestic consumption, in the amount required by the number of persons in the household.
- Sanitation. This refers to access to an adequate and hygienic system for disposing of sewage as well as of black and grey waters.
- Electricity. Continuous access to electricity.
- Health. This means having access to basic healthcare services.

(*See "The Human Opportunity Index. The measurement of inequality of opportunity in Latin America and the Caribbean." World Bank.)



The following table shows the year in which universal coverage (100%) would be obtained for each of the variables mentioned, based on the average growth rates observed in Colombia in recent years. It is assumed that the study area has a linear rate of growth.

Basic opportunity	HOI (area of influence) (%)	Estimated years to reach universal coverage	Estimated date to reach universal coverage
Sixth grade on time	28	72	2081
School attendance	88	12	2021
Water	27	66	2075
Sanitation	30	64	2073
Electrical power	40	55	2064
Healthcare	61	36	2045

Source: Quality of life survey. DANE — Cerrejón, 200

Note. This estimate was calculated with the formula given by the World Bank: (100 – Actual variable value) / average annual growth rate. ee J.R. Molinas, R. Paes de Barros, J. Saavedra & M. Giugale (2010). Do our children have a chance? The 2010 Human Opportunity Report for Latin America and the Caribbean. Washington D.C.: The World Bank, p. 56. Thus, through citizen involvement and the implementation of projects through an alliance between the private and public sectors, La Guajira should work on sustainable alternatives oriented towards providing opportunities for access to education, water, healthcare, electricity, and health over the short, medium, and long-term.

Sustainability, a shared challenge

How can Cerrejón contribute to the attainment of this goal?

The Cerrejón approach in corporate social responsibility seeks to contribute to reducing inequality with regard to access to basic opportunities, as part of its commitments and obligations to minimise, mitigate, and compensate for social, economic, and environmental impacts resulting from its mining operation.

To that end, Cerrejón employs alternatives oriented towards promoting respect for human rights and getting interested parties and communities to participate in projects that effectively contribute to the middle and long-term sustainability of La Guajira. Solid relationships based on trust, transparency, and teamwork are built.



Sustainability

Cerrejón's focus in the area of corporate social responsibility

Human rights	Foundatio	ns System	
Prevent, mitigate, and International standards compensate for possible operational impacts in the	Use social investment to improve the living standards and sustainability of the communities near the operation.		
 Universal Declaration of Human Rights Fundamental conventions of the ILO 	Cerrejón Foundation for Water in La Guajira	Cerrejón Foundation for Institutional Strengthening of La Guajira	
 e areas of: International Finance Corporation Social and Environmental Performance Standards Voluntary Principles on Security and Human Rights United Nations Global Compact International Council on Mining and Metals (ICMM) Global Business Initiative (GBI) on human rights United Nations framework to protect, respect, and remedy Global Reporting Initiative (GRI) 	 Water supply Integrated basin management Sanitation and hygiene solutions 	 Citizen participation and social oversight of royalty investment Education for public administration Access to justice and alternative means of conflict resolution 	
	Cerrejón Indigenous Guajira Foundation	Cerrejón Foundation for Progress in La Guajira	
	 Support for consolidation of indigenous organisations Conservation of cultural diversity Production projects Cerrejón Indigenous Guajira Farm 	 Development of sustainable companies Special projects Financing and business venture 	
	 International standards Universal Declaration of Human Rights Fundamental conventions of the ILO International Finance Corporation Social and Environmental Performance Standards Voluntary Principles on Security and Human Rights United Nations Global Compact International Council on Mining and Metals (ICMM) Global Business Initiative (GBI) on human rights United Nations framework to protect, respect, and remedy Global Reporting Initiative (GRI) 	International standards • Universal Declaration of Human Rights • Fundamental conventions of the ILO • International Finance Corporation Social and Environmental Performance Standards • Voluntary Principles on Security and Human Rights • United Nations Global Compact • International Council on Mining and Metals (ICMM) • Global Business Initiative (GBI) on human rights • United Nations framework to protect, respect, and remedy • Global Reporting Initiative (GRI) • Support for consolidation of indigenous organisations • Conservation of cultural diversity • Production projects • Crerejón Indigenous Guajira Farm	



Social management



Presentation of the Community Engagement Plan to the authorities of the 32 communities in Sector IV of the railway and the 13 communities of Media Luna.

First phase of the Themed Maps Project: organisation of spatial and alphanumeric data on the social projects and programmes led by Cerrejón.



Artisan business venture

Commercial and business strengthening of artisan projects in Trupio Gacho, La Meseta, Provincial, San Francisco, and El Cerro de Hatonuevo.



people trained in artisan business . venture



million in sales during the term of the 2010-2011 agreement with the Creata

Food security in southern Asawa Yuja

Recovery, improvement, and installation of irrigation systems for production activities (farming and livestock) in the communities of the indigenous reservations of Trupio Gacho and San Francisco.





EMBRACE LIFE

Programme for the prevention of risks to the lives and economic heritage of the communities neighbouring the railway, with a two-directional approach of shared responsibility.

1. Coal route

Area where meetings are held with the communities neighbouring the railway line to identify their perceptions with respect to the railway operation and to spread information on the safety measures adopted by Cerrejón for the mitigation of risks and impacts by the transit of trains.



62 community members.

2. Safety through theatre

Promotion of safe behaviour through entertaining activities aimed at audiences of all ages.



Presentation of the Kanain Pain theatrical work "Take Care" to 3,891 indigenous people from 40 communities.

3. Sources of safety

Promotion of safety and the prevention of vandalism of railway equipment at schools neighbouring the railway.



Connections with 52 communities to involve a total of 1.800 students.

4. New symbols on Cerrejón's locomotive trains

Updating of the image of the locomotives through the sharing of knowledge with Wayuu nature advisors and teachers from schools neighbouring the railway.



The new look for the locomotives was presented to 86 communities

Environmental and social visits

Presentation of the management measures for the conservation of the environment within the framework of the Unified Environmental Management Plan through visits to Cerrejón.



371 indigenous people from 15 communities neighbouring the railway line participated in the social and environmental visits.

Community engagement programme

Presentation of the new vision of social and community engagement with the indigenous communities neighbouring the railway.



1,381 people from 86 communities participated in the community engagement programme.

Artisan business venture programme

Strengthening production, administration, and sales practices for artisan products.



from the communities of Cerrejón 1 and Jisentirra were trained in techniques (ceramics and paper maché) and business knowledge as part of the programme.

Programme for institutional strengthening and community participation

Evaluation of municipal development plans, life plans, and strategy generation for the organisational strengthening and control of public resource management by communities.





indigenous people participated in the programme for institutional strengthening and community participation.

PUERTO BOLÍVAR



Business Venture Programme

Training in artisan programmes in partnership with the CREATA Foundation to improve participants' knowledge and spark innovation in their products.



craftswomen from the communities of Pioula and Pioule received training in techniques and knowledge as part of the business venture programme.

Silvopasture Programme

Improvement and training regarding the sanitary conditions of sheep and goats, the construction of cattle pens, and the creation of vegetable gardens for members of the communities of Media Luna.



Electrification Project

An agreement signed between the Institute for Planning and Promotion of Power Solutions for Non-connected Areas – IPSE, Electricaribe, and Cerrejón, which will supply power to communities in Cabo de La Vela, Media Luna, and other Wayuu communities in Alta Guajira, in the municipality of Uribia.



of internal electrical distribution grid installed in the area of Puerto Bolívar to provide electricity to communities in Alta Guajira.

Drinking water supply

Through the Cerrejón Foundation for Water in La Guajira (FCAG, its acronym in Spanish), a water tanker with a capacity of 10 m³ was leased to distribute drinking water from the desalination plant at Puerto Bolívar to the 13 communities, the Kamüsüchiwo'u Ethno-Educational Institute, and a healthcare centre in Media Luna.



Weekly distribution of drinking water to homes in Media Luna by means of a water tanker with a capacity of **10 m³** of water.

Housing construction

Agreement on designs for housing with 27 families from the communities of Pioula and Pioule.



EDUCATION



Strengthening of school administration of educational institutions

Monitoring of educational institutions in terms of training, management of new technology, improvement plans, and implementation of teaching methods to improve the quality of education.

Fonseca (2005): benefited



Hatonuevo, Albania and Barrancas (2006-2011): 7,300 students and 385 teaching and management staff benefited during the two phases of involvement in monitoring at five educational institutions.



Strengthening of the bilingual intercultural programme. 2011:



benefitting 820 students in Media Luna, enrolled at the main location.

Cerrejón Scholarships for Excellence

Benefits ten high school students in the department with the highest ICFES scores. 30% of them are Wayuu.



awarded to young Guajiros for university studies (10 yearly).

Cerrejón Fulbright Scholarship for La Guajira

Awarded annually to a Guajiran professional to undertake post-graduate studies in a university in the United States.



2008-2011: awarded to Guajiran professionals with Fulbright Colombia (one yearly).

Strengthening of comprehensive assistance during early childhood. Implementation of NAVES recreation centres

Children, families, educational institutions, and social and community organisations focusing on working with children.



attend the recreation centres in Fonseca, Uribia, Albania, and Barrancas (covering up to 2,000 children per municipality).

HEALTHCARE



Programme for the prevention of diseases and promotion of healthcare

To increase the scope of the provision of services under the Compulsory Subsidised Healthcare Plan, strengthening State entities, focused on promotion and prevention programmes, to contribute to the improvement of healthcare conditions.



Mobile healthcare unit.

Improving the quality of the healthcare services provided using a high-tech mobile unit belonging to Cerrejón. The Hospitals assign a multi-disciplinary team of doctors, dentists, and paramedics dedicated to the improvement of quality and accessibility to medical services in the region.



HIV/AIDS prevention

Promotion of a network for the prevention of sexually transmitted diseases based on respect for the cultural traditions of the Wayuu population.



2011: 2,545 youth and 600 parents trained in the strategy.



Healthcare brigades

General and specialised medical care, dentistry, and provision of medications in the communities along the railway line: Albania, Hatonuevo, Maicao, Barrancas, and Uribia.



Visual health

Improvement of visual health among the rural population of the area of influence through eye exams, surgical treatments, and the provision of eyeglasses.



CULTURE, RECREATION,

Sports programmes

AND SPORTS

Promotion of sports programmes directed towards a better quality of life for young people within a framework of values that guarantees a healthy, active La Guajira.



Cultural strengthening programme

Promotion of activities that help to reclaim the cultural essence, roots, traditions, and customs of La Guajira.



Music programme

Strengthening talent through artistic and musical education and promotion of values among children and young people of La Guajira. 280 children from communities within the area of influence of the Cerrejón operations participate in the Orff, Pre-Orchestra, and Orchestra programmes.



Recording of the first CD/DVD of the Cerrejón Symphonic Orchestra, comprising **90 children**.





Symphonic Orchestra performances regionally and nationally, such as at the Hay Festival Cartagena and at the 25th Wayuu Culture Festival.



Programme implementation in the Media Luna communities (Puerto Bolívar) and the Tabaco community (Hatonuevo).

Support the cultural strengthening effort through sponsorship of cultural events at traditional celebrations.



people participating in cultural events sponsored by Cerrejón.

POST-RESETTLEMENT BUSINESS VENTURES

Development of programmes aimed at the communities of Los Remedios, Oreganal, and Tabaco that aim to consolidate and strengthen the development and economic sustainability of the families.

OREGANAL



Strengthening of oil palm cultivation by planting 100 hectares, with 42.5 hectares entering their production phase.



and small-scale cultivation in the El Sequión farm of Oreganal.



Two families developing a fish-farming project with the support of the Business Venture Fund and the SENA.



24 women trained in food preparation techniques and three in the ICBF Community Mothers programme.

えええ 小小小小 Three micro-businesses in the community provide

Inree micro-businesses in the community provide their services to Cerrejón and four micro-credits were approved for businesses in the farming and livestock and the commercial sectors.



15 youths are involved in the labour preparation programme and another 12 in the education programme.



TABACO



Symbolic handing over of La Cruz land tract and registration of 189 hectares: 150 hectares for the production project and 39 for construction of physical infrastructure and services.



Carrying out 14 production projects financed with loans from the Tabaco Network Credit Fund.



43 seniors were attended to in the comprehensive seniors care programme



cases of educational assistance to community children, basic primary and secondary students.





families benefited from the project for implementation of good ranching practices and efficient technologies for improving pastures, through a rotation system, with over 105 hectares of grazing land improved through seeding with mombasa, and the use of solar energy for electric fences and supplying energy on the farms. (Project executed in association with the Colombia International Corporation).



Start of the training and assistance process for creating a cooperative in Los Remedios, with monitoring by the La Guajira Chamber of Commerce.



The Los Remedios Cultural Centre, built and functioning.

CUATRO VÍAS PROJECT

One multi-sports field and two community parks renovated.



People training in innovation in traditional pastries in the "Mi Dulce Remedio" Production Centre.

30 producers ويعمد المعمد المعمد المعمد المعمد المعمد المعمد المعمد المعمد benefited from the good practices for farming and livestock

tour of the Valle del Cauca and Córdoba



Benefited from the production projects held in association with the Rodolfo Solano Foundation of Los Remedios.



Formal presentation of detailed studies and designs of the Cuatro Vías open-air tourist market to the La Guajira provincial government and Maicao city government. This commitment by Cerrejón was acquired within the scope of the agreement to implement this project, which will benefit 73 vendors in the sector, as part of a participative process.

LOS REMEDIOS

Social investment 2004–2011 40,000 35.834 35,000 34,231 30,000 25,000 **Willions of pesos** 23,984 20,000 15,000 10,000 11,836 5,000 0 2004 - 2005 2006 - 2007 2008 - 2009 2010 - 2011















Resettlements

In each of the five resettlements in progress, the operation voluntarily follows the guidelines and performance standards of the International Finance Corporation (IFC), an organisation attached to the World Bank. Cerrejón perceives a resettlement as an opportunity for improving the standards of living for these communities, moving towards sustainable development, closer contact through dialogue, and strengthening of social capital.

The strategic goal of all these resettlement processes is to arrange with the communities a response plan to the impacts resulting from the relocation that also strengthens their ability to take the lead role in their own long-term development.

Noteworthy events of 2011

Cerrejón is currently carrying out resettlement projects with the communities of Patilla, Roche, Chancleta, Las Casitas, and Tamaquito II, located in the jurisdiction of Barrancas (La Guajira) in the area of influence of the Mine. Each community followed its own plan of activities throughout the different resettlement phases, according to the plan of action agreed upon.

Of the five processes under way, only the community of Roche took place in 2011. Between January and July, 16 of the 25 accredited families of this community were relocated.

Quality of life indicators

In order to measure the impact of the resettlement on the quality life of the relocated families, three basic indicators were employed that are used and backed by the National Department of Planning (DNP):

- Achievements of the United Network, which details 45 achievements set out in nine socioeconomic dimensions that a family should achieve to be evaluated on the criteria for getting out of conditions of extreme poverty.
- The Multidimensional Poverty Index (MPI), the global indicator created by the United Nations Development Programme (UNDP), establishes 15 social hardships in five dimensions that must be surpassed by a family in order to get out of "multidimensional poverty".
- Income per family.

These indicators were applied to measure the conditions before and after the transfer, using socioeconomic surveys prepared by the Social Capital Group and the Coodesarrollo Foundation.

Main results

Measurement I. Pre-relocation status *58.7% of the total 45 achievements **7.7/15 privations on average

Measurement II. Post-relocation status *84.3% of the total 45 achievements As a result of the involvement of the families in various production projects as a strategy for seeking the community's sustainable development, the total gross income generated by the 16 resettled families during the reference period was calculated:

2012 (January to May)COP 131,541,400

2011: COP 180,920,200

Cumulative (17 months) \$312,461,600

* Result from the Red Unidos scale ** Result from the IPM scale

Main achievements during the resettlement processes

- Signing of the transfer agreement with the 16 Roche families that allowed their resettlement in the new site.
- Design of the impact response plan to resettlement with the Patilla community and signing of agreements with 45 of the 46 families who are accredited residents.
- Progress in analysing resettlement effects of Chancleta, with agreements reached with 40 families in this community.
- Establishing protocols for buying the "La Liga" tract of rural land for the relocation of Tamaquito II and reaching
 agreement on the design of homes and infrastructure in accordance with the Wayuu cultural tradition.

Table of basic statistics of the resettlement process

	Roche	Patilla	Chancleta	Las Casitas	Tamaquito II	Total
Total population	100	320	280	80	134	914
Family units for relocation	25*	46	56	31	31**	189
Uninhabited properties	21	1,443	905	305	Community	2,674
Public lots/buildings	5	3	2	2	0	12
Planned relocation date	2011-2012	2011-2012 2012			013	-
Ethnic or population group	Rural communities Wayuu indigenous			-		
Community area (ha)	14 32 13 22 10				91	

*Sixteen families out of 25 relocated in 2011. That is, there are nine households to be relocated in 2012. **Compared to the information reported in the 2010 report, an additional family from the Tamaquito II community was identified and accredited.

Achievements 2011 and challenges 2012

Community	Goals 2011	Progress 2011	Observations	Challenges 2012
Roche	1. Finalize relocation agreements and move families to the new site.	$\bullet \bullet \bullet$	Under way	Reach agreements with remaining families
	2. Start up production projects with relocated families	$\bullet \bullet \bullet$	Under way	Consolidate income generation processes for relocated families
Patilla	1. Finish housing and infrastructure works in order to relocate community		Finishing roads and houses	Relocate resident community and begin production projects
	 Hire the consulting firm for identifying and starting up production projects with communities 		Hiring done	Start up services and coordinate with resettlements
	3. Reach relocation agreements with the 46 families		Two agreements pending	Relocate all the families to the new site
Chancleta	1. Respond to community claims and requirements		Claims were evaluated and resolved and results were communicated to interested parties	Relocate the families to the new site
	2. Complete impact assessment and prepare response plan		Finished	Reach relocation agreements with the families
	3. Finish housing and infrastructure works in order to relocate community		Works contracted.	Finish works to relocate families
Las Casitas	1. Obtain building permit for housing and infrastructure		Land Use Plan (LUP) for Barrancas not approved	Assist in approval process to change LUP to get building permit for housing and infrastructure
	2. Respond to community claims and requirements	$\bullet \bullet \bullet$	Under way	Resolve all complaints filed in relation with the resettlement
Tamaquito II	1. Build housing and infrastructure works and advance on works		Works contracted	Advance construction by 80%
-	2. Assess impacts with community and prepare impact management plan (compensation)		Workshops held with the community and agreement topics identified	Reach collective relocation agreement to new site

Permanent members of all boards of directors

Cerrejón Foundations System



Jorge Álvarez, Cerrejón Manager of Legal Department Jaime Brito, Secretary of Board of Directors

Board of Directors

Executive director: Paula Peña Amaya

Emilia Ruiz. Former vice president of the Bogotá Chamber of Commerce, former director of the Corona Foundation, former director of the Colombian Agency for International Cooperation, consultant for the Inter-American Development Bank (IDB) and the United Nations Development Programme (UNDP).

Carmen Arévalo. Former Deputy Minister for the Environment and former Representative for the World Bank Water and Sanitation Programme in various South American countries.

Enrique Danies. Former minister for Communications, former governor of La Guajira, and former president of Carbocol.

Executive director: Alfredo Fuentes

External members of board of directors **Lola de la Cruz Mattos.** Former district attorney for the Preventive Oversight of Public Service and former governor of La Guajira.

Claudia Jiménez. Executive director of the Large-Scale Mining Sector and former director of the Presidential Programme for Renewal in the Public Administration.

Alejandro Gaviria. Dean of the Faculty of Economics at the University of the Andes and former deputy director of the National Department of Planning.

Executive director: Otto Vergara.

External members of board of directors Francisco Daza. Former governor of the department of La Guajira.

Ricardo Márquez. Former manager of Cerrejón Central Zone in Carbones de

Executive director: Eduardo Robayo

External members of board of directors Rudolf Hommes. Former minister of Finance.

Luis Ernesto Mejía. Former minister of Mines and Energy.

Cerrejón Foundation for Water in La Guajira



Noteworthy goals and achievements in 2011

Water supply and treatment solutions

Goal. Together with the community, build 16 water supply solutions.

Achievement. 33 water supply solutions were built in 19 communities.

Goal. Keep 56 windmills in operation along the length of the railway tracks.

Achievement. 8,700 people have permanent access to water thanks to the operation of 58 windmills in the area of influence. In addition, 200 people were trained in preventive maintenance.

Integrated basin management

Goal. Design and implement a model to improve the water supply through integrated basin management activities.

Achievement. 44 families (281 people) occupying 435.6 hectares worked on the recovery, protection, and land use planning of the Paladines microbasin, a tributary of the Ranchería River, in 2011.

Sanitation and hygiene

Goal. Training in best practices in water, sanitation, and hygiene for 1,500 people. **Achievement.** In 2011, 1,962 people were trained in these topics.

Goal. Design of school sanitation infrastructure taking into account the Wayuu cosmovision. **Achievement.** 800 members of the educational community of the Kamüsüchiwo'u Ethno-Educational Institute worked on designing the school sanitation infrastructure, in which they included the Wayuu culture and cosmovision.

Partners

- World Bank
- Ministry of Housing and Urban Development
- Government of La Guajira
- Mayor's Office of Hatonuevo
- World Food Programme (United Nations)
- USAID (United States Agency for International Development)
- Embassy of Israel
- Association of Corporate Foundations
- Colombian Agency for International Cooperation
- National Agency for Overcoming Poverty (ANSPE)
- University of La Guajira
- Cinara Institute (University of Valle)
- University of Kassel
- Aguayuda Foundation
- GTZ (Embassy of Germany)

Challenges 2012

- Apply suitable technology for efficient water capture and storage in rural communities of La Guajira.
- Implement plans for organisational and financial sustainability for windmill and reservoir projects in the Alta Guajira.
- Design a water compensation strategy through integrated basin management.
- Expand the use of the SODIS method (solar

water disinfection) in educational centres and rural communities of La Guajira.

- Assess training processes in water, sanitation, and hygiene management.
- Contribute to the design, application, and operation of the water supply and treatment system for production projects in the resettlements of Roche, Patilla, and Chancleta.
- Consolidate integrated management activities of one hundred families in the Paladines Creek basin.



Investment in 2011

Figures in millions of pesos	
Line 1: Water supply and treatment solutions	\$1,282
Line 2: Integrated basin management	\$171
Line 3: Sanitation and hygiene	\$171
Total investment 2011	COP 1,624

The Foundation also administered resources worth a total of COP 2,280 million, with the United Nations World Food Programme, Yara, the La Guajira provincial government, and Corpoguajira as its main partners.



and the second

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Cerrejón Foundation for Institutional Strengthening of La Guajira



Noteworthy goals and achievements 2011

Goal. Involve 280 children from 24 educational institutions in four towns in the civilian participation and oversight of royalty investment project. **Achievement.** 305 students and 27 educational institutions in Albania, Barrancas, Hatonuevo, and Uribia took part during 2010 and 2011. They developed three training modules and two primers on issues dealing with topics in the mechanisms of citizen participation and social oversight module.

Goal. Implement transparency agreements and visible audits of royalties works worth COP 49 billion in Albania, Barrancas, Hatonuevo, and Uribia. **Achievement.** Follow-up monitoring was done on six royalty investment projects through the methodology of Visible Audits, for COP 49.3 billion in three municipalities.

Goal. Announce programmes of technical assistance and training to 11 social oversight groups of indigenous and non-indigenous communities in four municipalities to provide effective surveillance of social investment programmes financed with royalties.

Achievement. Six groups of social oversight and monitoring in five indigenous communities of Albania and Uribia trained in methodologies of follow-up monitoring and social oversight of projects and programmes financed with royalties and funds from the General Participation System.

Goal. Improve the planning and investment skills of the municipality of Fonseca with the support of the Ford Foundation and the Social Action agency.

Achievement. Conducted day seminars in training and technical assistance for civil servants of Fonseca on the topics of public contracting, building the annual operational plan for investments for 2011 and 2012, and plans of action to take effect in 2011. The sessions also covered the project bank, preparation of the 2012 budget, updating of the middle-term tax framework, implementation of the Standard Internal Control Model (MECI), procedures manual, budget, and consolidation of the town government management report for 2008–2011.

Goal. Monitor the construction of three Houses of Justice and training of 70 fairness mediators to broaden access to indigenous and non-indigenous justice in Riohacha, Barrancas, and Uribia.

Achievement. The infrastructure and equipping of the Houses of Justice in Uribia and Barrancas came to a close and the third House in Riohacha was completed, with a total investment of approximately COP 2,2 billion by the Ministry of Justice, USAID, and the towns themselves in 2010 and 2011. The Foundation established the first certification course in fairness mediation in La Guajira, where 65 indigenous and non-indigenous leaders were trained, and 36 fairness mediators from Riohacha, Barrancas, and Uribia were appointed by the judicial branch. The most significant thing about the exercise of social oversight the Foundation supported is that it allowed the community to know what the administration is doing with their resources and how they should build the projects they're carrying out, since whether the works end up serving our communities and benefiting everyone depends on that; it also helped us to create awareness of the importance of having a sense of possession about those works and the importance of their proper use.

The experience of working with the Foundation in this exercise of social oversight was enriching for our lives because it provided lessons for the members of the oversight committee and a strong alliance with the Foundation for Institutional Strengthening that believed in us."

Yomaris Ortiz. Observer and member of the Visible Auditors oversight committee of the schoolroom construction project in Majaguito and Guamachito, on the indigenous reservation of Lomamato (Hatonuevo).

Challenges 2012

- Improve the planning, project management, and accounting skills of the town administrations of Barrancas, Hatonuevo, Maicao, Uribia, and Fonseca in order to begin management of their respective development plans for 2012–2015.
- Carry out technical assistance and training projects for eight indigenous communities on issues of the State, citizen participation, social oversight, and project planning.
- Connect with Tecnocerrejón 380 students of the "Technician in mining equipment operation" and "Technician in mining equipment maintenance" programmes.
- Organize the Educational Quality Observer group in La Guajira 2012–2015.
- Inaugurate the Houses of Justice in Barrancas, Riohacha, and Uribia and monitor their management process in a context of ethnic diversity.
- Associate the fairness mediators to the Houses of Justice and conduct appropriate monitoring of the attention to cases by these mediators in the three municipalities.

Investment in 2011

The Foundation executed social investment projects in the amount of COP 1,883 million.

Partners

Line 1. Strengthening regional and civilian agencies:

- Acción Social
- Mayors' offices of Albania, Barrancas, Fonseca, Hatonuevo, Riohacha, and Uribia
- Visible Auditors and oversight groups from the municipalities of Albania, Barrancas, Hatonuevo, and Uribia
- Family Compensation Fund of La Guajira (Comfaguajira)
- Treasury Inspector's Office of the Republic, La Guajira office
- National Planning Department
- Cerrejón
- Ford Foundation
- Promigas Foundation
- Leaders, traditional authorities, and the communities of Cerrejón 1 and Río de Janeiro in the Cuatro de Noviembre reservation in Albania and Jisentirra, and Meera and Nortechon in the reservation of the Alta and Media Guajira in Uribia
- Presidential Programme for Modernisation, Efficiency, Transparency, and the Fight Against Corruption.
- Barrancas Board of Education

Line 2. Education

- Educational Alliance Association
- Association of Councillors of La Guajira (Asocogua)
- Public Administration Higher School (Esap)
- Paulo VI Educational Institute in Barrancas
- Educational Institute of Nuestra Señora del Carmen de Hatonuevo
- Vocational Institute of Soledad Atlántico (ITSA)

Line 3. Access to justice

- USAID (United States Agency for International Development) in Colombia
- Mayors' offices of Riohacha, Barrancas, and Uribia
- Cartagena Chamber of Commerce
- La Guajira Chamber of Commerce
- Houses of justice in Riohacha, Barrancas, and Uribia
- Directorate of Alternative Methods to Conflict Resolution of the Ministry of Justice
 Convergence of the Custiling
- Government of La Guajira
- Management Sciences for Development Inc. (MSD), justice operator of USAID

Figures in millions of pesos Foundation Third-party resources invested by the FCFIG Total social investment in projects managed by the Foundation Strategic lines Strengthening of local public \$530 \$317 \$847 skills and of civil society Education \$821 \$821 \$41 Access to justice \$174 \$215 \$358 \$1,883 Total \$1,525

In addition, the FCFIG managed leveraging of third-party investment for COP 1,276 million.

Cerrejón Indigenous Guajira Foundation



Noteworthy goals and achievements 2011

Goal. Expand coverage of the Asawa (food security) programme by 35% for the indigenous population in the area of influence of the railway. **Achievement.** 810 new families benefited, raising the grand total for this year to 2,312 families. Agricultural production reached 165 tonnes of food on eight plots with irrigation systems, with a total of 31,000 m² installed during the year. There was also 3.5 tonnes of bee honey produced in 35 user communities of this programme. The producers of bee honey were successfully associated in the Foundation for Progress in La Guajira, with participation by 70% of the indigenous participants in the programme.

Goal. Train 2,500 indigenous people in business administration and organisational strengthening through the Rural Youth Education programme in association with the La Guajira regional office of the SENA.

Achievement. 2,500 young people were trained in those subjects and three new production units were formed in the municipal administrative centres of Uribia and Riohacha.

Goal. Conduct nutritional monitoring of at least 500 children associated with the production programmes (Asawa) and at-risk communities, in conjunction with the ICBF.

Achievement. 558 minors were checked and received a 100% grade in normal nutrition.

Partners

- Ministry of Agriculture and Rural Development
- Ministry for the Environment and Sustainable Development - Von Humboldt Institute
- Colombian Institute of Family Welfare (ICBF)
- National Training Service (SENA), La Guajira branch
- Colombian Corporation for Agricultural and Livestock Research (Corpoica)
- Colombian Institute for Rural Development (Incoder)
- International Centre for Tropical Agriculture (Ciat)
- Cornell University
- University of Córdoba
- Institute of Hydrology, Meteorology, and Environmental Studies of Colombia (Ideam)
- Indigenous organisations and communities
- Municipal mayors' offices



Challenges 2012

- Increase the coverage of food security programmes (80% for the indigenous population located in the area of influence of the railway line, benefiting 500 families of the Wayuu ethnic group).
- Reduce malnutrition by 50% in the communities involved in the Asawa food security programmes.
- Establish at least three strategic alliances with other non-profit organisations to expand and strengthen the food security programmes.
- Expand coverage of the Safe Territory Programme by 35% towards The Media Luna sector (northern La Guajira)
- Register zero accidents as a result of applying the Safe Territory programme in the communities.
- Increase coverage and attention by 30% to the indigenous communities of the Sierra Nevada de Santa Marta through the food security programme (Asawa).

Investment in 2011

Social investment for 2011 corresponded to a total of COP 2,432 million. This investment includes the following noteworthy items:

Figures in millions of pesos	
Food security programmes:	\$850
Cerrejón Indigenous Guajira Farm:	\$481
Artisanal promotion:	\$177
Wiwa/Kogi programme:	\$274
Humanitarian aid harsh winter weather:	\$116
Media Luna silvopasture:	\$201

In addition, the Foundation managed to raise, thanks to investments by third parties, COP 1,903 million for its programmes.

Cerrejón Foundation for Progress in La Guajira



Noteworthy goals and achievements in 2011

Goal. Offer local tourists a 140-room, four-star hotel that is environmentally sustainable (LEED certified).

Achievement. Commencement of construction of the Hotel Waya Guajira, involving an investment of COP 25 billion.

Goal. Endeavour to have the DesQbre Guajira Interactive Museum Centre be a scientific centre for research, culture, tourism, and enjoyment that supports conservation of cultural and ancestral traditions of La Guajira.

Achievement. Creation of the Museum Interactive Centre Corporation for culture, science, technology, and innovation of La Guajira, which will build and operate the museum. Design, pre-production, and production of the first eight modules for La Guajira Interactive Museum.

Goal. Develop agricultural projects to diversify regional product offerings.

Achievement. Pilot programme start-up for planting ten hectares of potatoes in La Guajira.

Goal. Design a recycling plant to accept tyres (non-standard Cerrejón equipment) and produce crumb rubber for paving roads in Colombia and abroad. In addition, it will process recyclable material such as plastic bottles and bags from neighbouring communities. To that end, recycling and transport cooperatives will be organised in the region.

Achievement. Establishment of the company Reciclajes de La Guajira S.A.S for the construction and operation of the recycling plant for tyres from heavy haulage equipment at Cerrejón.

Partners

HOTEL WAYA GUAJIRA

• Consortium comprising Egsa, Contempo, Abacus, and Oxo

POTATO FARMING PILOT PROJECT

Centre for Potato Research (CPR) of Israel

LA GUAJIRA INTERACTIVE MUSEUM

- Maloka
- Tourism Promotion Fund
- Corpoguajira

TYRE RECYCLING PLANT PROJECT

Indutrade - Nimby



Challenges 2012

- Deliver the Hotel Waya Guajira in two stages: the first 80 rooms in September of 2012 and the other 60 rooms and the services building in November of the same year.
- Finish the Museum contents and make progress in obtaining financial resources for building the DesQbre Guajira Interactive Museum Centre.
- Begin the construction of La Guajira Interactive Museum.
- Produce the first potato crops in La Guajira.
- Develop methods to control potato harvest times and types of soil apt for growing it. Provide training to farmers.
- Begin construction and assembly of the plant for recycling tyres and plastic.



Investment in 2011

The Cerrejón Foundation for Progress in La Guajira carried out social investment projects in 2011 to a total value of COP 5,405 million. In addition, the Foundation has counted on the support of partners for projects, noted below.

Figures in millions of pesos	S	
Project	Foundation resources	Third party partner investment
Hotel project	\$ 3,279	Fideicomiso Waya Guajira Centro COP 8,379 million for a total investment of COP 25 million from 2012 to 2013
Museum project	\$121	Tourism Promotion Fund COP 300 million
Agricultural and fishing projects	\$311	-
Other delegated projects (administered by the Foundation)	1,694	-
Recycling plant project	-	Indutrade – Nimby Consortium: USD 7.5 billion
Total investment 2011	\$ 5,405	

Note. Figures in millions of pesos (excepting the Recycling Plant investment)





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Human resources

TOTAL JOBS (direct and indirect)

2009: 9,100 2010: 9,537 **2011:** 9,870

Direct employment

2009: 5,119 **2010:** 5,204 **2011:** 5,373

Indirect employment

2009: 3,981 **2010:** 4,333 **2011:** 4,497

PROFESSIONAL STAFF (MPT)

2009: 857 2010: 872 2011: 895

TECHNICAL STAFF (PTC)

2009: 4,262 2010: 4,332 2011: 4,478

EMPLOYEES by age

20 or under - 0.2% **21 - 30 -** 18.9% **31 - 40 -** 23.1% **41 - 50 -** 33.4% **51 - 60 -** 23.9% Over 60 - 0.6%

EMPLOYEES BY SENIORITY in work years

0-2: 598 (11.1%) 3-5: 1,118 (20.8%) **6-10:** 629 (11.7%) **11-20:** 871 (16.2%) Over 20: 2,157 (40.1%)

EMPLOYEES BY REGION La Guajira

2009: 3,108 **2010:** 3,201 **2011:** 3,328 61.94% of total employees

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1. Erwin Díaz – Sotrans (contractor)

- 2. Obtulio Parada Masa (contractor) Jairo Vence – Emergency response worker
- 4. Jairo Durán Maintenance
- 5. José Sierra Cerrejón Foundation for Water in La Guajira
- 6. Dina Daza Cerrejón Foundation for Institutional Strengthening of La Guajira
- 7. Juvenal Paz Social engagement (Wayuu analyst)
- 8. Jorge Orozco Aramark (contractor)
- 9. Andrés Ucrós Production (truck operator) 10. Rossana Parra – Productivity and Technology
- 11. Leonardo Díaz Production (truck operator)
- 12. Luis Fragoso Water plant
- 13. Welford Gordillo Operational Services 14. Jennifer Monroy – Social Standards and International Relations
- 15. Luz María Gómez Coal Handling

19. Gabriel Sánchez – Finance

21. Adriana Salcedo – Safety

16. Janneth Daza – Social engagement 17. Freddy Díaz – Human Resources

20. Andrea Fernández – Expansion Project

- 18. Adriana Orozco Materials
 - 25. Farides Abdala Maintenance 26. Rodrigo Pérez – Coal Handling
 - 27. Emelina Ipuana Cerrejón Indigenous Guajira Foundati

23. Alberto Tang – Communications

24. Alan Suárez – Maintenance

28. Rafael Macías – Environmental Management

22. Ángela Plaza – Private security service (Sepecol)





Rest of the Coast

2009: 1,467 2010: 1,460 **2011:** 1,499 27.90% of total employees

Rest of the country

2009: 540 2010: 539 **2011:** 545 10.14% of total employees

Abroad **2009:** 4 **2010:** 4 **2011:** 1 0.02% of total employees

EMPLOYEES BY GENDER Men

Professional staff				
2009:	693			
2010:	707			
2011:	717			

Technical staff Total **2009:** 4,828 **2009:** 4,135 **2010:** 4,898 **2010:** 4,191 **2011:** 4,332 2011: 5,049

New hiring

193 in 2011 **PTC:** 130 **MPT:** 63

EMPLOYEES BY TYPE OF POSITION Percentage of total employees

Men		Women	
Managers and above:	88%	Managers and above:	12%
Heads of division		Heads of division	
/superintendents:	83%	/superintendents:	17%
Other professionals:	80%	Other professionals:	20%
Technicians:	97%	Technicians:	3%

RATE OF ABSENTEEISM

11.34% (including vacations) MPT y PTC: 11.58% Men: 8.23% Women: Reincorporation of 100% of employees on paternity or maternity leave.

TOTAL EMPLOYEE TURNOVER

Quit	Others
2009: 14	2009: 126
2010: 11	2010: 101
2011: 17	2011: 93
15% of turnover total	85% of turnover total

TURNOVER BY GENDER

Quit		Others	
La Guajira:	0	La Guajira:	35
Rest of the Coast:	5	Rest of the Coast:	40
Rest of the country:	11	Rest of the country:	18
Abroad:	1	Abroad:	0

TURNOVER BY AGE

Quit		Others	
20 or under:	0	20 or under:	0
21 – 30:	4	21 – 30:	2
31 – 40:	7	31 – 40:	9
41 – 50:	3	41 - 50:	20
51 - 60:	3	51 - 60:	34
Over 60:	0	Over 60:	28

TURNOVER BY GENDER

Men	Quit	2009 12	2010 6	2011 14
	Others	2009 106	2010 93	2011 83
	Total	2009 118	2010 99	2011 97
Women	Quit	2009 2	2010 5	2011 3
	Others	2009 20	2010 8	2011 10
	Total	2009 22	2010 13	2011 13

Professional staff	Technical staff	Total
2009: 164	2009: 127	2009: 291
2010: 165	2010: 141	2010: 306
2011: 178	2011: 146	2011: 324


Focus, goals, and results



Human Resources' focus is based on processes to create conditions to motivate and develop workers as well as to create the necessary skills and knowledge for a safe, world-class operation.

We create a good work environment by promoting the principles of the Cerrejón Way: assessment and monitoring, recognition of individual and team achievements, and construction of a solid, close relationship with workers and their families.

Goals 2011

Continue the internalisation of our identity and culture organisational model, the CerrejónWay, to raise awareness in our technical employees (PTC), their families, and contractors.

Drive the safety value through the Cerrejón Way throughout all supervisory levels and those responsible for contract administration.

Strengthen the evaluation and follow-up system for employees and their development plans.

Implement a flexible benefits strategy.

Achievements 2011

171 corporately recognised collaborators for their outstanding management.

Programme aimed at recovering workers with health problems to bring them back to work in the operation.

Consolidation of the Division for Employee Relations and Development.

Implementation of the second phase of Safety Leadership.

Incorporation of the Academic Quality Assurance Programme in the PTC Development Office.

Hiring of 878 technical staff (PTC) and apprentices to cover business and expansion needs.

Challenges 2012

Carry out a satisfactory bargaining process with the trade union.

Begin evaluation of SEG (similar exposure group) for psychosocial risks.

Design Cerrejón's Talent Management strategy to ensure all worker management is aligned with the Cerrejón Leadership Model (MLC) based on skills in order to respond to the business dynamics and strategic needs and contribute to business achievements.

Review and update the management system for technical staff (PTC) to ensure it is aligned with the MLC and Cerrejón's future needs in order to contribute to business achievements.

Attracting and selecting

Attracting and selecting talent and promotions

When covering vacancies at Cerrejón, the first option is to hire through internal postings. In 2011, six posts were filled in this way.

Year	Number of Number of employees selected		%
2008	30	17	57
2009	31	14	45
2010	20	10	50
2011	8	6	75

The self-applications policy promotes covering technical and professional vacancies (PTC and MPT) at levels 1 and 2 and motivates holistic individual development.

Additionally, Cerrejón gives priority in selection and recruitment, based on personal, educational, and professional merits, to persons originating from areas of influence and under equal conditions, without distinction to race, creed, gender, origin, sexual orientation, or age.

Corporate awards

The following awards were granted by Cerrejón in 2011 by category:

Category	РТС	MPT	Contractor	Total
Operational quality and effectiveness	42	27	18	87
Cost effectiveness	7	15	1	23
Safety, health, environment, and communities	2	13	3	18
World-class technicians/operators	38	-	-	38
Leadership	5	-	-	5
Total	94	55	22	171

"The Giants" is the highest distinction awarded to individuals, groups, and operational and administrative areas for extraordinary or outstanding contributions by workers or contractor firms that helped Cerrejón meet its goals for the previous year.

Compensation

The average salary increases of workers are above the CPI and the current legal minimum monthly salary (CLMMS).

Performance year	2007	2008	2009	2010
Year of increase	2008	2009	2010	2011
1. Professional staff (MPT)	9.10%	11.10%	5.80%	6.95%
2. Technical staff (PTC)	7.20%	11%	7%	6.5%
3. CLMMS variation	6.40%	7.70%	3.60%	4%
4. CPI	5.70%	7.70%	2%	3.17%

Male/Female income comparison by position

Year	Vice presidents	Managers	Division chiefs	Other professionals	Technicians
2008	99.97%*	n.d	97.20%*	25.11%**	21.04%**
2009	0,61%**	37.37%**	2.46%**	21.68%**	26.58%**
2010	95.37%*	37.49%**	0.95%**	24.80%**	30.96%**
2011	2.14%***	20.55%**	0.47%***	22.45%**	28.54%**

Income differences are related to employees' seniority and experience.

*Salary percentage of men versus women (100%).

** Percentage in which the men's salary is higher than the women's.

 *** Percentage in which the women's salary is higher than the men's.

40% of Cerrejón's senior and middle management is from La Guajira and the Costa Atlántica.

Cerrejón presents its achievements and priority business objectives through the Annual Communications Meeting in Bogotá, La Mina and Puerto Bolívar.

20/20 Programme

This targeted training programme answers the generational rotation and turnover needs for the development of skills and knowledge. Contracting is for 18 months, with the possibility of participating in internal hiring processes.

In 2011, there were 20 professionals under 30; 19 participants were hired after finishing the training period and 14 professionals entered the company to start the new cycle (2011–2013).

Women in the operation

The actions that Cerrejón carried out to incorporate women into the operation are as follows:

- Temporary transfer to positions in which they can work safely during pregnancy.
- Adaptations on site (bathrooms and changing rooms) so women can work at the operation.
- Promotion of the involvement of women in conditions of health and safety according to the value of respect, the equal opportunity policy, and the CLM.

Other actions carried out during 2011 were as follows:

- Four workshops aimed at women in the operational area as part of the social and professional adaptation process.
- Creation of a Women's Committee, which will start to meet regularly in 2012, to identify and propose options to help to improve incorporation and adaptation conditions.
- Participation of 70 female workers in theoretical/practical workshops, with the aim of continuing to consolidate their skills, facilitate their adaptation to the social and professional environment, and promote their personal development.

As of December 2011, there were 324 women on the permanent workforce, of which 146 were working in the departments of Maintenance, Production, Coal Handling, and Operational Services, in roles such as operators/technicians, mining equipment operators (trucks and shovels), supervisors, and superintendents.

Performance evaluation

All employees on permanent contract who, as of December 2011, had worked more than 75% of that year, underwent formal performance evaluations for said period and were monitored by means of a software tool used in the Mine, Puerto Bolívar, and the Bogotá offices.

Extra benefits for employees

Workers receive various extra benefits, such as a comprehensive healthcare plan, comprehensive insurance plan, institutional savings plan, educational assistance plan, housing credit, and disability insurance of 48 basic salaries to receive the work disability allowance (more than 50%). Temporary staff, meanwhile, do not receive any variable bonuses or housing loans.

Professional and technical staff receive disability aid and 16 days' paid leave for mothers in their eighth month of pregnancy who travel to neighbouring villages on a daily basis.



Esteban Mercado, shiploader operator during his training in the Control Centre, two years after having started with the company.



Esteban Mercado, after 26 years at Cerrejón, works as coordinator of the Control Centre in Puerto Bolívar, in charge of supervising the ship-loading operations with the quality and quantity specifications required by clients.

Relations

With the employee

The main communication tool for feedback is the annual strategy and results meeting held in Bogotá, the Mine, and Puerto Bolívar. The Employee Relations and Development Division is the direct communications channel to resolve problems and meet needs.

With the families

Spouses and children visit Cerrejón so they can see the working environment of the operators and technicians, as well as educational processes that take place in the towns.

Visits to cafeterias

In 2011, a total of 1,531 motivational talks were held with employees in the on-site cafeterias to reinforce corporate values and policies and also to serve as a channel for the solution of concerns and complaints.

With candidates and new employees

384 people were assisted in 2011 to aid their assimilation into the social and professional environment, with monitoring in the installations, starting from the selection process.

P4

Training

Training

In the CLM reinforcement process, the following goals were achieved:

- Technical skills were established for 100% of the areas.
- In accordance with the Cerrejón Leadership Programme, 42 workers who had recently started in positions of mid- and senior-level management developed managerial skills based on CLM skills.
- In essential leadership, 100% of the goals were achieved, for a total of 106 sessions (introduction and modules 1 to 6), in which 1,044 Maintenance, Operational Services, and Safety employees participated.

For more information on the CLM, please see: http://www.cerrejon.com/site/english/sustainable-d evelopment-•-social-responsibility/employees/man agement-of-human-resources-development.aspx

Talent Pool

Through this programme, Cerrejón identifies key positions that require special attention due to their managerial level, decision-making level, and degree of technical specialisation required. The main goal is to create retention programmes that promote growth and the maintenance of a talent pool that is appropriate and prepared to address changes in the organisation.

Through the performance evaluations, people belonging to Cerrejón's talent pool who may eventually be able to occupy key positions are identified; the activities carried out in 2011 were as follows:

- 21 coaching processes.
- English (TOEIC tests and training plans according to progress).
- Mentor Programme (20 mentors monitor the participants in the 20/20 programme).
- Specific national and international technical training events.
- Leadership training (Cerrejón Leader, Incolda, and CCL [Creative Centre Leadership]).

In 2011, training was given in five categories in response to the approval of P40. The challenge over the next three years is to train around 1,200 new employees (more than 100 professional staff and 1,100 technical staff).

The training hours by level were:

Role	Hours training / employee
Operator, technician, machinist	176,295
Apprentice, students, and 20/20 programmes	79,969
Analysts, geologists, attorneys	17,167
Supervisors, coordinators, heads, and specialists	14,595
Assistants, office workers, auxiliary staff, and secretaries	7,733
Pilots, captains, and seamen	800
Doctors and nurses	99
Vice presidents and managers	60
Consultants	10
Total training hours	296,728

The training hours by gender were:

Gender	Man-hours quarter	
Women	24,767	
Men	271,961	
Total	296,728	
* **		

The difference in training hours between men and women is due to the composition of the workforce.

Further training

• Safety Leadership Programme (second phase).

Promotes the review of levels of awareness and the value scale among supervisors so that they are capable of taking on responsibilities, actively participating in the process, and generating continuous and sustained improvement within each production unit through the implementation of mentoring and coaching with supervisors, acting staff, and contractors. In 2011, there was a total of 110 sessions in the programme, with 411 participants.

• SENA agreement.

Reinforces Cerrejón's levels of productivity, competitiveness, and technological development.

• SENA-Cerrejón training.

There is a budget of COP 900 million available to respond to the needs of employee technological updating.

Induction programme.

Support for professional and technical staff for five days, two additional days for professional staff, and four days in exclusive programmes for college interns. In 2011, 20 induction and re-induction programmes were held involving 643 participants, with satisfaction exceeding 90%. In addition, skills were reinforced to optimise productivity using the current workforce and organisational structure. Given that the first generation of staff are already reaching retirement age, a new group of young professionals was contracted and training programmes were begun.

Development plans

Individual Development Plan for qualified technical staff (IDP)

Guides, supports, and stimulates the employee's effort to grow in terms of knowledge, skills, and own experience related to their work, increasing and improving their contribution to Cerrejón. The system established seven levels of contribution to employee development depending on the process they will carry out (levels 10 to 16). These comprise the execution of work plans, indicator achievement, and development activities, as well as standards compliance and follow-up plans.

Progress takes place as a result of IDP achievement and the indicators for safety, operational results, level of absenteeism, and discipline. In 2011, there were 443 reclassifications of permanent and temporary professional staff, and the Academic Quality Assurance Programme was incorporated into the professional staff Development Office to promote home study on the part of technical and operator interns.

Qualified technical staff (PTC) development system

Allows staff to grow and contribute to the goals set within the framework of the vision and fundamental values of Cerrejón. Each person designs a plan with the skills they should develop to achieve maximum potential within their job role.

Occupational medicine

Out of concern for its employees' health and well-being, Cerrejón has developed monitoring and support programmes and systems, both physical and psychosocial, in accordance with identified needs and the operation's characteristics.

Psychosocial risks

Work continued on implementing the Epidemiological Surveillance of Psychosocial Factors System in compliance with Resolution 2646 of 2008. The aim was to continue promoting the psychosocial welfare of workers, identifying and strengthening protective elements and preventing effects harmful to health of associated risk factors.

This system was socialised throughout the operation and various activities were carried out, including giving over 600 workers the surveys on intra- and extra-work psychosocial risk factors proposed by the former Ministry of Social Protection in addition to a complementary survey compiled in collaboration with Copaso and outside advisors of Sintracarbón. A proposal for the inclusion of the psychosocial risk category in Similar Exposure Groups (SEGs) came under consideration in 2011.

Preventive medicine programme

In 2011, the following support programmes in education, training, prevention, risk control, and treatment of serious and occupational diseases were carried out.

- Strengthening the Epidemiological Surveillance Programmes for the Prevention of Musculoskeletal Disorders.
- Programmes for the prevention of injuries related to tiredness and fatigue.
- Comprehensive Chemical Hazards Handling System.
- Implementation of Protocols for Fatal Risk and Hazardous Substances.
- Programme for Workplace Reintegration with comprehensive support for employees with chronic absenteeism.
- Healthy lifestyles at work and in the home.
- HIV/AIDS prevention.
- Awareness and prevention of epidemic outbreaks within the area of influence (cholera, influenza, dengue fever, yellow fever), with the participation of the Regional Emergency Committee.

- Activities related to port health services in Puerto Bolívar in order to prevent the introduction of infectious-contagious diseases.
- Strengthening the local and regional medical services network.
- Prevention and control of the AH1N1 influenza strain.
- Medical consultancy for international travellers.
- Vaccination against yellow fever and tetanus.

Psychosocial support for fatigue control

Work continued to reinforce the health habits of workers and their nuclear family to support sound rest management, which contributes to decreasing the effect of fatigue on the operation.

Social and family visits were carried out, as well as personal consulting, and workshops on raising awareness of the importance of rest for safe optimal performance of operator/technicians at Cerrejón.

Interventions 2011	Number	Participants
Workshops	107	2,800
Consulting	594	594



Occupational diseases

In 2011, the occupational disease (OD) rate stood at 0.085, with a total of six cases registered against slightly over fourteen million work hours. This figure is slightly higher to than of 0.066 recorded in 2010.

Year	Number of cases	Hours worked	Rate
2007	9	12,628,000	0.143
2008	15	13,565,000	0.221
2009	8	13,982,000	0.114
2010	4	13,738,851	0.066
2011	6	14,126,778	0.085

A primary cause of professional morbidity at Cerrejón is illnesses of the musculoskeletal system. Therefore, the Epidemiological Surveillance System has been implemented to prevent these occurrences with such activities as technical and administrative changes in work stations and educational activities, including "active breaks". In 2011, over 3,246 workers benefited from nearly 130 theoretical and practical sessions on these topics.

Work reincorporation programmes for workers with physical limitations

A total of 277 employees participated in the work reincorporation programme, in which workers followed a physical fitness programme monitored by an interdisciplinary in-house team from Cerrejón, with the support of ARP specialists. This process included comprehensive medical exams, insurance for disability payments, technical and occupational assessment for various positions, and psycho-social assistance for workers and their families, and for their supervisors.

Each employee was assigned a position appropriate to their state of health while, at the same time, necessary adaptations were made for a safe, efficient performance.



Integrated chemical hazards system

Directly or through contractors, Cerrejón evaluates all chemical products used at the company based on risk phases to identify products according to acute or chronic effects.

- Workers that carry out similar tasks with the same risk level, who are exposed to 20% to 50% of the OELs.
- Several environmental and occupational assessments were carried out to determine exposure to organic vapours and welding fumes in different areas in order to note the chemical risk in the SEGs.
- A support software was acquired to support hygiene risk management (Compliance suite), with emphasis on chemical risk management. This software will allow online administration of chemical hazards and various technical control activities, including replacing hazardous chemical substances for less hazardous ones, successfully begun at the end of 2011. This software is being tested in 2012.

Summary of the element six indicators of the operational integrity system

The following indicators summarise the work of the Occupational Health Programme for the management of occupational medicine and industrial hygiene.

Process indicators	Target	Cumulative
Rate of use of personal protective equipment for hearing and respiratory protection for similar exposure groups (SEGs*) C and D (maximum risk)	Average noise and dust: 98%	Average: 95.2%
Compliance with regular exams	122% scheduled -100 % total for year	107%
Number and percentage of employees exposed to risk agents above the OEL** after taking into account personal protection	0	0
Number of chemicals used without material safety data sheet (MSDS)	0	0

Result indicators	Target	Cumulative
Incidence of occupational diseases. New cases/total exposed for every one thousand employees	Less than four cases for every thousand employees.	0.085
Rate of exposure to high hygiene risk (SEG D). High-risk employees (SEF D)/total exposed: • Industrial noise • Inhalable dust	Not applicable Not applicable	66.3% 0
Number and percentage of employees in SEGs C and D for dust with X-rays deemed to be abnormal pursuant to the ILO parameters.	0	0

*Similar exposure group (SEG). This group is comprised of workers that carry out similar tasks, assuming likewise that they are daily exposed to the same risk level in the operation. This is the basic unit used to prevent risks. **OEL. Allowable occupational exposure limits.

Group A. Workers who carry out similar tasks with the same risk level and are exposed to less than 20% of OELs. Group B. Workers that carry out similar tasks with the same risk level, who are exposed to 20% to 50% of the OELs. Group C. Workers that carry out similar tasks with the same risk level, who are exposed to 20% to 50% of the OELs. Group D. Workers that carry out similar tasks with the same risk level, who are exposed to 50% to 100% of the OELs.

Worker rights

Management of child labour and forced labour risks

As part of our social responsibility labour policy, Cerrejón considers it expressly unacceptable not to comply with employment legislation and international regulations on child labour and forced labour. Respect for children's rights is explicit in chapter 17 of Cerrejón's internal work regulations, and article 104 states:

"The company will not use child labour, which means children below the age of 15."

In this context, there is no potential risk of child exploitation, given that article 105 establishes the following:

"Work that is prohibited for women and children between fifteen (15) and eighteen (18) years of age: the company will not employ women, regardless of age, or minors between fifteen (15) and eighteen (18), in activities that are expressly prohibited or in working conditions that imply risks for their health and safety as determined by legislation. In all cases, the company strictly applies the law referring to prohibited work for women and minors (...)."

As regards forced labour, Cerrejón strictly complies with chapter 5 (Work day and work shifts) of our internal work regulations, drawn up based on the Substantive Labour Code. This chapter considers that the maximum legal working hours requires, mandatory for all employees, is 48 hours a week in day shifts from 6:00 am to 10:00 pm and night shifts from 10:00 pm to 6:00 am.

Cerrejón's operations use a shift system in which each working day requires a rest day of 24 hours. Based on this, and in accordance with current legislation, a three-week work period has an average of 42 work hours, which is under the 48 hours a week established by law. Further, all work at the company is voluntary, including overtime.

Compliance with these hours is checked with all employees, but under no circumstances are their ID cards retained or their free movement restricted. Thanks to this commitment, there were no recorded issues to report in Cerrejón's history.

In addition, we have corporate guidelines on shift work designed for contractors, in which we clearly state the criteria they should take into account when establishing shifts, and the requirements that must, by law, be fulfilled with regard to voluntary work and preventive safety aspects.

Respect for human rights, supplier and contractor commitment

Cerrejón requires contractors to abstain from using child labour or forced labour and from acting against the right to freedom of association, according to the stipulations in Appendix D of the contract they sign with the company for the provision or sale of goods and services.

In 2011, we had business transactions with 510 suppliers and none violated human rights. In addition, 231 new contracts were signed, of which 100% of suppliers accepted the corporate policies on human rights contained in Appendix D.

In the process of verifying compliance with labour standards and respect for human rights by our suppliers, Cerrejón audited the labour practices of 25 companies and eight co-operatives. In addition, of these 25 companies, 10 were also checked for compliance with clause 6 of the SOI (occupational medicine and industrial hygiene).

Collective bargaining agreement

P1 P2 P3 P4 P5 As part of our commitment with workers' fundamental rights, Cerrejón respects the right to join a trade union and to collective bargaining. At the end of 2011, there were 3,456 workers affiliated with the trade union and 971 beneficiaries. That is, 4,427 workers benefiting from the collective bargaining agreement, representing 100% of all the technical staff (PTC) and 82.4% of all Cerrejón workers.

In December 2010, we began a new session of labour bargaining with the trade union. It concluded in early February 2011 with the signing of a new collective labour agreement that will remain in force throughout 2011 and 2012. It contains notable improvements in salary and work conditions, as well as in benefits for all technical personnel (PTC).

In addition, in compliance with the commitments acquired in the collective bargaining agreement, in 2011 the Commission for Assurance and Monitoring of the Collective Bargaining Agreement entered operation. It comprises administration and trade union members and serves to clarify and resolve doubts on certain points not suitably written out in the agreement.

Finally, it is worth noting that, in 2011, there were no labour stoppages or protest activities affecting company operations.

Health in the collective bargaining agreement

The collective bargaining agreement includes coverage by Cerrejón of 86% of the total cost of the prepaid medicine and health aid programme and 100% of medications. Further, there is a healthcare services committee that meets monthly to deal with healthcare issuesbetween Cerrejón and the union.

Productive work environment

Cerrejón has policies of social responsibility, labour, and productive work environments to prevent situations of persecution, harassment, and discrimination for reasons of union membership, politics, region, race, religious affiliation, nationality, profession, work position or location, as well as any other act that might limit the freedom to join a trade union or participate in it.

The operation also has a policy of equal opportunity, which administers its programmes and personnel practices with no discrimination in all aspects of labour relations, including recruitment, hiring, work assignments, promotions, transfers, dismissals, salary management, and selection for training.

For more information on these policies, see http://www.cerrejon.com/site/english/sustainable-de velopment-•-social-responsibility/employees.aspx

Cerrejón announces to workers all organisational and policy changes in a timely manner through internal channels, as well as any changes related to them.

Cerrejón's internal work regulations serve to prevent, investigate, and correct work harassment events.



Mine closure and report tables

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Mine closure





1. What is the mine closure?

It is the process in which mine production and operations cease. Subsequently, works begins on dismantling, and on preparing and rehabilitating disturbed land in order to ensure protection of the environment, health, safety, and well-being of the neighbouring communities.

2. Is it a requirement for extractive industries?

Article 40 of Decree 2820 of 2010, which regulates environmental permits in Colombia, establishes that, when a project, engineering work, or activity requires or should begin its dismantling and abandonment phase, the owner must present to the competent environmental authority a study containing at a minimum:

- 1. Identification of the environmental impacts
- 2. The dismantling and abandonment plan
- 3. The plans and location maps of infrastructure and the abandonment area
- 4. Obligations derived from current administrative acts
- 5. Costs of dismantling and abandonment activities, and other obligations pending compliance

The obligation is to establish appropriate measures for environmental conservation that ensure that the stoppage of activities and the mine closure do not negatively impact the community or the surrounding area.

3. What is Cerrejón's plan for this challenge?

In the scope of its policy of responsible mining, Cerrejón has prepared a preliminary mine closure plan covering the planning phases for closure and post-closure. It takes into account actions to prevent, minimise, or control the risks and adverse effects that could be generated or that could continue to be present after operations are finished.

The plan considers a five-year closure period and a post-closure period ranging from ten to twenty years depending on the components (social, environmental, safety). At the same time, we take into account the contractual obligations and agreements that may be established with the stakeholders, and the following criteria are considered:

- Land reclamation
- Water management
- Dismantling of installations
- Safety and social engagement aspects
- Future land use
- Waste management
- Monitoring and control plan
- Financial provisions to ensure its execution and sustainability in socio-environmental matters



4. How does this mine closure plan work?

The closure plan acts as a guideline document containing the risk analysis for health, safety, environment, and communities. It determines what actions must be taken to prevent, mitigate, compensate for, or manage adverse effects that may arise after operations end at The Mine, Railway, and Puerto Bolívar in 2033. Its preparation used the mining plan up to a production level of 32 million tonnes a year as its basis.

In addition, it includes necessary actions during the life of the mine to reduce the impacts and management costs of the definitive closure plan. That is, identified environmental impacts must be appropriately dealt with in the present to avoid a



greater future impact and thereby prevent potential environmental damage.

Currently, the criteria for defining the details of the mine closure plan are based on the methodology of one of our shareholders (AngloAmerican PLC), outlined below.



5. In what ways has the plan progressed and what have been the greatest challenges?

We have gone from a plan in which the biggest component considered was land reclamation and benefits costs due to laying off staff, to more comprehensive plan covering innumerable risks, with their respective strategies and control measures, prevention or mitigation, and their corresponding costing.

The greatest challenge lies in aligning the current programmes with the closure goals so that the transition between the, operation closure, and post-closure is as smooth as possible.

Time	25-15 years	15-10 years	10-5 years	5-0 years	year 2034	0-5 years post-closure	5-20 years post-closure
Phase	Preliminary closure plan	Draft closure plan	Detailed closure plan	Final closure plan	End of extraction	Closure implementation	Post-closure period
	Closure planning				Closure a	and post-closur	е

GRI Indicators Table

Indicador GRI	Description	Page	Chapter	Sub-chapter	Global Compact correlation
1.1.	Letter from the president.	10	Cerrejón and La Guajira	Letter from the president	Declaration of permanent commitment to the Global Compa
1.2.			Infographics	Coal production process	Unspecified
	Description of main impacts, risks, and opportunities.	8	Cerrejón and La Guajira	Introduction	Unspecified
		10	Cerrejón and La Guajira	Letter from the president	Declaration of permanent commitment to the Global Compa
2.1.	Operational name.	9	Cerrejón and La Guajira	About this report	Unspecified
		12	Cerrejón and La Guajira	History	Unspecified
2.2.	Main brands, products and / or services.	24	Infographics	Coal production process	Unspecified
2.3.	Operational structure.	24	Sustainability risk management	Company structure	Unspecified requirement for a CoP.
2.4.	Location of main headquarters.	8	Cerrejón and La Guajira	Introduction	Unspecified
2.5		0	Infographics	Coal production process	Unspecified
	Number of countries of operation.	12	Cerrejón and La Guajira	History	Unspecified
2.6.	Nature and legal status.	12	Cerrejón and La Guajira	History	Unspecified
2.7.	Markets served.		Infographics	Coal production process	Unspecified
2.8.	Dimensions.		Infographics	Coal production process	Unspecified
2.9.	Significant changes during the period covered by the report as to size, structure, and property.	12	Cerrejón and La Guajira	History	Unspecified
2.10.	Awards and distinctions received.	11	Cerrejón and La Guajira	Letter from the president	Unspecified
3.1.	Period covered by the information contained in the report.	9	Cerrejón and La Guajira	About this report	Unspecified
3.2.	Date of most recent previous report.	9 9	Cerrejón and La Guajira	About this report	Unspecified Unspecified
3.3. 3.4.	Cycle of report presentation. Contact point for questions concerning the report or its contents.	9	Cerrejón and La Guajira Back cover	About this report Back cover	Unspecified
3.5.	Defining report content.	15	Cerrejón and La Guajira	Materiality	Principles 1, 4, 6
3.6.	Boundary of the report.	9	Cerrejón and La Guajira	About this report	Unspecified
3.7.	Indicate the existence of limitations in the scope or boundary of the report.	9	Cerrejón and La Guajira	About this report	Unspecified
3.8.	The basis for including information that may significantly affect comparisons between periods and / or	9	Cerrejón and La Guajira	About this report	Unspecified
	between organisations.		, ,	1	
3.9.	Techniques for data measurement and bases for calculations.	95	Mine closure and tables	Table of bases and criteria	Unspecified
3.10.	Description of effect of any re-statements of information provided in earlier reports.	9	Cerrejón and La Guajira	About this report	Unspecified
3.11.	Significant changes from previous periods in the scope, boundary, or measurement methods applied in the report.	9	Cerrejón and La Guajira	About this report	Unspecified
3.12.	Table indicating the location of the basic report contents.	5	General index	General index	Unspecified
3.13.	Policy and current practice with regard to seeking external assurance for the report.	9	Cerrejón and La Guajira	About this report	Unspecified
4.1.	Governance structure, committees of the highest governance body responsible for tasks such as defining strategy or supervising operations.	25	Sustainability risk management	Company structure	Principles 1–10
4.2.	President of the highest governance body.	10 - 24	Sustainability risk management	Company structure	Unspecified
4.3.	For organisations with a unitary governance structure, indicate number of independent or non-executive members of the highest governance body.	24	Sustainability risk management	Company structure	Unspecified
4.4.	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	24	Sustainability risk management	Company structure	Principles 1–10
4.5.	Linkage between compensation for members of the highest governance body, senior managers and executives, and the organisation's performance.	81	Human resources	Attracting and selecting	Principles 1–10
4.6.	Procedures in place for the highest governance body to ensure conflicts of interest are avoided.	27	Sustainability risk management	Internal oversight	Principles 1–10
4.7.	Procedure for determining the training and expertise required of members of the highest governance body to guide operational strategy on social, environmental, and economic topics.	80 - 81	Human resources	Focus, goals, and results	Principles 1–10
4.8.	Internally developed statements of mission and values, codes of conduct, and relevant principles for economic, environmental, and social performance, and the status of its implementation.	14	Cerrejón and La Guajira	Values and goals	Principles 1–10
4.9.	Procedures of the highest governance body for overseeing the organisation's identification and management of economic, environmental, and social performance.	63	Social responsibility	Sustainability, a shared challenge	Principles 1–10
4.10.	Procedures for evaluating the highest governance body's own performance with respect to economic, environmental, and social performance.	82	Human resources	Performance evaluation	Principles 1–10
4.11.	Description of how the precautionary approach or principle has been adopted.	22	Sustainability risk management	Risk identification and management	Principle 7
4.12.	Externally developed social, environmental, and economic principles or programmes, or any other initiatives to which the organisation subscribes or endorses.	63	Social responsibility	Sustainability, a shared challenge	Principles 1–10
4.13.	Main associations the organisation belongs to.	14	Cerrejón and La Guajira	Values and goals	Principles 1–10
4.14.	Stakeholders.	15	Cerrejón and La Guajira	Materiality	Principles 1,4,6
4.15.	Basis for identification and selection of stakeholders.	15	Cerrejón and La Guajira	Materiality	Principles 1,4,6
4.16.	Approaches to stakeholder engagement, including frequency of participation by type and by stakeholder group.	23	Sustainability risk management	Study of the operation's social impacts	Principles 1,4,6
		30	Sustainability risk management	Complaints Office	Principles 1,4,6
4.17.	Main concerns and topics of interest raised through stakeholder engagement, and how the organisation has responded to these through its reporting.	15	Cerrejón and La Guajira	Materiality	Principles 1,4,6

GRI indicator	Description	Page	Chapter	Global Compact correlation	n Correlación ISO26000
EC1	Direct economic value generated and distributed.	17	Cerrejón and La Guajira	Unspecified	6.8.3, 6.8.7, 6.8.9 Topic 1, 5 and 7
EC2	Financial implications and other risks and opportunities due to climate change.	57	Environmental management	Unspecified	6.5.5 26000, Topic 3
EC3	Social benefits programmes for employees.	82	Human resources	Principles 1–10	6.8.7 Topic 5
EC5	Range between standard wage and local minimum wage.	81	Human resources	Unspecified	6.4.4. Topic 2
EC6	Policies, practices, and proportion of spending on locally-based suppliers.	17	Cerrejón and La Guajira	Unspecified	6.6.6, 6.8.5 and 6.8.7 Topic 4, 3 and 5
EC7	Procedures for local hiring.	81 - 82	Human resources	Unspecified	6.8.5 and 6.8.7 Topic 3 and 5
EC8	Investment development and impact on infrastructure.	75	Social responsibility	Unspecified	6.3.9, 6.8.3, 6.8.4, 6.8.5, 6.8.6, 6.8.7 and 6.8.9 Topic 7, 1, 2, 3, 4, 5 and 7
EC9	Significant indirect economic impacts and scope.	16	Cerrejón and La Guajira	Unspecified	6.3.9, 6.6.6, 6.6.7, 6.8.5, 6.8.6, 6.8.7 and 6.8.9 Topic 7, 4,5, 3, 4, 5 and
EN1	Materials used, by weight or volume.	39 - 49	Environmental management	Principle 8	6.5.4. Topic 2
EN2	Percentage of materials used that are recycled input materials.	39 - 56	Environmental management	Principles 8, 9	6.5.4. Topic 2
EN3	Direct energy consumption by primary sources.	39 - 57	Environmental management	Principle 8	6.5.4. Topic 2
EN4	Indirect energy consumption by primary sources.	39 - 57	Environmental management	Principle 8	6.5.4. Topic 2
EN5	Energy saved due to conservation and efficiency improvements.	58	Environmental management	Principles 8, 9	6.5.4. Topic 2
EN6	Initiatives to provide energy-efficient or renewable energy-based products and results.	58	Environmental management	Principles 8, 9	6.5.4. Topic 2
EN7	Initiatives to reduce indirect energy consumption and reductions achieved.	58	Environmental management	Principles 8, 9	6.5.4. Topic 2
EN8	Total water withdrawal by source.	39 - 44	Environmental management	Principle 8	6.5.4. Topic 2
EN9	Water sources affected by withdrawal of water.	45	Environmental management	Principle 8	6.5.4. Topic 2
EN10	Percentage and total volume of water recycled and reused.	39 - 45	Environmental management	Principles 8, 9	6.5.4. Topic 2
EN13	Habitats protected or restored.	53	Environmental management	Principle 8	6.5.6. Topic 4
EN14	Strategies and actions for managing impacts on biodiversity.	39 - 53	Environmental management	Principle 8	6.5.6 Topic 4
EN15	Number of species listed according to their danger of extinction found in areas impacted by the operation.	52	Environmental management	Principle 8	6.5.6 Topic 4
EN16	Total, direct, and indirect greenhouse gas emissions by weight.	39 - 58	Environmental management	Principles 7, 8, 9	6.5.5 Topic 3
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.	59	Environmental management	Principles 7, 8, 9	6.5.5 Topic 3
EN19	Emission of ozone-depleting substances by weight.	59	Environmental management	Principle 8	6.5.3 Topic 1
EN20	NO _x , SO _x , and other significant air emissions by type and weight.	39 - 47	Environmental management	Principle 8	6.5.3 Topic 1
EN21	Total wastewater discharge by type and destination.	45	Environmental management	Principle 8	6.5.3 Topic 1
EN22	Total weight of managed waste by type and treatment method.	50	Environmental management	Principle 8	6.5.3 Topic 1
EN23 EN26	Number and volume of most significant accidental spills. Initiatives to mitigate environmental impacts and reduction of impact.	56 59	Environmental management Environmental management	Principle 8 Principles 7, 8, 9	6.5.3 Topic 1 6.5.4. Topic 2 6.6.6. Topic 4
EN29	Significant environmental impacts due to transportation of product and personnel.	59	Environmental management	Principle 8	6.5.4. Topic 2
EN30	Total environmental expenditures and investments by type.	39	Environmental management	Principles 7, 8	Unspecified
HR1	Contracts and investment agreements with clauses incorporating concerns for human rights.	86	Human resources	Principles 1, 2	Unspecified
HR2	Suppliers, contractors, and other business partners subject to analysis in human rights and measures adopted.	86	Human resources	Principles 1, 2	6.3.3, 6.3.5, 6.4.3 Topic 1,3,1
HR3	Employee training hours on human rights policies and procedures.	28	Sustainability risk management	Principles 1, 2	6.3.5 Topic 3
HR5	Operations and suppliers in which the right to freedom of association may be violated.	86	Human resources	Principle 3	6.3.3, 6.3.4, 6.3.5, 6.3.8, 6.3.10, 6.4.3, 6.4.5 Topic 1,2,3,6,8,1 and 3
HR6	Operations and suppliers identified that have a risk of incidents of child exploitation.	86	Human resources	Principle 5	6.3.3, 6.3.4, 6.3.5, 6.3.7 Topic 1,2,3,5
HR7	Operations and suppliers identified as having significant risk of being a source for forced labour episodes.	86	Human resources	Principle 4	6.3.10 Topic 8
HR8	Security personnel trained in human rights policies or procedures.	28	Sustainability risk management	Principles 1, 2	6.3.5, 6.4.3, 6.6.6
HR9	Total number of incidents concerning violations of rights of indigenous people.	31	Sustainability risk management	Principle 6	6.3.6, 6.3.7, 6.3.8, 6.6.7
HR10	Total number of operations subject to human rights impact assessments.	22	Sustainability risk management	Principles 1, 2, 3, 4, 5, 6	
HR11	Number of complaints related to human rights resolved via formal conciliation mechanisms.	31	Sustainability risk management	Principles 1,2	Unspecified

Indicador GRI	Description	Page	Chapter	Global Compact correlation	ISO26000 correlation
LA1	Breakdown of workforce by employment type, contract, region, and gender.	78 - 79	Human resources	Principle 6	6.4.3 Topic 1 on labour practices: Work and labour relations
LA2	Total number of employees and rate of new hiring and average employee turnover.	78 - 79	Human resources	Principle 6	6.4.3 Topic 1
LA3	Social benefits for full-time employees.	82	Human resources	Principle 3	6.4.3 Topic 1
LA4	Percentage of employees covered by a collective bargaining agreement.	86	Human resources	Principle 3	6.3.10 Topic 8 6.4.5 Topic 3
LA5	Minimum notice period(s) regarding organisational changes, including whether these notifications are specified in collective bargaining agreements.	86	Human resources	Principle 3	6.4.3 Topic 1
LAG	Percentage of total workers represented on health and safety committees.	33	Sustainability risk management	Principles 1, 3	6.4.6 Topic 4
LA7	Rates of absenteeism, occupational diseases, lost days, and number of work-related fatalities.	79	Human resources	Principles 1, 4	6.4.6. Topic 4 on labour practices: Health and safety at work
LA8	Education, training, counselling, prevention, and risk-control programmes regarding serious diseases.	84	Human resources	Principle 1	6.4.6. Topic 4 6.8.4 Topic 2 6.8.8. Topic 6
LA9	Health and safety topics covered in formal agreements with trade unions.	86	Human resources	Principle 3	6.4.6. Topic 4
LA10	Average hours of training per year per employee by employee.	83	Human resources	Principle 1	6.4.6. Topic 4, 6.8.4 Topic 2 6.8.8. Topic 6
LA11	Programmes for skills management and lifelong learning that support employability.	83	Human resources	Principle 1	6.4.6. Topic 4, 6.8.4 Topi 2, 6.4.7. Topic 5, 6.8.5 Topic 3
LA12	Percentage of employees receiving regular performance and reviews.	82	Human resources	Principle 1	6.4.7. Topic 5
LA13	Composition of corporate governance body.	79	Human resources	Principle 6	6.3.7. Topic 5
LA14	Ratio of basic salary and compensation of men to women by category.	81	Human resources	Principle 6	6.3.7. Topic 5
LA15	Levels of reincorporation to work and of retention after maternity or paternity.	79	Human resources	Principle 2	6.4.4. Topic 2
MM1	Amount of land affected or reclaimed.	39 55	Sustainability risk management	Unspecified	Unspecified
MM2	Number and percentage of sites identified that require a biodiversity management plan.	53	management	Unspecified	Unspecified
MM5	Total number of operations taking place in or near indigenous communities.	15	Cerrejón and La Guajira	Unspecified	Unspecified
MM7	Use of complaints mechanisms to resolve controversies.	30 - 31	Sustainability risk	Principles 1, 2	6.3.1
			management		Topic 1
MM9	List of resettlement sites.	69	Social responsibility	Principles 1, 2	6.3.3 Topic 1
MM10	Number and percentage of operations with mine closure plans.	88	Mine closure and tables	Principle 7	6.3.3 Topic 1
MM11	Programmes and progress relating to responsible materials.	35	Sustainability risk management	Unspecified	Unspecified
PR1	Phases of product life cycle.	34	Sustainability risk management	Unspecified	6.3.9. Topic 7 , 6.7.4 Topic 2
PR3	Types of information on products and regulations.	35	Sustainability risk management	Unspecified	6.7.3 Topic 1
PR5	Practices concerning client satisfaction.	35	Sustainability risk management	Unspecified	6.7.6. Topic 4
SO1	Operations with development programmes, impact assessments, and participation of the local community.	62	Social responsibility	Principle 1	6.3.9. Topic 7 6.8.5. Topic 3
SO2	Business units analysed with respect to risk of corruption.	27	Sustainability risk management	Principle 10	6.6.3 Topic 1
SO3	Employees trained in anti-corruption policies and procedures.	27	Sustainability risk management	Principle 10	6.6.3 Topic 1
SO4	Measures taken in response to corruption incidents.	27	Sustainability risk management	Principle 10	6.6.3 Topic 1
SO9	Operations with possible or real significant negative impacts on local communities.		Infographics	Principles 1, 2	Unspecified
SO10	Prevention and mitigation measures implemented with possible or real significant negative impacts on local communities.	64	Social responsibility	Principles 1, 2	Unspecified

Indicator GRI	Description	Data	
EC4	Significant financial aid received from governments.	Zero (0).	
EN11	Description of land adjacent to or located in protected nature areas or in unprotected areas of high biodiversity.	Zero (0). Cerrejón carries out no mining activities in protected areas.	
EN12	Description of most significant impacts on biodiversity in protected nature areas or in unprotected high-biodiversity areas.	Zero (0). Cerrejón carries out no mining activities in protected areas.	
EN17	Other indirect greenhouse gas emissions by weight.	Not applicable.	
EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annexes I, II, III, and VIII, and percentage of transported waste shipped internationally.	Not applicable. In accordance with the Basel Convention, Cerrejón neither imports nor exports hazardous waste. Hazardous waste is incinerated in own incinerator, and other waste is managed by specialised companies holding the respective permi- and delivering certification of the disposal.	
EN25	Identity, size, protected status, and biodiversity value of water resources and related habitats significantly affected by discharges of water and runoff.	Zero (0). In 2011, there were no spills affecting biodiversity.	
EN27	Percentage of products sold and their packaging materials that are reclaimed at the end of their service life by product category.	Not applicable. The product is not packaged nor does have associated materials subject to recovery at the end of its service life.	
EN28	Cost of significant fines and number of non-monetary sanctions for non-compliance with environmental laws and regulations.	In 2011, we had no environmental fines or sanctions.	
HR4	Total number of incidents of discrimination and actions taken.	Zero (0). There were no incidents.	
MM3	Total amounts of overburden, rock, tailings, and sludge with potential risks.	Zero (0).	
MM4	Number of strikes and lock-outs exceeding one week's duration, by country.	Zero (0). There were no strikes.	
MM6	Number and description of significant disputes regarding land use or local community and indigenous settlements rights.	Zero (0). There were no disputes in 2011.	
MM8	Number (and percentage) of sites with artisanal and small-scale mining companies.	Not applicable.	
PR2	Number of incidents of non-compliance with regulations or voluntary codes concerning product impacts on health and safety.	Zero (0). There were no incidents.	
PR4	Non-compliance of regulations concerning product labelling.	Zero (0). There was no non-compliance.	
PR6	Programmes for compliance with laws or adherence to standards and voluntary codes mentioned in marketing.	Not applicable.	
PR7	Incidents arising from non-compliance of regulations concerning marketing communications.	Zero (0). There were no incidents.	
PR8	Total number of substantiated complaints regarding respect for client privacy and losses of client data.	Zero (0). There were no incidents.	
PR9	Cost of significant fines for non-compliance with laws and regulations concerning the provision and use of products.	Zero (0). There were no fines.	
SO5	Public policy positions and participation in their development and lobbying.	Zero (0). Cerrejón does not participate in lobbying activitie does not intervene in public policies.	
S06	Total value of financial and in-kind contributions to political parties or to related institutions, by country.	Zero (0).There were none in 2011.	
S07	Total number of legal actions for monopoly and anti-competitive practices, and the outcomes.	Zero (0). There were none in 2011.	
S08	Monetary value of significant sanctions and fines and total number of non-monetary sanctions for non-compliance with laws and regulations.	Zero (0). There were none in 2011.	

Glossary

Glossary
 ANDI

 ANSPE

 Ascoqua

 Asscoqua

 BCM

 BOD

 CCL

 CCC

 CCC

 CITCS

 CITES

 COP

 Copaga

 Corpoguajira

 COP

 Corpoguajira

 COPR

 CPR

 CRN

 CZN

 DANE

 DBOS

 HR

 DNP

Definition	
National Association of Businessmen of Colombia (Asociación Nacional de Empresarios de Colombia)	
National Agency for Overcoming Extreme Poverty (Agencia Nacional para la Superación de la Pobreza Extrema)	
Association of Councillors of La Guajira (Asociación de Concejales de La Guajira)	
Bank Cubic Metre Inter-American Development Bank	
Centre for Creative Leadership	
Consejo Colombiano de Seguridad [Colombian Safety Council]	
Mining and Transfer Contract	
Resource Centre for Conflict Analysis Conservation International.	
Conservation International. Convention on International Trade in Endangered Species of Wild Fauna and Flora	
Coal Marketing Company, sole marketing agency of Cerrejón coal	
Carbon monoxide	
Carbon dioxide	
Family Compensation Fund of La Guajira (Caja de Compensación Familiar de La Guajira) Comunication On Progress	
Joint Committee on Occupational Health (Comité Paritario de Salud Ocupacional)	
Regional Autonomous Corporation of La Guajira (Corporación Autónoma Regional de La Guajira)	
Colombian Corporation for Agricultural and Livestock Research (Corporación Colombiana de Investigación Agropecuaria)	
Centre for Potato Research	
Wildlife Refuge Centre Cerrejón Zona Norte S.A.	
National Administrative Department of Statistics (Departamento Administrativo Nacional de Estadística)	
Amount of oxygen needed to degrade organic matter in five days	
Human rights	
National Planning Department (Departamento Nacional de Planeación)	
Equivalent Land Use Plan (Esquema de Ordenamiento Territorial)	
Occupational diseases	
Environmental Protection Agency	
Equivalent	
Environmental Resources Management	
Public Administration Higher School (Escuela Superior de Administración Pública) Foreign Corrupt Practices Act	
Foreign Corrupt Practices Act Emission factors of Colombian fuels (Factores de emisión de los combustibles colombianos)	
Global Business Initiative on Human Rights	
Greenhouse gases	
Similar exposure group	
Uniform risk group Gigajoule	
Global Reporting Initiative	
German Organisation for Technical Cooperation	
Gigawatt hour	
Global Warming Potential	
Hectare Mitta and the index	
Water quality index Colombian Institute of Family Welfare (Instituto Colombiano de Bienestar Familiar)	
International Council on Mining and Metals	
Institute of Hydrology, Meteorology, and Environmental Studies (Instituto de Hidrología, Meteorología y Estudios Ambientales de Colombia)	
Classified or disabling injury frequency rate	
Recordable injury frequency rate	
The Human Opportunity Index Consumer Price Index	
Intergovernmental Panel on Climate Change	
Multi-dimensional poverty index	
International Organisation for Standardisation	
Environmental Management System Standard published by the International Standards Organisation (ISO)	
Vocational Institute of Soledad Atlántico (Instituto Tecnológico de Soledad Atlántico) International Union for Conservation of Nature	
Kilometre	
Kilowatt hour	
Leadership in Energy and Environmental Design	
The Mine (La Mina) Cubic metres	
Ministry for the Environment and Sustainable Development (Ministerio de Ambiente y Desarrollo Sostenible)	
Management Development Committee	
Standard Model for Internal Oversight for the Colombian Government (Modelo Estándar de Control Interno para el Estado Colombiano)	
Cerrejón Leadership Model based on skills	
Professional staff	
Management Sciences for Development Inc. Material Safety Data Sheet	
A layer comprising various materials applied to the soil to conserve moisture and improve its conditions.	
National Fire Protection Association	
Nitrogen oxides	
National Sanitation Foundation Colombian technical standards (Norma Técnica Colombiana)	
Colombian technical standards (Norma Techica Colombiana) Occupational health and safety management systems specification	
International Labour Organisation	
Non-governmental organisation	
United Nations	
Cerrejón expansion project Water concentration and efficient usage programme (Programa de Aberro y Uso Eficiente del Agua)	
Water conservation and efficient usage programme (Programa de Ahorro y Uso Eficiente del Agua) Puerto Bolívar	
Fatal Risk Control Protocols	
Individual Development Plan (for qualified technical staff)	
Gross Domestic Product	
Particulate matter under 10 microns	
Particulate matter under 2.5 microns Unified Environmental Management Plan /Plan de Maneio Amhiental Unificado)	
Unified Environmental Management Plan (Plan de Manejo Ambiental Unificado) United Nations Development Programme	
Behavioural-Based Accident Prevention Process	
Qualified technical staff	
Corporate social responsibility	
National Training Service (Servicio Nacional de Aprendizaje)	
Operational Integrity System Information system on air quality (Sistema de Información sobre Calidad del Aire)	
Information system on air quality (Sistema de Información sobre Calidad del Aire) Legal monthly minimum wage in force	
Sulfur oxides	
Tonnes of CO ₂ equivalent	
The Nature Conservancy	
Test of English for International Communication Metric tonne	
Metric tonne Third Party Review: Third Party Review Panel of Social Programmes	
Total suspended particles	
Unit of Mining and Energy Planning (Unidad de Planeación Minero Energética)	
United States Agency for International Development	
Microgram	

Measurement techniques

Financial and economic indicators	
Financial reasons and data	Data prepared in accordance with financial status for 2011.
Economic value generated and distributed	Carried out according to generally accepted accounting standards and the report guidelines of the fourth estate methodology proposed by Luis R. Perera Aldama.
Production	Tonnes of coal produced in 2011.
Sustainability indicators – Human resource	25
Average turnover	Number of people who quit work at the operation.
Hours of training per employee	Aggregate training hours received by workers over total employees by professional category.
Management positions held by females	Total women in management positions over the total workers in management positions as of December 31, 2011.
Representativeness of workers in safety	Number of employees represented in committees over total operation employees.
Absenteeism	Rate of disabling accidents (base of 200,000 hours of exposure).
Lost days	Calculated based on 200,000 hours/worker. Lost days are counted from the day following an accident.
Fatalities	The operation's number of fatalities.
Cases reported as professional diseases	Professional disease rate, calculated based on the number of professional disease cases in a time period/ total hours worked per 200,000.
Proportion of unionised workers	Number of workers in a collective bargaining agreement over total employees.
Sustainability indicators – Human rights	
Human rights training	Total training sessions given and number of hours invested, calculation of percentage of coverage and sum of total participants.
Sustainability indicators – Environmental r	nanagement
Environmental investment	Sum of all Cerrejón's expenditure in 2011 for environmental control, monitoring, and management.
Areas disturbed and available	Established through monthly topographical measurement of the areas disturbed by the operation and the areas rehabilitated by our Land Reclamation Programme.
Consumption of resources, energy, and water	Data logged in our internal records as part of the registry and control of consumption.
Total direct and indirect emissions of greenhouse gases (GHG) – CO_2 emissions	Cerrejón continues to measure greenhouse gas emissions (GHG) based on the method proposed by the consulting firm of Itasca Africa PTY.
BOD ₅	Biochemical oxygen demand (BOD) is a typical parameter in measuring the quantity of biodegradable organic matter in wastewater. This parameter represents the total quantity of oxygen required for aerobic micro-organisms (acting in the presence of oxygen) for the breakdown of all organic matter contained in a water sample. The standard measurement for BOD in a water sample is a five-day test known as BOD ₅ .
Particulate matter	An inventory of particulate matter emissions done by running the air-quality dispersion model, based on results obtained from Cerrejón's air-quality monitoring network.
Waste generation	Aggregate quantity of hazardous and non-hazardous waste generated for the year according to legal specifications.
Environmental sanctions	Total fines for legal environmental breaches.

Independent assurance



ASSURANCE STATEMENT

SGS COLOMBIA S.A. - REPORT ON SUSTAINABILITY ACTIVITIES OF CERREJÓN COAL LIMITED FOR 2011.

NATURE AND SCOPE OF ASSURANCE

SGS Colombia S.A. was requested by Cerrejón Coal Limited and CZN S.A. (hereinafter Cerrejón) to carry out a third-party assurance of the Sustainability Report 2011.

The scope of the assurance, based on the SGS methodology of sustainability report assurance, included the text, all the GRI:G3.1 indicators, the sector indicators for Mining and Metals, the data tables in this Report, and correlation with ISO26000.

The information in the Cerrejón SR2011 and its presentation are the responsibility of the directors and management of Cerrejón. SGS Colombia S.A. did not participate in preparing any of the materials included in the SR2011. Our responsibility is to express an opinion on the text, data, graphs, and statements in the scope of the assurance, as explained below, with the aim of providing information to all of Cerrejón's stakeholders.

This report is assured with a high level of scrutiny, using our protocols for:

- Evaluation of content truthfulness
- Evaluation of the SR2011 in the light of the Global Reporting Initiative Sustainability Reporting Guidelines (2006)
- Evaluation of the SR2011 Report in light of the Mining and Metals Sector Supplement
- Comparison of the results with the Sustainability Report from the previous year, SR2010.
- Evaluation of correlation of principles of social responsibility and fundamental matters in social responsibility for ISO26000.

The evaluation was carried out in September of 2012 and covered a combination of pre-assurance investigation, review of documents and records, and interviews with Cerrejón employees at various levels of responsibility at the Mine and the offices in Bogota. The assurance team was chosen based on their knowledge, experience, and qualifications for this task. The financial data were extracted directly from financial accounts independently reviewed by Deloitte Colombia and have not been re-verified as part of this assurance process.

DECLARATION OF INDEPENDENCE AND COMPETENCE

The SGS group of companies is the world leader in inspection, proof, and assurance. It operates in over 140 countries and its service provision includes the certification of management systems and services, quality, environment, occupational health and safety, public accountability and ethics, and training programs, greenhouse gas emission assurance, and the assurance of sustainability reports. SGS Colombia S.A. asserts its independence of Cerrejón, and asserts it is free of biases and conflicts of interest with the organization, its subsidiaries, and the stakeholders.

OPINION OF THE ASSURANCE

Based on the application of the methodology and the assurance of the work performed, we are satisfied with the information given in the Sustainability Report 2011 as it is accurate, reliable, and provides a fair and balanced representation of Cerrejón's activities for the period of January 1 to December 31 of 2011. The assurance team is of the opinion that the report can be used to present to organization stakeholders. In addition, we believe that the organization has chosen an appropriate level of assurance for this phase in their report.

GLOBAL REPORTING INITIATIVE REPORTING GUIDELINES (2006) CONCLUSIONS, RESULTS, AND RECOMMENDATIONS

Cerrejón's Sustainability Report 2011 shows pertinent commitments as concerns the impacts during the period reported; it suitably compiles the actions undertaken, evaluates performance, and also communicates progress made and deviations made. During the rigorous assurance process, it was determined that the data consolidated in figures and the information reported in the document derive from reliable sources, were methodically organized, and allowed assurance of their accuracy. Through the preparation of its Sustainability Report 2011, Cerrejón shows solidity and internal order and consistency. It also demonstrates use made of lessons learnt and high commitment on the part of the data owners, which makes this document even more reliable and reasonably comparable to previous reports. The document's dynamic structure makes it easier to read, use, and understand by its stakeholders. In addition, we can confirm that the sustainability planning model adopted by Cerrejón is in line with the requirements of the Social Responsibility Guide ISO26000.

OPPORTUNITIES FOR IMPROVEMENT

- Since social responsibility covers the real or potential impacts of Cerrejón's decisions and actions, it will
 always be necessary to respect and consider the interests, expectations, and rights of stakeholders,
 especially those extending to the supply chains for products or services. Work with contractors who act within,
 for, or in the name of Cerrejón must increase the ability of these organizations to reach socially responsible
 objective in consonance with Cerrejón's interests.
- Determine whether Cerrejón's declarations concerning the set of organizational policies should be included en masse so they form part of the context of information contained in the Sustainability Report.
- Ensure that all references to hyperlinks, serving to expand on information, are correctly written and take users to the respective web site without error.
- Regularity in issuing the Sustainability Report is a good practice that should be continued in order to be regular year after year.
- Process direct GRI acknowledgement for the current report.

Signed by: For and in the name of SGS Colombia S.A.

atatura Moura

CATALINA DONCEL GONZÁLEZ SYSTEMS & SERVICES CERTIFICATION PRODUCT MANAGER 27 September 2012

WWW.SGS.COM

SGS COLOMBIA S.A. Cra. 16^a #78-11 piso 3 BOGOTA D.C. - COLOMBIA

Communication on Progress (COP)



Red Pacto Global Colombia

Corporación Red Local del Pacto Global en Colombia NIT: 900.327.192-5

Bogotá D.C., October 16, 2012

Doctor ROBERTO JUNGUITO POMBO President CARBONES DEL CERREJON LIMITED - CERREJON

Dear Doctor Junguito,

The Global Compact is a United Nations initiative that promotes the ten principles in line with respect and support for human rights, labour aspects, environmental protection and the fight against corruption.

It currently comprises the largest corporate citizenship network in the world, present in over 130 countries and with over 10,000 organizations as signatories. One of the commitments shouldered by organizations adhering to the Global Compact is to annually put together and communicate their progress in management of the ten principles.

The Global Compact Colombia Local Network, on CERREJON'S request, reviewed their *Sustainability Report 2011* using the criteria of the Communication on Progress (CoP) (advanced, in this case), which involved following 24 indicators.

We are very pleased to supply these comments and contributions to your report, in addition to proposing your recognition **as a Communication on Progress Advanced level** based on evidence contained in it.

Yours sincerely, um

Mauricio Lopez Executive Director Global Compact Local Network

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Indicators

Cerrejón, the world's largest coal exporting open pit mine







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2. 8. B. B. B.

1. 25



Send us your comments, concerns or suggestions to <u>subscribe@cerrejon.com</u>

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