

RESPONSIBILITY
PRESENCE
RELEVANCE
SIMPLICITY
ACCESSIBILITY
DETERMINATION
INNOVATION

Building on the foundations.



Pictures on the cover pages relate to cases featured in this report. They include:

- Improving CO₂ efficiency
- Education and training to reduce poverty
- Mobilizing the communities
- Holcim Foundation for Sustainable Construction
- Port clean-up in New Zealand
- Sustainable relationships – micro-enterprise and end-user initiatives.





About Holcim

Holcim is one of the world's leading suppliers of cement, aggregates (gravel and sand), and concrete. From its origins in Switzerland, it has grown into a global player with majority and minority interests in over 70 countries. With an annual production capacity of more than 145 million tonnes of cement, Holcim recorded sales of CHF 12.6 billion and an operating profit of CHF 1.9 billion in 2003. Holcim currently employs more than 48,000 people.

Our sustainability report

This second Holcim Corporate Sustainable Development Report is the result of our continuous commitment to sustainable development as well as feedback from stakeholders consulted after the publication of our first report in November 2002. It covers the Group's cement business in 2002 and 2003. The report complements our annual report 2003 and highlights local initiatives reflecting the triple bottom line.

The report measures Holcim's performance against existing and new targets and evaluates strategies and activities affecting the economic, environmental, and social performance of our cement business, which is 74% of our net sales and the part of the business for which we have the most comprehensive data. Except for the economic performance information and the personnel data, the report does not include Holcim's aggregates, ready-mix concrete, or other products and services businesses. We intend to include the environmental and social performance data for these areas in the next report in 2006.

Currently 48% of our Group companies publish environmental, social, and/or sustainability reports giving more information about local performance and activities. Both corporate reports and Group company reports can be downloaded at www.holcim.com.

Overview of the cases presented in this report and on our website.

Holcim US – Wastewater treatment award **page 27**

Holcim US – Diversity **page 30**

Holcim Apasco – Sustainable relationships – micro-enterprise and end-user initiatives **page 12**

Holcim Apasco – Building livable communities **page 34**

Holcim Costa Rica – Improving CO2 efficiency **page 18**

Latin America – Education and training to reduce poverty **page 28**

Holcim Brazil – Mobilizing the communities **page 36**

Cemento Polpaico – Building livable communities **page 34**

Holcim France-Benelux – Helping to reduce an environmental disaster **page 23**

Holcim Foundation for Sustainable Construction **page 4**

Holcim Romania – Improving CO2 efficiency **page 18**

Holcim Morocco – Protecting endangered species **website**

Holcim South Africa – Product development **page 17**

Holcim South Africa – External acknowledgment for our OH&S practices **page 32**

Siam City Cement – Forest rehabilitation **website**

Holcim Vietnam – Wetland conservation **page 24**

Holcim Vietnam – “Clean water – bright future” **website**

Union Cement Corporation – Best CSR policy **page 34**

Holcim Lanka – Sustainable relationships – micro-enterprise and end-user initiatives **page 12**

Holcim New Zealand – Port clean-up **page 8**

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Sustainable development has taken its place as a corporate issue.

It is important for Holcim to pursue the goal of sustainable development. We want to grow our business while encouraging economic growth for growing populations. We must manage environmental resources responsibly to help assure that future generations can meet their own resource needs. And we, as individuals and as a corporation, believe that we can play our part in meeting the needs of the world's people. These are the three pillars of sustainable development (SD) – economic, environmental, and social – to which Holcim commits itself.

However, there are more immediate reasons why we promote and live by the SD concept. Over the past few years, we have been building Holcim as a global brand in a global environment.

The Holcim brand not only helps us to differentiate ourselves in an increasingly competitive marketplace, it also entails a strong obligation to maintain and protect the reputation of the brand. A commitment to SD, embedded in the organization by corporate policies and effective management systems, supported by a transparent communications and stakeholder engagement approach, and understood and lived by our employees in their daily work, is essential to build this brand.

Thus we want our brand to be associated with fair business practices, a good environmental record, and respectful relations with employees and neighbors.

Sustainable development – what are our issues?

How do we move from being a group of companies, each with local knowledge, approaches, and solutions, to being a Group, with the sort of centralized control needed to manage an SD agenda and a global brand?

How then does this Group decrease CO₂ and other emissions, decrease impacts on biodiversity, and generally shrink our ecological footprint while at the same time meeting the increasing demand for cement and our other products by a rapidly growing population?

And how can we assure a more efficient and sustainable use of our products if they are a component of a larger entity – a building or infrastructure? The establishment of the Holcim Foundation for Sustainable Construction is an important step in that direction. The Foundation will support and promote sustainable building initiatives that will influence people and cultures worldwide, expressing both a commitment to quality of life and architectural excellence.

We strive in this report, and in our day-to-day management efforts, to answer these questions.

Our priorities and performance

Holcim's first Corporate Sustainable Development Report outlined our priority topics at that time with respect to SD: energy and climate, occupational health and safety (OH&S), and community involvement. These priorities remain.

Economic growth and healthy financial returns are the decisive factors that enable companies to contribute to building societies that will provide a more sustainable future.

With regard to energy and climate, we are on track to reach our CO₂ emissions reduction target. However, we are far from where we want to be in OH&S. To address this challenge, we have designated OH&S as the principal focus for corporate social responsibility.

As our SD agenda has developed we have added several new issues. These include better corporate governance, the willingness to engage with a variety of stakeholders, and a better understanding of the range of possibilities for a new dynamic toward sustainability in the construction industry.

Accordingly, we have refined our strategies and policies, and improved our internal structures and global networks. In 2003, we strengthened our governance structure and clarified our strategic decision-making process by establishing an SD Steering Committee.

External engagements and partnerships

In 2003, Holcim was included in the Dow Jones Sustainability Indexes for the building materials industry. This external benchmark helps us in our ongoing efforts to define and address key sustainability challenges. We are also proud that many of our operations have received awards for their SD initiatives.

Our active involvement in the World Business Council for Sustainable Development's Cement Sustainability Initiative, our participation in the UN Global Compact, and our first stakeholder dialogue at corporate level provide us with opportunities to listen and learn from a number of stakeholders and to test our ideas and approaches.

As an example, our partnership with GTZ addresses one of our key priorities: the development of guidelines for the use of waste in the cement-making process.

This report has been prepared in accordance with the 2002 Global Reporting Initiative (GRI) Guidelines. It represents a balanced and reasonable presentation of our organization's economic, environmental, and social performance.

A passion for SD

This report is based on our experience over the past two years, on challenges faced, on advice from our stakeholders, and upon the energy and commitment of our employees. None of Holcim's projects and initiatives could happen without them. The cases featured in this report provide only a few snapshots among the many initiatives to which our employees are committed. This second corporate sustainability report is dedicated to our 48,000 employees, who bring the concept of SD to life for the benefit of Holcim and society at large.



Rolf Soiron
Chairman of the Board of Directors



Markus Akermann
CEO



Rolf Soiron

Markus Akermann

Holcim Foundation for Sustainable Construction – Building society’s future

Housing and infrastructure underpin progress and prosperity. Accordingly, the Holcim Foundation for Sustainable Construction, established in 2003, will encourage effective design and construction methods while integrating sustainability criteria. Our credo is that the built environment should give enduring form to the cultural values of its place and time.

The theme of the Foundation’s first forum is basic needs, and shelter comes first on UNESCO’s list of such needs. The notion of housing stretches from simple huts to mansions and from single-family dwellings to vast apartment blocks, and all housing requires accompanying service structures such as schools, markets, adequate utilities and health care.

The first Holcim Awards competition will give prizes to the three projects that best meet the target issues for sustainable construction in five independent geographical regions in 2005. These award-winning regional entries that represent milestones in sustainable construction will then be eligible for the global awards cycle in 2006. In each cycle, prizes will total CHF 2.5 million. The Holcim Forum and the Holcim Awards are being organized in collaboration with the Swiss Federal Institute of Technology Zurich (ETH), the Massachusetts Institute of Technology (MIT), the Tongji University in Shanghai, the Universidade de São Paulo, and the University of Witwatersrand in Johannesburg to bring more technical competence to the Foundation. By supporting cutting-edge solutions for building projects in many parts of the world, and across the socio-economic spectrum, our awards program will be a catalyst for a new dynamic toward sustainability in the construction industry.

For more information, visit www.holcimfoundation.com.



Vision & strategy

Value creation is Holcim’s overriding goal. Three distinct strategic thrusts support this goal, as well as mindsets that define policies in functional areas. All of this rests upon a most important base: the people who work for Holcim (see table).

We focus on cement, aggregates, and concrete, and geographic diversification, emphasizing growth markets. Where previously we were more decentralized, we are moving from being a group of companies to being a Group, in which local management is guided by global standards. This allows SD issues to be addressed locally, according to different local needs, yet within the solid parameters provided by global Holcim standards. The triple bottom line is well reflected in our strategy by value creation, Sustainable Environmental Performance and corporate social responsibility (CSR).

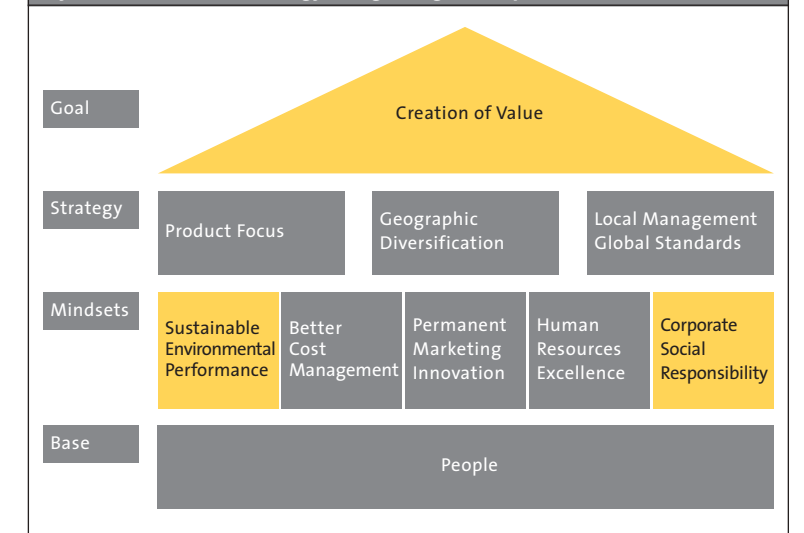
SD opportunities and challenges

Sustainable development offers opportunities such as improved risk management, enhanced reputation, and reduced operating costs; but there are also challenges. One of the most prominent is that population growth is increasing the demand for cement, mainly in emerging markets. Yet we want and are expected to decrease CO2 and other emissions and to manage biodiversity impacts. These are the dilemmas and challenges in balancing the triple bottom line. In the economic section, we highlight the value we add to society, and

in the environmental chapter we describe how we are tackling these challenges and managing and reducing our emissions.

Globalization also offers opportunities and challenges. The improved communications and transparency that have accompanied globalization mean that any lapse in good corporate citizenship anywhere is immediately known worldwide and reflects on our brand everywhere. Thus we must also balance a need for global CSR standards with a decentralization that allows local companies to develop the best solutions for their own CSR challenges and realities. We describe in the governance and social chapters how we are trying to achieve this balance.

Key elements of our strategy integrating the triple bottom line



SUSTAINABILITY

“Holcim has been very focused on the production side of its business, but what about thinking outside the box?”

Will Day, UNDP, on the occasion of our first corporate stakeholder dialogue, December 2003

We sell cement that others use to build structures that may last for decades, even centuries. Studies have shown that more than 90% of the lifetime environmental impacts of concrete occur during the use of the product. In most cases, we have little influence over construction methods and processes. What is our responsibility for the environmental and social impacts of our products? We have established the Holcim Foundation for Sustainable Construction to promote more sustainable choices in construction and to contemplate the role of the cement industry in a more sustainable global future. The Holcim Foundation is an opportunity for us to contribute to sustainable progress beyond the boundaries of our business, and even our industry.

SD journey and milestones

We have a long history of respecting the communities and environments in which we operate. Our decentralized management approach has been an effective way of handling a variety of SD issues. Before 1998, local companies were responsible for environmental and social issues. The corporate level advised them.

However, in 1998 we realized greater efforts would be needed to manage current and future environmental and social opportunities and challenges. Step by step, different service functions such as the Corporate Industrial Ecology and CSR teams were created to develop corporate SD policies. The SD journey depicted below therefore starts in 1999.

The illustration describes key internal decisions as well as outcomes such as corporate policies, reports, and initiatives.

Progress toward targets

The table “Progress toward targets” is a status report on advancement toward the targets set in our first report. New targets are also outlined and are elaborated upon in this report.

Progress toward targets				
Area	Target	Year	Status	Page
SD				
	Develop SD key performance indicators for company and industry	2002 – 2005	▶▶	13-35
Corporate governance				
Business conduct	Develop and publish a Group code of conduct	2004*	▶▶	9
Environmental performance				
Management systems	Develop and implement ISO 9001 and 14001-certified management systems at all cement plants	2004	▶▶	11
	Extend environmental reporting to concrete and aggregate operations	2006	new	19
CO2 and resources utilization	Apply fuels and raw materials guidelines of the Cement Sustainability Initiative (CSI)	2005	▶▶	22
	External verification of CO2 monitoring and reporting systems	2005	new	21
	Reduce global average specific net CO2 emissions (kg net CO2/tonne cement) by 20%, using 1990 as reference	2010	▶▶	21
Environmental impacts	Ensure compliance with our environmental monitoring and reporting (EMR) standard	2003	▶▶	26
	Define a set of emission reduction targets and report publicly on progress	2006	▶▶	26
	Develop rehabilitation plans for all cement-related quarries	2006	80%	25
	Undertake environmental and social impact assessments according to WBCSD/CSI protocol	2006	▶▶	25
Social performance				
General	Launch corporate social responsibility (CSR) approach, including targets and milestones	2003	✓	29
	Integrate CSR approach into business plans	2004	70%	29
Employment practices	Standardize approach to training plan development	2002	✓	CSDR 02
	Encourage undertaking of employee satisfaction surveys	2003	18%	30
OH&S	Undertake annual OH&S assessments	2003	93%	33
	Establish OH&S action plans with specific targets	2004	▶▶	33
	Ensure OH&S management systems comply with Group standard	2005	▶▶	33
	Report OH&S records according to WBCSD/CSI protocol	2005	▶▶	33
Supplier relations	Implement a supplier qualification program	2005	new	35
Stakeholder relations				
Reporting	Report regularly on SD performance and objectives	2002	✓	CSDR 02

* The target date has been shifted from 2003 to 2004; ▶▶ on track; ✓ achieved

SD JOURNEY

<p>Before 1998</p> <p>A group of companies with many local environmental and social initiatives</p> <p>Human Resources and Training Committee, p. 10</p>	<p>1999</p> <p>Creation of Sustainable Environmental Performance Committee, p. 10</p> <p>Member of the WBCSD and initiator of the Cement Sustainability Initiative (CSI), p. 37</p>	<p>2000</p>	<p>2001</p> <p>Battelle Report</p> <p>Holcim</p> <p>One global brand, p. 2</p> <p>Corporate environmental policy, p. 19</p>	<p>2002</p> <p>CSI: Agenda for Action</p> <p>1st Corporate Sustainable Development Report</p> <p>Policy on the use of alternative fuels and raw materials, p. 22</p>	<p>2003</p> <p>DJSI</p> <p>Creation of SD Steering Committee, p. 11</p> <p>Policy on corporate social responsibility, p. 29</p> <p>Stakeholder relations, p. 37</p> <p>Policy on fair competition, p. 9</p>	<p>2004</p> <p>2nd Corporate Sustainable Development Report</p>	<p>2005</p> <p>Cement Sustainability Initiative Interim Report</p>	<p>2006</p> <p>3rd Corporate Sustainable Development Report</p>	<p>2010</p> <p>Reduce our global average specific net CO2 emissions, p. 21</p>
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Holcim New Zealand – Port clean-up

Wind-blown clinker from a Holcim New Zealand shipment unloading at Lyttelton port turned into a hard, crusty coating on the houses, cars, and buildings in a third of the historic port town after light rain overnight. The company's swift response to rectify the problem was text-book crisis management in action.

Holcim New Zealand accepted responsibility and requested the patience of the affected community while damage was assessed and a cleaning program put in place. This calmed stakeholders, who accepted that the company would set things right as soon as practically possible. Clean-up operations were coordinated with the local environmental regulatory body. Three months after the incident, the file could be closed. A log of "lessons learned" was then shared throughout the Group to help avert future occurrences. A key lesson was that early action helped keep costs to a minimum; escalation of the damage could have pushed costs four to five times higher than the final sum of CHF 195,000. And this figure does not include associated costs, such as future potential regulatory requirements, if the incident had not been well managed in the eyes of authorities.

A key aspect of risk management is managing one's reputation. The accident ultimately improved Holcim's reputation; a "neutral" local rating beforehand improved to "above average" afterwards.



Corporate governance & management systems

We have continued to develop our corporate governance structure, to ensure a balance between tight central management and global standards on the one hand, and local knowledge and the ability to respond efficiently to local conditions on the other. We adapted our internal control mechanisms during 2003 to address the increasing requirements of strong corporate governance. See annual reports of 2002 and 2003 on www.holcim.com for details.

Competition is the economic process at the heart of all free markets. It promotes efficient allocation of resources, stimulates innovation, and encourages continuous improvement. It also creates sustainable value for successful enterprises and their stakeholders.

We believe in and support fair competition as a core value in how we do business worldwide. To underline this commitment, in 2003 we released a policy statement and guidelines for fair competition throughout the Group, requiring Holcim employees to respect and comply with laws aimed at protecting fair competition wherever we do business. Training programs, audits, and compliance processes in regard to this policy are ongoing.

The OECD is giving increasing focus to bribery and corruption through its guidelines for multinational companies, and the topic is foreseen as a tenth principle in the UN Global Compact. Business is asked to address this issue, and Holcim respects and adheres to the respective laws and conventions.

To provide a common, comprehensive, and consistent framework across Holcim's global organization, we are finalizing a Group code of conduct to ensure direction and clarify existing policies and codes. It will be included in our mission statement. Our policy on fair competition as well as our environmental and social policy statements form part of this overall code and guide Holcim's strategy development with regard to these elements of sustainable development. The environmental and social performance chapters provide details on how these policies are translated into action, including our process of aligning Group company policies with the corporate statement.

Target

**We will publish our Group code of conduct in 2004.
The target date has been shifted from 2003.**

ACCOUNTABILITY

"Holcim needs to think about its broader accountability to society as more and more companies are being asked to assume responsibility for the whole value chain."

Christian Kornevall, ABB, on the occasion of our first corporate stakeholder dialogue, December 2003

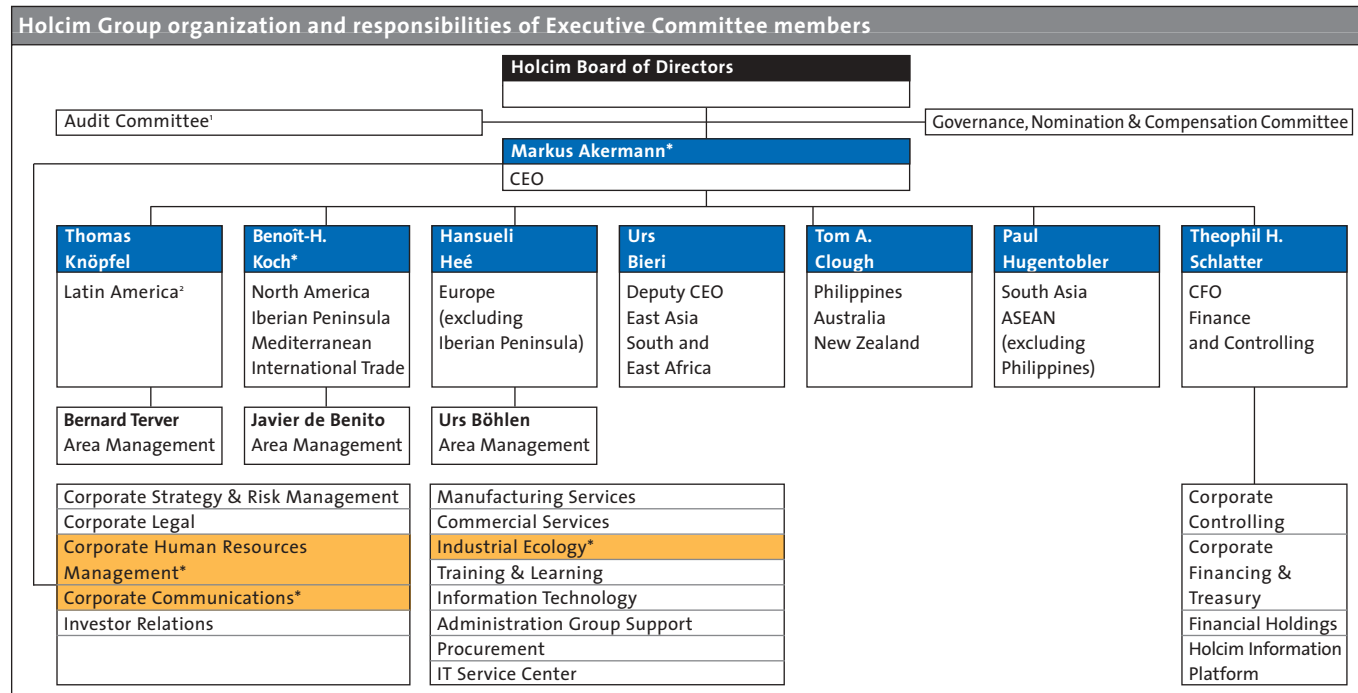
Organization

To ensure that our policies and guidelines are implemented throughout the Holcim world, responsibilities for SD have been assigned at corporate and local levels for both line and functional management.

At corporate level, Holcim's Executive Committee (EXCO) assumes operational responsibility for the prioritization and integration of SD into daily decision making, while the Board of Directors defines the general corporate strategy.

Three corporate service and staff functions – Corporate Industrial Ecology, Corporate Communications, and Corporate Human Resources Management – have functional responsibilities for sustainable development.

The two functional committees mentioned in our first report, the SEP Committee and the Human Resources and Training Committee (both chaired by members of Holcim's EXCO), continue to support the overall decision-making process and propose key issues related to sustainable development to EXCO.



*SD Steering Committee; * Internal Audit reports to the Chairman of the Board of Directors; ² Mexico under direct responsibility of Markus Akermann; ■ Executive Committee; Situation as of June 1, 2004.

During 2003, it became clear that we needed to bolster this existing organizational structure with an SD Steering Committee. Its task is to ensure continued alignment and oversight of our SD approaches and to effectively manage the overlaps among functional responsibilities. The committee is jointly chaired by CEO Markus Akermann and EXCO member Benoît-H. Koch, who have functional responsibility for CSR and environment, respectively.

Local CEOs are accountable for the implementation of the policies, and all Group companies have nominated environmental, CSR, and OH&S coordinators through to the plant level in the last two years. Learning platforms such as global and regional conferences for these specialists enable the exchange of best practices while at the same time aligning all practitioners with corporate standards and guidelines.

Management systems

Holcim has management systems for the economic, environmental, and social dimensions of SD. In our last report, we outlined the steps we were taking to ensure that robust, auditable systems (ISO 9001 and ISO 14001) are in place to manage our SD performance (see box). Our business risk management and internal audit functions have been strengthened and are described in our annual report 2003 on page 61.

We are also implementing a consistent crisis management system across the Group, acknowledging that our global brand is only as strong as the individual links in the chain.

Integration into business processes

Holcim continues to embed monitoring and reporting of environmental and OH&S aspects into our business review processes. We have implemented operational indicators that record both the environmental and financial impacts of our activities. For example, we track how much traditional fossil fuel is replaced by alternative fuel, the resulting reduction of CO2 emissions, and the savings caused by this activity. In the area of cement manufacturing, reporting includes information on CO2 emissions as well as other important environmental measurements. In all our business operations, the standard reports contain information on the number of injuries as well as the severity and frequency rate.

All Group companies have integrated these indicators into their monthly review processes. These standard reporting processes also ensure that all indicators have a target value, so action can be planned and taken when reality varies from these targets.

Recognition of our efforts

In 2003, Holcim Ltd was added to the Dow Jones Sustainability World Index and the European Dow Jones STOXX Sustainability Index. Membership is an acknowledgment that Holcim is one of the leaders in sustainable development in the building materials industry. This external investigation of our operations also indicates that we are on the right track with our SD strategies. The Dow Jones rating process also provides us with valuable feedback and guidance for areas of improvement. The summary report of the Sustainable Asset Management assessment can be downloaded from www.holcim.com.



Status ISO 9001 and ISO 14001

Our target is for all Group companies to implement ISO 9001 by the end of 2004. Currently, 78 of our 118 plants are ISO 9001 certified. We are committed to implementing ISO 14001-compatible management systems at all Group company cement plants including grinding stations and waste pretreatment platforms, and seeking ISO certification for these entities by the end of 2004. At the end of 2003, 48 of 118 cement plants and one of 15 waste pretreatment platforms had achieved ISO 14001 certification.



Sustainable relationships – micro-enterprise and end-user initiatives

Holcim Apasco has collaborated with the Mexican Ministry for Economy and the non-profit Foundation for Sustainable Development to strengthen the micro-companies which form an important part of our distributor network. Known as “Desarrollo-T”, the program aims to enhance their business practices, helping them become more efficient and competitive.

The partnership involves conducting an analysis of the distributor’s business status, which leads to a custom-made program of improvement, focusing on such aspects as accounting, marketing techniques, and inventory management. Costs are absorbed by Holcim, the Ministry for Economy, the Foundation for Sustainable Development, and the distributors themselves. We also have a role in supervising the program’s execution. If our distributor is sustainable, then our own business is more robust.

In Sri Lanka, an end-user initiative of Holcim Lanka brings together a range of building specialists in one location for the convenience of prospective home-builders. The Mahagedera Housing Fair provides free expertise on a range of topics, including advice on appropriate house designs, building approvals, water, electricity and other utilities, financing, and technical aspects. The project stimulates housing construction within the local community, helping provide not only shelter but long-term security in times of financial hardship.



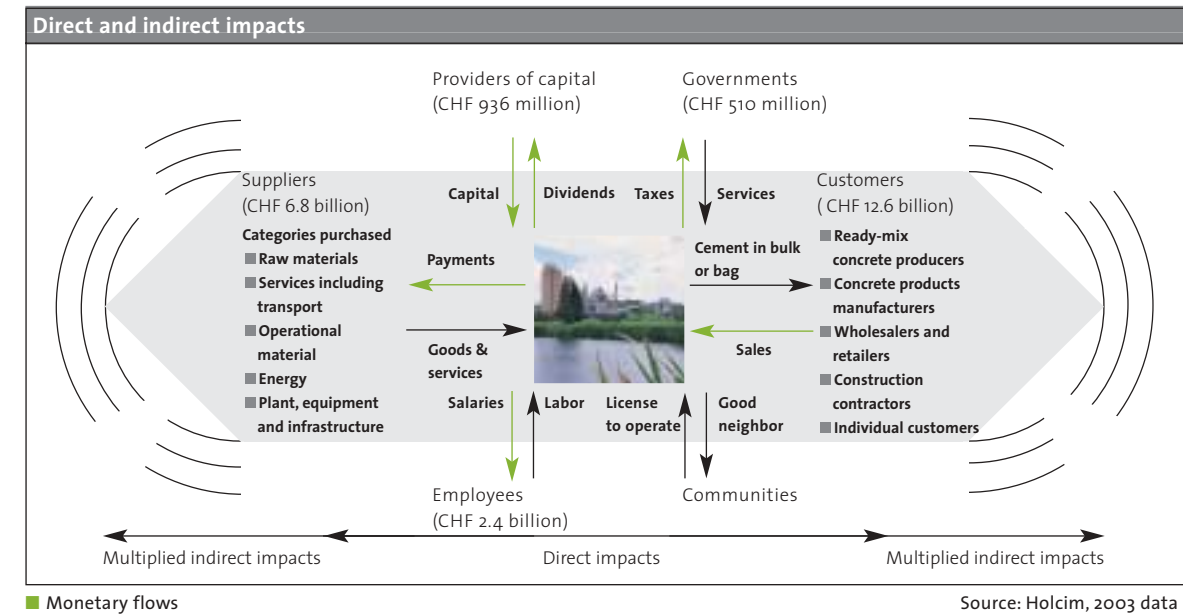
Economic performance

In terms of economic benefits, two aspects of the cement business make it different from most other industries.

First, it is the basis of the construction sector, which tends to be the yardstick of national development efforts. Our products and activities come early in the value chain, and their indirect economic impacts are multiplied several times further along the chain in terms of employment, further investments, private and public buildings and infrastructure, and innovation. These indirect economic impacts are huge but hard to measure.

Second, cement is bulky and relatively inexpensive, and thus requires cost-sensitive distribution strategies. So our markets tend to be local rather than national or international. This means not only that our cement output spurs development near our plants, but that inputs are bought as locally as possible. When these payments are added to wages and taxes, Holcim has a huge positive impact on local economies and the economies of small developing nations.

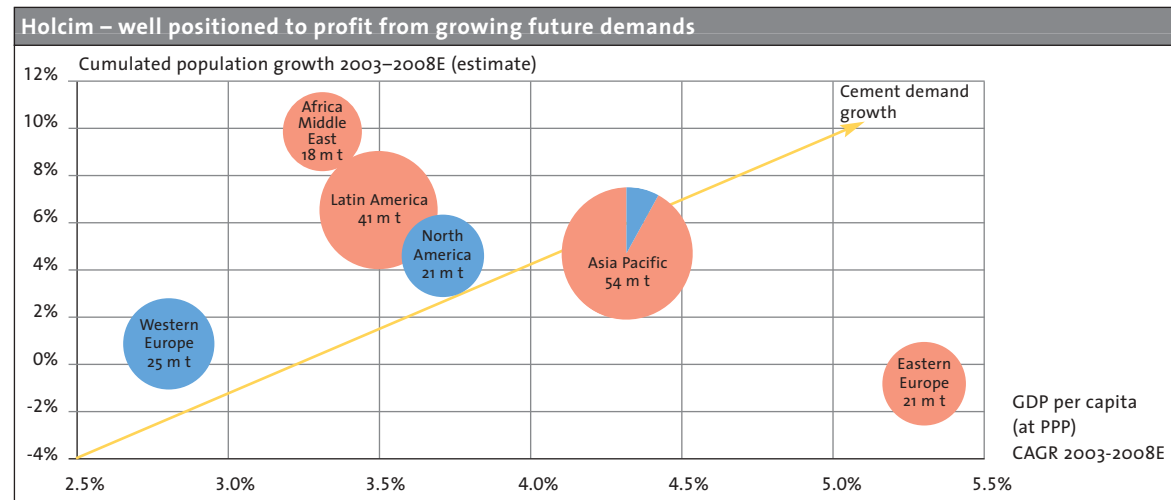
The following chart describes the multiplied direct and indirect impacts of our activities along the value chain.



INNOVATION

“Your challenge is to link your sustainability activities with the financial bottom line. Investors want to see a focus on material issues, not just nice words.”

Alois Flatz, Sustainable Asset Management, on the occasion of our first corporate stakeholder dialogue, December 2003



■ Mature markets ■ Emerging markets (size of bubbles represents influenced capacity); CAGR: Compound Annual Growth Rate; PPP: Purchasing Power Parity; Sources: Holcim, US Census Bureau, Economist Intelligence Unit, May 2004

Wealth creation of our investment activities

Over recent years, Holcim has invested significantly in emerging markets. Our reasoning is based on their rapid growth in cement consumption both now and in the future, as suggested by high population growth rates and the fact that many of these countries are reaching a stage of economic development where they are beginning to install modern infrastructure, as well as improving the quality and amount of housing. Emerging markets today already account for more than three-quarters of world cement consumption. Holcim is well positioned in markets where the strongest growth in demand is expected to occur in the next years (see graph).

Holcim's strong presence in emerging markets is value-enhancing both for Holcim and our investors, as well as the countries and communities in which we work. In the period from 1997–2001, more than CHF 7.7 billion, or 57% of the total investments made by the Group, were directed to emerging markets, although these countries only made up roughly 45% of Holcim's operating cash flow during that time. These significant investments are now paying off. Starting in 2001, operating cash flows from emerging market investments accounted for more than half of Holcim's operating cash flow, reaching a level of 57%, or CHF 1.5 billion, in 2003. Emerging market operating cash flow margins have also steadily increased in this period.

The proportion of global cement capacity controlled by the major cement companies has increased significantly during the last few years. In 1988, the six largest cement companies controlled 9% of the world's cement capacity outside China. By the end of 2002, their share had increased to 42%.



The cement industry is very capital intensive; a new cement plant can cost the equivalent of up to three years' revenue. Modern cement plants have capacities well in excess of one million tonnes per year. Facilities once built may last for 50 years and thus represent an important long-term investment, not only for Holcim but also for our host communities and countries.

In 2003, Holcim invested CHF 1.4 billion in property, plant, and equipment. This includes CHF 81 million invested to improve the environmental sustainability of our production facilities, and another CHF 18 million invested in social and safety projects. Holcim also recently made significant investments in installations for alternative fuels and raw materials. Over 2000–2003, these amounted to approximately CHF 180 million. These investments allow us to save fuel costs while at the same time adding value to society and the environment.

Customers and markets

In 2003, the net value of our global sales was CHF 12.6 billion (2002: 13.0). This slight drop from 2002 was mainly due to exchange rate fluctuation. At constant exchange rates, 2003 net sales increased 2.4% compared to 2002. Our geographical portfolio is well balanced, with a constant increase over recent years in emerging markets.

In such markets, our customers are mainly wholesalers and retailers who buy cement in bags to resell to individual end-users. In South Africa, for example, roughly two-thirds of our cement is sold in bags. Repositioning our product there as a "green" alternative demonstrates our ability to provide innovative and energy-efficient materials that meet and exceed customer expectations (see page 17). A main focus of our activities is in helping develop the businesses of our customers, via micro-enterprise and end-user initiatives (see page 12). In developed markets, producers of ready-mix concrete or concrete products, construction contractors, governments, and construction project owners are our major customers. These customers mainly buy large volumes of bulk cement, and therefore have different needs than bagged cement buyers. Cement application support, innovative logistics solutions, and project management expertise are just three of the range of services we offer our customers in these markets to make them and their construction projects more efficient.

Suppliers

The total cost of all goods, materials, and services Holcim purchased in 2003 amounted to CHF 6.8 billion. We estimate that more than two-thirds, or approximately CHF 4.5 billion, of our purchases are made in the country of operation. This generates indirect impacts through employment, business for smaller companies, and revenues for governments.

Monetary flow between Holcim and key stakeholders			
	Million CHF	2003	%
Net sales		12,600	
Input factor (cost of all goods, materials and services purchased)		-6,812	
Depreciation and amortization		-1,446	
Benefit to employees, governments, shareholders and creditors		4,342	100%
■ Employees		-2,405	55%
■ Governments (taxes)		-510	12%
■ Shareholders (including minorities)		-441	10%
■ Creditors		-495	12%
■ Retained in business		491	11%

Significance of our direct contributions

Calculating the significance of our direct contributions to employees, governments, investors, and shareholders, we see that our business activities have a strong, direct economic impact and benefit the communities in which we operate in many ways.

After paying our suppliers and deducting depreciation, 67% of the benefit is distributed to our employees and governments (see table).

Employees

We contribute to wealth creation by employing people's skills in creating goods and services and investing in new plant and equipment. At year-end 2003, we employed a total of 48,220 people across the world, and during the year recorded personnel expenses of CHF 2.4 billion. For more information on employees, see page 29.

Governments

Holcim paid more than CHF 500 million to governments in taxes in 2003. Most of these payments were made locally. About 70% of total taxes in 2003 were paid in emerging markets.

Investors and shareholders

To fund our capital-intensive business, Holcim needs significant financing from both equity and debt investors, and Holcim's strong financial profile gives it access to these sources. Total net financial expenses in 2003 amounted to CHF 495 million.

In 2003, the return to our equity investors was CHF 441 million. Included in this number are CHF 195 million in dividends paid to Holcim Ltd shareholders. The remaining CHF 246 million represent interests of minority shareholders in the net income of subsidiaries we do not fully own. The majority of these subsidiaries are operating in emerging markets, and thus local shareholders are participating in the economic performance of Holcim. In many companies, employees form part of the shareholder structure.

Full details of our financial performance and scope of operations are contained in our annual report 2003, available at www.holcim.com.

Product development

Compared to Ordinary Portland Cement (OPC), the range of Holcim cements available across the world include some that are significantly more energy-efficient while maintaining overall product quality. Marketing these cements as the "green" alternative enables Holcim to promote our commitment to sustainable development, and at the same time provides our customers with the opportunity to purchase a more environmentally-friendly product.

In South Africa, for example, Holcim's "green" cement range reduces the energy and limestone content in the product. A percentage of the clinker used in OPC is replaced with by-products from other industries – such as fly ash from energy plants, or slag from steel production. These wastes are carefully selected according to the highest standards to maintain overall product quality.

In this way, the company ensures that customers are supplied with a range of quality building cements that are also among the most environmentally-friendly to be found anywhere. With its "green" product range, Holcim South Africa will drive down its CO₂ emissions per tonne of cement.

Holcim Romania, Holcim Switzerland, Holcim US and St. Lawrence Cement, to name a few, have developed similar cements. Their experience to date shows what a win-win proposition "green" cement can be. Now the challenge is to continuously increase market demand for these sustainable products in order to establish Holcim's "green" alternatives as a customer's first choice.



"Holcim shows a willingness to move forward, and has made attempts to raise the bar. But more is needed; Holcim has a responsibility downstream to ensure the efficient and sustainable use of their products."

Arun Kumar, Development Alternatives, on the occasion of our first corporate stakeholder dialogue, December 2003



Companies improving CO₂ efficiency

As Holcim moves toward its 2010 target of 20% greenhouse gas (GHG) emissions reduction per tonne of product with 1990 as the reference year, several Group companies are taking new approaches to reduce their emissions. In Costa Rica and Romania, Group companies have tapped into the opportunities presented by the “flexibility mechanisms” of the Kyoto Protocol and have launched environmental improvement projects.

These companies’ energy efficiency projects will not only reduce GHG emissions per tonne and improve production, but will also generate income. By investing in a new state-of-the-art kiln in Costa Rica and upgrading kiln lines in Romania, each company will generate saleable credits for each tonne of CO₂ reduced. The Clean Development Mechanism (CDM) and the Joint Implementation (JI) scheme permit industrialized countries to reach emission reduction targets through credits that are generated by projects in developing countries (CDM) or other industrialized countries (JI).

Holcim’s CDM project in Costa Rica will increase capacity from 1,450 to 2,400 tonnes per day, while at the same time reducing energy use from 3,550 MJ/t to 3,200 MJ/t. Romania’s JI project is expected to deliver over 880,000 tonnes of CO₂ emissions reduction between 2008 and 2012.

Both CDM and JI are complex and evolving rules-based mechanisms. Given the establishment of the European Emissions Trading Scheme, and the increasing presence of voluntary climate change programs across the globe, participation in these projects has been a valuable learning opportunity for the entire Holcim Group. These are the first examples of Holcim companies engaging in these mechanisms, and in both cases the companies were pioneers in their industries in each country. However, despite significant investments of time and money to ensure the success of these projects, neither had received official approval by May 2004.



Environmental performance

Our Environmental Policy Statement (EPS), launched in 2001, commits Holcim to continuous improvement and to developing our business by enhancing our environmental performance. We embed the policy in our business processes to ensure continued focus and systematic performance improvement. The policy can be downloaded from our website.

Holcim’s corporate Environmental Policy Statement is the umbrella for all Group company environmental policies. Our network of environmental coordinators works to ensure that these policies are aligned and that the underlying principles are consistently applied. During 2003, a large number of Group company EPSs were reviewed for consistency with the corporate EPS and compliance with ISO 14001.

Our environmental data currently covers only our cement operations, but we are expanding data collection in our other businesses and intend to report on these areas in the future.

In this chapter we describe our environmental performance and progress made since our last report.

Target

Environmental reporting will be extended to concrete and aggregate operations by 2006.

Resource utilization and CO₂

Concrete is one of the world’s most CO₂-efficient building materials, but manufacturing cement is a resource and energy-intensive process (see process diagram at the end of the report). The cement industry is responsible for 5% of all man-made CO₂ emissions. Various policy approaches to climate change are appearing (see information in our annual report 2003), and Holcim is committed to complying with emerging obligations in the most cost-efficient ways. Our strategy is to build knowledge leadership, reduce the CO₂ intensity of our production processes and product use, and participate in the development of international policies and mechanisms.

Our CO₂ commitment

In 2002, Holcim committed to reduce our global average specific net CO₂ emissions by 20% by 2010, based on our 1990 emissions¹. We have committed to this “efficiency objective” because we believe that if global society intends to protect the climate while meeting the needs of a growing population, society must improve the CO₂ efficiency of its consumption and production. Thus as the need for cement continues to grow, particularly in developing countries, society should source these products from the companies that produce them most efficiently in terms of cost-effectiveness and environmental and social impact.

¹ Calculated according to the WBCSD Carbon Dioxide Protocol for the cement industry.

EFFICIENCY

“Our forecasts assume no significant substitution of cement by other materials. This has not happened to any significant extent over the last 18 years, and although other types of material could replace cement in the future, there is no sign of it happening currently.”

Mike Betts, JP Morgan, in “Global Business to 2020”, WORLD CEMENT 75th Anniversary, November 2003

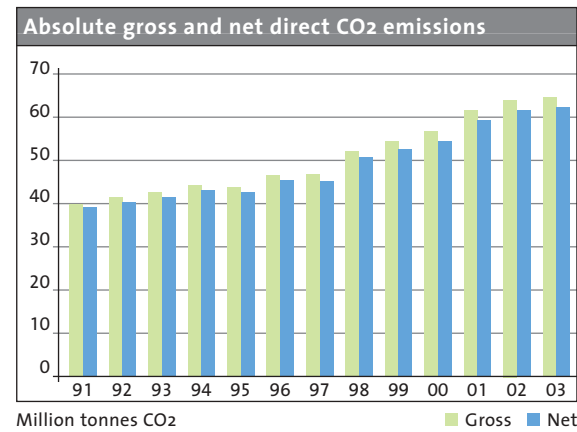
Key emission reduction techniques include substituting clinker (derived from limestone, and the main ingredient in cement) with suitable mineral components, improving energy efficiency, substituting fossil fuels with biomass and waste materials, and reducing cement kiln dust disposal. These reduction initiatives are also important eco-efficiency drivers, enabling us to produce more cement while using fewer resources and applying the concept of industrial ecology, whereby waste material from one process becomes input material for another process. Technical and economic considerations limit the use of suitable clinker substitutes and thus limit our ability to cut CO2 emissions.

Cutting CO2 emissions

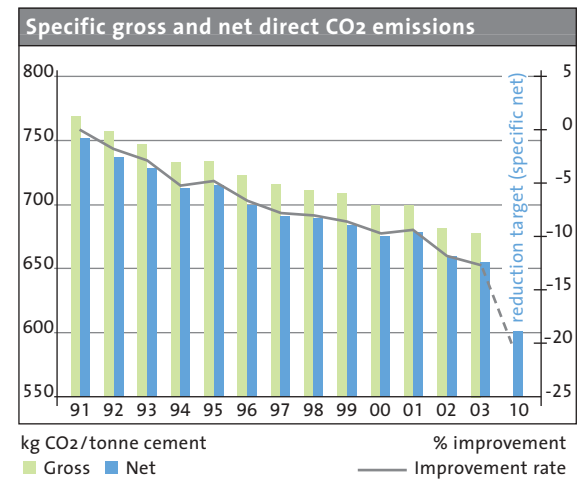
We monitor and report our CO2 emissions according to the WBCSD Carbon Dioxide Protocol for the cement industry.

Despite a 65% increase in our global cement production between 1990 and 2003, our increase in absolute net CO2 emissions was only 43%, due to improvements in energy and process efficiency and increasing substitution of traditional kiln fuels.

Indirect CO2 emissions from purchased electricity totaled 4.3 million tonnes in 2003 (2002: 4.4).



On a worldwide level, our specific emissions have improved in the last two years, mainly due to the commissioning of new, more energy-efficient kilns in North America, and the increased use of mineral components and alternative fuels in Latin America, Europe and Africa Middle East.



During 2003, we developed operational CO2 indicators consistent with both the WBCSD Protocol and our internal accounting and reporting standards, enabling us to fully embed CO2 emissions monitoring and reporting into our business processes from 2004. We aim to have our CO2 monitoring and reporting system audited by a third party by 2005.

- Targets**
- Our CO2 monitoring and reporting system will be audited by a third party by 2005.
 - We will reduce our global average specific net CO2 emissions by 20% by 2010, with 1990 as the reference year.¹

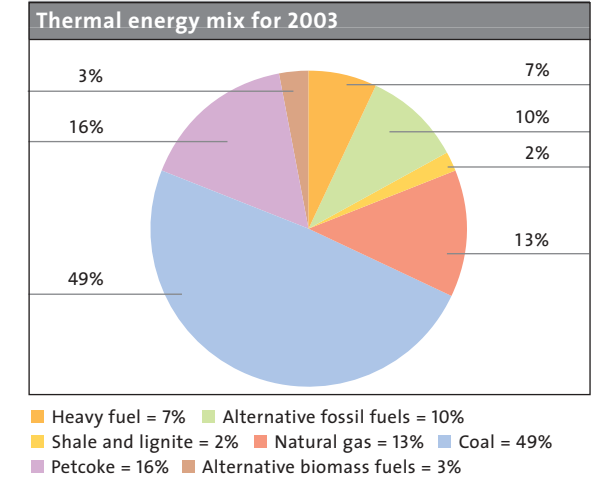
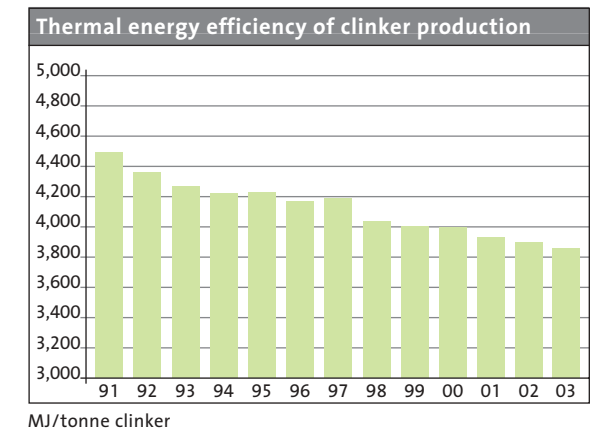
¹ Calculated according to the WBCSD Carbon Dioxide Protocol for the cement industry.

Energy

The total thermal energy consumed per tonne of clinker produced is determined chiefly by the type of technology used in the production process. This technology has advanced significantly over recent decades, from energy-intensive wet process to modern dry process with preheaters and precalciners. Therefore our modern plants in Asia and Latin America are more energy-efficient than our older plants in Europe and North America. Investment in an ongoing plant renewal program is improving energy efficiency in North America, but these gains are being balanced out by the acquisition of older, less efficient wet process plants in Eastern Europe.

Using thermal and electrical energy

In 2003, we used 300,777 TJ of thermal energy worldwide (2002: 297,275) and 10,745 GWh of electricity (2002: 10,281).



“Exploring true alternatives to the technology and products used today is needed – the cement industry needs a visionary goal to curb absolute CO2 emissions.”
 Remi Parmentier, Varda Group, on the occasion of our first corporate stakeholder dialogue, December 2003



Alternative fuels and raw materials (AFR)

Holcim is committed to promoting waste prevention and recycling, and will increase its use of alternative, waste-derived fuels and raw materials in place of traditional fossil fuels and raw materials. This reduces fuel costs, conserves natural resources, and serves society by safely co-processing wastes that might be expensive or illegal to dispose of otherwise. Our use of alternative fuels reduces global GHG emissions both by avoiding the combustion of traditional fossil fuels and preventing GHG emissions at waste disposal sites (dump, landfill, or incinerator).

AFR – addressing the dilemmas

Debates continue over the use of AFR in cement kilns. Some stakeholders are concerned about potential health or environmental impacts from the handling and combustion of alternative fuels. Others are concerned that our product quality could be compromised. It has also been claimed that the use of waste and by-products as fuels actually perpetuates the production of these wastes, by offering a legal, cost-efficient solution to disposal. However, other stakeholders are pleased by the “win-win” possibilities of cutting GHG emissions and getting rid of wastes by using AFR.

AFR policy

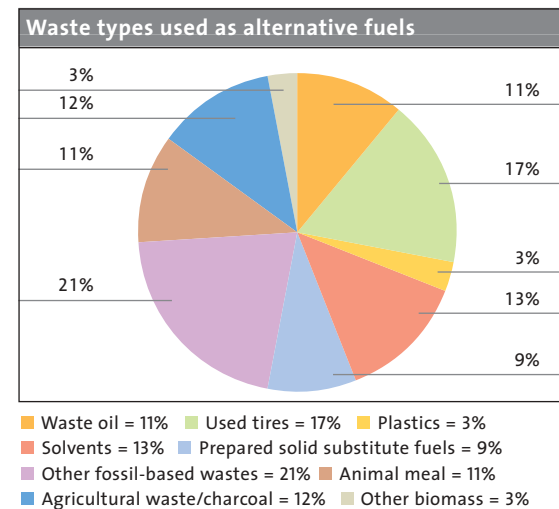
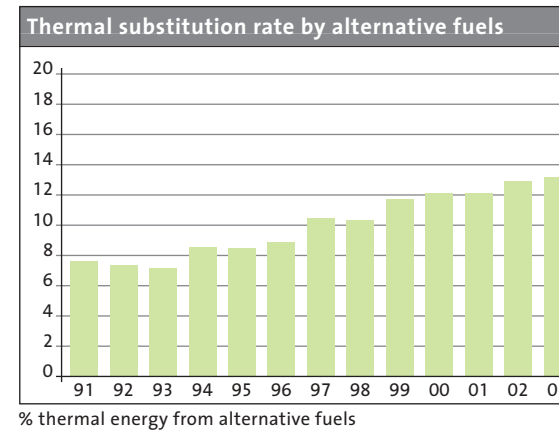
Our internal AFR policy became a corporate standard in 2002. The policy governs the co-processing of waste-derived materials at Holcim cement plants and

also covers Holcim facilities where selected waste streams are pretreated for recovery in our cement kilns.

It is a tool for corporate governance, business risk management, communication, and improved environmental performance. The policy’s nine principles are supported by definitions and rules, and are backed by manuals detailing engineering, quality, and health and safety guidelines. The policy can be downloaded from our website.

Group companies are required to integrate the policy into their environmental management systems and implement action plans to ensure compliance with the policy by the end of 2004.

In addition to implementing our AFR policy and governing our own behavior when using AFR, Holcim has formed a public-private partnership with GTZ, German Technical Cooperation, to develop guidelines for the use of wastes in cement production. The alliance will run for three years, until 2006, during which time the guidelines will be pilot-tested at Holcim plants in Chile, Mexico, Morocco, and the Philippines. We aim to have the guidelines integrated into an internationally recognized agreement such as the Basel Convention on Transboundary Movement of Hazardous Waste after the partnership has run its course.



In 2003, we consumed 138.2 million tonnes of natural raw materials (2002: 139.6) and 12.9 million tonnes of alternative materials (2002: 13.0) for 111.3 million tonnes of total cement production (2002: 108).

Using AFR – the thermal substitution rate

In 2003, our thermal substitution rate (the percentage of thermal energy produced by alternative fuels) was 13.1%. This is equivalent to replacing 934,000 tonnes of oil per year and recovering 2.1 million tonnes of waste. Use of alternative fuels is particularly well established in Western Europe and North America, at 32% and 17% respectively. Our companies in Latin America have significantly increased their rates in the last two years from 10% to 14%. The amount of biomass used in the Group as alternative fuel has also increased in the last two years to 26%.

Holcim France-Benelux – Helping to reduce an environmental disaster

In December 1999, the oil tanker Erika wrecked off the coast of France, spilling thousands of tonnes of oil onto fragile Brittany beaches. The tanker owner Total engaged Holcim France-Benelux to be part of its Erika waste-recovery solution. The experience that Holcim’s AFR team had acquired over more than 15 years in the field was key to winning the contract to feed around 20,000 tonnes of pretreated oil sludge into the kilns at Obourg and Rochefort during 2003. This experience helps us to offer solutions for similar environmental problems. Holcim’s AFR solutions can help deal with the growing demands from industry and local authorities for waste treatment across an ever-widening range of applications. Our AFR policy provides the principles to guide our behavior.

The nine principles of our AFR policy

When using AFR our goal is to:

Elements of sustainability

1. Act as a partner to society by offering waste management solutions
2. Keep our environment safe
3. Add value to our core business

What we do

4. Ensure occupational health and safety
5. Refuse the listed “banned wastes”
6. Guarantee the quality of our products

How we do it

7. Comply with the relevant regulations and promote best practices
8. Monitor and control the inputs, process, products and emissions
9. Communicate transparently



“The use of alternative fuels can contribute to a more sustainable management of solid and difficult waste materials, and helps to conserve energy resources by substituting fossil fuels.”
Stefan Helming, GTZ, on the occasion of our first corporate stakeholder dialogue, December 2003



Mineral components

Substituting clinker in cement with appropriate secondary materials, such as blast furnace slag, fly ash from power generation, or natural pozzolans (a volcanic ash), reduces both the fuel and raw materials required per tonne of cement produced. Lowering the clinker factor is one of the best, technically proven approaches for reducing process CO2 emissions and is a key factor in Holcim's CO2 reduction strategy.

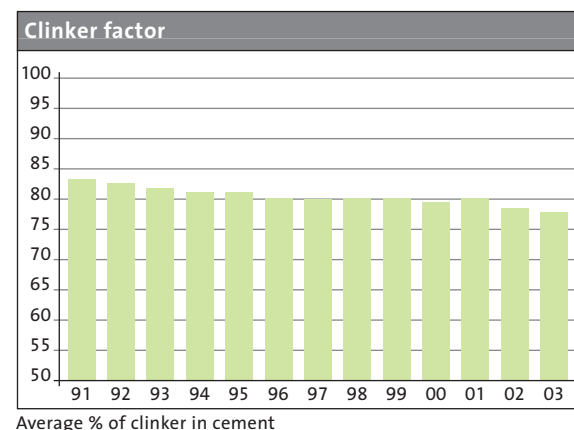
However, increasing the use of these secondary materials, known as mineral components, is not without significant challenges. Sources of mineral components are often linked to other production processes remote from our production facilities. There are both technical and economic limits to the amount of mineral components that can be used in cement products. Therefore the potential for clinker substitution varies according to users' technical requirements, supply constraints, and logistics.

Holcim has developed a range of tools addressing sourcing, logistics, manufacturing, marketing, and product application issues to assist our Group companies to introduce and increase the use of mineral components. We work with our customers to develop product solutions for their needs.

Holcim is also collaborating with mineral components suppliers to secure high-quality, long-term supplies of these materials. In Germany, France, Canada, the US, and Australia, Holcim Group companies have established partnerships with steel companies in which Holcim owns and operates part of the installation and monitors and optimizes the composition of the mineral component by-product.

Using mineral components – the clinker factor

In 2003, Holcim's Group-wide average clinker factor (average percent of clinker in cement) was 78%, representing an improvement of two percentage points since 2001. Latin America and Europe continue to be the most successful regions in implementing mineral components strategies, with North America beginning to make more headway following recent changes in restrictive cement product standards.



Other environmental impacts – quarry management and rehabilitation

Most of the raw materials used in cement manufacturing is extracted from our 178 active quarries. Extraction of the limestone, marl, and clay affects not only the landscape and ecology of the quarrying area, but also concerns the surrounding communities.

We need to minimize our environmental footprint in both new and existing plant locations, and are increasing our understanding of biodiversity issues through information exchanges with Conservation International and the World Conservation Union (IUCN). 42 of our plants reported in 2003 that they needed to consider biodiversity issues in their operations; 20 reported karst (limestone landscape) or cave issues, and 23 need to manage cultural heritage issues.

To assist Group companies in balancing their environmental, social, and economic goals, we have developed an integrated set of tools and procedures to ensure optimal use of all raw materials resources. The approach covers the planning spectrum, commencing with identification of raw materials resources, their description, evaluation, strategic and operational planning of exploitation, analysis of visual impact, through to rehabilitation of exploited areas.

Restoring our sites

All Holcim operating, cement-related quarry sites will have rehabilitation plans in place by 2006, with ongoing rehabilitation during the life of the quarry being the ideal. In 2003, 80% of our operations had established quarry rehabilitation plans (2002: 80%, 2001: 78%), and 97% provided financial resources for future rehabilitation (2002: 95%, 2001: 85%).

To ensure that our rehabilitation plans meet both regulatory and good practice standards, we are working with external stakeholders and experts to develop quarry rehabilitation guidelines.

Award-winning projects, such as wetland conservation in Vietnam (see box) and conservation and rehabilitation initiatives in Thailand, Mexico, Morocco and Switzerland, demonstrate how our companies are conserving and restoring resources for the future. See website for details.

Targets

- We will develop rehabilitation plans for all our operating cement-related quarries and communicate them to external stakeholders by 2006.
- Environmental and social impact assessments according to the WBCSD/CSI protocol will be undertaken for new projects, acquisitions, and closures as of 2006.



Holcim Vietnam – Wetland conservation

The Ha Tien project in Vietnam helps to conserve the wetlands around our plant and quarry operations in the Ha Tien region, an area rich in biodiversity, while helping local communities farm more effectively. It will introduce sustainable harvesting techniques, conserve grasslands, and maintain the refuge of the sarus crane, an important symbol to the Buddhist people.

This partnership project, supported by the International Finance Corporation, the International Crane Foundation, and Holcim Vietnam, was among the winners of the 2003 Development Marketplace, the World Bank Group's annual innovation grant competition.

For more information on this and other conservation and rehabilitation projects, visit our website.



“Not only are rehabilitation measures to be taken into consideration, but also an early-on assessment of biodiversity impacts during the exploration of new quarry sites may be useful as a front-end approach to address fundamental issues of land use conflicts.”

Glenn Prickett, Conservation International, on the occasion of our first corporate stakeholder dialogue, December 2003

Other atmospheric emissions

In addition to CO₂ emissions, cement production emits dust and a number of gases into the atmosphere. We measure, monitor, and report our emissions according to our corporate emissions monitoring and reporting (EMR) standard. The standard prescribes a common methodology for continuous measurement of dust, sulfur dioxide (SO₂), nitrogen oxides (NO_x), and volatile organic emissions, and for periodic measurement of other emissions, including metals and dioxins (for more information, see website). To implement the standard, almost all plants installed the necessary monitoring equipment and ensure ongoing adequate technical expertise to use it.

Other atmospheric emissions							
Item	Number of kilns reporting			Average specific concentration			Total annual emission ¹ (tonnes)
	2001	2002	2003	(g/tonne clinker)			
	2001	2002	2003	2001	2002	2003	2003
Dust	115	122	124	110	100	120	9,600
SO ₂	100	108	119	750	690	705	57,100
NO _x	96	107	111	1,750	1,600	1,750	141,300
Organics	73	86	104	80	60	74	6,000
Mercury (Hg)	79	89	111	0.02	0.04	0.03	2.7
	(micrograms TEQ/t clinker) ²						
Dioxins/Furans	71	82	91	0.11	0.07	0.06	

Atmospheric stack emissions are reported as "annual averages" standardized to reference conditions (dry exhaust gas at 0°C, 1 atm, and 10% O₂).

¹ Total annual emissions were extrapolated from available data sets to all 135 consolidated kilns by using specific emission factors (in g/t clinker) and the actual production rates in 2003.

² TEQ: toxic equivalents – a sum parameter accounting for the relative toxicity of the individual dioxin and furan compounds. In cases where the measurements were below the detection limit, 50% of the detection limit was set as the default value.

At the end of 2003, 81% of Holcim kiln stacks, covering 85% of the Group's clinker production, were in compliance with the standard. By the end of 2004, almost all kilns are expected to comply. We will reach our target to comply with the standard by the end of 2003 with some delay. Our global investment in EMR equipment is expected to total approximately CHF 40 million, with an ongoing annual cost of maintenance and training of between CHF 1.6 and 2.4 million. With substantial implementation of the EMR standard in 2003, the quantity and quality of stack emissions data have improved greatly since 2000. However, improved data collection and the addition of more companies to the Group have led, in some cases, to an apparent deterioration in our emissions performance. Integration of newly acquired companies takes time, but we are working on bringing them up to Holcim standards.

Holcim is committed to define a set of emission reduction targets by 2006 and report publicly on progress relative to those targets. We are now reviewing the results of our improved emissions monitoring, elaborating our global abatement priorities, and drafting action plans to achieve our global reduction targets.

Target

By the end of 2006, we will define a set of emission reduction targets and report publicly on progress relative to those targets.

Water

Cement production requires water either for cooling heavy equipment and exhaust gases or for preparing slurry in wet process kilns. The average water consumption of a modern cement plant should be between 100 and 200 liters per tonne (L/t) of clinker whereas wet process plants would typically consume between 300 and 900 L/t of clinker. Our specific water consumption figures still vary in a wide range, which indicates a need for action to improve data quality. The quality of water effluent from our cooling processes can be affected by the presence of solids, altered pH, or high temperatures. Installation of closed loop water cycles or settling ponds helps us better use water resources.

The efficient use of water is a special priority where water resources are scarce. The water sanitation initiatives in Vietnam and Bangladesh, as well as the water for life initiative in Croatia, highlight the importance we give to water and sanitation and the preservation of water resources. For more information, see website.

Transport

Given that cement is a heavy, low-price, bulk product, transport choices are controlled primarily by cost considerations. Most of our product is transported by road (74% in 2003, 70% in 2002), with rail (18%) and water (8%) transport sharing the remainder. Total shipments of cement grew from 106 million tonnes in 2002 to 111 million tonnes in 2003.

Solid by-products

The major solid by-product of cement manufacturing is cement kiln dust (CKD), a powder captured from kiln exhaust gases. In the majority of cases, CKD is returned to the kiln system, thus reducing CO₂ emissions, or it can be recycled into the finished cement, sold, or land-filled. In 2003, 21 Holcim cement plants generated CKD that was not returned to the process (2002: 21).

A total of 0.86 million tonnes of CKD was sold or discarded (2002: 1.0), representing 10.6 kg/t of clinker (2002: 12.2). In recent years, our CKD disposal rate has been reduced by process modifications to reduce CKD generation, and by new product formulations to increase re-use of CKD.

Environmental compliance

In 2003, 33 severe non-compliance cases were reported by 19 plants (2002: 33 cases at 18 plants) and the associated fines and penalties paid totaled CHF 121,000 (2002: 450,000), with one major case (oil spill) contributing CHF 94,000.

The other (minor) cases are mainly related to air permit or AFR permit exceedances. Implementation of ISO 14001 will help improve our compliance performance.



Holcim US – Wastewater treatment award

Its storm water management system and record of zero effluent permit violations earned Holcim's Theodore plant the Excellence in Industrial Wastewater Treatment Award of the Alabama Water Environment Association in 2003. The Theodore plant collects all storm water for treatment in a system of three settling basins and then recycles the solids into cement production. In light of the powerful storms that affect the region, the plant's successful protection of surrounding wetlands from the substances in its settling ponds is especially impressive.



Education and training to reduce poverty

For almost two decades, Holcim has maintained a partnership with the Vivamos Mejor Foundation – a charitable organization initiating and supervising social development projects in Latin American communities. These projects reflect two of Holcim's CSR focus areas by providing education while at the same time involving the community.

The initiative in the small rural town of Maria Auxiliadora in Costa Rica's Alajuela province is similar to Holcim projects near our plants in Brazil, Nicaragua, and Venezuela.

In Maria Auxiliadora, poverty is one of the main causes of high youth unemployment and school drop-out rates among 10 to 17-year-olds. Vivamos Mejor and Holcim try to support children while they receive a solid educational foundation, as this will enable them to sustain themselves both economically and socially. Begun in 2003, the project has the goal of reducing the school drop-out rate of 28% by half by 2005, as well as substantially lowering youth unemployment.

Apart from financial support, Holcim is actively involved in the Foundation by contributing experience and know-how to various project initiatives such as a study center, scholarships, and learning support groups. Unemployed youth receive technical training; and sport and recreational activities, open to both children and parents, help strengthen social skills while improving the community's overall quality of life.



Social performance

Social responsibility has always been a cornerstone of Holcim's commitment to SD. It is about caring for people: our employees and our neighbors as well as our customers and suppliers. We are determined to contribute to improving the quality of the lives of our stakeholders within our spheres of influence. To harmonize activities and to facilitate our Group companies' social engagement, we launched our CSR approach in 2003. Its core is the CSR policy (available on our website), which rests on six pillars:

- Business conduct (see page 9)
- Employment practices
- Occupational health and safety
- Community involvement
- Customer and supplier relations
- Monitoring and reporting performance (see page 41).

We are pleased with progress to date in most areas. All Group companies now discuss CSR as part of their business operations, are aware of our CSR approach, have appointed CSR and OH&S coordinators, and allocated financial resources. Some 70% of Group companies have integrated CSR into their company strategies. In 2003, about CHF 44 million was spent on CSR (including CSR-related personnel expenses) on a Group-wide level, being approximately 2.1% of EBIT. About 36% was dedicated to OH&S, 19% to charity and donations, and the rest allocated to individual projects and project coordination.

To further strengthen our approach and facilitate the exchange of good practices, we conduct regional and global workshops.

Target

The four CSR targets listed in our previous report have been regrouped into the following revised target: by the end of 2004, all Group companies will have integrated our CSR approach into their business plans.

Employees and business success

The people who work for us are central to our success. To be an attractive and responsible employer, we aim to provide the best conditions in terms of trust, team spirit, mutual respect, and personal and professional development. Fair remuneration, equitable reward schemes, continuous learning, and good benefits are part of our commitment to employees.

As of December 31, 2003, we employed a total of 48,220 people across the world. Employee numbers by region, the changes from 2002 to 2003, and personnel expenses for 2003 are shown on the next page.

RESPONSIBILITY

"Vivamos Mejor has had around 20 years of constructive cooperation with Holcim in Central and South America. It is important for development aid to not only be channeled from the North to the South, but for the South to also be actively involved. With its network of Group companies, Holcim is a leader in this field."
Peter Tschopp, President of the Vivamos Mejor Foundation, on the occasion of our first corporate stakeholder dialogue, December 2003

Group personnel per region and personnel expenses				
Group personnel per region	Personnel expenses in million CHF			
	2001	2002	2003	2003
Europe	15,082	16,359	15,365	900
North America	5,343	5,146	5,236	546
Latin America	12,266	11,091	10,278	367
Africa Middle East	5,224	4,620	4,472	155
Asia Pacific	8,646	13,078	12,118	243
Corporate	801	821	751	194
Total Group	47,362	51,115	48,220	2,405
Mature markets	17,756	16,675	15,725	1,638
Emerging markets	29,606	34,440	32,495	767

Holcim is an attractive employer, with wages that are above average relative to local market conditions. A competitive wage is just one of the factors influencing the morale of our employees. In order to maintain good relationships with our workforce and to take our people's concerns into account in decision making, many of our companies (66%) have policies on workers' rights and a few (seven) have started to conduct employee satisfaction surveys. This is still low, but 17 Group companies have committed to evaluating employee satisfaction in 2004.

Trade unions are a significant stakeholder for many of our Group companies, and we aim to maintain healthy and constructive relationships with them. Our success is confirmed by the fact that only two Group companies (Italy and Lebanon) lost days due to strikes in 2003, one day at each site.

In order to remain competitive and to adapt to local market conditions, we restructured operations in 2003, mainly in two new acquisitions. This and the deconsolidation of some companies led to a reduction of 2,895 employees in that year.

Our approach to restructuring includes open communication and helping former employees by a variety of support mechanisms that exceed national laws. Coaching, retraining, voluntary early separation plans, outplacement services, and helping former employees set up their own businesses are all part of the Holcim approach.

For more information, see the human resources section in our annual report 2003.

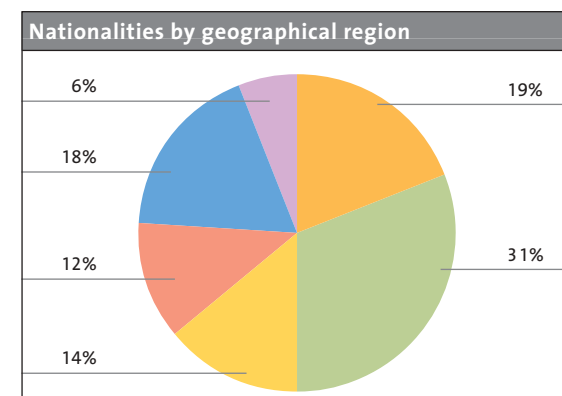


Holcim US – Diversity

Holcim US is among the 42 companies and government agencies considered most supportive of historically black college and university (HBCU) engineering programs in a 2003 survey by Career Communications Group, Inc. (CCG). The survey asked the deans of 10 HBCU engineering programs to name the five organizations that contribute most to their institutional mission. CCG CEO Tyrone D. Taborne praised these organizations for moving “beyond their traditional comfort level by supporting HBCUs” and for seeing such schools as “more than a place to recruit employees.”

Equal opportunities and diversity

We value diversity and promote equal opportunities. We are very international; our 968 top managers represent 53 nationalities. This attracts many prospective employees and motivates our workforce (see table).



- Switzerland = 19%
- Europe (18 countries) = 31%
- Latin America (10 countries) = 14%
- North America (3 countries) = 12%
- Asia Pacific (16 countries) = 18%
- Africa Middle East (5 countries) = 6%

Men make up most of our workforce, a traditional fact of life in the cement business. However, over the past three years the number of women on all management levels has increased (see website). Some Group companies have made progress in addressing the wider diversity agenda by recruiting women in technical areas and by ensuring equal opportunities for people from diverse ethnic backgrounds and for those with disabilities.



Our work environments

We operate in many remote areas where living conditions are difficult, and in some where conflicts are prevalent. Our plants manage to operate through most conflicts and have in many cases provided shelter to people in need. We also work with stakeholders to ensure the safety of the plant and the community.

Our CSR policy expresses support for the Universal Declaration of Human Rights, and we commit to adhere to the International Labour Organization standards, including those on fair working conditions, child labor, health and safety, discrimination, and remuneration.

Now the challenge is to identify the interface between human rights issues and our workplaces: ascertaining which human rights concerns are relevant for our industry and are within our spheres of influence.



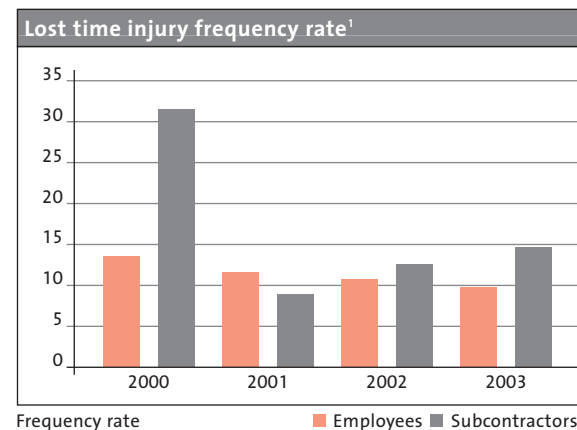
Occupational health and safety – a continuing challenge

Holcim places the highest value on ensuring the health and safety of our employees, subcontractors, third parties, and visitors. Yet comparison of our performance with best-of-class companies in similar industries such as mining and heavy manufacturing shows that we do not do as well in OH&S as they do. We must significantly improve. Our goals are to not have a single injury resulting in death or permanent disability and to substantially reduce our lost time injury frequency rate to five (see graph).

We take this challenge seriously. During 2002 and 2003, Holcim EXCO designated OH&S as the principal focus for CSR. We have set global OH&S targets and standards that are mandatory for all Group companies, including contractors. To help us attain these targets and standards, we have developed an OH&S handbook that describes the main elements, systems, and procedures of our approach. We have also designed a standard assessment audit protocol for companies to use in checking progress. Our EXCO receives regular performance reports, and we have implemented a critical incident reporting system (Safety Alert) for sharing details of accidents and incidents that occur at any of our sites. The information is shared Group-wide via our intranet, and is meant to help prevent similar incidents occurring elsewhere. In line with our targets, all companies have carried out an assessment of their OH&S management systems against the requirements

of the global standard, to be revised annually. Group companies are also on track with the two other targets: to have an OH&S action plan by end 2004, and to have aligned their OH&S management systems with the Group standard by end 2005. Today five of our companies are certified to OHSAS 18001 (an international health and safety standard) and a number of others are working toward certification.

Stressing OH&S at our sites is starting to pay dividends and reduce the number of employee accidents. However, we are very concerned by the rising figures for subcontractor lost time injury frequency rate. As we want to establish a safety culture, we are developing programs to assist Group companies in doing this.



¹The lost time injury frequency rate (LTIFR) is calculated as:

$$\frac{\text{Number of lost time injuries}}{\text{Total number of hours worked}} \times 1,000,000$$

We deeply regret that seven employees and four subcontractors died in accidents in our cement manufacturing plants in 2002. Since 2003, we have included a category of “third parties/others” when the incident took place on our premises. Due to this change, the 2003 numbers are higher, and we have to report 18 fatalities (nine employees, three subcontractors, six third parties). The main causes of fatality are falls and heavy equipment accidents. We are now developing guidelines for Group companies to improve performance in this area.

Our OH&S system specifies that all injuries causing death or permanent disability must be included in statistics when Holcim is deemed legally responsible for the incident that caused the injury. As these can also happen offsite, we are setting up a program to collect and report this information. As with the data for onsite incidents, this will be aligned with the goals of the CSI Agenda for Action.

- Targets**
- All companies will:**
- Carry out annual OH&S assessments by 2003
 - Establish an OH&S action plan with specific targets by 2004
 - Ensure their OH&S management systems comply with the Group standard by 2005
 - Report on OH&S records according to the WBCSD/CSI protocol by 2005.

Other health issues

We have developed an AFR Health & Safety manual for Group company use. Before accepting an AFR product, we conduct a thorough risk assessment on the potential health impacts from both acute and chronic exposure to the materials used, and appropriate controls for these impacts are then identified and implemented.

Many Group companies are faced with health issues prevalent in their employees’ communities. These can include water-borne diseases, tuberculosis and other respiratory diseases, and malnutrition. Responses to these issues range from comprehensive on-site medical facilities (such as health care services and programs in the Czech Republic, Serbia, and Sri Lanka) to helping improve local community health care providers (health assistance in Chile, support of a foundation for children suffering from polio in Slovakia). HIV and AIDS proliferates in several countries where we operate, particularly in Africa, Asia Pacific, and parts of Latin America. Some Group companies – South Africa, for instance – have implemented excellent disease management approaches, and we are working to learn from these and implement them elsewhere.



Holcim South Africa – External acknowledgment for our OH&S practices

Some of our Group companies have been acknowledged for their OH&S practices by external organizations. Holcim South Africa’s Roodepoort plant has achieved a 27th consecutive NOSCAR for maintaining high safety standards over as many years, even though the plant has old technology and equipment. NOSCAR is the highest annual award for achievement in safety, health, and environmental management by the National Occupational Safety Association, which operates internationally.



Community involvement

Holcim's involvement with neighboring communities has always been a mainstay of our social engagement. Almost all of our Group companies engage in many activities and projects within their local spheres of influence, some of which have continued for more than three decades.

Many past projects have focused on one-off charitable donations, but we are now encouraging our Group companies to engage in longer-term action in certain focus areas. Some 70% of Group companies support education, 61% engage in projects to build infrastructure for livable communities, and 51% support sustainable community development.

To ensure the success of these projects, local Holcim management joins with stakeholders to assess the needs of the community and plan and manage the projects collaboratively.

Building livable communities in Latin America

Holcim's CSR mission is to play a leading role within our spheres of influence. By working in our areas of expertise and with communities close to our operations, we have an excellent opportunity to demonstrate this approach.

At Cemento Polpaico in Chile, efforts are focused on the Reñaca Alto community close to the concrete plant in Viña del Mar. Since the plant was built in 1989, the neighboring community has grown to around 12,000 inhabitants. Infrastructure needs have likewise increased, and Polpaico saw the opportunity to assist with leftover concrete from its daily batches as well as technical on-site support. In this way, concrete is recycled into practical projects that benefit both stakeholders and the company.

Partnerships with the area's official community organization and other local institutions have led to several projects, including the paving of school sports and assembly zones and residential roads and sidewalks. A neighborhood sewerage system has also been constructed.

Meanwhile, Holcim Apasco has collaborated with the Mexican Ministry for Social Development's "Micro-Regions" program to replace earth floors with concrete in some of Mexico's poorest communities to improve health and hygiene.

Holcim Apasco supplies the materials, logistics and technical assistance; the Ministry provides project coordination; state and municipal authorities offer transport, specialized personnel and technical support; and the communities themselves are the workforce. The ongoing program has improved the lives of some 20,000 families since 2001.

Customer relations

To build customer value, 66% of our Group companies conduct formal customer surveys. In developing countries in particular, we work with local institutions to find innovative solutions for local infrastructure and housing to meet the needs of some of the poorer communities.

Supplier relations

We engage in long-term relationships with suppliers and subcontractors. Our procurement department and Group company procurement officers strive to secure the most cost-effective products and services, but also to encourage suppliers to respect our social and environmental policies.

Some of our Group companies have started to ask suppliers to demonstrate their support for our standards or business principles such as ISO 9001, ISO 14001 or SA8000, defined employment conditions, human rights, or UN Global Compact criteria. In cases where suppliers do not adhere to these standards, we seek to engage in a dialogue and adopt mechanisms such as special clauses in standard supplier contracts, to assure compliance with our policies and standards.

In 2004, we began to develop guidelines for our suppliers, including self-assessment checklists in the area of SD.

Target
By the end of 2005, we will have implemented a supplier qualification program.



Union Cement Corporation – Best CSR policy

Our Philippine Group company, Union Cement Corporation (UCC), won the Asian CSR Policy Award from the Asian CSR Forum in 2003, in competition with 142 entries from 80 businesses in 11 countries. UCC defined its social development program in partnership with local communities, detailing the company's commitment to healthcare, nutrition, sport, education, sustainable livelihoods, and infrastructure. For example, its Women's Livelihood Program augments family income by training 200 women in sewing and handicrafts.

"A good relationship with the community helps us implement projects that both the company and the community want."

Zita Diez, UCC's CSR Coordinator and Communications Manager



In Vietnam and Bangladesh, as in many emerging countries, we provide the truck drivers of our suppliers with services such as canteens offering meals at very low prices and bathrooms with showers.



Holcim Brazil – Mobilizing the communities

Good community relations help us maintain our license to operate. Holcim Brazil has consulted with its stakeholders for years, mostly in separate meetings with various groups. What generally occurs in such bilateral discussions is that each group's particular concerns are addressed, without considering other stakeholders' perspectives. As a result, it then becomes more difficult for Holcim to fully resolve the respective issue.

From 2003, therefore, Holcim Brazil began assembling stakeholders across its whole range of interest groups in Community Advisory Panels (CAPs). Such cross-fertilization makes for richer discussions and a better forum for developing environmental and social programs. Diverse stakeholder groups are better able to prioritize issues and address those that may give rise to conflict. The stakeholders themselves are often in the best position to contribute to solving problems. Under the CAP approach, action plans are set after each meeting, and community members take responsibility for carrying out any agreed activities. Holcim Brazil is also employing this approach in its foundation, Instituto Holcim, whose mission is to take part in communal life, especially via educational and sustainable development initiatives. Since 2003, the Instituto has switched from doing projects for the community to doing them with the community. The process involves all community opinion leaders in a workshop to define the community's main issues, how they should be resolved, and what priorities to establish. Working groups are then responsible for achieving the agreed outcomes. The role of Instituto Holcim is to moderate the process and support each group's activities. A pilot program, Ortopolis, is underway in the city of Barroso, and is being followed as a case study of the UN Global Compact.



Stakeholder relations

Our Group companies have come to realize the value of identifying, meeting with, and listening to their stakeholders. It helps us stay on the same wavelength as our neighbors; it mitigates the negative effects of potentially “hot issues”, and it helps us spot opportunities and innovate. If we are to create a stable environment for long-term investment, then we must engage with stakeholders before making decisions about site expansions or new environmental projects. So we have increasingly solicited external views and ideas from our stakeholders at local, national, and international level.

Our key stakeholder groups at corporate and Group company level are our employees, regulators, investors and the financial community, unions, local communities, suppliers, customers, and the media. Depending on the relevance of the issue and the location, we prioritize our relations with these stakeholder groups, and rely on local management knowledge to support this process.

Building capacity through memberships

Memberships in business, environmental, and social organizations provide an excellent opportunity for networking as well as sharing of know-how and best practices. At corporate level, our key membership is the World Business Council for Sustainable Development (WBCSD). The majority of our Group companies are members of the local WBCSD partner organization or other similar organizations.

WBCSD and Cement Sustainability Initiative (CSI)

We benefit from our WBCSD membership through involvement in the WBCSD's council projects and our ongoing engagement with the CSI. These provide Holcim with an excellent way to stay abreast of SD issues and policy development beyond our industry. The CSI has encouraged our own development in these areas, and as a founding member of the initiative we continue to be actively involved in preparing the interim report. For more information, visit our website.

UN Global Compact (UNGC)

Holcim signed the UNGC in 2003 and has helped develop the Global Compact Source Book, an implementation guide for companies wishing to integrate UNGC principles into business practices. This guided us through our own assessment of Holcim's position relative to the Compact's nine principles. The assessment has shown us that at the level of Group policy, we have captured the UNGC spirit well in our own documents. Now we must ensure that its nine principles are “lived” in our organization. Thus we will raise awareness across the Group about the UNGC. Activities supporting the UNGC such as the involvement of our subsidiary Tanga Cement in the Growing Sustainable Business initiative will be further defined in 2004, and we shall continue to report on progress made. The full report on implementation can be viewed on our website www.holcim.com.

“What guarantees the success of the program is its participative planning approach. The result is greater participation from citizens themselves – sharing responsibilities, bringing in new ideas – thus increasing their participation in building the city's future.”

Solange Reis, Ortopolis Coordinator, Barroso, Brazil

Internal engagement and training

Holcim employees are key to the achievement of our business goals and are our foremost ambassadors when it comes to living our commitment to sustainable development.

We try to reach all employees, from management to shop floor workers. According to a survey undertaken in 2003 among a broad employee mix, 50% of our employees received or saw our first CSDR. This confirmed that the report is a useful communication tool to help our employees practice and be passionate about our commitment to SD. We now have a good basis of internal awareness of the concept of SD on which to build and will strive to reach the majority of our employees with the current report.

Holcim has a range of internal training initiatives to help align our people with our approaches and to learn from their feedback and aspirations for the company's pursuit of sustainability. These include global and regional learning, consensus-building events, and forums that cross-fertilize the opinions of management. These cover topics such as environmental management systems, our AFR policy, OH&S, and CSR. In 2004, the concept of stakeholder engagement will form part of new management training programs.

Engagement through dialogue

For a decade now, 33 out of 41 Group companies have engaged in regular stakeholder dialogues to identify and understand issues of concern to their local communities. Ten have Community Advisory Panels operating at their plants. Our case study, "Mobilizing the communities," describes how one of our Group companies successfully engaged their local stakeholders (see page 36).

Expanding our stakeholder dialogue efforts from the local to the corporate level helps Holcim to further understand and respond to the needs and expectations of the people affected by our business on a global level. Although we have been active participants in stakeholder dialogues conducted as part of the CSI, 2003 was the first year in which Holcim invited people across a range of external stakeholder groups to comment on our performance, our reporting, and our future direction with respect to sustainable development. We conducted interviews and a formal dialogue as part of the preparatory process for this second sustainability report. The ideas and positions presented help to shape and influence our processes of issue identification and prioritization. This information allows us to engage even more effectively with stakeholders at both local and corporate levels.

Public policy relations

Holcim contributes to sound public policy through trade initiatives or as a direct stakeholder. For example, at the EU level, the development of legislation on CO₂ abatement efforts, worker safety, and shipment of waste are of importance to us. On another front, Holcim is participating in various trade organizations' efforts to promote solutions. We have created the European Association for Co-processing (Euopro) in support of lobbying efforts at the EU level to secure continued viability of co-processing activities, and ensured expert advice, together with the Cement Sustainability Initiative, to assist Cembureau in contributing to the proper implementation of the Stockholm Convention on Persistent Organic Pollutants. See www.pops.int.

At national and local level, Holcim assists authorities in increasing efficiencies in the granting of operational permits.

From dialogue to partnerships

Many SD challenges cannot be addressed by industry alone. Partnerships between the different sectors of society are needed to tackle the challenges of the triple bottom line.

Most of our Group companies report some level of engagement or partnership with NGOs or other organizations with an environmental or social focus. These activities range from constructive dialogues, experience sharing, and land donations, to funding or event sponsorship.

Our partnership with GTZ, German Technical Cooperation, should help us develop solutions for integrated waste management in developing countries and countries in transition (for more details, see page 22).

To ensure alignment between Holcim's and our partners' vision, strategic goals, and competences, Holcim has issued partnership directives with clear rules for appraising potential partnerships. To assist Group companies in this, an assessment procedure is included, with a checklist that covers the process of definition and scoping, identification, engagement, and evaluation.



"Don't just listen to your allies; valuable stakeholders are the ones who challenge you."

Jermyn Brooks,
Transparency International,
on the occasion of our
first corporate stakeholder
dialogue, December 2003



Consultation and verification

The stakeholder interviews and dialogue undertaken in 2003 helped us to shape the scope of this report. The quotes reflect the discussion at our first corporate stakeholder dialogue and the views of other partners in different areas of the world.

As mentioned in the environmental performance section, our CO₂ monitoring and reporting system will be audited by a third party by 2005 and it is our intention to work toward external verification of our Corporate Sustainable Development Report in the future.

Global Reporting Initiative

The report has been prepared in accordance with the 2002 Global Reporting Initiative (GRI) Guidelines, and its guiding principles are accountability, adaptability, balance, inclusiveness, independence, technical excellence, and transparency.

The GRI content index can be downloaded from our website www.holcim.com.

“The Global Reporting Initiative (GRI) is pleased that Holcim has joined other leading companies dedicated to transparency by using the GRI indicators to measure and report on its sustainability performance – and has done so in accordance with the GRI Guidelines. It is further evidence that the Guidelines are becoming a core tool for corporate sustainability reporting, thus enabling more effective benchmarking of company performance in future by all interested stakeholders.”

Ernst Ligteringen, Chief Executive,
Global Reporting Initiative



Methodology & verification

Methods applied for data collection

We collect information from Group companies using the following tools:

- Plant environmental profile questionnaires
- Corporate main equipment data and operating statistics reports based on plant annual technical reports for both environmental and OH&S statistics
- Corporate CO₂ inventory according to the WBCSD Carbon Dioxide Protocol
- Corporate social responsibility survey.

Our plant environmental profile system enables monitoring of performance at three operational levels: individual plant performance, Group company, and corporate consolidation of plant performances worldwide. Corporate data collection currently covers only our cement business, but systems are being implemented to enable reporting from our other businesses in the years to come.

During 2003, the environmental questionnaire and user manual for cement operations were reviewed and validated by SustainAbility Ltd. The review concluded that they are “effective tools for assessing the environmental performance of Holcim’s cement plants and quarries” and that they reflect “a significant commitment to understand and manage impacts.” Specific improvements, including the development of new leading indicators, are being implemented.

In 2003, we conducted our first Group-wide CSR survey on issues related to the different pillars of the CSR policy. The survey established a baseline for future reporting and supplements the survey on CSR activities conducted in 2001. It monitors a Group company’s progress in developing its CSR strategy.

System boundaries

Apart from the economic performance section and the personnel data that represent consolidated data from Holcim Group plants and companies, the report covers our cement producing operations only.

The scope of data collection for CO₂ and resources utilization includes integrated cement plants, grinding stations, and terminals. Consolidation of data is consistent with the WBCSD Carbon Dioxide Protocol: where Holcim owns between 20% and 50% of the company and does not have management control, data are proportionally consolidated.

The plant environmental profile (providing “other environmental impacts” data) and the CSR questionnaire (providing data for our social performance chapter) cover all integrated cement plants. Data for all grinding stations will be collected as of 2005.

TRANSPARENCY

“Credible sustainability reporting is a prerequisite for building stakeholders’ commitment to a business’s success. Robust assurance is as necessary for this as it is for traditional financial reporting.”
Simon Zadek, CEO, Accountability



Quarrying activities have impacts on the local landscape and ecology and can cause noise and traffic problems for local communities. Holcim has established a number of systems to manage our quarries responsibly. These systems help to minimize noise, transport and visual impact, to reduce the use of natural resources and to optimize quarry rehabilitation.



Dust, NOx, SO2 and VOC emissions are subject to continuous monitoring under a Holcim standard. Heat recovered from the kiln and clinker cooler is recycled for preheating the raw meal, reducing thermal energy consumption.



Clinker production requires intensive use of raw materials and energy, and also results in emissions to the atmosphere, the most significant being CO2. Holcim is reducing its demand for natural resources and its CO2 emissions per tonne of product by replacing fossil fuels and raw materials with waste and industrial by-products.



Holcim places the highest value on ensuring the health and safety of our employees, subcontractors, third parties and visitors.



Use of secondary cementitious materials reduces the amount of clinker required per tonne of cement. This reduces our CO2 emissions per tonne of cement and our consumption of natural raw materials.

Construction demolition works place a heavy burden on landscapes in many places today. The recycling of these materials and potential reintegration in the concrete production process should be considered whenever possible.



The value chain of our activities.

Cement is a building material made by grinding calcined limestone and clay to a fine powder. It acts as the binding agent when mixed with sand, gravel or crushed stone and water to make concrete.

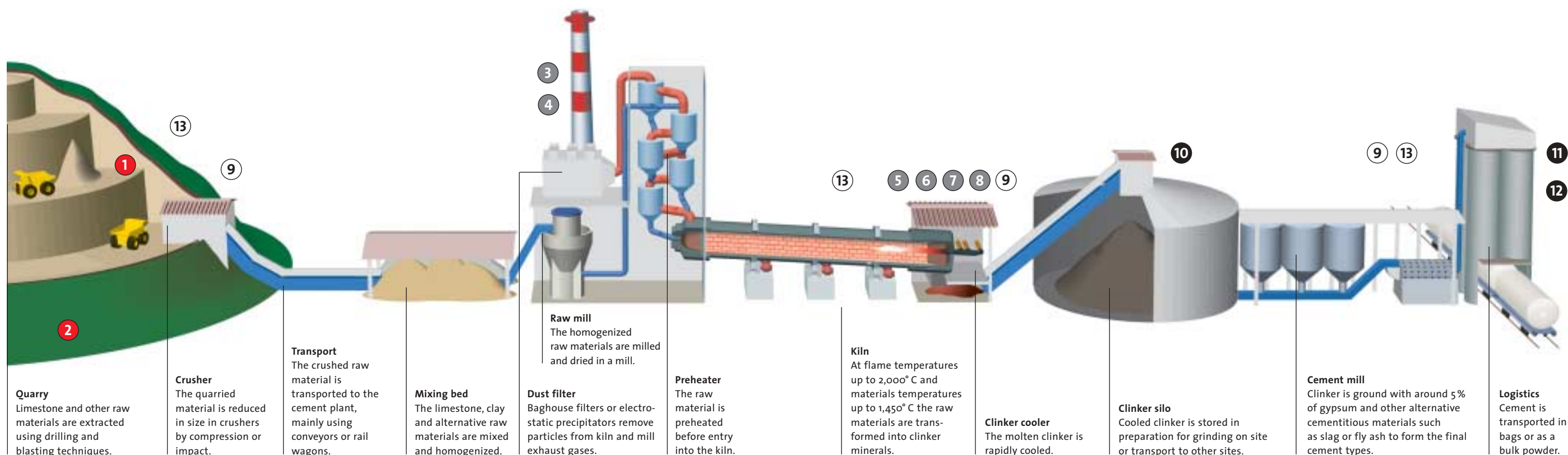
- Quarrying and raw materials preparation
- Clinker production
- Cement grinding and distribution
- Social responsibility
- Concrete production and application

Concrete is second only to water as the most consumed material on earth, with two to three tonnes used annually for each person on the planet. Cement and concrete are essential in meeting society's needs for housing and basic infrastructures such as bridges, roads, water treatment facilities, schools, and hospitals.

Quarrying and raw materials preparation

Clinker production

Cement grinding and distribution



This report has benefited from our ongoing stakeholder engagement at the local and corporate levels. Tell us what you think; send us your comments, feedback, or suggestions.

This report can be ordered or downloaded from our website www.holcim.com.

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Distribution is via the most cost-effective method to market – 70% is by road, the remainder by rail and ship. Transport by road can be a source of nuisance and traffic safety risk, which we aim to limit.



Concrete is mixed in the rapidly turning barrel of the truck until it is thoroughly and evenly mixed. It is then delivered via the transit mixer to the construction site.



Cement, the vital ingredient in concrete, acts as the binding agent when mixed with sand, gravel or crushed stone and water to make concrete.



Community involvement: being a good neighbor entails not only limiting environmental impacts but also working with our stakeholders to help improve their quality of life.



Glossary

Absolute gross emissions The total amount of CO₂ emitted from cement production activities.

Absolute net emissions Gross emissions minus credits for indirect savings, such as use of waste as fuel.

Alternative fuels and raw materials (AFR) Inputs to clinker production derived from waste streams contributing energy and/or raw material.

Cementitious material or product A substance which when mixed with water forms a paste that subsequently sets and hardens at room temperature.

Clinker An intermediate product in cement manufacturing produced by decarbonizing, sintering, and fast-cooling ground limestone.

Clinker factor The percentage of clinker in cement (according to the WBCSD Carbon Dioxide Protocol).

Composite cement Cement with a fixed percentage of secondary cementitious materials, such as slag and fly ash, replacing the clinker portion of the cement.

Concrete A material produced by mixing cement, water and aggregates. The cement acts as a binder, and the average cement content in concrete is about 15%.

Corporate social responsibility (CSR) The commitment of business to contribute to sustainable development, working with employees, their families, the local community, and society at large to improve their quality of life.

Eco-efficiency Reduction in the resource intensity of production, i.e. the input of materials, natural resources and energy compared with the output: essentially, doing more with less.

Fossil fuels Non-renewable carbon-based fuels traditionally used by the cement industry, including coal and oil.

Industrial ecology Framework for improvement in the efficiency of industrial systems by imitating aspects of natural ecosystems, including the transformation of wastes to input materials.

Kiln Large industrial oven for producing clinker used in the manufacture of cement. In this report, “kiln” always refers to a rotary kiln.

Lost time injury A work-related injury after which the injured person cannot work for at least one full shift or full working day.

Occupational health and safety (OH&S) Policies and activities to promote and secure the health and safety of all employees, subcontractors, third parties and visitors.

Ordinary Portland Cement Cement that consists of approximately 95% ground clinker and 5% gypsum.

Secondary cementitious material Industrial by-products, such as blast furnace slag and fly ash, that have cementitious properties and are used to substitute clinker in cement.

Specific gross emissions The gross amount of CO₂ emitted per tonne of cement.

Specific net emissions The net CO₂ emissions per tonne of cement.

Stakeholder A group or an individual who can affect or is affected by an organization or its activities.

Stakeholder dialogue The engagement of stakeholders in a formal and/or informal process of consultation to explore specific stakeholder needs and perceptions.

Subcontractors Full-time equivalent personnel working for the company but not on its payroll.

Waste A substance or object whose owner discards it, wants to discard it, or has an obligation to discard it.

WBCSD Carbon Dioxide Protocol Internationally accepted standard methodology for monitoring and reporting CO₂ emissions from cement production.

Acronyms and formulae

AFR	Alternative fuels and raw materials
CAP	Community Advisory Panel
CKD	Cement kiln dust
CO ₂	Carbon dioxide
CSDR	Corporate Sustainable Development Report
CSI	Cement Sustainability Initiative
CSR	Corporate social responsibility
EMR	Emissions monitoring and reporting
EMS	Environmental management system
GHG	Greenhouse gases
GRI	Global Reporting Initiative
GTZ	Gesellschaft für technische Zusammenarbeit (German Technical Cooperation)
GWh	Gigawatt hour
ILO	International Labour Organization
ISO	International Organization for Standardization
IUCN	World Conservation Union
MJ	Megajoule
NGO	Non-governmental organization
NO _x	Nitrogen oxides
OH&S	Occupational health and safety
SA8000	Social Accountability Standard
SEP	Sustainable Environmental Performance
SO ₂	Sulfur dioxide
TJ	Terajoule
UNDHR	Universal Declaration of Human Rights
UNGC	United Nations Global Compact
VOC	Volatile organic compound
WBCSD	World Business Council for Sustainable Development



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