the ecoefficiency 2000 ENVIRONMENTAL, HEALTH AND SAFETY REPORT



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CEMEX TODAY

CEMEX is one of the three largest cement companies in the world, with more than 77 million metric tons of production capacity. Through operating subsidiaries in four continents, CEMEX is engaged in the production, distribution, marketing, and sale of cement, ready-mix concrete, aggregates, and clinker. It is also the world's largest trader of cement and the world's leading producer of white cement.

Chariman's Message

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Directory



Lorenzo H. Zambrano Chairman of the Board and Chief Executive Officer

Our commitment and efforts to continuously improve our performance in the Environmental, Health & Safety areas have significantly contributed to CEMEX's outstanding economic results over the past ten years. During this period, we have become a multinational company, growing from the 28th to the third-largest cement company in the world.

This year we achieved significant progress in all areas; among them is the improvement in our safety performance. In the fourth quarter, we reached our goal established in 1997 to reduce our accident rate to 1% in our 40 cement plants located in 10 countries.

> We continued to strengthen our accident prevention culture by instituting the CEMEX Safety Award to recognize the cement facility and the ready-mix concrete region having superior performance in industrial safety.

> > Our Sustainable Development efforts include the participation, together with nine other global cement companies, in a study of our industry that analyzes present and future strengths and

opportunities in order to continue growing in equilibrium with society and the environment.

In this report we also share with you some of the ecoefficiency cases that have allowed us to increase efficiency in raw material and energy usage. These efforts have reduced the environmental impact of our operations and have also resulted in significant cost savings.

We have also confirmed our commitment to entrepreneurial integrity and to social responsibility by formalizing and publishing the CEMEX Code of Ethics. This Code includes guidelines with respect to our relationships with suppliers, clients, the government, and the communities in which we operate. It also emphasizes the importance of protecting the environment and the health and safety of our employees.

We continue to support an environmental culture and wildlife conservation. In 2000, CEMEX produced and published its eighth Ecological Book and held the Third Annual International Photography Awards to highlight and encourage environmental awareness. We also began an important project in Mexico by acquiring a portion of a protected natural reserve. Among the primary objectives of this project are (1) assuring the preservation of the reserve, and (2) encouraging studies and activities that foster the sustainable harvest of natural resources.

With concrete actions such as these, and with the enthusiasm and teamwork of our people, we keep focused on our mission to be the most efficient, profitable, and safest multinational cement company in the world.

Chairman's Message



Winners of the "1999 CEMEX Safety Award" with our CEO.

CEMEX's Safety Management System has as main components the Safety Manual, Monitoring and Tracking Electronic System (SISTER), CEMEX Safety Award, Communications and Synergy networks, and the specific programs implemented in each country in which we have operations. This management model has allowed us to establish corporate guidelines; share practices and experiences among the company's business units, which has enabled us to achieve a sustained decrease in accidents; and rapidly integrate new acquisitions to our safety culture.

RESULTS

The consolidated accident rate during 2000 improved compared with the previous year, declining from 2.5% to 2.3%.

It is important to mention that our 40 cement plants located in 10 countries achieved a 12% reduction in the accident rate, to 1.6%. In the last quarter of the year, we reached our first safety goal, established in 1997, to operate with a 1% accident rate.

During this year, we began bringing our operations in Costa Rica and Egypt up to CEMEX's standards. Both showed an outstanding improvement by decreasing their accident rates by 50% and 61%, respectively, in comparison with the first half of the year.

Of the 40 cement plants, 4 facilities operated with zero accidents (CEMEX Spain's Lloseta and Tenerife plants, CEMEX Colombia's Santa Rosa plant, and CEMEX Venezuela's Guayana plant), while 12 other achieved an accident rate of less than 1%.

On the other hand, average severity rate increased to 30 lost workdays per case compared to 21 in the previous year.

FOSTERING A SAFETY CULTURE

To continue promoting our safety culture, February 2000 was "CEMEX Safety Month" in all countries in which the company operates. Some of the events that occurred during this month included conferences, contests, emergency drills, training courses, preventive medicine campaigns, sporting events and recognitions, among others.

CEMEX SAFETY AWARD

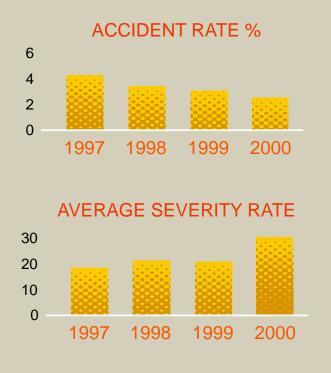
To recognize the efforts and dedication of all of our business units, we instituted the CEMEX Safety Award, an annual prize given to the cement plant and ready-mix region (cluster) that demonstrates exceptional safety performance during the previous year. The first ceremony was held at the Executive Committee Meeting in Madrid, Spain, on March 15, 2000. During the ceremony, our CEO presented the award to CEMEX Venezuela's Pertigalete cement plant and Ferrocarril concrete for their outstanding performance in Industrial Safety during 1999.

Safety



Poster of the 2000 Safety Month: "Just one day without accidents: today".

mes de la seguridad **FED 2000** safety month Norte América Sudamérica y Caribe Europa y Asia





"CEMEX Safety Award" trophies.





During the last quarter of 2000, the cement sector achieved an annualized accident rate of 1%, reaching our first safety goal established in 1997.

ACTIONS IN THE READY-MIX CONCRETE OPERATIONS

With the objective of increase the safety in the ready-mix concrete sector, we identified and consolidated the best safety practices in these operations in order to standardize and implement them in all of our operations in the world. Likewise, we initiated the internal certification process for truck drivers in Mexico, Colombia, and Dominican Republic. Safety

Drivers Certification in the Ready-Mix Concrete sector.



This year we continued with our programs that focused on promoting health care to our employees and their families. CEMEX recognizes the different needs of its employees with respect to their health and quality of life and seeks to fulfill them by promoting a healthy and supportive work environment and providing support programs and options to help employees balance the different aspects of their lives.

These initiatives are a fundamental value to our employees and our company in that they help to ensure employees' well-being and productivity while fostering their personal and professional development.

CODE OF ETHICS

The effort to formalize and distribute to employees the CEMEX Code of Ethics was spearheaded by our CEO and coordinated by Corporate Human Resources. Nearly 100 people from almost all operational areas and from almost all countries in which CEMEX operates participated in this important initiative. The Code of Ethics reflects CEMEX's commitment to entrepreneurial

The Code of Ethics reflects CEMEX's commitment to entrepreneurial integrity and social responsibility. It manifests the respect and honesty with which CEMEX's people maintain their relationships with their colleagues, clients, and suppliers, and with the authorities, the communities in which the company operates, and society in general.

The Code of Ethics will help us to guarantee that our fundamental values and principles will be implemented in each of our business units in all of the countries in which we operate.

PILOT PROGRAM FOR STRESS CONTROL

We are all exposed to stress in our daily lives that increases with the complexity of our work environment. For example, rapidly developing technology and the need to be more productive in our work create stress. With this in mind, we started a pilot program for Optimal Stress Management. More than 650 employees from our operations in Mexico and Panama and from several corporate areas participated in this program. The program applies an electronic tool for the identification, self-diagnosis, and quantification of stress. The results indicate the main areas of opportunity and suggest actions for a better handling and control of the natural stress reaction that, in extreme cases, can cause serious harm to our health and deterioration in our quality of life. Also, Dr. Claudio Zapata, a recognized expert in the field of stress management, developed and conducted workshops for stress knowledge and management.

Because this initiative achieved excellent results, we plan to extend the reach of these tools to all the employees of the organization by 2002.



Audio CD with stress management techniques.



Multifunctional group working with the Code of Ethics.

Health and Quality of Life

PROGRAM FOR THE HEALTH CARE OF FREQUENT TRAVELERS

CEMEX's growth and geographic diversification has resulted in more and more employees and executives traveling outside their country of residence. In order to promote their health and wellbeing while they travel, we implemented a program that provides practical advice for the prevention of the most common diseases as well as contact information for the international medical network in case of illness. In addition, the company provides first aid kits for use in an emergency while traveling on behalf of the company.

VACCINATION CAMPAIGNS

Because prevention is the best way to ensure good health, we continued our Permanent Vaccination Campaign. Through this program, CEMEX provides its employees with vaccines against Hepatitis A, Hepatitis B, Tetanus, Rubella, Yellow Fever, and Flu, among others. As of today, our employees and their families living in the metropolitan areas of Monterrey, N.L., Mexico, have received more than 3,600 vaccinations through this program. CEMEX headquarters promotes the Permanent Vaccination Campaign, and the program is incorporated into the particular programs developed by the business units in each of the countries in which CEMEX operates.

PHYSICIAN TRAINING AND CERTIFICATION

We have instituted a program to ensure the professional development of our physicians in order that they may provide the best possible services in occupational medicine to our employees. As result, this year thirteen physicians have obtained their certification from the Mexican Council for occupational Medicine.

WOMEN'S INTEGRAL DEVELOPMENT PROGRAM

We continued with this program, initiated in 1998, with the objective to offer a company-facilitated alternative for the development of the female employees and the wives of employees and executives. The program seeks to help employees to maintain a balance between work and family and to reinforce family stability. The program consist of a series of monthly conferences concerning, among others, effective communication, interpersonal relationships, and stress management. In 2000, approximately 115 women from different corporate areas and CEMEX Mexico participated.



Support for health care of our frequent travelers.

Health and Quality of Life

ENVIRONMENTAL PROTECTION

CEMEX keeps focused on its vision to work "In Harmony with Nature®" through the application of its strategy for Sustainable Development, which comprises three important elements: 1) cuttingedge Technology in our operational processes; 2) promotion of an Environmental Culture, and; 3) use of the most effective Equipment and Systems to protect our employees, neighboring communities, facilities, and the environment. Our efforts to improve our operations are included in the CEMEX Ecoefficiency Program (described in the following chapter), which also presents some cases that this program has generated. With regard to Sustainable Development, CEMEX is participating in a study of the sustainability of our industry conducted by an independent consultant. Details of this project are presented on page 13 of this report.

EHS POLICY

In 1993, we established our first Environmental Policy, which was implemented in all of our operations around the world. This Policy was updated in 1997 to include Safety and Health. In order to assure its validity, the EHS Steering Committee, with the authorization of our CEO, again revised the Policy in 2000.

EMISSIONS REDUCTION

During 2000, CEMEX's efforts to reduce emissions in its operations included the installation of new dust collectors in the Lloseta plant in Spain, in the Pertigalete plant in Venezuela, and in the construction of a new mill in Dominican Republic. These actions required an investment of US\$6 million. CEMEX also initiated optimization programs and brought to its standards the recently acquired companies in Costa Rica and Egypt. In those facilities, we are already seeing results in energy optimization, efficient use of raw materials, and reduced atmospheric emissions.

We are also participating together with nine other multinational cement companies to design and implement a joint strategy and proactive efforts with regard to Global Warming.



Multinational EHS e-Meeting.

E-MEETING

CEMEX held its Fourth Annual EHS Multinational Meeting by means of its virtual communication system, through which participants shared their knowledge and experiences. A member of the Corporate Communications area also participated with the EHS representatives of each country in this meeting. Although virtual communication tools provide significant advantages, we believe that human contact is important to guarantee effective teamwork and synergy and the free exchange of information. For this reason, regular, physical multinational meetings will continue to be organized and conducted every two years.

ISO 14001 CERTIFICATIONS

During 2000, we continued with our ISO certification processes. CEMEX Spain obtained ISO 14001 certification for 6 cement plants; now 7 of its 8 existing facilities, as well as 1 ready-mix concrete operation, are certified. Two of CEMEX Philippines' cement plants were also certified. CEMEX Mexico has certified 11 of its 15 cement plants, and CEMEX's operations in Venezuela, Colombia, Dominican Republic, and Panama are implementing this international standard.

Environment



Scenic view of "El Carmen" project.

ENVIRONMENTAL CULTURE

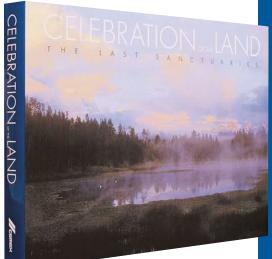
Our efforts to promote an environmental culture are based on the principle that "We take care of those things we know," and are directed to our personnel, our neighboring communities, and different sectors of society.

TRAINING

In accordance with our company values, CEMEX promotes and maintains its environmental culture primarily through training and induction programs that are carried out in all of our operations for our employees, as well as through various events involving our communities.

ECOEFFICIENCY CULTURE

CEMEX promotes its Ecoefficiency Culture through the internal and external distribution of the Ecoefficiency Brochure, as well as with seven informative capsules in CEMEX's TV channel, with an initial audience in Mexico, Panama, and Dominican Republic.



Ecological Book.

Environment



Presentation of the USFWS's recognition to CEMEX.

ECOLOGICAL BOOK

On November 15, 2000, CEMEX presented the ecological book entitled "Celebration of the Land: The Last Sanctuaries" at the Natural Sciences National Museum in Madrid, Spain. This book, the eighth title that CEMEX has produced, was published in collaboration with the Mexican organization Agrupacion Sierra Madre, highlights the beauty and significance of thirteen legendary regions around the world and emphasizes their need for greater care. The book was written in collaboration with James Lawrence, and the prologue was written by His Royal Highness, The Prince of Asturias. As in previous years, approximately 5,000 copies of this book were donated to several international conservation organizations. These organizations sell the books to obtain necessary funding for conservation research and projects support.

THE INTERNATIONAL PHOTOGRAPHY AWARD

The Third Annual Nature's Best International Photography Award ceremony was held on October 4, 2000, at the National Museum of Natural History Smithsonian Institution in Washington, D.C. Twenty thousand professional and amateur photographers from 10 countries participated in the call for the award, published in Nature's Best magazine which is supported by Nikon, CEMEX, and FedEx.

WILDLIFE CONSERVATION

Our actions to reduce the environmental impact of our raw material extraction activities go beyond our obligation to do so. Our vision is to "support the biodiversity conservation of our planet and to facilitate the generation of more and better alternatives for the sustainable harvest of wildlife. This will create jobs and develop knowledge to guarantee the optimal use of natural habitats for society's benefit."

"EL CARMEN" PROJECT

This wildlife reserve is located in the north of the state of Coahuila, Mexico, bordering on the Big Ben National Park in the state of Texas in the United States. It has an area of approximately 55,000hectare, 60% of which are located within the Maderas del Carmen Protected Natural Reserve. "El Carmen" has a beautiful variety of ecosystems, from great expanses of open desert to pristine mountain forests displaying some of the greater natural landscapes in Mexico and North America. As of today, we have invested approximately US\$4 million in land, infrastructure, scientific research, habitat remediation, and wildlife reintroduction.

GULF OF CALIFORNIA PROGRAM

Conservation International (CI) coordinates this program, and CEMEX supports CI's efforts with a total funding package of US\$2.5 million by 2004. This funding allows CI to continue developing its efforts to preserve the Gulf of California's biodiversity and local culture, which simultaneously promote the region's sustainability and the rural economy's development.

U.S. GOVERNMENT RECOGNITION

The U.S. government recognized CEMEX's environmental conservation efforts during a ceremony held on May 19, 2000, at the Mexican Cultural Institute in Washington, D.C. The Director of the U.S. Fish and Wildlife Service (USFWS), Jamie Rappaport Clark, said of CEMEX's efforts: "CEMEX has shown an incredible commitment to the environment. Perhaps its greatest contribution has been its role in encouraging the involvement of the private sector in environmental protection".

Ecoefficiency Program

We define ecoefficiency as "efforts to optimize energy and raw material efficiency to produce an economic and ecological benefit derived from a reduction of environmental impact."

The CEMEX Ecoefficiency Program (CEP), formally launched in 1994, applies this principle to our operations by leveraging the experience and innovative capability of our technical and administrative people to capitalize on opportunity areas that contribute to the company's profitability and sustainable development. For example, in 2000 the CEP generated economic and environmental benefits by reducing the use of electricity by 160,000 MG, which is equivalent to the electrical consumption of a metropolitan area with approximately 100,000 inhabitants for one year. The company has also saved 723,050 MM BTU in thermal energy, which is the equivalent of 130,000 barrels of petroleum.

Through these reductions in energy consumption and through improvements in our processes, we reduced CO_2 emissions by 263,000 tons, which is equivalent to the CO_2 sequestered in one year by 33,000 hectares of pine forest. With these efforts, we continue to contribute to the worldwide fight against global warming.

The following table sets forth the economic impact of the CEP during 2000:						
Optimized use of energy Optimized use of materials and natural	Millon USD 9.2 5.6					
resources (including water) Use of alternative fuels and wastes Reduction of emissions and wastes Office paper recycling	2.5 1.4 0.05 Total 18.75					

Since 1994, the estimated economic benefits total more than US60 million. CO₂ emissions were reduced by approximately 2.5 million metric tons.

These were achieved mainly through the following ecoefficiency actions:

• Developing and implementing technology and innovative practices for production processes and new cement plant design.

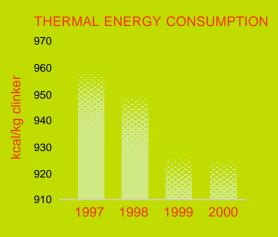
- Selective mining techniques and optimal quarry exploitation.
- Recycling and reuse of materials.

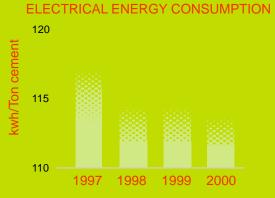
• Use of alternative raw materials (blast furnace slag and fly ash, by products generated from steel manufacturing and power stations, among others).

• Use of natural cementing materials (pozzolana).

• Use of alternative fuels by reusing wastes (petcoke, waste oils, used solvents, etc.).

The following are some ecoefficiency cases in CEMEX's business units around the world.





The above consolidated consumption rates of electrical and thermal energy reflect the ecoefficient actions performed in our operations for the production of cement.



Tepeaca cement plant, Puebla, Mexico.



BACKGROUND

The problem: In Mexico, the fact that there are few options to reuse and adequately dispose of by-products and wastes from different industries presents an environmental problem. These by-products contain, among others, minerals and metals traditionally used in the cement production.

Ecoefficient Solution: The cement plants are equipped to reuse such materials in the production process. The cement production process's operational conditions-especially its high kiln temperatures-allow these by-products to be utilized in an environmentally safe manner while maintaining cement quality standards. In addition, the company coordinates with generator industries to guarantee constant quality and a steady supply of these by-products.

RESULTS

•Utilization of by-products (additions) was increased by 15.3%.

•Substitution of 370,000 metric tons of clinker with by-products, representing a reduction of 296,000 metric tons of CO₂ emissions.

•Reduction in thermal energy consumption by 2,033Gcalories per year, representing a reduction of 720 tons of CO₂ in the year.

•Economic benefits of US\$2.4 million per year.

CONCLUSION

The utilization of alternative raw materials, commonly called additions, in cement production allow us to conserve natural resources, increase the useful life of the quarries, reduce thermal energy consumption, and decrease atmospheric emissions. Altogether, these actions reduce environmental impact and increase production without affecting the quality of the cement.



Concrete is an important element in the society.

BACKGROUND

Objective: To reduce water consumption in the Navigation Plant, CEMEX USA's largest ready-mix concrete facility in Texas, located in Houston.

Ecoefficient Solution: CEMEX initiated construction of the storm and wastewater treatment facility in 2000. The treated wastewater will be reused in the company's operations for several purposes.

RESULTS

•Elimination of the wastewater (effluent) discharges to the exterior which safeguards water quality in nearby water supplies. •Recycling the treated water conserves more than 68,000m₃ of supplied water, which represents up to 50% of the company's current annual water requirements. •We will recycle enough water to save an estimated US\$60,000 annually in water expense.

CONCLUSION

By investing US\$190,000 for the wastewater treatment construction there will be reduction in the consumption of water supplied by the city. This will provide annual cost savings estimated at US\$60,000. We will also conserve this valuable natural resource so that the nearby communities can use it to satisfy their needs.



United States

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NEW BURNER DESIG

Cemex Europe & Asia Spoin

BACKGROUND

CEMEX invested in the Alcanar cement plant to update current facilities and to implement a process control system that facilitates data collection and management, optimizes production processes, and reduces the standard deviation in the kilns' feed.

RESULTS

•In 2000, CO₂ emissions were reduced by 16,000 metric tons.

Average thermal energy consumption was reduced by 18 kilocalories per kilogram of clinker.
We achieved greater operative stability in the kilns, increasing efficiency and utilization.
We achieved cost savings in 2000 of US\$165,000.

CONCLUSION

Different improvements to the facilities and optimization of processes increased the stability and the energy efficiency of the plant's kilns, resulting in the reduction of CO₂ emissions during clinker production.



Process Control Room in the Alcanar Plant.



Solid cement plant.

BACKGROUND

The Problem: The design of the former burner of kiln 3 at the Solid plant made regulating the flame very difficult, a fact which affected the life of the refractory bricks in the kiln's burning zone.

Ecoefficient Solution: CEMEX installed a new technology burner in the kiln, whose objective was to stabilize the flame, increase the life of refractory bricks, and decrease Nitrogen Oxide (NOx) emissions.

RESULTS

•Nitrogen Oxide (NOx) emissions were reduced by 13%.

•The kiln's burner has the flexibility to use 100% petcoke (petroleum coke).

•The burner's operation is easier to control. •A stable coating is formed inside the kiln, which lowers the kiln shell temperature.

•The life of the refractory bricks was increased, reducing the cost of maintenance.

•During 2000, the cost savings were US\$340,000.

CONCLUSION

The US\$430,000 investment to install a new burner allows us to use 100% petcoke, increase the life of refractory bricks, reduce maintenance costs and Nitrogen Oxide (NOx) emissions, and produce an annual economic benefit of US\$340,000.

Philippines

Cemex South America & Caribbean

Venezuela

BACKGROUND

The Problem: Dolomite is a material containing a high amount of MgO (16%) and is normally found in the limestone reserves. It was traditionally considered a residue and was thus removed as waste and sent to landfills.

Ecoefficient Solution: We evaluated the use of dolomite as a limestone substitute in the aggregates with a positive result and created new aggregates markets for 260,000 metric tons of dolomite. Adding dolomite into the cement production process increased the MgO quantity in the raw material from 1 to 2.5% without affecting the cement's quality.

RESULTS

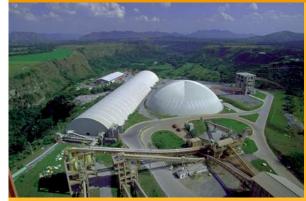
•Eliminated the need to dispose of 1,600,000 metric tons of dolomite per year by adding this material to the raw material and the aggregates. As a result, municipal landfills have more space for the disposal of other waste material. •Reduced the extraction of minerals from the quarry, increasing the life of the limestone reserves by four years and preserving natural resources. •Cost savings during 2000 amounted to US\$1,112,000.

CONCLUSION

By utilizing dolomite as an aggregate, we no longer have to dispose of it as waste. We also optimize the quarry's useful life, preserve natural resources, and reduce the environmental impact of this process.



Limestone quarry in Pertigalete, Venezuela.



Caracolito cement plant.

BACKGROUND

The Problem: The coal industry generates process wastes that can pollute water and air if not properly managed. Recycling of this waste was not considered in Colombia because of the characteristics of the waste and lack of an available market for it.

Ecoefficient Solution: We performed several tests in kiln 2 of the Caracolito plant to determine the feasibility of coal dust utilization through a safe handling. The results were successful; we were able to replace up to 40% of the coal fed into the kiln with this coal fines.

RESULTS

Reduced coal consumption and preserved four to six metric tons/hour of this natural resource.
By using this by-product, we reduced annual CO₂ emissions by 2,800 metric tons.

•We saved electricity in the grinding process due to the physical characteristics of the waste coal. •During 2000, we achieved cost savings of US\$240,000.

CONCLUSION

Recycling of coal dust optimizes the use of natural resources, reduces atmospheric emissions, and solves an environmental problem related to the final disposal and storage of this potential air and water contaminant. Hence, our solution contributes to pollution prevention.

Colombia

11

Panama

BACKGROUND

The Problem: The plant was operating with an inefficient packing system, and cement bags were manually stacked. These processes generated fugitive particle emissions in the workplace, and the stacking required repetitive manual labor.

Ecoefficient Solution: We installed a more modern packing and pallet system that allowed us to control and reduce particle emissions improving the workplace conditions.

RESULTS

•Improving the packing process reduces the fugitive particle emissions to which workers in this area are exposed.

•The new scheme improves efficiency in the truck loading process and minimizes the trucks' waiting time.

•Bag wastage was eliminated as the new machine does not tear bags.

•Cement bag shipping in this business unit is programmed during the night to avoid the heavy truck circulation during the day when traffic in the access ways is high.

CONCLUSION

The US\$650,000 investment decreases fugitive emissions in the work area and improves working conditions and workers' quality of life. In addition, we have increased sales due to a better dispatch service and product presentation.



Packing area in the Bayano cement plant.



Frequency Speed Drive.

BACKGROUND

The Problem: The fan used to ventilate the clinker cooler had a 200-HP motor and consumed 124 KWH, which represents an operational cost of US\$71,153 per year. The cooler's hot gases were not used. Ecoefficient Solution: We installed a frequency speed drive in the fan used to ventilate the clinker cooler, which allowed us to control its speed and reduce electricity consumption. In this manner, gases are brought to the heater of the secondary raw materials crusher to reduce fuel consumption.

RESULTS

•The frequency speed drive allowed the fan to work with a 150-HP motor and a 34% utilization rate, consuming 41 KWH. Consequently, we achieved savings of 83 KWH during the year and US\$23,564 in annual energy costs.

The utilization of hot gases in the secondary crusher reduced fuel consumption by 17 gallons per hour, generating cost savings of US\$73,182 per year and a reduction of 1,620 tons of CO₂ emissions per year.
The utilization of 226 million m₃ of hot gases in the secondary crusher eliminates its direct discharges into the environment.

•During 2000, we achieved total cost savings of US\$96,746.

CONCLUSION

With a total investment of US\$30,000 to install a frequency speed drive there was lower electricity & fuels consumption, therefore a reduction in carbon dioxide emissions. Additionally, non-renewable fossil fuels were preserved, and an economic benefit of US\$96,746 was generated recovering the investment in 3 months.

Dominican Republic

12

Costa Rica

BACKGROUND

The Problem: The water consumed by the cement plant's cooling processes, human needs, and the residential area next to the plant is taken from the actual wastewater treatment system and deep water wells located within the plant area. Due to water loss from high evaporation, it became necessary to reuse municipal wastewater for the plant's cooling processes.

Ecoefficient Solution: We built a treatment plant for wastewater generated in offices, the plant, and the residential area (known as the Ciudadela). The treated wastewaters are reused in the process and could also be used as irrigation for the green areas. As a result, water demand is reduced.

RESULTS

•Water demand from the water wells was reduced, and wastewater discharge to environment was eliminated.

 Approximately 28 liters of treated water is recycled per minute in the process.

•14,600 m₃ of water are preserved per year. •During 2000, we achieved cost savings of US\$24,400.

CONCLUSION

The US\$200,000 investment to install the wastewater treatment plant reduced water demand, preserving this valuable resource and generating savings of US\$24,400. We intend to share this initiative with other companies in the zone and invite them to follow this example.



Sanitary wastewater treatment plant.

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Toward a sustainable cement industry

Study Toward a Sustainable Cement Industry

Brochure of the WBCSD's study Toward a Sustainable Cement Índustry.

> The World Business Council for Sustainable Development (WBCSD) is a coalition of some 150 international companies united by a shared commitment to sustainable development, integrating environmental protection, social equity, and economic growth. In 1999, CEMEX joined the WBCSD.

> Under the auspices of the WBCSD, the cement companies Holderbank, Cimpor, Lafarge, Taiheiyo Cement, RMC, Heidelberger Zement, Votorantim, Siam Cement Industry, Italcementi, and CEMEX are participating in the study entitled "Toward a Sustainable Cement Industry." This initiative started in February 2000 having as main objective to pave the way by which the cement industry can assure its sustainable development. The project will solicit the views of a large number of stakeholders (suppliers, governments, environmental groups, communities, and others) as part of an independent investigation into the specific challenges, barriers, and opportunities facing the industry. The study must be presented at the beginning of 2002.

> Battelle Memorial Institute is the lead consultant managing the main study, substudies, and subcontractors. A small, independent assurance group will act as advisor and reviewer of the study. The group will ensure that the project has the correct focus and processes, critique quality and balance, and act as a referee in case of disputes. Membership is drawn from internationally recognized experts representing key stakeholder groups and geographic regions. Dr. Mostafa Tolba, former director of the United Nations Environment Program (UNEP), chairs the assurance group. Other members are from France, Hungary, Mexico, and the U.S.A.

> > More information is available at http://www.wbcsdcement.org.

1 According to the World Commission on Environment and Development, development is sustainable where it "meets the needs of the present without compromising the ability of future generations to meet their own needs."

KERWNORT WITH PWORLD. CLASS PERFORMANCE CEMEX around the world

CEMEX manages its multinational operations under corporate standards and by taking care of the particular social responsibilities of each country.

In 2000, as in previous years, CEMEX's operations around the world continued implementing programs and projects to improve environmental performance, minimize environmental impact, and promote a better quality of life for its people and neighboring communities. Our 40 cement plants have an open-door policy and pursue community outreach and collaboration with the communities in which they operate and local governments.

The efforts and commitment of all of CEMEX's people in Environmental, Health, and Safety matters are very important components of sustainable growth and of our outstanding performance as a business and as a responsible multinational company.

The following are the most important achievements in 2000 in each country in which CEMEX has control of the operations.

As of December 31, 2000	% OF TOTAL ASSETS	% OF TOTAL SALES	PRODUCTION CAPACITY MILLION METRIC TONSYYEAR	CEMENT PLANTS OWNED	CEMENT PLANTS MINORITY PART.	READY-MIX PLANTS	LAND DISTRIBUTION CENTERS	MARINE TERMINALS	
Mexico	46.8	33.8	27.2	15	3	220	70	5	
U.S.	13.4	27.4	12.6	13	3	90	50	8	
Venezuela and Dominican Rep	oublic 11.4	8.2	5.4	4	-	46	15	6	
Colombia	3.8	5.0	4.8	5	-	18	6	-	
Central America and the Caribl	bean 4.2	2.5	2.0	2	6	5	9	6	
Spain	14.7	12.6	10.4	8	1	75	7	15	
Egypt	3.0	4.1	4.0	1	-	-	-	2	
Philippines	2.7	4.9	5.8	3	-	1	5	1	
Indonesia ¹	-	1.5	5.0	-	4	9	2	12	
TOTAL	100	100	77.2	51	17	464	164	55	
1 Considering CEMEX Asia Holdings' 25% participation in Semen Gresik									

considering CEMEX Asia Holdings' 25% participation in Semen Gresik.

During 2000, 6 of the 15 cement plants and 1 of the 15 ready-mix concrete clusters operated within the accident rate goal of less than 1%. Also, the facilities that excelled in 1999 received several awards: the Valles plant achieved the zero accident rate goal, and seven cement plants obtained an accident rate of less than 1%.

For the second time, the Guadalajara and Monterrey plants obtained the HPR (Highly Protected Risk Property) certification, and the Tepeaca, Zapotiltic, Torreon, Huichapan, and Tamuin plants were certified. In total, our insurance company has certified seven of our 15 operating cement plants. In accordance with current needs, we developed and implemented a specific Labor Risks Prevention System throughout CEMEX Mexico. In the ready-mix division, annual Environmental and Safety audits were performed in all the readymix clusters to design preventive and corrective action plans.

CLEAN INDUSTRY AND ISO 14001 CERTIFICATION

The President of Mexico presented the Clean Industry Certificate to the Valles, Hidalgo, CPN, Zapotiltic, and Tamuin plants; now 95% of our cement plants in Mexico hold this certificate.

This year we began our initiative to obtain ISO 14001 certification in the Huichapan and Tepeaca plants by June 2001. With the certification of these two plants, 86% of our cement plants in Mexico will be certified.

ENVIRONMENTAL CONSERVATION

Continuing our Bighorn Sheep Program, we finalized the construction of the Pilares Reserve in Ocampo, state of Coahuila, Mexico, to reproduce the bighorn sheep and repopulate historic distribution areas in the states of Chihuahua, Coahuila, and Nuevo Leon, where this specie is extinct. With these efforts, we protect species that are strategic to the region's sustainability and support the Mexican government's efforts to rescue endangered species.

WATER SAVINGS

We are continuing with our Zero Water Discharge Program, which promotes water conservation. In 2000, as part of this program, we began to reuse of treated wastewater for cooling systems in the CPN, Torreon, and Huichapan plants. At the same time, the Tepeaca and Valles plants increased up to 50% the capacity of its wastewater treatment units. Through those actions during 2000, we saved 4,600 m₃ of water by substituting supplied water with treated wastewater.

RELATIONS WITH THE COMMUNITY AND PARTICIPATION WITH NGO'S

All of our cement plants in Mexico are pursuing activities to improve relations and communication with their neighboring communities. In 2000 we emphasized the SAAMAL (Tomorrow) program in the Merida plant. In the first phase of this program we conducted a survey and interviewed 320 families to design an outreach actions plan. Simultaneously, we began other similar programs in different communities. This year, CEMEX Mexico participated in the update to our industry's air emissions regulation. In the new version, the particle emissions limits are lower by approximately 20% and also regulate combustion gases (NOx, SO₂, and CO).

North America



Presentation of the Clean Industry Certificates by the President of Mexico.

AIR EMISSIONS CONTROL

During 2000, we continued with our efforts to control and reduce air emissions. Therefore, currently our fixed sources of air emissions are operating with particle air emissions levels that are 40% lower than the maximum average limits established by the government. In 2000 we emphasized the installation of a Jet Pulse bag filter in the clinker cooler of the Hidalgo plant, which reduced dust emissions to less than 20 mg/Nm₃.

WASTE MANAGEMENT

In an environmentally responsible way, CEMEX Mexico recycled 23,294 liters of liquid waste and 10,433 metric tons of solid waste as alternative fuels. These actions helped to solve the final disposal problem of these waste materials. What's more important, we conserved nonrenewable natural resources such as the fossil fuels.

The Arizona Region cement terminal achieved the goal to operate with a zero accident rate in 2000. The cement division registered a 0.86% accident rate, which meets our goal to have an accident rate lower than 1%. These are the results of new safety and training programs and policies that we have implemented throughout the year, such as a safety-training plan for all mining operations.

We also conducted several in-house accident investigation seminars and worked with ACE Insurance to conduct a series of safety and health audits and training exercises throughout California, Arizona, and Texas operations.

Because 29 CEMEX USA operating facilities operated during 1999 without a lost time accident, during June 2000 each location was awarded a commemorative outstanding achievement safety plaque to recognize the sites and workers for this outstanding achievement.

The Balcones cement plant again obtained the HPR (Highly Protected Risk Property) certificate from Factory Mutual System in the year 2000.

WATER SAVINGS

Several ready-mix concrete plant sites are being modified to allow for the capture and reuse of process and storm water. We are constructing retention and sedimentation basins for the collection and treatment of process and storm water, which will eventually be recycled as supplemental process water. Our goal is to save 68,000 m3 of water per vear.

RELATIONS WITH THE COMMUNITY AND PARTICIPATION WITH NGO'S

Through several activities including college scholarships to high school students and an essay contest regarding culture and the arts, CEMEX USA was able to support and enhance the important role the arts play in defining culture and values, while at the same time contributing to the educational future of high school students. Also, in order to support youth and senior citizen activities, CEMEX USA agreed with the City of Redlands, California, to pay \$0.10 per ton of aggregate material mined within the city boundaries.

AIR EMISSIONS CONTROL

As a result of the projects related to air quality improvement, currently the fixed sources of air emissions are operating with air emission particle levels that are 20% lower than the average regulatory limits in this matter. Also, we started several paving projects during the year that will greatly reduce fugitive dust emissions and will, in turn, enhance nearby neighbors and community relations.

WASTE MANAGEMENT

One hundred percent of the Balcones plant's waste lubricating oils, greases, and residual solvents are recycled or blended and used off-site as supplemental or alternative fuels.

GROWTH

In October 2000, CEMEX acquired Southdown, Inc., and initiated the integration of its 12 cement plants and other business units into CEMEX's operational standards and guidelines.

United States North America

ENVIRONMENTAL CONSERVATION

CEMEX USA established a 10.9 hectares habitat reserve at its Orange Street, California, operations. This area was chosen (1) because it is a sensitive habitat of limited distribution in California, and (2) in order to protect the endangered species such as the San Bernardino kangaroo rat and 17 other sensitive animal species.



Awards to recognize the sites and workers for their outstanding performance in safety.



Presentation of the ISO 14001 Certificate in the Vilanova cement plant.

SAFETY AND HEALTH

During 2000, the Lloseta and Tenerife cement plants, the Canary Islands ready-mix concrete cluster, and the bag producing facility operated with zero accident. Equally outstanding was the ready-mix concrete division's performance; that division de-creased its accident rate by 50% compared with 1999. The Labor Risks Prevention Management System was completed and audited and will be implemented in all the work centers during 2001. Additionally, we made progress in the emergency response preparation in all the ready-mix concrete plants. Finally, it concluded phase IV of the DuPont project with the evaluation of the progress of its Safety Management initiative.

We also took several actions to increase our employees' safety awareness. For example, we launched a promotional campaign with posters and declared February 2000 CEMEX Safety Month, during which we organized several promotional events, including courses, seminars, safety contests, vaccination campaigns, and safety audits.

ISO 14001

Throughout 2000, the Vilanova, Morata, Castillejo, Alicante, Alcanar, and San Feliu cement plants obtained the ISO 14001 certification. In the ready-mix concrete division, Albuixech, was the first plant to obtain such certification in Spain. Now 7 of our 8 cement plants in Spain have this international certification.

ENVIRONMENTAL CONSERVATION

We continue with our project to restore the quarry of the Alicante plant. Fruit trees that we planted have produced a total of 2 million kg of fruit and created up to 220 jobs during the harvest season. We are currently evaluating the restoration of other quarries with fruit trees or other region crops, such as grapes.

RELATIONS WITH THE COMMUNITY AND PARTICIPATION WITH NGO'S

We launched an Open Doors Program in all of our cement plants to improve communication and to promote our relationship with our neighbors. Local authorities, neighbor associations, worker's families, and neighbors participated in this Program.

AIR EMISSIONS CONTROL

Our continuous actions to control and reduce emissions have caused fixed sources of air emissions to operate with particle air emissions levels that are 60% lower than the average maximum limits established by the government. The new dust control equipment that we installed in the Lloseta (Mallorca) plant in 2000 is an important investment. This high-tech equipment -which cost US\$2 million to installis one of only three in the world.

Furthermore, was finished the installation of continuous particle-monitoring equipment in all of cement plants' kilns, cement mills, raw material mills, and coolers. Additionally, gas (CO, NOx, O₂, and SO₂) analyzers are being installed in the Buñol, Vilanova, San Feliu, and Alcanar kilns.

Europe & Asia 💧

WATER SAVINGS

Our most important achievements in the area of water conservation are the installation of a closed water loop for cooling, which allowed us to eliminate wastewater discharges to the environment from the open refrigeration circuit, and the reversal osmosis system, which eliminated chlorides in the Alcanar plant. We also built a pond in the San Vicente plant with a 60,000 m₃ capacity for storage of treated wastewater, whose objective is to reuse it to substitute the municipal water in the cement plants and the quarries' fruit plantations. As a result, 500,000 m₃ of potable water were saved in the year.

WASTE MANAGEMENT

We developed biannual plans to minimize packing wastes in the cement plants, which will result in reduced consumption of paper, plastic, and other packing products.

During 2000, CEMEX Philippines achieved an exceptional reduction of 77% in its accident rate. The Solid cement plant's accident rate in 2000 was lower than 1%, as a result of the following actions: (1) the integration of EHS issues into departmental meeting agendas and in its regular monthly meetings with contractors in order to reinforce awareness; (2) the establishment of a Safety Policy specifically for CEMEX Philippines' contractors and employees; and (3) CEMEX Philippines conducted First Aid and Occupational Health and Safety seminars.

WATER CONSERVATION

In the APO Cement plant, the rejected water from the reversal osmosis system is reused for green area irrigation and as a water source for the nearby man-made lake, which contains fish and other wildlife. Both plants are presently recirculating water in their cooling systems.

AIR EMISSIONS CONTROL

We are continuing to implement projects related to air quality improvement. Examples include the installation of new dust control systems for the Solid Cement's aggregates plant and its cement production process. Continuous Particulate Monitors for our main kiln in the Solid Plant were also installed. The total investment for these installations and the dust collector modifications amounted to more than US\$600,000 for both the APO and Solid plants. Both plants are now in compliance with existing regulations on air emissions, and monitoring showed that emission levels are around 10% lower that existing government standards.

Phippines Europe & Asia

Also continued to improve of the emergency response system, including plans and equipment to respond to emergencies such as fires or spills.

To ensure the health of employees in the workplace, we require annual physical and medical examinations for all employees, and we monitor the noise level in compliance with our Hearing Conservation Program in high-risk departments.

ISO 14001

In just two years, Solid and APO plants have already achieved their ISO 14001 certifications for their Environmental Management Systems. These outstanding achievements have been possible thanks to the commitment and dedication of all CEMEX Philippines' departments and with the support of upper management.

ENVIRONMENTAL CONSERVATION

Although the quarries of the APO and Solid plants were not yet mined out, both plants have undertaken annual reforestation efforts. The areas near the quarries, like the sides of the access roads of nearby neighborhood and available open spaces inside the plant, were the usual trees planting sites. With these efforts, since 1999 a total of 43 hectares have been restored, and more than 10,500 trees of native species have been planted.



Medical missions in support of the community.

COMMUNITY RELATIONS AND PARTICIPATION WITH NGO'S

We are also actively pursuing several community relations projects, such as concreting the neighboring roads in APO, providing irrigation canals for farmers in Solid, our Tree Planting Program, and Medical and Dental Missions to nearby communities. We also provided assistance to nearby communities with regard to improving their waste disposal system and providing blood donations in coordination with the Philippine Red Cross. In 2000, 2,180 persons were given either medical or dental assistance.

WASTE MANAGEMENT

The APO plant is presently reutilizing 100% of the waste oils generated in its power plant and from the operations in the cement kiln. Also, in the Solid plant the waste oils are being sent to government accredited recyclers for recycling and reuse. Through these actions, CEMEX Philippines is reducing the wastes generated in the process by reusing and supporting the recycling of 900,000 liters of waste oils.



Challenges and opportunities in the acquisitions of new companies.

ECOEFFICIENCY

Our efforts to increase the efficiency of our operations and to improve our installations have brought important benefits. The optimization of our energy consumption and natural resources utilization has reduced costs and minimized environmental impact. For example, by the end of 2000, thermal and electric energy consumption decreased by 5% and 10%, respectively, when compared with the first quarter of the year.

AIR EMISSIONS CONTROL

The efforts we undertook to solve potential problems in our acquired installations resulted in the reduction of particle emissions on the main stacks of the kiln 1, the raw materials crusher, and the raw material and cement mills.

SAFETY AND HEALTH

As a result of CEMEX Egypt's integration to our Safety and Health Management System, during the second half of the year the accident rate showed an important improvement, decreasing by 61% to 1.24% compared with the first half of the year. Key factors in this significant achievement were our people's efforts and managements' determined support to implement CEMEX's Safe Operations Practices Guidelines, a product of the synergies and expertise of all our business units around the world. Another important factor was the dissemination of the Corporate EHS Policy.

The Assiut cement plant was also evaluated for Safety issues for the first time in order to establish the basis for the future HPR (Highly Protected Risk Property) certification.

ENVIRONMENTAL MANAGEMENT SYSTEM

As part of the Post-Merger-Integration (PMI) process, the implementation of CEMEX's operational and administrative practices are bringing CEMEX Egypt in compliance with CEMEX's internal standards and applicable environmental norms and regulations. To do this, we performed environmental audits and developed long-term strategies to help us prioritize the continuous improvement programs and to ensure that our efforts do more than simply comply with environmental regulations. Moreover, we are modifying our grinding systems and clinker coolers and are shifting to high-efficiency fans and eliminating the "false air." We have also redesigned the calcinators and applied expert systems and advanced control techniques. Altogether, these actions will bring greater environmental benefits such as the reduction of atmospheric emissions (including greenhouse gases) and energy consumption and the optimization of raw material utilization. All these action are part of the CEMEX Ecoefficency Program.

During 2000, the Guayana, Vencemos Basauri Centro and Vencemos Basauri Occidente plants operated with a zero accident rate. Meanwhile, the Mara, Lara, and Pertigalete plants, and the ready-mix concrete clusters Premezclado Oriente and Premezclado Centro, achieved an accident rate of less than 1%. We must highlight several actions that were responsible for these results: (1) the continuation of the Improvement Proposals Program through Work Teams that promote the direct participation of our people in the Risk and Accident Control and Prevention for

WATER SAVINGS

In 2000, the wastewater treatment plants at the Pertigalete, Lara, and Mara plants enabled us to clean 122,640 m₃ of watewater. Also important is the installation of an oily wastewater treatment plant to allow for the reuse of treated water in the Lara plant cement production process. As a result, 100% of that plant's wastewater discharge to the exterior will be eliminated.

AIR EMISSIONS CONTROL

We are continuously implementing actions to control and reduce atmospheric emissions. We invested US\$2,800,000 in the incorporation of a bag filter in kiln 4 at the Pertigalete plant, and US\$180,000 to optimize the electrofilter in mill 1 at the Mara plant. As a result, all fixed sources of air emissions are operating with particle emissions levels that are 40% lower than the maximum average limits established by the government. These activities demonstrate CEMEX Venezuela's firm commitment to improve air quality.

Venezue South America & Caribbean

personnel and equipment; (2) the continuation of the Training Program, which includes educational seminars and accident investigation and safe work checklists, among others, and (3) basic courses to reinforce Safety Culture.

Additionally, we launched annual vaccination campaigns against tetanus, hepatitis, and influenza. Simultaneously, we initiated the Quality of Life Program in the cement sector, which offers our people lab analysis, medical exams, and complementary studies such as electrocardiograms, x-rays, scans, optometries, spirometries, and audiometries, among others.

ISO 14001

The implementation of the ISO 14001 standard is 70% complete in the Pertigalete, Mara, Lara, and Guayana plants; the goal is to obtain such certification by July 2001.

ENVIRONMENTAL CONSERVATION

Through our Annual Reforestation Program, we used species cultivated in the nurseries of the Pertigalete plant to restore 2.5 hectares of the quarries' exhausted areas. At the Mara plant quarries we recovered almost 3 hectares, while at the Lara plant quarry we restored 2 hectares. During 2000, we restored a total of 7.5 hectares of land. Since 1998, CEMEX Venezuela has reforested a total of 26.6 hectares.



"Smiles Home" (Casa Hogar Sonrisas) in Pertigalete.

COMMUNITY RELATIONS AND PARTICIPATION WITH NGO'S

CEMEX Venezuela is constantly supporting the Casa Hogar Sonrisas (Smiles Home) to provide relief to some of the community's needy. Also arranged for several Safety courses and seminars to be given to the safety coordinators of the Industrial Technical School and for dental and deparatization talks to be given in a Maracaibo school.

WASTE MANAGEMENT

Our evaluation of alternatives to using main solid waste derived from the cement production -paper and bags, among otherswere outstanding. Consequently, we estimate that in 2001 we will recycle, reuse, or reclaim 25% of the solid waste generated by the Pertigalete, Mara, and Lara plants.



Training for Emergency Brigades.

The Santa Rosa cement plant and the Operaciones Especiales ready-mix concrete plant reached the goal of operating with zero accidents. There was also an exceptional 55% reduction in the accident rate of CEMEX Colombia's cement division. Our continuing efforts in this regard -such as the implementation of the Safety Based on Behavior and safety diagnosis and the continuation of the Safety, Order, and Housekeeping Plan at the cement, ready-mix concrete, and transportation operations and offices- have produced these outstanding results.

In addition, we carried out our program to certify concrete pump and ready-mix truck drivers and conducted workshops for safe behavior and training for contractors. We also held annual training for the emergency brigades. Finally, we provided epidemiological control exams to our employees to promote their health.

For the second time, the Caracolito, Cucuta, Santa Rosa, and Bucaramanga plants obtained the HPR (Highly Protected Risk Property) certification.

ISO 14001

The ISO 14001 implementation process is now 50% complete at the Caracolito cement plant. Our goal is to obtain this certification by November 2001.

ENVIRONMENTAL CONSERVATION AND CULTURE

We continued our efforts to restore the ecological reserve "La Fiscala." During 2000, we restored almost 4.3 hectares of the quarry's exhausted area by planting 5,200 plants. We also provided systems to control sanitary wastewater and storm water executed at the quarry's perimeter.

To further support an environmental culture, during a ceremony that took place in December 2000, we donated the book Celebration of the Seas to the Ecological Group of Tolima University, which is dedicated to environmental education and the search for alternative schemes and systems for sustainable development.

WATER SAVINGS

Our water conservation efforts during 2000 saved more than 148,000 m₃ of water. These include: (1) infrastructure construction to control storm water in the ready-mix concrete area and in the Caracolito plant; (2) efforts to increase the capture and utilization of storm water in the production process at the Cucuta plant; and (3) the industrial water recirculation program at the Chimita aggregates plant in Bucaramanga-Santander.

COMMUNITY RELATIONS AND PARTICIPATION WITH NGO'S

As part of our social responsibility efforts, during 2000 we donated US\$260,000 to satisfy the most urgent needs of the people in the communities in which we operate. We also organized several actions to support regional development, directly benefiting more than 250 people and indirectly helping almost 500 families. At the same time, we participated with the Colombian Cement Producers Institute to implement the Environmental Guidelines for the industrial and mining areas of our sector. In addition, we established a dialogue and round table with the Caracolito Plant's neighboring community.

AIR EMISSIONS CONTROL

Our fixed sources of air emissions now operate with particle emissions levels that are 30% lower than the maximum average limits established by the government. This is the result of the operative system parameter control and regular maintenance to the equipment. Also, we made new investments in emissions control equipment, including US\$50,000 for bag filter installation in the Santa Rosa plant's additive zone to control fugitive emissions in the cement mill feeding process.

Furthermore, we continued participating with the Air Quality Continuous Monitoring Network for dust emissions in the direct influence area of the Caracolito Plant.

WASTE MANAGEMENT

We minimize waste oils generated in our ready-mix concrete installations by recycling them in processes external to the company. In doing so, we eliminate the need to dispose of this waste in another, less environmentally friendly manner, and we also support the conservation of nonrenewable natural resources.

South America & Caribbean

The Bayano cement plant achieved an accident rate in 2000 of less than 1%. This is the result of the continuation of the Bayano 2000 Safety Plan, begun in 1999. The Bayano 2000 Safety Plan is derived from the Integral Safety Plan, which involves training, detection, and resolution of unsafe conditions; highlights the training of different teams of the Emergency Brigade about issues such as First Aid, Fire Control, and Rescue; and reinforces training on ergonomic matters.

During 2000, more than 4,500 people benefited from these and other actions addressed to the community.

In addition, as part of a SINAPROC Program (Civil Protection National System) in the communities, we supported the formation of a volunteer brigadier corps for natural disasters.

We collaborated with the USAID in a study to evaluate clean production centers in different industrial sectors. As part of this initiative, a voluntary inspection of the Bayano cement plant was executed in conjunction with the National Environmental Secretariat (ANAM).

AIR EMISSIONS CONTROL

Through an investment of US\$54,000 in 2000 to acquire two equipments for continuous particle monitoring, we reached our goal to have this kind of continuous monitoring in 100% of the fixed sources of emissions in cement plant's production process.

South America & Caribbean

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In terms of occupational health, we launched a vaccination campaign against tetanus and campaigns to provide vision and hearing examinations for all employees. We also started the Hypertension Program with seminars on health and nutrition, among others. Meanwhile, we initiated the Drug Free Program with workshops for employees and their children in collaboration with the Panamanian White Cross.

ENVIRONMENTAL CONSERVATION AND CULTURE

Continuing our labor of previous years, we planted 37,000 trees of native species, such as teca, oak, and native fruit trees, and reforested 20 hectares of land surrounding the cement plant. Similarly, to support environmental culture, we donated 50 copies of the book entitled Hotspots to the Panama Canal Museum.

COMMUNITY RELATIONS AND PARTICIPATION WITH NGO'S

One of our significant actions in 2000 was supporting the efforts of the Caimitillo Health Center, in the Calzada Larga sector, to launch vaccination campaigns and medical missions. In coordination with local authorities, we also conducted a garbage recollection and disposal campaign in the plant's neighboring communities.



Community health care.

We also modified the dust collection system in the bulk cement discharge area to eliminate 90% of this area's emissions. Now all of the fixed sources of particulate air emissions in the production process are operating under proposed regulatory limits. This is an example of CEMEX Panama to become one of the industry's main promoters for the environmental conservation of the country.

The Titan 2000 Safety Program continues to guide our efforts to prevent accidents; it has as its motivational elements the monthly flag raising for and quarterly recognition of the best performance team department. Other motivational events were the Safety Olympic Games and the Accident Prevention Photography Contest, both part of CEMEX's Safety Month celebration in February 2000. Also important has been our four-year participation in the Quisqueya Green National Plan, which resulted in the plantation of 8,000 trees in different zones covering an area of more than 5 hectares.

To promote environmental culture we donated the book entitled Hotspots to the Loma Quita Espuela Foundation, which will use the proceeds from the sale of the books to conserve this mountain.

AIR EMISSIONS CONTROL

During this year, we continue with our efforts to minimize air emissions. Due to these activities, Cementos Nacionales was recognized as the cement company with the best environmental performance in the Dominican Republic. Equally important is the installation in our plant of the largest vertical cement mill in the world and the incorporation of continuous particle monitoring in its stack.

Republican South America & Caribbean

Training in safety issues is a key factor. This year we highlighted the implementation of the SAFESTART Program, which was developed to change human behavior to reduce accidents, and the Titan Interactive Training Program. In addition, the Red Cross helped us to train employees in first aid and ambulance driving. In the ready-mix concrete area, we started our Certification Program for concrete pumps and ready-mix trucks drivers, which trains drivers with respect to safety & health and driving skills.

To complement medical exams provided to all employees, we conducted other educational activities to conserve health and improve working conditions.

ISO 14001

We continued implementing the ISO 14001 standard in the Cementos Nacionales plant; our goal is to obtain certification in this plant by 2002.

ENVIRONMENTAL CULTURE AND CONSERVATION

CEMEX Dominican Republic's reforested 15 hectares of the limestone quarry's exhausted area by planting more than 1,000 native trees.

These efforts support the government's Endangered Plants Conservation Project.

COMMUNITY RELATIONS AND PARTICIPATION WITH NGO'S

We continued to support solid waste recollection activities in the communities surrounding our plants, including the donation of containers. We also sponsored educational, cultural, artistic, and sports activities to improve the community's quality of life. We estimate that these efforts benefited communities having almost 50,000 persons.

WASTE MANAGEMENT

During 2000, we minimized the wastes generated in our installations by reusing them as alternative fuels in the production processes. In the same manner, we reused residuals generated in other industries, achieving a reduction of 740,800 liters of waste oils that would have to be disposed of by other, less environmentally friendly methods. These actions also support the conservation of natural resources, thus doubling their positive impact.

Employees and their children participate in reforestation activities.



During the second half of 2000 we achieved a 50% reduction in the accident rate compared with the first half of the year. This is in large part a consequence of the permits for work risk prevention and the Safety Program for contractors. Also, safety seminars and safety instructions were given to the contractors.

We also made important improvements to the fire protection systems at the Cementos del Pacifico plant, and the electrical substation. In addition, the Colorado Plant obtained the HPR (highly Protected Risk Property) certification.

Our efforts to improve occupational health included the initiation of clinical exams for our employees and a vaccination campaign against measles, rubella, tetanus, and hepatitis. We also implemented a weight control pilot program that included a nutritional plan for employees and tests to detect high cholesterol levels.



Reforestation in the neighboring communities.

South America & Caribbean Ricco

ENVIRONMENTAL CONSERVATION

During 2000, we restored the soil and planted 1,800 native trees in the exhausted areas of the limestone quarry. This resulted in a reforestation of approximately 2 hectares of land.

WATER SAVINGS

The current treatment system for cooling wastewater conserved 154,500 m₃ of potable water. Also, we built a treatment plant for sanitary wastewater generated in the offices, the cement plant, and the residential area of the cement plant named the Ciudadela. The treated wastewater from this system is reused in the different cement production processes and will be used to

irrigate green areas. We estimate that, together, both systems help us to save more than $169,000 \text{ m}_3$ of potable water per year.

RELATIONS WITH THE COMMUNITY

During 2000, approximately 100 people were directly benefited by our actions for the community. Highlights include improvements made -with Human Resources' support- to the quality of life of the Ciudadela residential area, where cement plant workers live. We also established an open communications channel with the community to address concerns about our production processes and environmental protection.

AIR EMISSIONS CONTROL

At the beginning of 2000, we conducted an environmental evaluation to identify immediate opportunities to improve our particle emissions control systems. Our objective is to have all the fixed sources of emissions operating with particle emissions levels lower than the maximum limits established by the respective country regulations.

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