



In the foundations  
of our future...

## About This Report

Akçansa Çimento Sanayi ve Ticaret A.Ş. (Akçansa) documents its economic, environmental and social performance between 2007 and 2009 for its stakeholders in this sustainability report, which is the first one in the Turkish cement sector, celebrating its 100th anniversary.

## Aim and Boundary of The Report

Akçansa operates in the cement, ready-mixed concrete and aggregate sectors. This report outlines all the actions taken to minimize any negative economic, environmental and social impacts of Akçansa's operations. With Akçansa's triple bottom line reporting, the stakeholders will be able to see the measurement, monitoring and improvement steps of the company's sustainability performance.

Akçansa's export activities are managed through its multinational partner HeidelbergCement Group's HC Trading. This information can be reached through [www.heidelbergcement.com](http://www.heidelbergcement.com). HeidelbergCement Group's sustainability report is published every two years. Neither Akçansa's export activities nor the operations of its subsidiary Kargımsa Cement Manufacturing Inc. based in Turkey are included within the scope of this report.

### Declaration of Consistency with GRI (Global Reporting Initiative)

Akçansa's Sustainability Report has been prepared on the basis of all the core and additional indicators of globally validated GRI Sustainability Reporting Guideline (G3) and meeting GRI B level (see pages 60 - 67 and inside the cover). This guideline provides companies a framework to report their economic, environmental and social impacts, their objectives and actions with respect to these impacts, and the results of these activities.

In addition to GRI's standard indicators, "sector specific indicators" prepared specifically for cement sector are presented on page 59 of this report.

[www.globalreporting.org](http://www.globalreporting.org)

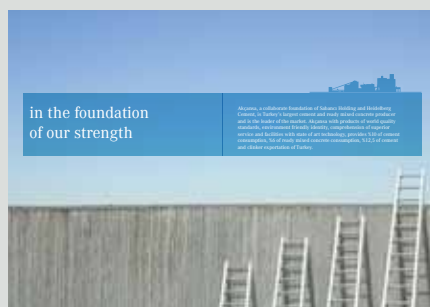
## Defining Report Content and Stakeholder Engagement

In preparing the report and determining its scope, GRI's principles such as materiality, stakeholder inclusiveness, sustainability context, and completeness were taken into consideration. The key topics in this report were determined by conducting surveys and workshops for employees and dealers who are the primary stakeholders of Akçansa. The selections were approved at workshops and meetings by top management.

Following the feedback of top management, these key topics are finalized in the light of the meetings held with Turkey's two important non-governmental organizations, AKUT (Search and Rescue Association) and WWF Turkey. In all these dialogue platforms where stakeholder's opinions and suggestions are collected, Akçansa's economic, social, and environmental impacts within the frame of sustainability are taken into consideration for the whole company. All the key issues in this report are presented in proportion to their significance and priority and with contemporary data.

### Reporting Period and Reporting Cycle

This report covers Akçansa's 2007-2009 operating period. The next report, which will be published every two years, will be published in 2012 covering 2010-2011 period.



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## Message from the Chairman and the General Manager



### Dear Stakeholders,

The sustainability concept embodied more and more by Akçansa in every aspect of our work is a fundamental strategic factor, playing a major role in shaping our future.

Being the first sustainability report of the Turkish cement industry, this document includes our goals set for the forthcoming years, in addition to our achievements to date in the economic, environmental and social domains.

The urbanization and infrastructure development has grown at an exponential pace over the last two decades. This has brought significant gains and growth opportunities to the Turkish cement sector. However, the global economic crisis during our reporting period 2007 to 2009 has had an impact on the construction materials industry and has caused an important amount of stricture in this branch of business that has grown significantly in the previous years.

Contraction in the sector caused the once rapidly growing sector to decline by 19.5%. Akçansa, owning the leader position of the sector, providing 10% of the country's cement need and 12.5% of the demand for cement and clinker, experienced a 23% decrease in its domestic sales in 2009.



Akçansa has continued the sustainability efforts in these harsh market conditions and has clearly proved that it aspires and is ready to become the sustainability leader in the industry.

We are aware that success in business can only be achieved by contributing to the solution of social and environmental problems of the society we are operating in.

While our partner Sabancı with vision and responsibility supports us in this respect, the strong collaboration we have established with our international partner HeidelbergCement allows us to transfer our knowledge and competencies into action much faster than our competitors in the cement sector of Turkey.

### Dear Stakeholders,

As part of our sustainability strategy, we would like to highlight three key issues that may affect our business.

**Climate change** is one of the most important risk factors that will increasingly affect the future. The continuously expanding legislation framework requiring lower carbon emissions for Turkey and the high prices of fossil fuels compel us to come up with creative solutions. Akçansa, a pioneer in this field in Turkey has made an investment of TRY 37,8 million in order to generate 105.6 MW of energy through waste heat recovery at its Çanakale plant within the scope of Renewable Energy Investment Project.

Being the first sustainability report of the Turkish cement industry, this document includes our goals set for the forthcoming years, in addition to our achievements to date in the economic, environmental and social domains.

Intense actions are progressing in order to reach our targets for **alternative fuel sources** are to increase from the current level of 2,84% (in 2008) to 10,2% in 2012. We aim to reduce our carbon dioxide emissions from 873 kg to 829 kg for each ton of clinker we manufacture by the end of 2012.

It is important for us to switch to **alternative raw materials** for producing cement and we carry out research and development activities.

**Reducing dust emission** is one of the key components of our strategic approach in terms of providing Akçansa's employees with a better work environment and reducing the impacts of our facilities in the regions where we operate.

We succeeded in reducing dust emissions by 15% since 2007. In fact, our activities and investments aiming to reduce dust emissions in all the facilities at Akçansa are ongoing. As part of this strategy, all open storage areas for clinkers, coals and other raw materials will be sheltered by 2012.

The modernization and environmental investments in our cement operations add up to TRY 6,2 million in 2009.

The investments we made in 2009 in ready-mixed concrete facilities include; five new facilities, recycling, and dust removal operations, which cost about TRY 8,5 million.

**Occupational health and safety** is one of our top priorities. The number of accidents with fatality in our cement operations between 2008 and 2009 is zero.

While maintaining this statistic, we also strive to reduce the number of serious accidents and minimize the lost time due to accidents. In addition to regular health and safety trainings provided over the years, all our key personnel attend a special safety-training program prepared in collaboration with AKUT (Search and Rescue Association) and CEIS (Cement Industry Employers' Association) in 2008. While improving our safety programs, we will continue our efforts to minimize the number of accidents and injuries by increasing the awareness of our employees and contractors.

In addition to these three priorities, we consider that extraction of cement raw materials has significant impacts on **biological diversity and environment** and we are determined to take the necessary actions. The relevant authorities have approved our plans for rehabilitation of raw material extraction sites. We intend to start rehabilitation of 10 hectare of the idle sites where production is finished, in 2012.

In the coming years we see that energy conserving and environmental friendly **sustainable buildings** and **sustainable construction** solutions will be forefront. With the importance we give to sustainable life style and with our sensitivity to ecology we will continue to be a partner of solutions through our ready mixed operations.

We know that we are just at the very beginning of the journey of achieving our sustainability objectives and we are ready to show all the effort to reach our objectives. And we would like to work in collaboration with all our stakeholder groups within this context. Our membership at Business Association of Sustainable Development (SKD) and Turkish Green Buildings Association (CEDBIK) shows our commitment to sustainability.

The main issues we highlight in our sustainability report have been identified through workshops, surveys, and one-to-one interviews with our internal stakeholders from all our units. Simultaneously, we talked with non-governmental organizations such as WWF Turkey and AKUT, and their valuable opinions have been taken into consideration.

Our objective for the next reporting period is to open up dialogue with a wider range of our external stakeholders and ensure their contribution and support.


We will also continue to invest in programs aimed at the personal and professional development of Akçansa's employees.

Our main objective in all these efforts is to strengthen the sustainability understanding and to raise the creative power within our corporation to higher levels.

We intend to respond to the concerns communicated to us, in consideration of their current and future effects on our business. In this regard, this report serves also as an invitation to start dialogue with groups who approach us from a critical perspective.

We are dedicated to laying a sustainable industrial approach in our foundation by embodying sustainability in all of our activities.

Yours Sincerely,



Mehmet Göçmen  
Chairman of the Board



Hakan Gürdal  
General Manager



In the foundation  
of our strength...



Akçansa, a collaborate foundation of Sabancı Holding and Heidelberg Cement, is Turkey's largest cement and ready mixed concrete producer and is the leader of the market. Akçansa with products of world quality standards, environment friendly identity, comprehension of superior service and facilities with state of art technology, provides 10% of cement consumption, 6% of ready mixed concrete consumption, 12,5% of cement and clinker exportation of Turkey.



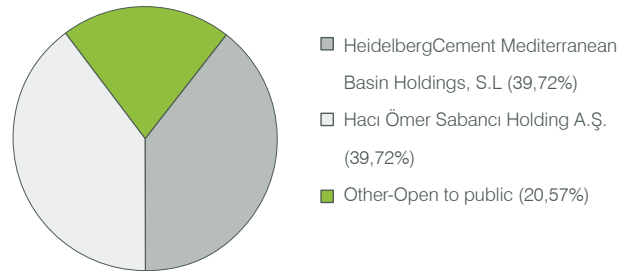


# Corporate Profile

Akçansa's history goes back to the founding of Akçimento in 1967. The company became the biggest cement producer of Turkey through the merger of Akçimento with Çanakkale Cement in 1996. Today, H.Ö. Sabancı Holding A.Ş. and HeidelbergCement AG equally own 79.4% of Akçansa's shares. The general public owns the remaining 20.6% shares of the company. The stocks are traded on the İstanbul Stock Exchange (ISE) with AKCNS symbol.

Partnership with HeidelbergCement, one of the global players of the cement sector, creates synergies and facilitates the transfer of knowledge and Akçansa's access to international markets. The Sabancı brand assures the superior service quality of the company.

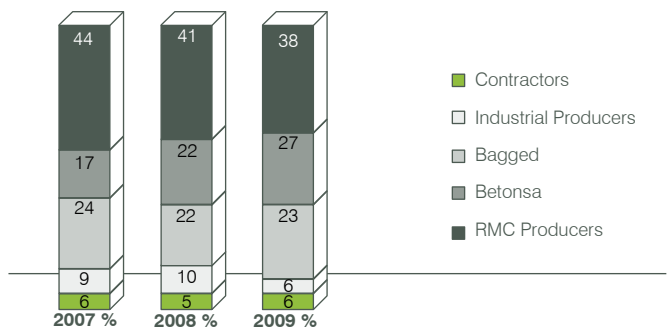
## Partnership Structure



## Main Indicators of 2009

<b>Net Sales:</b>	TRY 709,6 million
<b>Employees:</b>	1.030 (7% of employment in Turkish cement plants)
<b>Production:</b>	5,7 million tons of clinker and 5,3 million tons of cement (12,3% of total clinker production and 9,8% of total cement production of Turkey)
<b>Export:</b>	2,5 million tons (12,5% of total cement and clinker export of Turkey)

## Domestic Cement Sales



## Products

**Cement** is a material produced by mixing and grinding clinker with gypsum and other additives and is most widely used in concrete production. Clinker is obtained by heating the mixture of limestone and clay at high temperatures.

Mixing cement with aggregate, sand, water, and additives produces ready-mix concrete. Wowing to its mold ability and durability, concrete is the most widely used material in the construction sector.

Reducing the size of limestone, basalt and some other raw materials and grading them through crushing and sieving produce aggregate. It is used as the raw material of industrial products such as concrete and asphalt.

For information on production processes and standards, cement, ready mixed concrete, aggregate product types, and other information about the sector please visit

[www.akcansa.com.tr](http://www.akcansa.com.tr)







#### Cement & Clinker (2009)

**Production Centers:** 3 plants in İstanbul-Büyükçekmece, Çanakkale-Ezine and Samsun-Ladik.

**Number of Employees:** 723

#### Ready-Mixed Concrete - Betonsa\* (2009)

**Production Centers:** Over 35 facilities in the Marmara, Aegean and Black Sea Regions

**Number of Employees:** 180

#### Agrega - Agregasa\* (2009)

**Production Centers:** : 4 facilities in Bursa, İstanbul Ayazağa, Gebze and Tekirdağ-Saray

**Number of Employees:** 4

#### Ports and Terminals

2 ports in Çanakkale and Ambarlı, 4 terminals in Ambarlı, İzmir-Aliağa, Yalova and Yarımca, 2 big-bag cement blasting, bulk cement storage and sales facilities in Samsun and Artvin/Hopa

#### Karçimsa Cement and Slag Grinding Plant

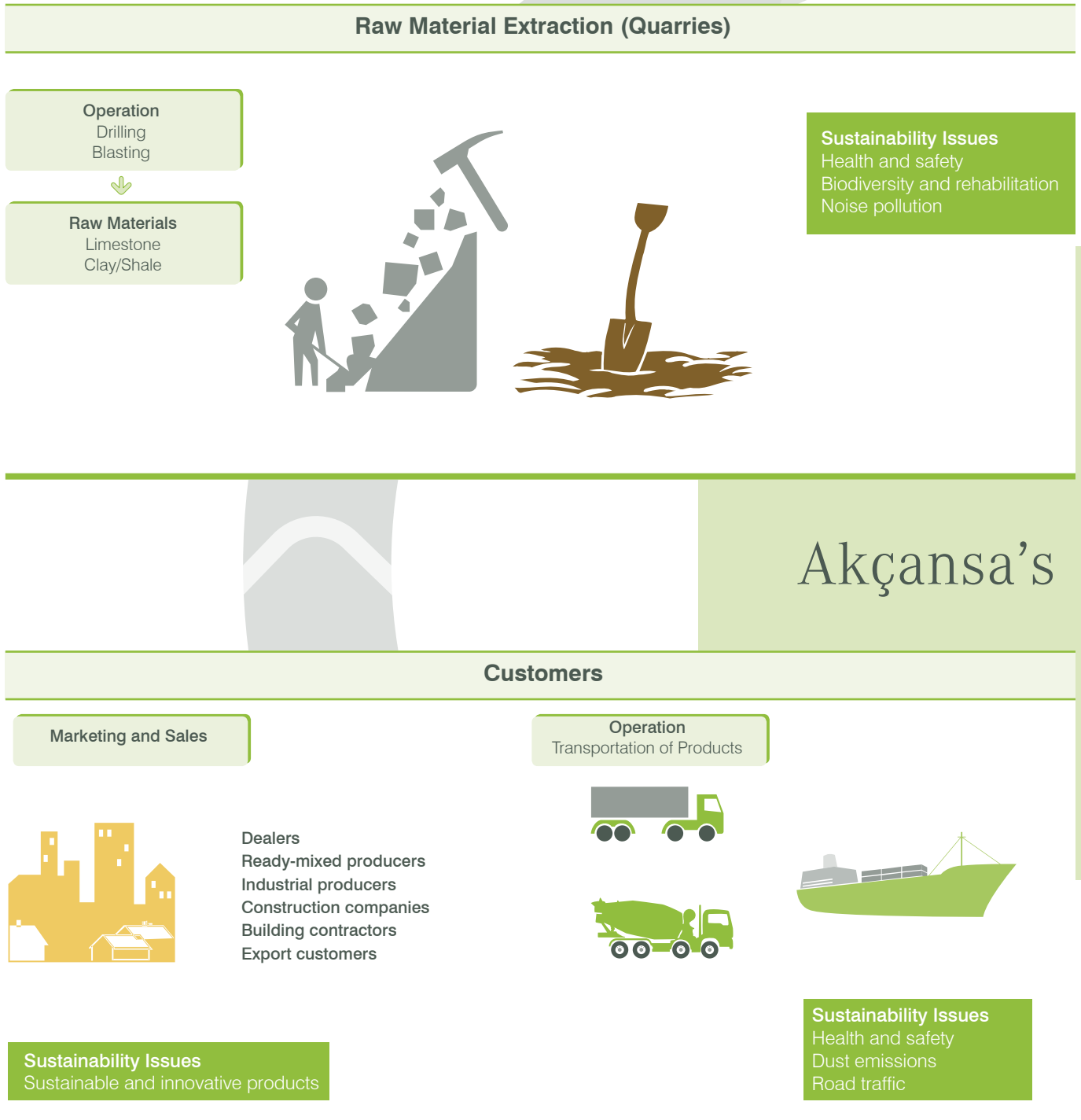
Karçimsa was established in 1996 with 51% of the shares held by Akçansa and 49% held by Kardemir Demir Çelik Sanayi ve Tic. A.Ş., and started cement production in 1998.

\* Betonsa and Agregasa are the ready mixed concrete and aggregate brands of Akçansa, respectively.

The awards received by Akçansa during the reporting period	
ERMCO	Ranked 55th in the top 500 industrial enterprises list published by İstanbul Chamber of Commerce.
	Selected as the most valuable cement brand of Turkey in research conducted by Capital Magazine.
<b>Capital</b>	Selected as the most admired cement company of Turkey many times in the annual surveys conducted by Capital magazine.
	Took place among the 300 Turkish Stars challenging the World list of Business Week.
	Edremit ready-mixed concrete facility won the ERMCO Environment Award in 2007.
	Edremit and Büyükçekmece ready-mixed concrete facilities both won THBB's Blue Barret Work Safety Award.

### Sustainability Issues Along Akçansa's Value Chain

The sustainability impacts in Akçansa's value chain are illustrated in the diagram below. The sustainability issues listed are analyzed in detail in the relevant sections of this report.



From supplier to customer, in each step of the value chain Akçansa monitors its impacts on its stakeholders and takes actions for improvement.

### Clinker and Cement Production (Plants)



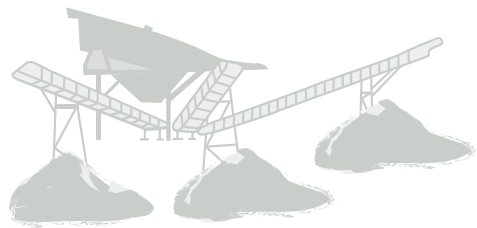
#### Sustainability Issues

Health and safety  
Dust emissions  
GHG and other gas emissions  
Usage of alternative fuels and raw materials

Energy efficiency  
Reduction in use of natural resources  
Water usage  
Waste disposal  
Dialogue with local neighbors

## Value Chain

### Ready Mixed Concrete and Aggregate Production



#### Sustainability Issues

Health and safety  
Dust emissions  
Recycling  
Water usage  
Dialogue with local neighbors



### OUR VISION

#### “Sustainable growth beyond all boundaries”

In a world with limited resources, sustainability strategies are required for sustainable development and the reduction of the environmental impacts of urbanization. Akçansa continues to strive in controlling the environmental impacts of its operations and in protecting the health and safety of its employees as well as other stakeholders who are influenced by its operations. Akçansa, as one of the highest tax paying corporations in Turkey, also contributes greatly to the community through its traditional social activities.

By preparing this report, the sustainability committee combined its social and environmental initiatives under the umbrella of the sustainability management concept. Akçansa has started an inspiring journey, which is supported by its shareholder and partner HeidelbergCement.

The Akçansa management aims to integrate sustainability into its daily business activities. In accordance with its sustainability strategies Akçansa will listen to its stakeholders who are influenced by its operations more in the future.

The strategic issues with high business impacts, which address the sustainability concerns of key stakeholders are evaluated during the reporting period. These are:

- Compliance with new environmental regulations
- Dust Emissions
- Other Emissions such as CO<sub>2</sub> and NO<sub>x</sub>
- Alternatives to Fossil Fuel and Raw Materials
- Health & Safety
- Social Security & Human Rights

Akçansa intends to enhance its competitive edge through continuous improvement of these issues and a proactive stakeholder communication. The transmission to innovative products and state of art technologies will be facilitated through our sustainability management. Akçansa's overall approach is to increase the company value by “doing better.”

Both in its business practices and social responsibility projects, it strives to establish transparent, open and continuous communications with all of its shareholders and maintain its prestigious corporation status. Akçansa describes its sustainable development and performance culture principles in its mission.

### OUR MISSION

With our sustainable business model and our culture embracing the social, environmental, ethical values and compliance to laws, our mission is to be the leading construction products company by creating value for

- **Our customers** through innovative products, services and solutions;
- **Our shareholders** through our superior financial performance;
- **Our employees** through our management approach prioritizing occupational health and safety and opportunities for continuous self-development;
- **Our environment** through the importance we attach to alternative fuel and raw material use, recovery processes and biological diversity and **all other stakeholders** through enhancing the quality of life for the community.

The environmental impacts resulting from the operations of Akçansa as well as the investments made and the measures taken are outlined in the section “Our Environmental Performance” of this report. The social impacts resulting from the operations of Akçansa as well as the investments and other actions taken are outlined in the section “Our Social Performance” of this report.



## MANAGING SUSTAINABILITY

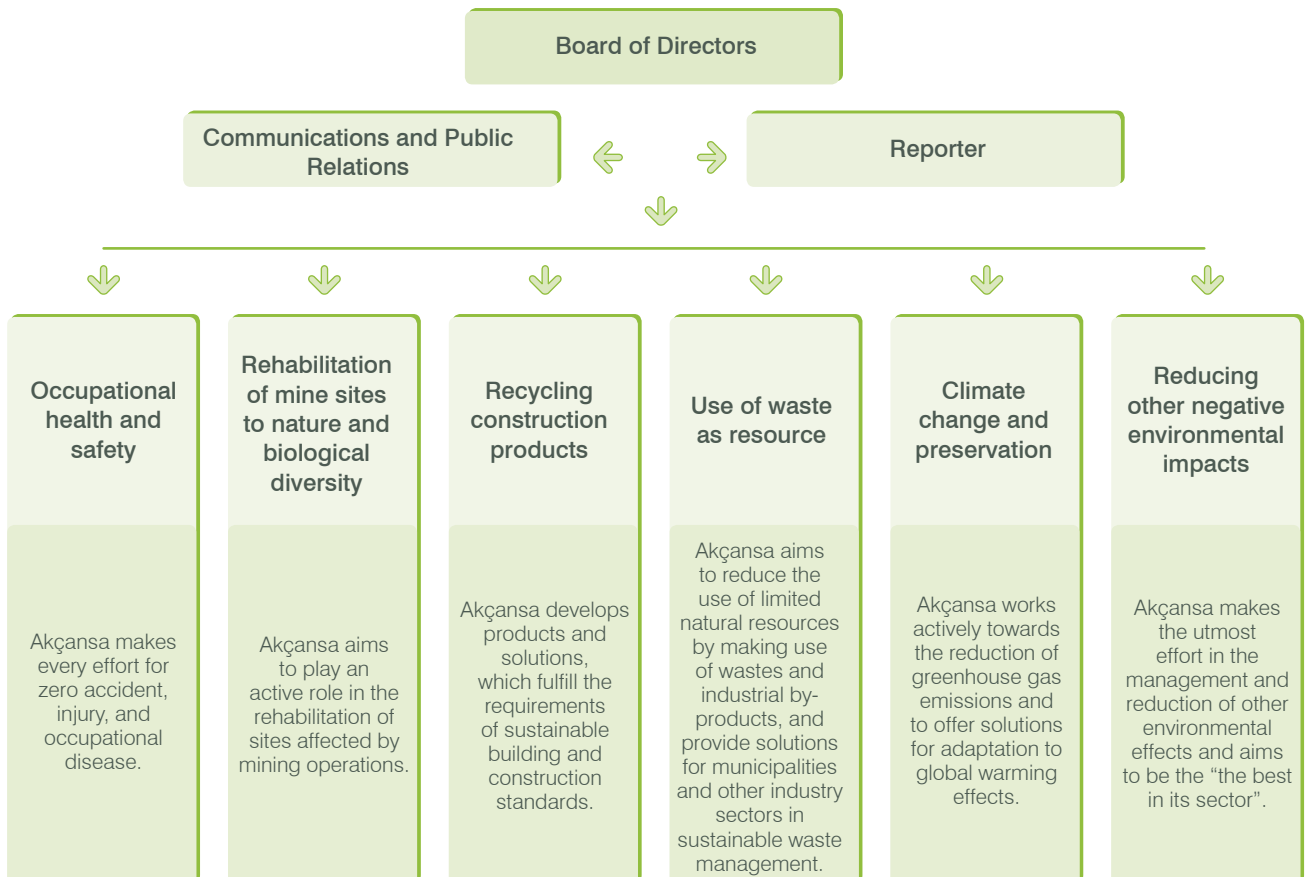
At Akçansa sustainability is a management issue governed by the Board of Directors, where targets are set and followed.

Akçansa has identified its sustainability ambitions based on the "Sustainability Ambitions 2020" of its German partner HeidelbergCement, and the top management monitors these targets on a regular basis. The Sustainability Committee established in the beginning of 2010 manages all operations towards the implementation of sustainability ambitions at Akçansa.

The committee, which meets every two months, is comprised of an executive council composed of members of the executive committee, a reporter, a communication specialist, and sub working group members. The Working Groups have been organized under six main topics regarding strategic issues.



### Sustainability Committee



### Objectives of The Sustainability Committee

In line with the strategic targets and the sustainability approach, Akçansa Sustainability Committee manages its operations within the following framework.

- Identification of the company strategy, policies, standards, and targets within the framework of sustainability,
- Monitoring and coordination of the implementation of actions,
- Identification of the internal and external communication policies,
- Assessment of the technical innovations in environmental sustainability and, initiating and monitoring actions,
- Ensuring that Akçansa takes active roles in the relevant associations and committees,
- Following legislation and political developments and taking any necessary actions.

In addition to the Corporate Risk Committee, a Sustainability Risk Committee is present to assess the sustainability risks of Akçansa to

- Determine the corporate sustainability goals and targets,
- Benchmark sustainability performance with the best practices, and to
- Ensure full compliance with laws by 2012.

### Other Committees

There are a number of other committees that support sustainability ambitions of the company. These committees cover all business lines and key stakeholders issues and also improve internal communication. They report directly to the General Manager, and are able to make decisions and take actions in order to achieve the sustainability targets of Akçansa.

Name Of The Committee	Stakeholder	Objective
Discipline Committee	Employer's Representatives and Union Stewards	To implement the workplace relevant rules and regulations and to prevent improper attitudes.
Quality Circle	Production and Sales Teams	To act as a bridge between production and sales and to discuss any issues on quality on a regular basis.
Occupational Health & Safety (OHS) Committee	OHS Specialist, Plant OHS Committee Chairman and Plant operating members	To monitor all issues related to occupational health and safety, to take relevant decisions and to fulfill the requirements of the management system.
Environmental Committee	Environmental Health Technician and Plant operating members	To follow up legal requirements and to fulfill the requirements of the environmental management system.
Ready-Mixed Concrete Blue Ocean Strategy Committee	RMC team	To develop new tools that will make a difference in marketing
Marketing Committee	Members representing the cement plants and ready-mixed concrete facilities	To develop activities for increasing customers and sales
Credit Committee	Finance, cement, ready-mixed concrete sales functions	To identify the possible risks through debt and receivables follow up
Social Activities Committee	Members representing all the locations	To organize various social activities for the employees
'Akçansa Harcı' Committee	Members representing all functions	To determine the content of the internal magazine
Portal Committee	Members representing all functions	To carry out activities for activating internal communication and creating a corporate database
Risk Committee	Chairman Of The Board Of Directors, General Manager, Assistant General Manager (Finance) Corporate Performance and Risk Manager, Risk owners	To follow up the status of the risks and determine the actions for critical risks through specified risk limitations determined by corporation.



## Corporate Governance

Akçansa complies with the "Corporate Governance Principles" published by the Capital Markets Board (CMB). The Corporate Governance Principles Compliance Report covering the period from 1 January 2009 to 31 December 2009 is included on Pages 32 - 39 of Akçansa 2009 Annual Report.

## Internal Audit

An internal audit department, reporting to the Board of Directors, has been established to prevent potential risks of Akçansa including sustainability risks.

Main activities of the internal audit department include prevention of corruption, identification of unethical and anticompetitive behavior and policies. The internal audit department works to assure that all actions in the company are in compliance with laws and regulations, and company policies.

Risks, which conflict with the overall corporate objectives of Akçansa, are paired with current audit plans and new plans that take the risk as base are produced. Problems determined are reported to the management through audit plans and if these issues can't be solved, they are reported to the board of directors.

The standards and guidance provided by the international internal audit institute are used in the audits. The employees of Akçansa internal audit department hold the certifications of "CIA" Certified Internal Auditor and "CISA" Certified Information Systems Auditor. These certifications are awarded by the international organizations IIA (Institute of Internal Auditors) and ISACA (Information Systems Audit and Control Association).

## Corporate Risk Management

Akçansa knows that opportunities come with risks and sustainable growth is gained through effectively determining, measuring and managing risks. An important part of Akçansa's mission is "creating value for its stakeholders" which is directly related to risk management. In this direction Akçansa, being one of the pioneers of Turkey with its strong risk management infrastructure, continues to apply risk management system predefined in the corporation. Akçansa's Corporate Risk Management activities, which began in 2007 has gained velocity through the years 2009 and 2010. It is an important performance measure for all function managers and employees to act accordingly to risk management principals during our operations. The managers of related departments

are responsible for determining all the actions to be taken, carrying them out and monitoring their results, to effectively manage risks. Akçansa has determined existing and potential risks, critical risk indicators for each critical risk and limits and monitors them. The risk follow-ups are done by the relevant risk owners on a daily basis and by the risk committee through meetings led by the Chairman of the Board of Directors every two months. The position of Corporate Performance and Risk Management Administrator has been established in 2010 to direct and coordinate risk management activities.

### Audits of Integrated Management System

The qualified employees holding internal auditor certificates conduct regular internal audits. The operation of Akçansa Integrated Management System and the level of adaptation in newly established facilities are reviewed. The necessary work for the improvement of the management system is carried out.

Integrated Management System audits are performed at 33 Facilities, 5 Regional Quality Departments, 7 Marketing-Sales Departments, 7 Regional Directorships, Quality and Optimization Directorate, Technical Directorship, Purchasing and Human Resources and Ready Mixed Concrete-Aggregate Departments.

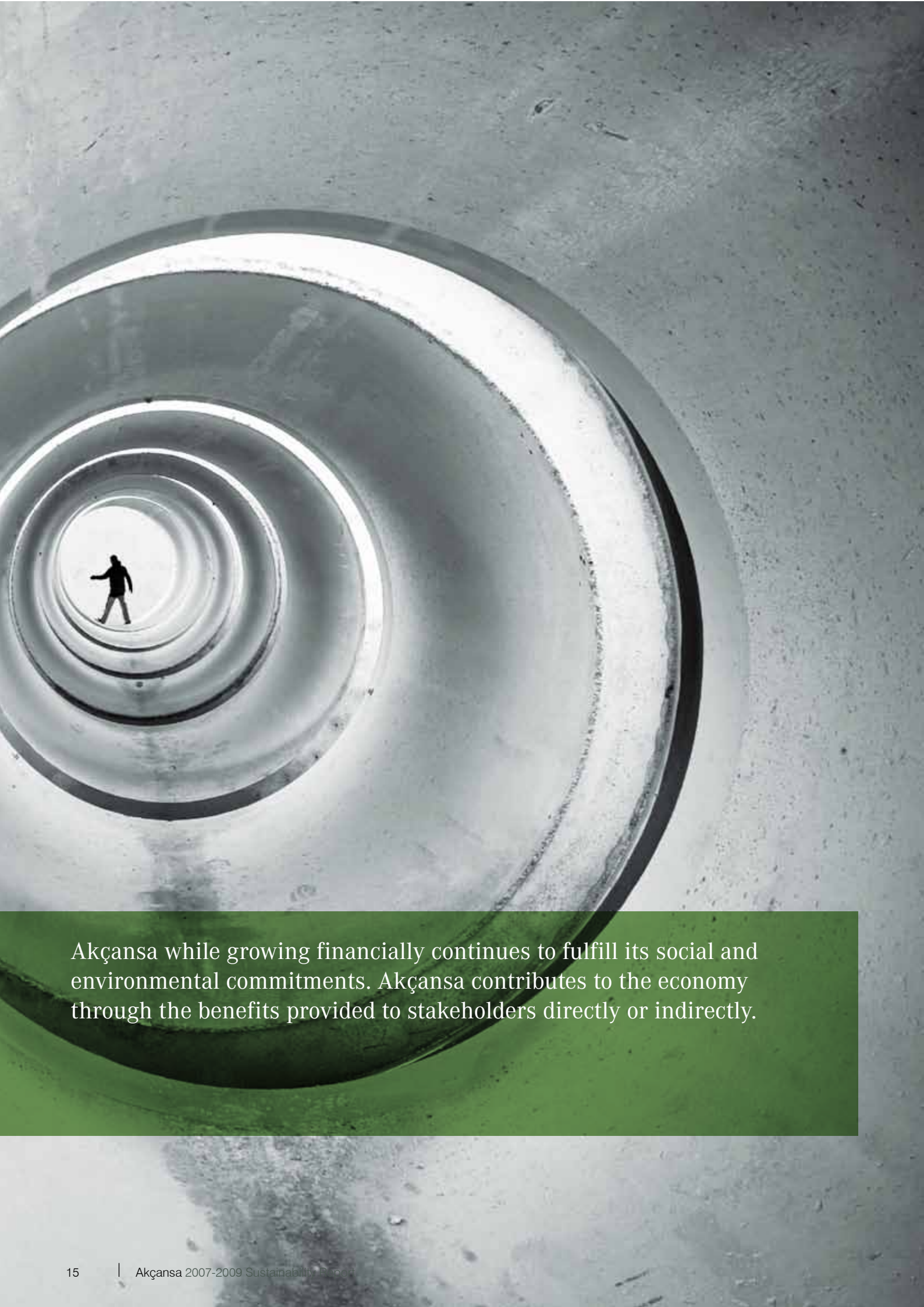
Recently 116 Corrective and Preventive Action Requests (CPAR) were opened in QDMS (Quality Document Management System) in the audits conducted in October 2009. The authorities made the necessary adjustments and took the necessary actions. As of the same date, 155 customer complaints were recorded and satisfactorily dealt with.

TÜV RHEINLAND completed the ISO 9001 - 2000 Quality Management System, OHSAS 18001 Occupational Health and Safety Management System and ISO 14001 Environmental Management System Certificate audits, in December 2009.





In the foundation of  
our success...



Akçansa while growing financially continues to fulfill its social and environmental commitments. Akçansa contributes to the economy through the benefits provided to stakeholders directly or indirectly.



# Our Economic Performance

## Record sales volume in a shrinking economy

The major effect of global crisis on Turkey was a 4,7% economic decline in 2009 after 8 years of growth. The share of the construction sector in this economy was 19.5%.

As a result of the decrease in cement consumption in the Marmara and Aegean regions where Akçansa is most active, the domestic sales decreased by 23,7%. In spite of this reduction, the cement consumption in Turkey reached 42,8 million tons in 2009 through major projects initiated in developing regions.

Akçansa has managed its working capital in the best way possible in this tough period and continued to create sustainable, innovative and customer specific solutions in a competitive market. The fall in the domestic market has been compensated by exports, which amounted to 2,5 million tons. In ready-mixed concrete, successful economic results were achieved through customer specific solutions and a record volume of sales at 4 million cubic meters.

## Contribution to the environment

With the objective of sustainable development in all its activities, Akçansa has accepted the protection of nature and increase of alternative fuel/raw material usage as a social responsibility. The company has made investments in alternative fuel usage with the objective of creating a permanent competitive advantage for sustainable growth.

## Contribution to the community

Aware of its social impacts, Akçansa as a corporate citizen shows its commitment to create social benefits by supporting the regions of its operations and developing projects for the common good.

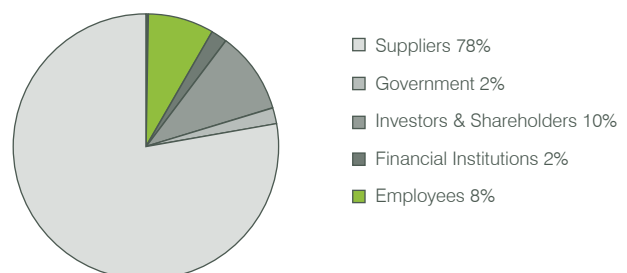
## Contribution to the economy

Akçansa directly contributes to the economy through the payments to its suppliers, tax payments to the government, in addition to payments to investors, finance institutions, and employees. Akçansa was ranked as 32nd in 2007, 52nd in 2008 and 56th in 2009 in the list of **top 100 tax paying** companies of Turkey.

The following table and the graphics exhibit the economic impacts of Akçansa in net figures.

Economic Value Created & Distributed			
(TRY)	2007	2008	2009
Economic value generated (Net sales plus revenues from financial investments and sales of assets)	708,865,392	821,072,550	717,070,844
Economic Value Distributed to Stakeholders			
Operating expenses (Payments to suppliers, non-strategic investments, royalties etc)	450,474,803	572,211,543	543,693,243
Benefit to governments (tax etc)	38,772,655	25,117,242	13,751,639
Benefit to investors/ shareholders (dividends etc)	128,168,556	124,793,953	70,002,057
Benefit to lenders/ creditors (interest etc)	9,240,808	19,765,237	13,494,116
Benefit to employees (salaries etc)	48,582,494	54,933,060	54,345,950
Benefit to communities (donations etc)	2,260,911	2,450,584	2,389,386
<b>Economic value retained in business</b>	<b>31,365,165</b>	<b>21,800,931</b>	<b>19,394,453</b>

## Economic Value Distributed to Stakeholders



### The Cement Sector and Sustainability

The need for urbanization and restoration in Turkey and neighbor countries increases every day. With exports to 180 countries, our country is a regional power and production centre for construction materials.

The civilization journey of mankind is a driving force for the construction industry. As the need for buildings is met on one hand, other issues such as global warming, energy efficiency, clean environment, and protection of human health are becoming increasingly important.

The cement sector today has to comply with new policies and legislations like REACH (Regulation, Evaluation, Authorization and restriction of Chemicals) and to ongoing changes in current regulations such as the Construction Products Directive. The members of the sector are aware that besides economic performance, they need to understand and manage also their environmental and social impacts.

The increasing concerns regarding our planet play a significant role in raising the consciousness level in manufacturing whatever we do, by “causing less pollution, using less natural resources, consuming less energy and providing more benefits.”

To have a better understanding of sustainability dynamics, it would be beneficial to review the specific qualities of the cement sector.

### Cement Sector Overview

Cement products such as concrete and plaster have been and continue to be the most widely used construction materials. Cement being an indispensable construction material, makes a significant contribution to the economy as a main industry.

Some basic characteristics of the cement industry are summarized below:

- Capital Intensive: The construction cost of a plant manufacturing one million tons of cement per year is about TRY 200 million.
- Energy Intensive: To produce one ton of cement, approximately 110 kWh of electricity and 2,5-4,0 GJ of fuel energy are required. Energy is the greatest cost item in the cement industry.
- Automation Intensive: Approximately 150 people are employed at a modern plant with one million tons annual capacity.
- Transportation Intensive: Since cement is a heavy product, it is important that the manufacturing and consumption locations are close to each other. In terms of land transportation, distances over 200-300 kilometers are avoided.
- Demand intensive: Consumption in the developing European countries including Turkey has increased by two to threefold within the last 25 years.

### Contribution to community

Despite Akçansa's social investments have a relatively small share in the total distributed economic value, a higher contribution to the livelihood of many individual entrepreneurs and their families occurs through Akçansa's outsourcing of transportation, raw material extraction, and vehicle maintenance.

This value is part of the indirect contribution created for the community by Akçansa through its suppliers.

### Contribution to Employees

Akçansa contributes to Individual Pension System on behalf of its employees.

In addition to wages and salaries Akçansa provides additional benefits and opportunities for its employees, the priority stakeholders of the company.

In addition to the benefits provided to its employees, Akçansa's highest economic impact is the support to its employees who are part of the Individual Pension System.

Contribution to the Individual Pension System			
(TRY)	2007	2008	2009
Akçansa's consolidated contribution on defined benefit plans	316,597	344,923	336,442

Akçansa makes a contribution of 3% over the monthly gross wages of its employees to the Individual Pension System (IPS). In order to obtain this contribution, employees must deposit a minimum of 3% of their gross wages in the IPS. Payments above 3% are optional for employees. Akçansa receives its IPS policies from Avivasa, which is a Sabancı Group company. By means of this support, Akçansa aims at contributing to the pension plan of its personnel and enhancing the loyalty of its employees.



Akçansa also creates an economic impact through the direct export performed via its partner HC (HeidelbergCement) Trading. Akçansa benefits from the advantages of the current export incentive systems of Turkey.

Although the export activities of Akçansa are not within the scope of this report, the information about export loans is reported under GRI EC4 indicator in economic performance category. Accordingly, all tax deductions and advantages from export sales are presented in the following table:

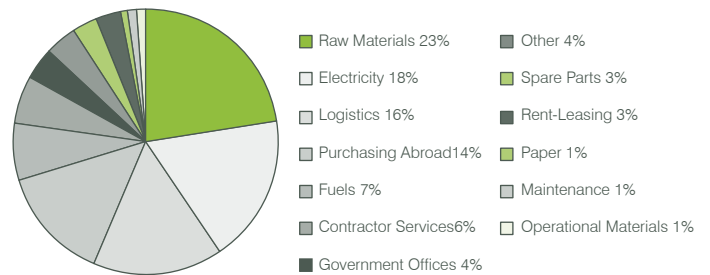
Financial assistance from government	2007	2008	2009
Tax relief/credits	None	207.073 TRY tax reduction from corporate tax base as a result of direct export sales amounted 41.414.646 TRY	519.738 TRY tax reduction from corporate tax base as a result of direct export sales amounted 103.546.154 TRY.
Financial assistance from Export Credit Agencies	40 Million TRY export commitment loan was received from several banks in 2007 and its banking and insurance transactions tax (BITT) advantage was 82.632 TRY.	25 Million TRY export commitment loan was received from several banks in 2008 and its banking and insurance transactions tax (BITT) advantage was 33.973 TRY.	75 Million TRY export commitment loan was received from several banks in 2009 and its banking and insurance transactions tax (BITT) advantage was 275.618 TRY.

### Contribution to Suppliers

Akçansa is in cooperation with suppliers operating in various sectors including raw materials, electricity, cleaning services and catering.

The following graph indicates the supplier expenses of Akçansa and proportions of economic contributions provided to various sectors.

### Distribution of Benefits to Suppliers (2009)



The percentage breakdown of different needs of Akçansa within the total supply chain is given in the above graph. Raw materials, electricity, and shipping are the most important expense items of Akçansa. The small expenses under the title of "others" include consumables, insurance, construction, and information technologies materials.

### Support To Local Economy

The joint purchasing group of Sabancı Holding performs wholesale purchases regarding catering, cleaning, personnel service and safety for all subsidiaries.

Akçansa takes into consideration the quality, standard, price advantage and prefers local suppliers in the regions where it operates. This policy allows establishing stronger relationships with the community.

For example, local transport companies are preferred in the Büyükçekmece, Çanakkale and Ladik plants as well as in loading-discharging operations in ports and terminals. The security, transportation, catering, and cleaning services are outsourced to local suppliers in the Ladik region where employment opportunities are limited. In the Çanakkale plant also local people are hired for security services.

Only in cases where the local resources are of insufficient in capacity or quality of the products or services are not satisfactory, Akçansa may prefer to work with others.



The payments made to the local suppliers for “raw materials, shipping, fuel and contractor/services” (the largest supplier expenses) are of significant volumes. The percentage breakdown of the total needs met by Akçansa locally within the 2007-2009 period is given in the following graph: Akçansa purchased 69% of all its raw material needs, 41% of all shipping services, 47% of all its fuel requirements and 45% of all contracting services from local suppliers in 2009.

### Share of Local Suppliers



### Important Investments within the Framework of Sustainability

#### Investments in Cement Operations

The total cost of modernization and environment investments made by Akçansa in 2009 reached TRY 6,2 million.

Within the scope of the projects to be completed by the end of 2011, TRY 37,8 million will be invested in a waste heat project recovery project to produce electricity.

As part of another ongoing project, the conversion of raw mill/furnace electro filters of Çanakkale 1st clinker production line into bag filters is to be completed by the end of 2011. Likewise, the conversion of electro filters of additive mill and rotary furnaces into bag filters in Büyükçekmece plant has been planned.

Akçansa has obtained an Electric Power Plant license to generate energy through the recovering the heat of waste chimney gas at Çanakkale plant. The Energy Market Regulatory Authority (EMRA) granted the license on 6 November 2008. The application for this project was submitted to the Foreign Capital General Directorate and was approved with an Incentive Certificate issued on 22 December 2008. The design and engineering works of Waste Heat Recovery Power Plant Project were then initiated.

Within the scope of the environment-friendly investments, the bidding for a project on the conversion of electro filters in cement mills nr 3 and 4 of the Büyükçekmece plant into bag type filters has commenced. The project is to be started and completed in the first half of 2010.

An Environment and Quality Laboratory (AFR Laboratory) was built in the Büyükçekmece plant and ISO 17025 Laboratory Management System was established. Accreditation of the laboratory by the Ministry of Health and TURKAK (Turkish Accreditation Agency) has been completed.

The details with regard to reducing the environmental impacts of Akçansa resulting from the above mentioned investments are included in Our Environmental Performance section.

#### Investments in Ready-Mixed Concrete Operations

In addition to the investments on mechanical, hydraulic distributors facilitating casting for high raise buildings and on project facility installations, investments with positive environmental effects were also made in 2009. The total cost of investment in this area is TRY 8,5 million.

#### Recycling Systems

Improvement works have been carried out in the treatment pools in the Mahmutbey, Yeni Bosna, Esenyurt and Kemerburgaz facilities. In the Halkalı, Acıbadem, Karabük, Ataşehir-II, Gümöldür, Aliağa facilities that opened in 2009, treatment pools were installed, and the recovery of facility waste water and reduction in the cost of waste disposal targets were achieved.

#### De-dusting Operations

A pulverized sprinkler system was installed in the Samandıra facility; this enabled the dusting to be controlled and as a result the facility's dust emission has decreased. The same system is also used as an aggregate cooling system under warm weather conditions.

#### Innovative Projects

Three new projects were brought to life in 2009 at Betonsa through ideas gathered in the employee suggestion system: Fuel Saving System, Boom Safety System, and Temperature and Tank Level System.

The details regarding these investments are included in relevant sections of the report.

All the financial results of the period between 2007 and 2009 of Akçansa are available in the 2009 Annual Report at [www.akçansa.com.tr](http://www.akçansa.com.tr).



In the foundation of  
the values we create...





Akçansa is creating communication platforms where it can regularly receive ideas, concerns and suggestions from its stakeholders about sustainability. Akçansa aims at taking such actions where company's strategic goals are met as well as the stakeholders' expectations.

# Our Dialogue With Our Stakeholders

## Priority Stakeholders

The Akçansa Sustainability Committee started the "stakeholder engagement" in 2010 to define the strategic sustainability issues highlighted within this report. This process included one dealer survey, one employee survey, trainings and workshops with employees from all functions at three cement plants, workshops with senior management at the headquarters, and one to one meetings with non-governmental organizations.

As a result of these studies, the following lists of stakeholders were identified regarding their economic, social and environmental interactions with Akçansa.

## Dialogue Platforms With Priority Stakeholders

Akçansa identified its stakeholders with whom it has the most interaction with and created channels through which they could share their concerns and views with the company on a regular basis. This chapter primarily explains the dialogue platforms of the reporting period for the first three key stakeholders, "employees (and their families), shareholders, dealers/customers".

The stakeholder engagement conducted during the preparation of the report in 2010 to determine the sustainability issues with strategic significance are explained in detail under 'Determining Strategic Sustainability Issues'.

Employees  
Main Shareholders  
Dealers  
Families of the Employees  
Minority Shareholders  
End-Users of Products  
Suppliers  
Members of the Sector

Local Community  
Local Administrations  
Government Authorities  
Universities and Academicians  
Non-governmental Organizations  
Opinion Leaders  
Media



The following table presents the communication platforms Akçansa used with its key stakeholders during the reporting period and the scope of these platforms. In addition to these,

Akçansa regularly organizes activities for its employees such as picnics, fast-breaking meals, and special day activities.

Stakeholder Group	Communication Platforms	Communication Frequency	Number Of Stakeholders
<b>Employees</b>	Communication meetings	Once a year	All employees - more than 1000
	Board meetings	Twice a year	Managers and senior level - 60 -70 people
	Meetings by function	Monthly	All relevant employees
<b>Employees and Their Families</b>	Social activities committee events	Twice a year	All employees - more than 1000
	Environment day	Once a year	All employees - more than 1000
<b>Main Shareholders</b>	General assembly and board meetings	Four times a year	Open to all the shareholders
<b>Minority Shareholders</b>	General assembly and one to one Interviews	General Assembly is held once a year, one to one interviews are held upon request	Open to all the shareholders
<b>Dealers</b>	Dealers' meeting (Abroad)	Once a year	150-200 people
	Dealers' meeting	Once a year	100-150 people
<b>Suppliers</b>	Code of ethics information meeting	Twice a year	150-200 people
<b>Local Administrations</b>	Festival sponsorship, fast-breaking dinner and picnic	Several times a year	All relevant local administrators

## OUR DIALOGUE WITH OUR EMPLOYEES

Akçansa has created many platforms in and outside the company to improve its communication with its employees and the communication among the employees.

Company objectives, results, managerial decisions, changes regarding business life are regularly shared with the employees both in written and verbal forms.

Akçansa's "open door policy" allow all employees from every level to directly communicate with managers.

Over 50 meetings organized in different regions of Akçansa on a daily, weekly, monthly, quarterly, biannual, or annual basis, provide an opportunity for the teams and directors of relevant departments to meet with top management, and ensure platforms where opinions and suggestions are readily shared.

All these communication platforms and applications ensure that employees participate in the management. Electronic mails, bulletin boards, and the portals are effectively used. Some of these platforms became communication brands as a result of regular practices and positive feedbacks received. The communication meeting held once a year with the attendance of all employees is the main communication platform.

The Akçansa Suggestion System and Akçansa Rewarding System also ensure that employees can help the company in identifying sustainability related objectives and to take actions.



### Communication Meetings

The communication meeting held in December every year with the participation of all employees at Akçansa is an important meeting where the employees share their requests and recommendations.

Upon requests raised at the meetings in 2008 and 2009, various actions concerning the sustainability approach of the company were taken. Some of them are summarized below

Request	Action	Impact
Assistance for purchasing black coal due to high cost of coal and long winter season of the area where the Ladik plant is located	As a result of the negotiations held between coal suppliers and union representatives, it was decided to buy bulk amounts of coal providing cheaper installment payment options for the employees.	Social and economic
Request for taking the technician group of 45 employees within the scope of private health insurance including IPS-individual pension system and inpatient treatment.	Along with this intervention that has been practiced since the beginning of 2009, although the Company received no specific request, 112 employees working in ready-mixed concrete operations in addition to technicians were included in the scope of private insurance including inpatient treatment.	Social
The employees of headquarters communicated that the floors covered with carpets cause dust and negatively affect the health conditions.	The office floor was covered with parquet.	Social
The employees raised requests for training assistance.	At least half of training costs of the employees who aim to continue Executive MBA programs or improve their foreign language levels (home or abroad) are met by Akçansa.	Social and economic

Such practices are regulated with corporation bylaws so as to maintain the equal opportunity for the employees.

### Employee Suggestion System

Akçansa has a suggestion system since 2005, which aims to nurture the company and increase its competitive power through innovative ideas of the employees. Thousands of suggestions are received in the system every year.

This system, supporting and rewarding employee participation is also a powerful communication tool and plays an important role in the company's fulfillment of its sustainability objectives. The suggestions reviewed and considered are awarded on a monthly basis.

The number of suggestions received by the system increased 40% since last year and reached 1767 in 2009. The evaluations found 1280 of the suggestions worthy of implementation.

**It has been found that 73 out of every 100-employee suggestions support the strategic objectives of Akçansa and 13 of the 33 applicable suggestions were implemented.**

The topics of the suggestions, which have been accepted and realized within the sustainability frame, are presented in the table on page 25.

Of the total number of suggestions realized, 13% cover issues relating to environmental impacts, 18% cover issues relating to economic impacts and 40% cover issues concerning social impacts. The actions taken by Akçansa regarding these suggestion topics are outlined in the sections "Our Economic Performance", "Our Environmental Performance" and "Our Social Performance" in pages 16, 32, 48 of this report.



#### The Distribution of the Topics of the Suggestions Implemented (2005-2009)

##### Suggestions on Environmental Issues (13%)

Environmental improvement and development

Energy / fuel saving

Raw materials / other materials saving

##### Suggestions on Economic Issues (18%)

Reducing the rates of errors and losses

Reducing cost / Saving money

Increasing capacity and efficiency

##### Suggestions on Social Issues (40%)

Occupational health and safety, Danger notices

Speeding up the information flow, strengthening the internal/ external communication

Increasing customer satisfaction

Improving working conditions and activities to increase satisfaction

##### Other (29%)

Machine-equipment, tools improvement / development

Process / method development, job simplification

New technology and development

Total number of suggestions between 2005 and 2009: 3.490

#### Employee Rewarding System

Akçansa Rewarding System aims to honor team work and performance.

Akçansa has been rewarding teams or plants in different categories, two of them in sales, every year since 2008. The successful teams are announced in the traditional Communication Meeting held at the end of the year.



The rewards given in different categories are intended to support Akçansa to fulfill its social and environmental sustainability objectives.

Details regarding the rewards are given in the following table.

Reward Category	Objective	Teams
Most Efficient Production Line Reward	To reduce controllable downtime and to reach the maximum capacity	Clinker Production Lines
Most Productive Maintenance Team Reward	To increase productivity by using the capacity in the most effective way	Machine Maintenance Chief Offices
Occupational Health and Safety Reward	To increase and strengthen occupational safety, thus to minimize risks and avoid losses	Employees of Büyükçekmece and Çanakkale Factories
Ready-Mixed Concrete Facility of the Year "Integrated Management System" Performance Reward	To ensure continuous development in fulfilling the requirements of the Integrated Management System (IMS) and to serve strategies of Akçansa	Ready-Mixed Concrete Facilities

#### Altın Yaka Awards

Every year Sabancı Altın Yaka Awards are given in order to promote the success of companies and employees under the Sabancı Group, sharing best practices and to support the advancement of the Group. Awards are given in six categories; Perfection, Personal Performance Management, Enterprise Fund Management, Lean 6 Sigma, Innovation and Contribution to Success.

#### OUR DIALOGUE WITH OUR SHAREHOLDERS

Akçansa has two communication channels to provide the major and minority shareholders with the opportunity to share their requests and views: Annual General Assembly and Shareholder Relations Department.

#### General Assembly

In accordance with the Turkish Commercial Code and within the scope of Articles of Association, the General Assembly is held within the first three months of the year. Minority shareholders are also invited to this meeting.

#### Shareholder Relations Department

This department operating within the financial affairs function at Akçansa is an important channel through which the minority shareholders may directly communicate their ideas, suggestions and requests.

### OUR DIALOGUE WITH OUR DEALERS AND CUSTOMERS

Adopting a market-oriented and solution-creating approach, Akçansa makes a difference in the sector with its marketing strategies and distinguished product portfolio. To obtain maximum customer satisfaction, the customers are visited at their work place and are provided with every technical support at the top level. Resolving customer complaints and ensuring a short feedback time constitute the basis of Akçansa's customer relation policy.

Akçansa, collaborates with professional research companies, measures and monitors customer loyalty every two years, and based on the feedbacks received, regularly improves its sales, marketing and business development strategies.

Within the reporting period, a customer satisfaction and loyalty research was conducted in 2006 and 2008. The research results indicated a 75% loyalty rate in 2006, which on average increased to 88% for all the customers in 2008.

Any kind of customer complaint regarding quality, shipping, occupational health and safety (OHS) or protection of the environment is recorded in the QDMS (Quality Document Management System). Steps for resolving customer complaints and all other steps are also recorded.

Customer complaints are immediately researched, evaluated and if necessary customers who are affected are informed and compensated. Systematic actions are taken to avoid reoccurrence of complaints.

At monthly managers' meetings, the number and customer complaints received by the regions are discussed. They are recorded in the system and the solutions are followed up. The aim of Akçansa is to keep records of all the complaints and to give clear feedback to the customer.

#### Brain Storming with Employees and Dealers

Akçansa's employees and regional dealers have gathered for a workshop organized by the Northern Marmara Region Management.

27 people including the cement sales marketing general manager assistant, plant manager, sales, production, R&D quality managers, and bagged cement dealers' sales teams attended the workshop held in Büyükçekmece plant on October 17, 2009.

The workshop covered a SWOT analysis on "Akçansa in the Bagged Cement Market" and a discussion panel titled "If you were in charge, what would you change?" During the workshop the participants tried to define the improvement areas to better serve Akçansa customers. Analysis results and action plans were shared and submitted to the executive committee.

### Product Responsibility

All Akçansa products and services are evaluated based on their health and safety effects during production, shipping and usage processes. In line with safe use of the product and to enhance experience, Akçansa labels its products in accordance with the international and national standards.

Akçansa provides its customers with Product Quality Reports and Material Safety Reports covering all the products.

Information on use and safety for bagged cement is printed on the bags. All reports about Bulk Cement are handed over to the customers as soon as possible upon delivery of the products.

Akçansa closely follows all developments of relevant laws, legislations and standards as part of its marketing activities. Production is performed in line with the laws and standards, and the products are delivered to the end user through health and safety evaluations at every stage of production-sales cycle.

The production of concrete at Betonsa is performed in accordance with the TS EN 206 – 1 standard and distributed to the customer. Within the scope of the G (safe concrete) regulation prepared by Ministry of Public Works and Settlement, all ready-mixed concrete facilities of Betonsa undergo a formal system audit and unannounced audits three times per year by accredited organizations.

### DETERMINING SUSTAINABILITY ISSUES

To determine the material sustainability issues with strategic importance highlighted within this report, Akçansa Sustainability Committee created platforms in 2010 to engage with the following key stakeholders

- Employees
- Dealers
- Non-governmental organizations

Akçansa's objective is to reach a wider stakeholder group in the next years of sustainability reporting and to have a broader understanding of stakeholder concerns for the future.

## Sustainability Survey With Employees

Within the scope of this first sustainability report, an internal sustainability survey of all employees was carried out to find out about the employee's perception of the company's performance, to understand their concerns and to create awareness among them.

### Questions about Social Impacts



The employees evaluated the adequacy of precautions taken by Akçansa to 'ensure occupational health and safety' as 85%. However they evaluated their own sensitivity to protect environment and to ensure occupational health and safety, as 75% adequate.



The participants identified the possible diseases to which the employees, working at Akçansa production facilities may be exposed due to the workplace environment. 65% of employees think that Akçansa should take actions for diseases caused by dust emissions, while 51% thinks actions should be taken to minimize noise and 37% thinks that actions should be taken to minimize gas emissions.



The employees listed the possible local needs that they expect Akçansa to support in the regions where its plants are located;

1. Giving support to environment oriented public efforts
2. Giving support to local administrations who invest in infrastructure
3. Giving support to education on protection of the environment
4. Creating employment opportunities in the facilities for the local community.

### Questions about Environmental Impacts



The employees stated that the environmental problems encountered in the regions Akçansa operates where the company's more or less responsible are;

- Air pollution (dust) by 73%;
- Visual pollution by 32%;
- Water and soil pollution (leaks) by 27%.



85% of the employees participating in the survey emphasized the fact that Akçansa should develop environment-friendly products to be influential in the green construction market.

Part of the Sustainability Ambitions 2012-2020 of Akçansa has been determined based on the results of the survey. Relevant actions will be conveyed in the next reporting period.

### Plant Workshops with Employees

In addition to Akçansa Sustainability Committee's internal sustainability survey, a training session titled '**A Journey to Sustainability: From Individual Responsibilities to Corporate Responsibilities**' was organized in July 2010 at Büyükçekmece-İstanbul, Çanakkale and Ladik-Samsun cement plants to which all employees were invited. Following this training, 'strategy workshops' were organized with the participation of employees and managers from different business lines and functions.

In these workshops, the stakeholders of the company were identified. Social and environmental impacts of Akçansa's operations on each of the stakeholder groups were discussed. The strategic key topics were determined and criteria to prioritize each issue and key stakeholders were identified.



### Dealer Survey on Sustainability

Akçansa organized the annual dealers' communication meeting in Dubai in 2010.

A total of 58 dealer representatives participated in the meeting. A survey was conducted to understand the perception of dealers about Akçansa's sustainability performance.

In the survey;

- 95% of the dealers evaluated Akçansa's economic performance as strong,
- 72% of dealers evaluated Akçansa's social performance as strong
- 86% of dealers evaluated Akçansa's environmental performance as strong.

Within the scope of the same survey, the participants pointed out the strong aspects of Akçansa as follows:

- Financial strength,
- Geographical position and experience in the market,
- Strong network of dealers,
- Product quality,
- Environmental and social consciousness, in addition to reliability and brand power.

Although 74% of the dealers stated that Akçansa's dealer relationships are strong. They pointed out that the following areas need improvement: communication with dealers, ensuring competitive equality among dealers, and marketing activities for the end user. 43% of the participants stated they have limited knowledge of Akçansa's objectives and strategies; whereas, 31% stated they felt they were adequately informed.

The question on the objectives Akçansa should focus on in the next 10 years is answered by the 30% of the dealers as 'developing new products, increasing product variety, and developing environment-friendly products'. In addition to economic objectives, ideas to increase environmental and energy investments were included in the answers.

The strategic sustainability issues highlighted in the Dubai survey were:

- Strengthening dealer communications and
- Developing environment friendly products.

These results are in line with the issues defined in the studies conducted with the employees, namely, enhancing the stakeholder dialogue and producing sustainable, innovative products.

The dealers determined the areas that Akçansa needs improvement,

- Ensuring competitive equality among dealers,
- Marketing activities for the end user,
- More detailed communication with the dealers regarding the objectives and strategies of Akçansa.

The management, to take relevant actions in the next reporting period, evaluates these results.

### NGO Meetings

Upon the top management's request to the Sustainability Committee, the opinions and suggestions of non-governmental organizations, which are experts in their areas, were also sought.



In the meeting held with **AKUT Search and Rescue Association**, the actions to be taken to reduce the negative social impacts of the company were discussed. The main topic was Occupational Health and Safety.

The detailed information on emergency training and drills for the cement industry, including Akçansa's plants, which was started by AKUT in 2004 in collaboration with CEIS (Cement Industry Employers' Association), is available in the "Our Social Performance" section of this report on page 51, under Occupational Health and Safety.





In the meeting with **WWF Turkey (World Wildlife Fund)**, questions on the actions and improvements regarding the environmental impacts of the company activities were communicated.

WWF Turkey provided Akçansa with feedback based on the detailed studies conducted by WWF and internationally operating cement manufacturers. Details are included in the "Our Environmental Performance" section of this report, on page 33.

### Sustainability Committee Workshop and Materiality Mapping

The strategic issues that were highlighted in the employee and dealer surveys, plant workshops and the meetings with the

NGOs were assessed by a five-stage significance test with the participation of the managers of Akçansa, and segmented into three groups.

Environmental and social issues were reviewed separately and the following map is created.

1. The issues in the upper right section of the map have special importance for the key stakeholders. As they affect Akçansa's performance directly and significantly they are within the scope of the company's strategy and policies. These issues are the main key topics of the relevant sections of the report. (Dark green area)
2. The second group outlined in the report is composed of the issues that have less effect on the key stakeholders and that affect Akçansa's performance indirectly. (Gray area)
3. The third group consists of issues that affect the performance of Akçansa at minimum and are of lower importance for stakeholders. They are included in the report as headlines. (Light green area)

Akçansa Materiality Matrix (Social and Environmental Issues)				
↑ Influence on stakeholder assessment and decisions		<ul style="list-style-type: none"> <li>• Health of local community</li> <li>• Environmental investments</li> </ul>	<ul style="list-style-type: none"> <li>• Air Emissions</li> <li>• Corporate governance</li> </ul>	<ul style="list-style-type: none"> <li>• Compliance</li> <li>• Occupational health and safety</li> <li>• Dust emission</li> </ul>
	<ul style="list-style-type: none"> <li>• Local Community and Management investments</li> <li>• Fire/explosions</li> </ul>	<ul style="list-style-type: none"> <li>• Betterment in product pricing</li> <li>• Local environmental impacts</li> </ul>	<ul style="list-style-type: none"> <li>• Social security and Human Rights</li> </ul>	<ul style="list-style-type: none"> <li>• Stakeholder engagement</li> <li>• Use of alternative fuels &amp; raw materials</li> </ul>
	<ul style="list-style-type: none"> <li>• Vibrations from quarries</li> </ul>	<ul style="list-style-type: none"> <li>• Support to education</li> <li>• Sea pollution</li> </ul>	<ul style="list-style-type: none"> <li>• Use/reduction of natural resources</li> </ul>	<ul style="list-style-type: none"> <li>• Energy</li> </ul>
	<ul style="list-style-type: none"> <li>• Reduction of water resources</li> </ul>	<ul style="list-style-type: none"> <li>• Elimination of solid &amp; liquid wastes</li> </ul>	<ul style="list-style-type: none"> <li>• Sustainable &amp; innovative products</li> </ul>	
Significance of potential (negative/positive impacts on Akçansa) →				

Akçansa's targets and actions concerning the strategic social and environmental issues to be managed for the stakeholders are outlined in the relevant sections of this report.

Goals and actions considering strategic and environmental issues to be managed by Akçansa's stakeholders are given in detail in various sections of this report. Titles of these sections are as follows:

- Corporate Governance: Vision, Strategy and Management
- Occupational Health & Safety: Our Social Performance
- Human Rights and Social Security: Our Social Performance

- Dialogue with stakeholders: Our Dialogue with Stakeholders
- Health of Local Community: Our Social Performance
- Support to Education: Our Social Performance
- Product Pricing: Our Dialogue With Stakeholders

Goals and actions considering strategic and environmental issues to be managed by Akçansa's stakeholders are given in detail in pages 32 - 45 under the Our Environmental Performance topic and in page 58 in Our Sustainability Ambitions table.



In the foundation of  
our responsibility...



With the objective of sustainable development in all its activities, Akçansa has accepted the protection of nature and increase of alternative fuel/ raw material usage as a social responsibility. The company has made investments in alternative fuel usage with the objective of creating a permanent competitive advantage for sustainable growth.

# Our Environmental Performance

## OUR ENVIRONMENTAL PERFORMANCE

Akçansa has set ambitions to reduce its environmental impacts

and preserve the nature. The goals and the progress through these ambitions are listed below:

### Progress towards Goals

Target	2007	2008	2009	Progress	Why does Akçansa pursue this ambition? How does Akçansa progress to achieve this ambition?
<b>Environmental Management System</b>					
Integrating ISO 9001, ISO 14001 and OHSAS 18001 certificates to Büyükçekmece and Çanakkale plants in 2009	–	New	100%	✓	Through this integration, Akçansa facilitated managing and monitoring of these plants and those located in other regions. With implementation of quality management software, registration of statistical data and expansion of best practices and preventive actions are targeted.
<b>Using waste as a resource</b>					
Increasing alternative raw material usage compared to 2007 values	%3.76	%2.73	%1.57	X	Usage of alternative raw materials has increased in quantity. However, in 2008 as Akçansa's overall raw material usage has increased with erection of second clinker production line in Çanakkale, percentage of alternatives dropped accordingly. Due to the global economic crisis, decrease in availability and increase in costs have all affected the use of slag.
Substitution of fuels with waste (Increasing alternative fuel usage compared to 2007 values )	%2.63	%2.84	%2.86	✓	By using waste and industrial by-products, Akçansa has been contributing to the conservation of natural resources. There is an increase in alternative fuel usage compared to 2007 values. Even though there is also an increase of %9,5 in 2009 compared to previous year values, this increase level is not reflected in the overall usage outlook in Akçansa.
<b>Emissions</b>					
Decreasing dust emissions (g/ ton clinker) and compliance with regulations	136	142	116	✓	Akçansa complies with current legal regulations and its values are below limits. There is an improvement of %15 compared to 2007 values.
Covering of all raw material, coal and clinker storage areas by 2012	–	New	50% ; For clinker %66	✓	Akçansa aims to prevent fugitive dust emissions i.e. those that result from winds or other weather conditions, through covering up the open raw material storage areas. All raw material storage areas in Çanakkale plant have already been covered.
Decreasing NOx emissions (g/ ton clinker) and compliance with regulations	1438	1715	1425	✓	Akçansa complies with current legal regulations and its values are below limits. There is a little improvement compared to 2007 values.
Continuous online monitoring of NOx, SOx dust emissions	–	50%	100%	✓	Akçansa has gone one step further by monitoring emissions instantly. Since 2009, all values can be monitored online.
<b>Rehabilitation</b>					
Creating rehabilitation plans for all quarries	–	–	100%	✓	Akçansa has created rehabilitation plans for all quarries as a requirement of the latest regulations.



Target	2007	2008	2009	Progress	Why does Akçansa pursue this ambition? How does Akçansa progress to achieve this ambition?
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**The performance of Akçansa in following its commitments to increase the usage of Alternative Fuels**

Getting an "Alternative fuel burning" license for Ladik plant in 2010				√	For Ladik plant, local alternative fuel inventory has been researched. Licensing process for trial incineration of alternative fuels has been approved by related ministry. Trial incinerations were made in 2010 and the aim is to get an alternative fuel license.
*Installation of an Automatic Tyre Feed system*				√	The first and unique of its kind in Turkish Cement Sector, automatic tyre feeding system was installed in Büyükçekmece plant in 2005. This system has gradually been installed to all lines and it increases the utilization of old tyres.
Installation of an industrial plastic waste preparation and dissolution facility				√	In May 2008, a system which enables the burning of plastic wastes with high calorific value in the first and second rotary kilns, was installed at Akçansa Büyükçekmece plant - the first of its kind in Turkey
Establishment of an Environment and Quality Laboratory in 2010 and getting an approval from Türkak				√	Akçansa has started to work on the establishment of an Environment and Quality Laboratory to be able to check the compliance of waste with national and international standards and increase the efficiency of the testing process.

√ Goal is successfully achieved. - √ Good progress is maintained towards achievement of the goal - X Failure in achievement of the goal.

Akçansa is aiming to follow the blueprint for a climate friendly cement industry of WWF and consequently is committed to make carbon emissions reduction an integral part of its business model.

Together with our shareholder Heidelberg Cement we can increase our capacity building and know-how.

Akçansa aims to follow the WWF blueprint for carbon emission in cement production and does this through;

1. Improve the thermal efficiency of kilns
2. Increase the share of biomass
3. Improve the electrical efficiency of plants

**Together with our customers we want to collaborate on the efficient use of cement in building and construction in Turkey**

"Focus can first be set on specifically answering the required function of a project rather than simply delivering a certain quantity of material. In several cases, the concrete consumption can be reduced, sometimes by more than 50%, by applying the right design, and switching to high quality or special concretes. This requires an enhanced cooperation with the customer as well as improved education, information and training on the most advanced alternatives available from cement suppliers. It also requires sound scientific methods and quality controls to be applied throughout the whole life cycle of cement from production to use."

**Akçansa plans to produce innovative products and expand the use of additives and substitutes to cement clinker**

"The use of Ordinary Portland Cement is the established business practice in the building sectors of most industrialized and developing countries. Conventional and advanced alternatives to Portland cement can lead to substantial carbon emission reductions ranging from 20 to 80% depending on the case. Until now, the use of additives and substitutes to Ordinary Portland Cement (OPC) clinker has been one of the most successful measures in decreasing the specific CO<sub>2</sub> emissions from making cements. A long term clinker ratio as low as 0.75 is desirable. Such a target is still challenging since the availability of additives will not necessarily grow at the same rate as the cement demand. If new alternatives to Portland cement can account for 20% of the market by 2030, they would lead to a 10% decrease in CO<sub>2</sub> emissions from the sector. The introductions of new alternatives to Portland cement are generally very challenging and are expected to take a long time. Therefore, it is advisable to start this process as soon as possible, especially in countries which are still in an earlier stage of development. For this purpose, pilot projects and applications could be developed to "lead by example". Large projects use large quantities of cement for one single customer. Such projects are ideally suited for the introduction of new alternatives to Portland cement before having the technology spread to a broader customer basis. Strong carbon financing or other incentive tools could greatly help to launch these substitutes until they start to spread on their own."

Source: WWF, [www.panda.org/climatesavers](http://www.panda.org/climatesavers); How to Turn Around the Trend of Cement Related Emissions in the Developing World.

### CONTROLLING AND MONITORING EMISSIONS

It is known that cement manufacturing processes generate air emissions. The most significant of these emissions are carbon dioxide (CO<sub>2</sub>), particulate dust, nitrogen oxides (NOx) and sulfur dioxide (SO<sub>2</sub>).

The amount of the emission depends on the raw material, preparation methods, type of kiln, and the emission control systems used. Chimney emissions are the biggest emission sources. These emissions can be monitored regularly, and they can be reduced through investments in new technologies.

Acting as a responsible manufacturer, Akçansa is making the necessary investments and taking the measures in its plants.

The compliance of all filters as well as dust and gas emissions in main chimneys with the legal requirements are being monitored by accreditation bodies on an annual basis.

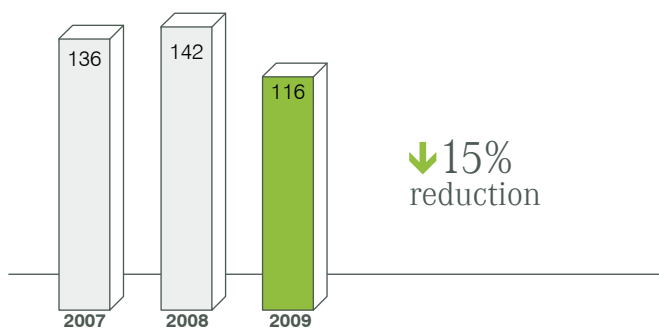
In Akçansa, NOx, SOx and dust emissions for each kiln are monitored both specifically (g/ton clinker) and as absolute values (ton/year). These values are reported to the Ministry of Environment and Forestry along with the measurements

### Akçansa's Commitment in Reducing Dust Emissions

In addition to the process emissions, fugitive dust emissions may occur during transportation and storing of materials due to the natural events like wind and rain. Continuous monitoring of fugitive dust emissions is not possible. Air quality measurements are done periodically in order to monitor and protect the health of local community and employees.

### Akçansa Dust Emissions

gr/ton clinker



### Akçansa is responsible for each dust particle it produces

Akçansa is aware that cement production creates “dust” which causes environmental and social impacts at every level. The company is conscious of the fact that dust has effects on both employees and local people.

In Akçansa, dust emissions are monitored based on the annual measurement values of the consulting firm Enofis.

Although the amount of dust emission is far lower than the legal limits, Akçansa advances with determined steps to continuously reduce this value further.

With this purpose, a continuous online monitoring system for dust sources was established to control the emission levels within Akçansa.

Akçansa is aware of each dust particle it produces and observes the effect of dust emissions on human and environmental health through continuous monitoring. Thus, amount of dust per 1 ton clinker was reduced by 15% within one year. This improvement is a result of Akçansa's environmental consciousness and dedication to its commitments.

### Advanced technology for environment-friendly production

Replacing electro-filters into state-of-art technology bag type filters which have a higher capacity to retain dust provided highly efficient results in our Çanakkale plant.

By using advanced technology, we managed to reduce the dust amount of 122 grams per 1 ton clinker in 2007 by 30% to achieve 84 grams in our Çanakkale facilities.

This accomplishment strengthened our hope to reach the ideal of “zero dust” in such an industry like cement which involves critical processes regarding environment. Best of all, we realized that the more we use technology for creating more environmental friendly processes, the fewer losses are resulted in manufacturing processes along with an increase in productivity.

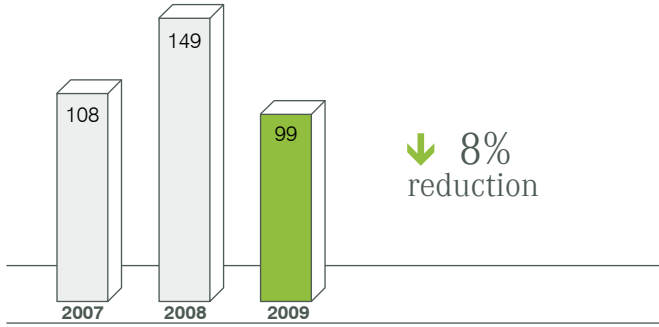


### Dust Elimination Initiatives and Investments

Akçansa aims to reduce dust emissions continuously through investments and systematic improvement in its activities. Examples of such activities in this field are given below.

#### Büyükçekmece Plant Dust Emissions

gr/ton clinker

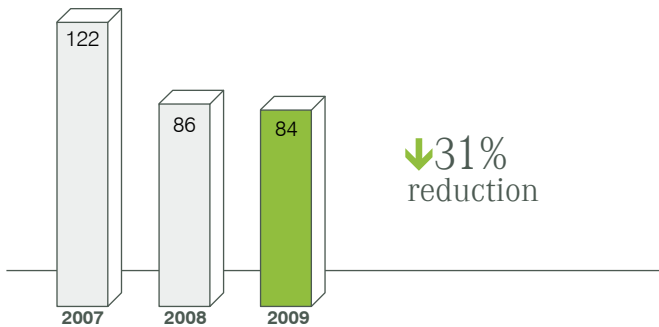


Due to its proximity to residential areas, Akçansa pays special attention to the management and reduction of the emissions of Büyükçekmece plant and makes numerous investments. Through modernization and renovation activities performed in the plant, electro-filter performance is improved and dust emissions are reduced by 8% in 2009 when compared to 2007 levels.

Within the scope of improving activities, Akçansa carried out the tender of replacing electro-filters with bag type filters at two of the cement mills in Büyükçekmece plant. As a result of the project which is planned to be completed and commissioned in 2010, emission volumes will be reduced significantly.

#### Çanakkale Plant Dust Emissions

gr/ton clinker

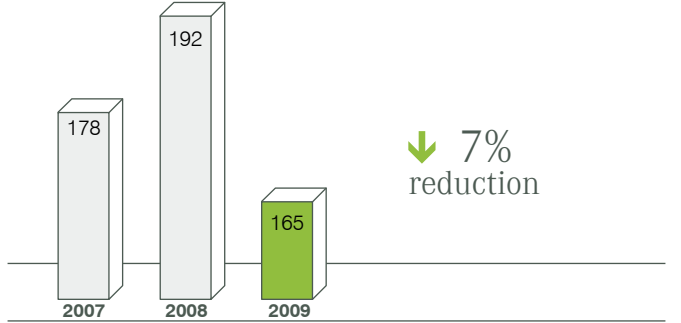


Instead of using electro-filters which were commissioned in second line in 2008, Çanakkale plant switched to bag filters which are state-of-art technology and have a higher capacity to retain dust. Thanks to this investment, the amount of dust per 1 ton clinker is reduced by 30% compared to 2007 values. In addition a pulverizing sprinkler system was established through dedusting cement mills enabling dust emission values of the plant to be further reduced.

Covered coal storage and a covered iron ore / pyrite ash storage with capacities of 50 and 5 thousand tons in clinker production facilities have been constructed in order to prevent fugitive dust emissions. The construction of a covered admixture storage with a capacity of 55 thousand tons in cement milling facilities has also been completed. Thanks to these TRY 7,6 million worth investments, not only dust emissions caused by wind erosion are prevented, but also material loss is reduced.

#### Ladik Plant Dust Emissions

gr/ton clinker



Following the acquisition of Ladik plant in May 2007, investments were made to bring dust emission levels of this plant to the same level as the other plants of Akçansa. As a result of these investments an improvement of 7% was achieved in specific dust emissions at the Ladik plant compared to 2007 levels.

The amount of emissions have been constantly decreasing from the production per 1 ton of clinker in all three plants for the last three years.

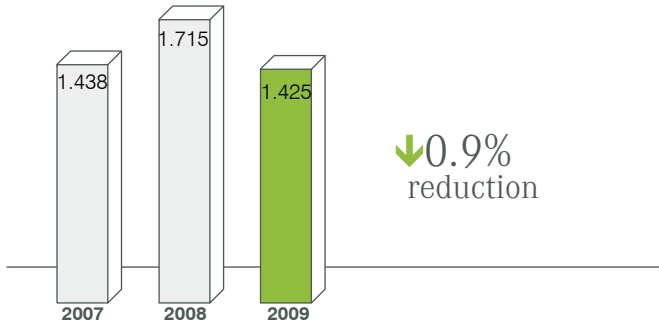
All these activities indicate Akçansa's commitment to protect the health and to improve the living environment quality not only for its own employees but also for local communities wherever Akçansa operates.

Akçansa leads the sector in compliance with amended environmental regulations with implementations it carried out in Betonsa Ready-Mixed Concrete Facilities. Emission measurements of 8 ready mixed concrete facilities were performed in 2009 according to new regulations. The necessary applications for emission permits were submitted to Provincial Directorates of Environment and Forestry.

### NOx and SOx Emissions

Nitrogen oxides (NOx) are formed as a result of reactions at high temperatures reached during the combustion process in a clinker kiln. The graph of Akçansa's total NOx emissions is given below:

#### NOx Emissions gr/ton clinker



The total NOx emission values of Akçansa are within legal limits. A decrease of %0,9 was achieved in the NOx emission values per one ton of clinker bringing the value to 1.425 g/ton clinker. Total amount of NOx emissions for the year 2009 is 9.673.

### SOx Emissions

In measurements performed by Akçansa in accordance with existing legislation and regulations, no SOx emissions were detected.

### Emissions With Small Quantities

In cement production, volatile organic compounds (VOCs) are emitted in small amounts, along with some trace metals and dioxides as well as organic micro pollutants such as furans can be formed.

Akçansa measures its emissions of volatile organic compounds quarterly both in the coal grinder / mill and the main chimneys of its plants.

Another issue is the measurement of the trace metals existing in raw materials and fuels in very small quantities. Within this scope and based on the metal emission results at its plants, Akçansa performs periodic measurements on a semi-annual basis. Similarly, dioxides / furans are measured annually and monitored. Another group of emissions that are monitored in Akçansa is the hydrogen chloride (HCl) and the hydrogen fluoride (HF) as well as the carbon oxides resulting from raw materials and fuels. The measurements of this group are also performed on a quarterly basis.

Results of the emissions with small amounts obtained in Akçansa plants during reporting period are given in the table below:

	Specific (g/ton clinker)	Amount (ton/year)
Metals	0.024	0.1067
Volatile Organic Compounds (VOC)	31	170
	Specific (g/ton clinker)	Amount (ton/year)
Dioxin/furan	< 0.05	0.051

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[www.atiginizibizegetirin.com](http://www.atiginizibizegetirin.com)





## EFFICIENT USE OF NATURAL RESOURCES

Many of the fuel, raw material and additives used in cement production are sourced from natural resources.

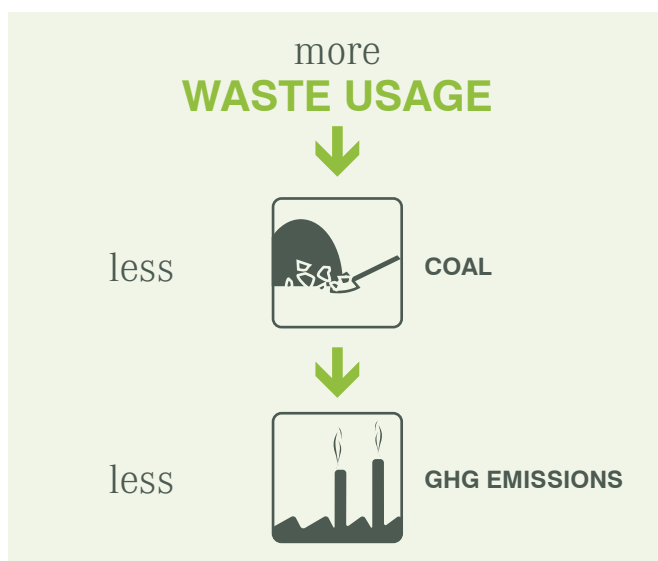
The cement industry, which is energy- and material-intensive, can contribute to sustainable development to the extent that it uses such sources efficiently. For the replacement of fossil fuels and raw materials with alternatives, practices

### Alternative raw material

Replacement of raw materials such as limestone and clay derived from mines with waste and industrial by-products containing minerals such as calcium, silica, aluminum and iron (alternative raw material) contributes significantly to the protection of natural sources. Therefore, the environmental effects resulting from natural raw material extracting activities are reduced.

### Alternative fuel

Waste and industrial by-products (alternative fuels) with a calorific value can be used in cement kilns instead of fossil fuels such as coal or petroleum coke. Thus, the energy requirement can be met by using wastes as an alternative to fossil fuels in cement kilns, and therefore reducing the amounts that need to be handled through other disposal solutions such as landfill, which are less preferable in terms of environmental protection.



Some of the environmental benefits that can be achieved by using alternative fuels and raw materials are summarized below.

**Protection of natural resources:** The reduction in the amount of fossil fuels such as coal, petroleum coke and natural gas that are used to meet the heat requirement of the cement plants, play a significant role in protection of natural resources.

**CO<sub>2</sub> emission reduction:** The amount of CO<sub>2</sub> emissions resulting from the combustion of carbon intensive fossil fuels can be reduced by burning alternative fuels containing less carbon.

With the conventional waste disposal methods used in Turkey, organic wastes are generally stored in wild areas (i.e. landfill) or incinerated. By reutilizing the waste produced in cement plants for energy recovery purposes instead of storing them in wild areas, does not only lead to a reduction in fossil fuel demand but also a results with reduction in methane emissions which is a more effective GHG gas than carbon on climate change.

**Post incineration zero waste:** No solid or liquid waste is produced after the combustion process as temperatures reach 1450 °C degree in rotating kilns and the gas temperature of 2000 °C.

### A process requiring no additional waste incinerating facilities:

As a result of increasing population and consumption, waste disposal will become a major problem for Turkey and especially for mega-cities such as İstanbul in the future. Therefore, alternative methods of disposal such as incineration rather than landfill storage will become an attractive route for the management of waste. Cement plants can also serve as incineration facilities for some particular wastes. Thus, they reduce the amount of waste that would otherwise be incinerated in incineration plants. In waste incineration kilns CO<sub>2</sub> gas and residual ashes containing heavy metals are released. Such emissions require careful discharge handling. Also the energy recovered is subject to efficiencies of distribution. However, at cement plants the ash which emerges after the combustion is added to the body of the clinker that is semi-finished. This addition has no adverse effects on the final product cement. Consequently, there is no generation of waste ash / slag that would otherwise be sent for land disposal. In this sense, waste disposal handling performed in cement plants provides an effective solution to this problem. In addition, as alternative fuels can be less expensive than fossil fuels, their usage reduces fuel costs. This situation varies depending on the availability of the fuel and local conditions.

### Producing from the consumed!

In a world of scarce natural resources such as clean water, air and energy recycling and recovery of materials, energy and waste have become vitally important.

Nature is the greatest recycler. It recycles its components countless times and does this through the consumed.

Within the scope of the sustainable growth concept, Akçansa demonstrates an attitude compatible with the nature when it comes to “production from the consumed.” It is a clear reflection of this approach that Akçansa owns the exemplary facilities of Turkey with respect to energy recovery from waste and reuse/recycling of waste. It is the result of its above summarized approach that Akçansa is the first cement company that received waste incineration licenses by fulfilling all the legal obligations and conditions of waste disposal.

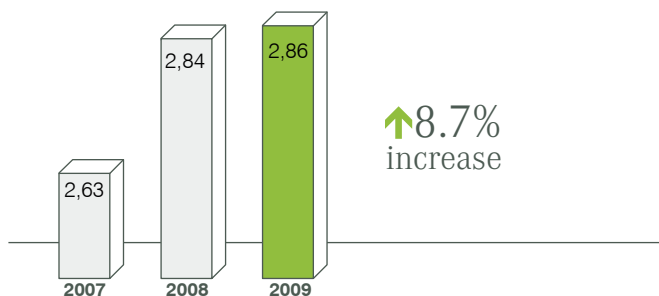
### Producing From The Consumed With an Understanding of Sustainable Growth

Akçansa cement plants are at the forefront in our country for energy recovery from waste and actual waste reuse/recycling rates.

In Akçansa, category II wastes, scrap tyres, plastics, contaminated waste, biomass, RDF, bilge and composite materials are used as alternative fuels.

#### Alternative Fuel Substitution Rate

calorific basis (%)

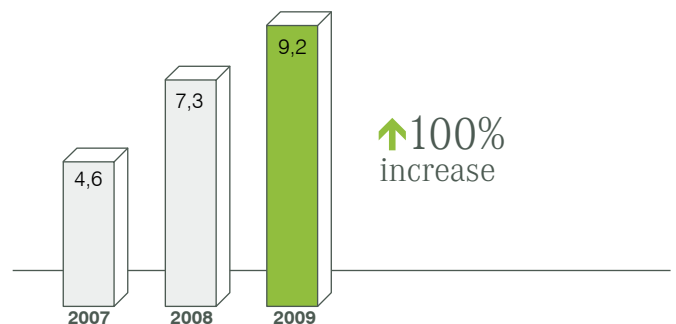


The rate of alternative fuel usage is increasing each year in Akçansa and reached 2.86% in 2009 (in calorific terms). Industrial plastics and worn out vehicle tyres have the largest share in alternative fuel.

The specially designed waste preparation and feeding system commissioned in the Büyükçekmece plant is the first in Turkey and contributes largely to this accomplishment observed in substitution of fossil fuels. In Akçansa, alternative fuel usage in 2009 was 32,038 tons.

#### Büyükçekmece Plant Alternative Fuel Substitution Rate

calorific basis (%)



The Büyükçekmece plant is the leader in using alternative fuels. While the alternative fuel substitution rate of the plant was 4.6% in 2007, it demonstrated a rapid increase in 2009 and reached 9.2%. The largest contribution to this increase came from industrial plastics wastes and old tyres. The latter have been increasingly used after specially designed waste preparation and feed investments were made.

#### AFR Management In Akçansa

Akçansa is the first cement company in Turkey to have received waste incineration licenses by fulfilling all the legal obligations and conditions of waste disposal.

Büyükçekmece and Çanakkale cement plants are the first two ones certified with TA-IL-34-62-R1 and TA-IL-17-66-R1 alternative fuel using licenses of T.C. Ministry of Environment and Forestry.

As of April 2009, the licensing process has also started for the Ladik plant and trial incinerations have already been carried out and the license was given in 2010.

After the license was received, an Environment and Alternative Fuel and Raw Material (AFR) Directorate was established in Akçansa and this department became responsible for the in-plant operational activities of alternative fuel and raw materials. The organization of the purchasing department was improved by the appointment of AFR business development specialist.

A comprehensive AFR management system was developed to guarantee the quality of the final product and also to maintain the high standards of occupational health and safety.

### Quality Control in Waste

Within the scope of the AFR management system, waste acceptance procedures and criteria have been established and implemented in order to include the waste and industrial by-products safely and properly in Akçansa's fuel system. Accordingly, the decision as to whether the waste made can be used, is made after checking the physical and chemical properties of the waste sample. The checks ensure its compliance with legal limits and specifications determined by Akçansa.

#### Akçansa, the leader of the firsts, raising the standards

With the increasing need for sustainable growth, Akçansa has moved on its activities for reusing waste as fuel to establishing its own procedures and criteria. Today, Akçansa has its own waste acceptance and assessment procedure and waste acceptance criteria.

Going beyond the implementation of existing standards Akçansa have raised the standards for waste procedures and criteria to a higher level. Akçansa has been conducting activities to establish an Environment and Quality Laboratory to test firsthand the conformity of waste materials with national and international norms and also to improve the efficiency of the testing process. If the goal is using alternative fuels for a greener production, the activities performed in this field is transforming Akçansa into a specialty centre.

### Difficulties Encountered in Application of Alternative Fuels

Alternative fuels require some preparation phases to be used in operation. There is therefore the necessary investment requirement that has been determined and begun with great commitment in Akçansa. Investment activities started with the disposal of waste oils and waste vehicle tyres. This then reached a new dimension with the activation of a new system that ensured the utilization of almost all the industrial plastics and contaminated waste in the Büyükçekmece plant in May 2008.



Since the receipt of the waste incineration license, a total of 120 thousand tons of waste has been recycled and transformed into value.

### Investments

The first industrial plastic incineration facility in Turkey has been established in the Büyükçekmece plant. The facility is commissioned to disintegrate and transform the nonhazardous and inert material into RDF.

In this facility nonhazardous waste from various industries is handled. It is targeted to reach approximately 35 thousand tons of waste annually. By ensuring that the incineration of plastic waste with high calorific value is included in the rotating furnaces nr. I and II, this system significantly improves energy efficiency and contribution to environment.

The first automatic tyre feeding system in the cement industry in Turkey was established in the Akçansa Büyükçekmece plant and hanger feeding systems for three furnaces in the plant have been installed.

Within the last 5 years, 8,7 million scrap tyres in and around İstanbul have been disposed of this way and this has therefore made a significant contribution to this environmental problem. With the first waste oil incineration license received in the İstanbul Region, waste oils collected from various sources have begun to be transported to Büyükçekmece plant by licensed vehicles and can be incinerated in the three furnaces. Following a detailed preparation process, wastes are delivered to the system homogeneously.

#### Cooperation with municipalities

Akçansa believes that it is of vital importance to cooperate with local governments in sourcing alternative raw material and reuse/recycling of waste. Akçansa strives to create cooperation opportunities and projects with municipalities. The regional research of alternative fuels were inventoried in the Ladik plant and ensured cooperation with the local government in this area.

The goal of Akçansa is to take the alternative raw material and reuse of waste to the highest possible level.

Many different criteria such as calorific content, availability, stocking and logistic cost conditions are among the most significant issues required to be taken into consideration when evaluating the issue of alternative fuel. In this regard, Akçansa carried out an alternative fuel inventory research in the Ladik plant during the pre-license period.

Akçansa is committed to act as a solution partner for utilization of waste with the local governments in the areas where its plants are located. In accordance with this commitment, the company conducts various activities to create an environment of cooperation in the projects with municipalities.

### Alternative Raw Materials

In cement production, Akçansa substitutes natural raw materials with alternative raw materials in certain proportions. This action contributes to the protection of natural resources and consequently the environment.

Use of alternative raw materials also cuts costs. Within this scope the by-products from several industries are used in the production of clinker and cement.

Grid has the largest share in the use of alternative raw materials in Akçansa. Grid is respectively followed by pyrite ash and the blast furnace slag derived from iron – steel production. Marble wastes containing minerals such as aluminum and iron as well as other wastes such as foundry sand, iron powder, scales, plaster chipping, bypass powder, volatile ash and iron dross are also utilized by Akçansa in the cement production process. By using these industrial wastes the need to extract natural raw materials is reduced.

### Alternative raw material usage percentage (%)

2007	2008	2009
3,76	2,73	1,57

In Akçansa, the percentage of alternative raw material usage was 1,57% in 2009. This is lower than in previous years. The reason for the decrease in 2009 is due to shortages in availability of byproducts. This was as a result of difficulties experienced by industries through the global economic crisis. Also the increase in slag costs also played a role in the decrease in the use of alternative raw materials.

In Akçansa, a total of 149.520 tons of alternative raw materials were used in 2009.

## COMBATING CLIMATE CHANGE

### Focus of environmental policies

Coping with climate change is at the core of Akçansa's environmental policies. Akçansa focuses on 3 main approaches to reducing CO<sub>2</sub> emissions:

1. Use of alternative fuels
2. Reducing the rate of clinker usage in cement
3. Energy efficiency

Scientific communities anticipate that at the end of this century the average temperature in the world will increase by 2 degrees Celsius due to climate change, if no action is taken to reduce accumulation of greenhouse gas emissions in the atmosphere.

The main reason of global warming is the rapid increase in emissions of gases such as carbon dioxide (CO<sub>2</sub>) and methane (CH<sub>4</sub>) which cause a greenhouse effect in the atmosphere. To prevent climate change, global greenhouse gas emissions must be reduced significantly.

The cement industry produces 5% of the man-made CO<sub>2</sub> emissions worldwide. Half of this percentage results from the calcination of limestone during clinker production process and 40% is caused by the fuel consumption. The remaining portion of 10% is distributed between electricity usage and transportation.

### Direct sources of CO<sub>2</sub> emission in cement industry:

↓	↓	↓	↓
CO <sub>2</sub> emissions originating from raw material	CO <sub>2</sub> emissions originating from fuel	CO <sub>2</sub> emissions originating from logistics / transportation activities	CO <sub>2</sub> emissions originating from electricity consumption
Calcination of limestone			
CaCO <sub>3</sub> + heat			
↓			
CaO + CO <sub>2</sub>			





Contribution to climate change is at the center of Akçansa's environmental policies and sustainability goals.

Akçansa focuses on three main approaches in its commitment to reduce CO<sub>2</sub> emissions:

**1-Use of alternative fuels:** Less carbon dioxide is emitted when wastes rather than primary fuels such as coal or petroleum coke are used as fuel in cement furnaces. Usage of mainly biomass material instead of primary fuels provides decreasing of CO<sub>2</sub> emissions. Since process fuel emissions comprise nearly 40% of the total emissions in cement production, use of alternative fuels plays a significant role in overall emission reduction. The share of the total CO<sub>2</sub> emissions of Turkey represented by the cement industry is 10%. This is higher than the world average. This illustrates the importance of using alternative fuels and raw materials (AFR) in order to reduce CO<sub>2</sub> emissions.

**2-Reducing the rate of clinker usage in cement:** One way to reduce CO<sub>2</sub> emissions of cement is to use cementitious materials (that do not require heat treatment) as a substitution to clinker in production. Clinker is the most important component of cement. However, clinker production causes a high level of CO<sub>2</sub> emissions. However, some cementitious materials containing minerals can provide the same properties in cement as clinker does. For example natural volcanic rock can demonstrate similar characteristics (pozzolana) and can be used instead of clinker when grinded with blast furnace slag (a by-product of iron and steel industry) and volatile ash (waste of fossil fuel thermal plants).

By using less clinker, CO<sub>2</sub> emissions from its production can be reduced. Thus by substituting clinker with other materials it is possible to reduce CO<sub>2</sub> emissions in cement production. However, there are some problems in replacing clinker with other components these are; availability, cost, chemical properties, conformity with the type of cement to be produced, national standards, and the demands and habits of the customer and/or market.

### Energy Efficiency

As cement production is an energy intensive process, Akçansa aims to reach the highest level of efficiency in thermal and electric energy consumption by continually modernizing its production facilities with state-of-art technologies. By these means, it aims to reduce costs on one hand and also show its awareness on climate change on the other.

## One Step Forward In Technology

### Improvements in process

The rotating furnace No II raw mill system at the Büyükçekmece plant has been modernized. The raw mill system of the Production line No II consists of a pre-milling system and ball mill and this was disassembled and replaced by a vertical mill system incorporating the latest technology. In accordance with the project establishment of the new vertical mill saves a significant amount of production energy.

An investment was also made in the roller press in the 1st cement mill at the Büyükçekmece plant. The purpose of this investment is to use the waste heat from the production of blended cement on the mill and also to increase energy efficiency by reducing milling energy.

### State-Of-Art Technology In New Plants

**Çanakkale Plant Line Nr. II:** A significantly large investment in environmental friendly state-of-art technologies have been applied resulting in an increase in annual clinker production of 100%.

Furthermore in the Çanakkale plant, investment in new technology for the roller press in cement mills nr. I and II has resulted in an increase in cement production capacity of 57%.

### Coping with noise pollution

Potential pollution from the manufacturing process in the cement industry is not limited to dust. Noise is one of the main factors that need to be reduced and adapted to the environment under improvement strategies. Akçansa has developed a method that deactivates the compressors of pneumatic lines in the manufacturing process which reduces noise levels significantly.



### Electrical Energy Efficiency

Improvements have been achieved by investment in the reduction of voltage fluctuations and intake of electrical energy.

Accordingly, the pneumatic raw meal feeding system of the Rotating Furnace nr. III at the Büyükçekmece plant has been transformed into a mechanic feeding system. Thanks to the investment commissioned in June 2008, the electric energy used in raw meal transfer is reduced from an average of 3,65 kWh to 1,39 kWh per 1 ton clinker.

### Investments Made In Combustion Systems For Thermal Energy Efficiency

#### Flame tubes

Akçansa has ensured more efficient combustion conditions by replacing all old generation flame tubes at Büyükçekmece and Çanakkale plants with a new generation of flame tubes. These can combust 100% petroleum coke and are able to be fed alternative fuels, they produce low NOx and have high flame momentum.

#### Coal feeding systems

Akçansa has solved problems experienced due to fluctuations observed in coal feeding systems of furnaces in the Büyükçekmece plant by replacing all coal feeding systems. Consequently a significant fuel saving and improved combustion conditions have been achieved.

### Investment in renewable energy

The Board of Directors in Akçansa made a decision on 11 March 2008 to generate some electricity from wind power and utilize waste heat recovery as part of the Renewable Energy Investments Project.

Within the scope of this decision, Akçansa has commenced plans to generate electric energy from the waste flue gases in the Çanakkale plant. An incentive certificate was awarded by the Energy Market Regulatory Board (EMRB) in 2008; an agreement was signed for design, engineering and supply of equipment. The engineering activities have therefore commenced for the Waste Heat Recovery Power Plant Project.

### Ready-Mixed Concrete

#### Fuel Saving System

With the fuel saving system developed by Betonsa Technical Management, it is aimed to reduce the fossil fuel consumption by preventing the operation of pumps continuously with high speeds in all concrete castings. A significant fuel saving is achieved within a year of using this system.

Akçansa continues to invest in new technologies in order to reduce its contribution to climate change as well as to reduce other environmental impacts.



World Business Council for Sustainable Development

### Carbon Footprint

Akçansa performs CO<sub>2</sub> calculations in accordance with the Cement CO<sub>2</sub> Protocol. The Cement CO<sub>2</sub> Protocol is an agreed method for the calculation and reporting of CO<sub>2</sub> emissions by all the companies affiliated to the Cement Sustainability Initiative of World Business Council for Sustainable Development (WBCSD).

The protocol which was developed for sector specific needs is also in line with the Greenhouse Gas Protocol of WBCSD and World Resources Institute.

Turkey has become a party to Kyoto Protocol in 2009. There is no obligation for reduction or limitation of greenhouse emissions during the first obligation period (2008 – 2012). Furthermore, CO<sub>2</sub> emissions data in the cement industry have not been audited by independent institutions yet in Turkey.

For the post-2012 period, Akçansa shall comply with the approach of Turkey on international climate regime and the decisions made by the Turkish Cement Manufacturers' Association (TCMA) and other authorities.

**Kyoto Protocol:** It is an international agreement acknowledged as the annex to United Nations Climate Change Framework Contract. The main purpose of the protocol is to ensure that the intensity of greenhouse gases in the atmosphere remains in balance at levels which will not dangerously affect the climate.

## Energy Performance

Fuel mixture in cement production (in %)			
	2007	2008	2009
Coal	80,99	59,53	28,15
Petroleum Coke	16,00	37,11	68,55
Natural gas	0,15	0,07	0,06
Fuel-oil	0,23	0,45	0,38
Alternative Fuel	2,63	2,84	2,86

The total fossil fuels used in production (coal, petroleum coke, natural gas, lignite and fuel oil) was 97,39% of all fuels used in Akçansa in 2007, this percentage has decreased slightly to 97,13% in 2009. The aim is for this to continue to decrease this rate by increasing use of alternative fuels.

Akçansa's total direct energy consumption for cement production in 2009 is estimated to be 19.833 TJ.

Clinker/cement ratio			
	2007	2008	2009
(%)	84	84	87

With increasing use of alternative cementitious materials such as volatile ash and blast furnace slag, the clinker ratio in cement production is reduced. Due to a decrease in availability and increase in costs along with the effect of the global crisis in 2009, this ratio increased slightly compared to the two previous years to 87%.

## Electrical Energy Performance

Electricity consumption (TJ)			
	2007	2008	2009
Cement	2.048,57	2.370,94	2.314,47
Ready-Mixed Concrete	17,89	22,30	24,95
*Aggregate	3,57	5,54	4,15

Total direct energy consumption of Akçansa is 2.314 TJ in cement production, 24,9 TJ in ready-mixed concrete and 4,2 TJ in aggregate.

\*Includes the Bursa and Ayazağa facilities

Clinker specific heat consumption			
	2007	2008	2009
MJ/ton clinker	3.554	3.524	3.491

Clinker specific heat consumption has gradually decreased through successful activities performed in the production facilities of the company and reduced to the level of 3.491 MJ/ton clinker in 2009.

## CO<sub>2</sub> Emission Performance

Total CO <sub>2</sub> emission			
	2007	2008	2009
Gross (Million ton)	1,60	2,13	2,09

The (Scope 1 and 2) total direct CO<sub>2</sub> emissions were 2,09 million tons in 2009. The calculation is made according to the share percentage of Akçansa.

Specific CO <sub>2</sub> emissions (kg CO <sub>2</sub> /ton cement)			
	2007	2008	2009
Gross	714	757	769
Net	714	757	769

In Akçansa, the CO<sub>2</sub> emissions were 769 kg CO<sub>2</sub>/ton cement in 2009.

Specific CO <sub>2</sub> emission (kg CO <sub>2</sub> /ton clinker)			
	2007	2008	2009
Gross	871	883	873
Net	871	883	873

The CO<sub>2</sub> emissions were 873 kg CO<sub>2</sub>/ton clinker in 2009. This calculation does not include ready-mixed concrete and aggregate activities.

As there are no national carbon dioxide emission regulations exist in Turkey, indirect carbon saving credits, arising from the use of alternative fuels are not included within the scope of the acquired emission rights. Therefore, net and gross carbon dioxide emission values (specific) per one ton clinker and per one ton cementitious product are the same.

Alternative fuels are used at the Büyükçekmece and Çanakkale plants. The use of clinker has been reduced by using 20.000 ton volatile ash and 131.211 ton milled blast furnace slag as a raw material in ready-mixed concrete and this has led to reduction in CO<sub>2</sub> emissions.

### QUARRYING AND LOCAL IMPACTS

93 % of natural raw materials are sourced from the quarries that Akçansa operates. Akçansa is showing the outmost effort for sustainable quarrying and conservation of biodiversity and natural resources.

Quarrying is a time-intensive operation and long term investment. It takes several years to receive the required permissions to operate a quarry. But once granted a quarry can be operational for several decades depending on the level of reserves and the license/permit status. Since quarry operation includes activities of drilling, blasting, loading and hauling which generates noise, vibration, and dust, it also has economical, social and environmental impacts.

From initial planning to final rehabilitation Akçansa maintains close relations with local neighbors living around the quarries and facilities. Akçansa takes every measure to ensure that the local community is not affected negatively by its operations. The explosions are done under control. Air shock and vibrations are avoided with the help of delayed capsules without electricity. As an example the use of drillers with the latest technology ensures the lowest level of noise and air pollution possible. Dust formation due to transportation is avoided by watering of the roads inside the facilities.

#### Best Practice In Akçansa

18 km haul route from Büyükçekmece plant to Çatalca quarry site is a public road from quarry to the plant and is extremely busy especially during summer periods. Transportation trucks of 19 tons capacity are replaced with larger capacity trailers in year 2005. As a result of such an investment:

- 1- Truck rounds have decreased significantly in numbers, road traffic has lightened.
- 2- Diesel oil consumption by 200.000 liter per annum.

### Extraction Data of Akçansa

In total there are **20 active sites** (16 cement raw material quarries, 4 aggregates quarries), where a total of: 8,3 million tons of cement raw materials (limestone, clay and schist) and 2,0 million tones of aggregates raw material **10,3 million ton raw material** has been produced.

The total surface area of extraction sites is 320 hectares. The categories of the land ownership are;

- Forestry lands (206 hectares, 65%)
- Company owned lands (81 hectares, 25%)
- Government (treasury) lands (33 hectares, 10%)

### Rehabilitation Of Quarrying Sites – Legislation And Akçansa’s Practices

There are three legislations managing the rehabilitation of quarrying sites and application depends on type of the ownership of the property. Quarrying legislation requires that operating project includes environmental plans.

Since the end of 2009 related administrations have affirmed the %80 of projects regarding rehabilitation of Akçansa's active quarrying sites. Raw material production operations are done under strict supervision of EIA criteria and according to rehabilitation procedures.





### Commitments For Rehabilitation Projects

Most of Akçansa's quarries are on forestry land and are therefore subject to the relevant forestry legislation. The requirements are that the extraction area will be re-planted by trees when the extraction activity is over.

For non-forestry areas (registered land or public domain; 5 quarries in Büyükçekmece and 1 in Ladik) Akçansa has given commitment to local environmental authorities to re-plant the extraction land with trees. The extraction land surface will be ripped by bulldozers at the beginning to facilitate tree plantation.

### The Rehabilitation Activities Of Akçansa

Rehabilitation of quarrying sites are done in quarries where the reserve and the production is finished. Rehabilitation activities have been running in Akçansa raw material extraction sites since 2008. There are only a few sites where extraction activity has ceased and rehabilitation has been initiated. These are as follows;

#### 1. Ladik Cement Plant;

- Limestone quarry (License No. 55227). An earlier dump site of 0,5 hectare has been rehabilitated and 500 pine trees have been planted in 2009.
- Limestone quarry (License No. 55227) Rehabilitation of a new 0,5 hectare area has been finalized for pine tree plantation in 2011.

#### 2. Büyükçekmece Cement Plant;

- Kovukdere schist quarry (License No. 31505). Rehabilitation of a 2,0 hectares area has been finalized. Local Forest Administration has decided the type of the tree which will be planted. Akçansa is waiting for National Estate Head Office's approval.

#### 3. Çanakkale Cement Plant;

- Bozalan limestone quarry (License No. 75819-75820). The slope of the upper quarry face overlooking Bozalan village is being decreased through blasting, this will continue in 2011. It is planned to place a fence and tree plantation in between the village and the disused site to bring a safer condition and a better view for local people.

#### 4. Kemerburgaz Aggregate Facility;

One of the most important indicators of Akçansa's sustainable environment approach is the rehabilitation project of the Kemerburgaz aggregate facility. In order to transform the quarry area into its natural habitat state prior to the production activities, nearly 10.000 m<sup>3</sup> of brush was planted on the rehabilitated area. The Ministry of Environment and Forestry will plant further trees on the area. In order to switch the quarry area back to its natural topography, 3,5 ha of area has been made compatible with natural land elevation levels by changing the location of approximately 380.000 m<sup>3</sup> of materials.

### The Rehabilitation Provision

Akçansa makes calculations and allows provisions for the rehabilitation of existing opened areas in all quarry sites. The provision for the total rehabilitation of cement (TRY 2.102.538), aggregates (TRY 360.423) and raw material sites was TRY 2.462.961 at the end of 2009. This provision amount is added to the relevant cost item in the balance sheet at the end of year.

### Akçansa's Rehabilitation Goal:

By the end of 2012, rehabilitation of 10 hectares of area where the quarrying has ended.



A close-up photograph of a child's hand resting on a sandy surface. The hand is positioned on the right side of the frame, with fingers slightly spread. The sand is light-colored and textured. In the lower-left area of the sand, there are several small, dark brown leaf icons scattered in a loose circular pattern. The background is a blurred concrete surface.

In the foundation of  
our future...



For Akçansa, as the largest player in the cement sector, leadership brings the responsibility of advancing the community and its sector.



## Our Priority: Occupational Health And Safety

### “Work Safely, Live Healthy”

#### 2020 target for accident frequency rate: Zero (0)

Akçansa's practices on occupational health and safety (OHS) are beyond the requirements of law.

The goal of Akçansa is to ensure the highest OHS standards and the safest work environments for its employees, subcontractors and any third parties involved in its locations. The entire company, including Betonsa (an affiliate operating in the ready-mixed concrete sector) is managed by an Integrated Management System. This is a combination of a Quality Management System (ISO 9001), Environmental Management System (ISO 14001) and an Occupational Health and Safety Management System (OHSAS 18001).

To continuously improve the working environment, auditors from different areas are appointed to regularly perform internal audits of all the plants and working areas as required by the Integrated Management System. Operational responsibility for this issue is assigned to the Management Systems Specialist, Management Representative, Plant Chiefs and Regional Directors.

For the first time in Turkey, in February 2004 the Çanakkale plant and in April 2004 the Büyükçekmece plant was certified with BS-18001 Occupational Health and Safety Management Systems (OHSAS 18001) certificate. In 2007, an Integrated Management Systems Department covering all Occupational Health and Safety issues was established in Akçansa.

The Integrated Management System ensures that research continues to improve the effect of manufacturing processes on human health and occupational safety. It also provides principles for continuous improvement of activities to save resources and prevent accidents.

#### No work can be so urgent to perform it without taking any safety measures!

To achieve the goals in Akçansa, the occupational safety criteria is also included in the performance measurement criteria of all the employees and managers, and change is regularly examined by the management on a monthly basis.

Throughout the year, trainings and awareness activities on occupational health and safety are provided for the managers and employees. In Akçansa, 85% of the employees think that the importance attached to ensuring occupational health and safety and the measures taken are sufficient.

#### Akçansa OHS Policy

Akçansa OHS Policy can be read at the following web address.

[www.akcansa.com.tr](http://www.akcansa.com.tr)

As clearly seen in the Occupational Health and Safety Policy, Akçansa is aware that the value given to employees directly affects work performance. In all its locations, Akçansa aims to reduce the number of accidents by fulfilling the legal requirements and assessing the risks.

## Occupational Health and Safety Performance

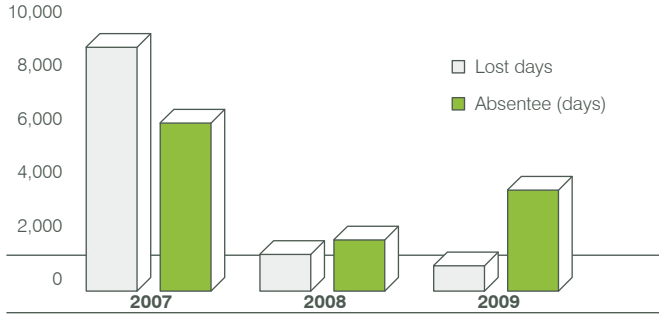
The OHS results from cement production activities during the reporting period in Akçansa are given in detail in the tables below.

Occupational Health and Safety			
Cement Plants	2007	2008	2009
Number of fatal accidents	1	0	0
Accident frequency	27,27	19,72	14,18
Number of lost days	8.144	885	237
Absentee (except accidents)	5.483	1.210	2.953
Data given in the table calculated by using formulas			
• Accident frequency = Number of Incidents X 1.000.000 / Total Working Hours			
• Accident severity = Number of Lost Days X 1000 / Total Working Hours			
• Number of lost days per accident = Number of Lost Days / Number of incidents			
• Absentee = days of not coming to workplace due to health problems except for accidents.			

As seen in the table above, in the 2007-2009 period, Akçansa achieved significant improvements in most OHS indicators.

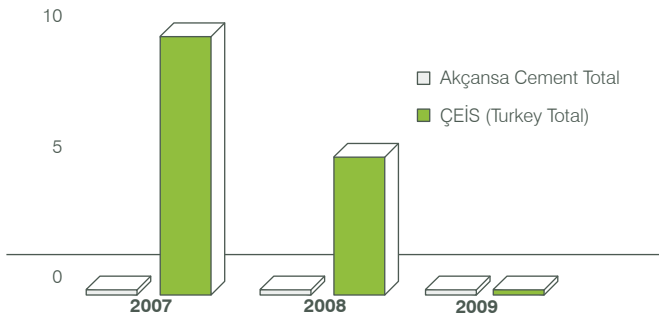


### Lost Days and Absentee (Cement)



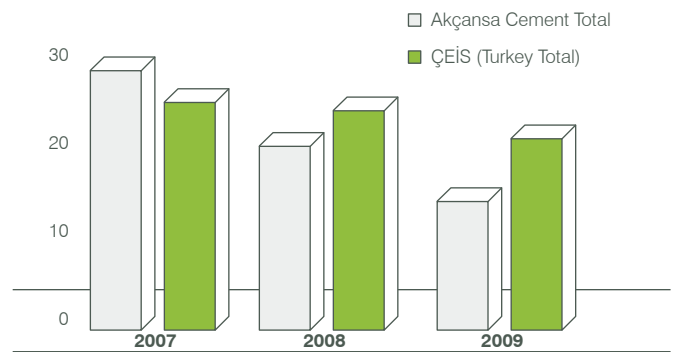
The most important reason of the radical fall experienced over the years in the number of lost days is a decrease in the number of occupational accidents and also a decrease in the severity of accidents in the plants. As a result of decreasing the number of severe accidents, Akçansa achieved %100 of its target for zero fatality.

### Fatality Rate (Cement)



The rate of absenteeism due to health problems in Akçansa, despite decreasing in 2008, has increased from 2008 to 2009. When the reasons were analyzed, it was determined that this increase did not result from any identified occupational diseases but was caused by the absence of a limited number of employees with long-term doctor reports due to personal illnesses.

### Injury Frequency Rate (Cement)



When compared with accidents which occurred in the industry throughout Turkey (data from Cement Industry Employers' Association -ÇEİS), despite its success in the reduction of accidents, Akçansa carries on its activities to develop the safest work environment for its employees and to achieve the goal of zero accident rate in 2020.

Since the OHS data on ready-mixed concrete business is not available from Turkish Ready-Mixed Concrete Association (THBB), no comparison could be made for this sector.



The Occupational Health and Safety goals determined by Akçansa in cement and ready-mixed concrete business lines are given in the table below.

Akçansa Cement H&S - KPI	2007	2008	2009	Ambition 2010	Ambition 2012	Ambition 2020
Fatality Rate	1	1	0	0	0	0
Accident frequency rate	27.27	15.78	12.8	10	8	0
Accident severity rate	4.93	0.47	0.14	0.10	0	0
Lost days per accident	239.5	46	13.68	12	10	5

Betonsa H&S- KPI	2007	2008	2009	Ambition 2010	Ambition 2012	Ambition 2020
Fatality Rate	-	1	1	0	0	0
Accident frequency rate	-	12.54	8.22	7	6	0
Accident severity	-	0.03	0.13	0.10	0	0
Lost days per accident	-	2.5	16	10		0

Data on the occupational health and safety trainings received by Akçansa employees during the reporting period on the basis of plants and operations is given in the table below.

Employee OHS Trainings (Distribution on Plant and Operation Bases)							
	BÇM	ÇNK	LDK	RMC	Total	Number of Employees	Avr. T. hours
2007	2,905	7,921	1,040	42	11,908	1,043	11
2008	2,423	3,651	619	967	7,660	1,103	7
2009	4,281	6,130	3,271	208	13,890	1,030	13
Total	9,660	14,159	1,659	1,305	26,783		

BÇM: Büyükçekmece, ÇNK: Çanakkale, LDK: Ladik, RMC: Ready Mixed Concrete

### OHS Trainings of Aggregate and Ready-Mixed Operations

Occupational health and safety is an issue that must be paid attention to not only by the ready-mixed concrete facilities and concrete production process but also by transportation and casting phases of the concrete as well.

The majority of accidents in the ready-mixed concrete sector occur during the casting of concrete. Therefore, trans-mixer and pump operator and any assistant employees must attend extensive training on the possible accidental risks during concrete casting and on measures to be taken against these risks.

The goal is that all the new personnel start to work only after receiving the necessary trainings in aggregate and ready-mixed concrete business lines.

Employees regularly receive;

- On-the-job and orientation training
- Personal development and technical and occupational training
- Environment
- Occupational health and safety and first aid training

In 2009, occupational health and safety trainings together with mobile equipment training were provided and nearly 400 Akçansa employees, including subcontractors' employees attended these training sessions. During mobile equipment training, the goal was to increase the awareness of equipment operators on occupational risks they may encounter, the way they do their job and the possible results of such occupational risks.

### Akçansa Specific Practices in OHS Field

#### Health Screenings

In order to place the new workers according to their health status, Akçansa management provides free health screening for new employees. Early diagnosis is ensured and health problems of employees are monitored through regular health screenings.

#### Safety warnings

All the dangerous situations and accidents experienced within Akçansa's different locations are announced through "Safety Warnings". The aim of these warnings is to share them with all the employees and prevent reoccurrence of similar incidents.

In the safety warnings, are data on where and how the specific danger or incident occurred along with photographs and actions necessary to be taken or already been taken.



### Boom Safety System

In the cement industry, which is the solution partner of construction sector, the most severe incidents are caused relating to mobile pump accidents. Undesired fatal accidents may occur as a result of improper installation of the bases that lead to a disruption of the balance of the pumps.

Thanks to the Boom Safety System developed by Betonsa Technical Department, potential tipping over risks are eliminated. The system ensures that the operator cannot move the booms without opening the bases where the boom stands. In the activities of the Betonsa facility, this proactive approach has shown to improve occupational safety as unbalanced pump installations are now not allowed.

### Physical Protections

A new project will continue until the end of the 2010, where physical protections, under-belt and rotating component guards and labeling – locking systems will be installed in all the locations in both aggregate and cement facilities. The aim is always to create safer working environments for employees with the aim of constant development.



### Occupational Health and Safety Legislation Trainings

The training titled “Legal Responsibility of the Employer and its Representatives, Penal and Legal Sanctions” is provided by Prof. Ömer Ekmekçi, an academician at School of Law, İstanbul University every year at all the plants of Akçansa. All blue-collar employees are invited to these trainings from all management levels. Amendments made in the Turkish Criminal law, which came into effect in 2004, and general information on Occupational Health and Safety Legislation are provided.



### Akçansa Employees Are Ready For Emergencies

Emergency trainings and practices involving all the Akçansa employees are completed with success. In addition to “transfer to evacuation and assembly areas” and “port safety and fire” trainings, “working at heights and working gloves” were completed in all plants. Fire trainings and field exercise, fire and extinguishing equipment, disaster consciousness, search, rescue, building damages and earthquake field exercises were provided at the Ladik Plant.

### OHS Exercises With AKUT

Due to the cooperation initiated between Cement Industry Employers' Association (ÇEİS) and the Search Rescue Association (AKUT) in 2006, Response to Debris, Emergency Managers trainings and Emergency Response Exercises were organized with the participation of all the Turkish cement plants. These trainings and exercises were successfully completed in 2008 at Çanakkale, Büyükçekmece, Ladik plants.

The main goal of these training sessions was to raise consciousness and awareness of possible emergencies occurring in cement plants, where the employment is intensive, and reinforce their implementation methods through exercises. This is important in Turkey being a seismic zone. There has been great amount of fatality and financial loss where the plants had to stop production due to the big earthquake in Marmara region in 1999.

### AKUT Feedback

Highlighting that the training and exercises were performed successfully, Dündar Şahin, Project Manager of AKUT, stated that they had transferred their know-how to the plant managers. Furthermore, Mr. Şahin also stated that they recommend performing exercises twice a year with current employees, one of which will be under the supervision of AKUT. AKUT also suggested providing the training regularly for new employees.

AKUT's suggestions to Akçansa's for future action on the issues included in this its first sustainability report are as follows;

- Switching to bag type filters on chimneys of plants;
- Providing trainings for the local community on prevention of forest fires and responding when necessary in the regions where the plants are located;
- Realization of re-forestation projects involving employees together with local community in regions where successive forest fire occurred, such as the one in Çanakkale.

### OHS Requirements for Suppliers and Subcontractors

Akçansa requests its suppliers and contractors to offer employment according to the relevant occupation laws and regulations. Akçansa monitors and consults them, and provides training where necessary. In the selection of service providers, Akçansa performs assessments for compliance with legal obligations, occupational health and safety and environmental protection through its Supplier Pre-Assessment Procedure.

The contractors and suppliers are assessed on 50 criteria, including leadership, goal and policy, Occupational Health and Safety and Environment (OHSE) management, documents like tools and equipment certificate / examination availability, training, expertise and employee health are required to issue an OHSE Plan in which the critical points are clearly defined. Preliminary qualification is provided for those companies who get 60 or higher points in the pre-assessment so that they can participate in the tender to work with Akçansa.

As a result of the assessment, those contractors who comply with the OHSE pre-assessment conditions are approved after final administrative and financial assessment as described in Akçansa's purchasing procedure and policy. These firms are also liable to sign the Contractor's OHSE Commitment issued by Akçansa.

The performances of the chosen contractors are regularly assessed on almost twenty criteria under the titles of leadership and participation, site working environment analysis, prevention and control of risks, training and communication and feedback is provided.

### Human Rights and Social Security

Akçansa pay great attention to the monitoring of protection of human rights with respect to social security in all the lines of business and locations it operates in, investment agreements and selection of suppliers.

In Akçansa, regardless of the gender, race, religion or nationality all employees are provided with economic, social and cultural rights and equal opportunities beyond the framework of national labor law. Having collective bargaining agreements with labor unions in three of its plants, Akçansa support freedom of association. Issues on discrimination and labor rights are under the responsibility of Human Resources Department.

Through tight contracts and regular audits with contractors, Akçansa eliminates the risk of child or forced labor in all its operations. %100 of Akçansa's security personnel are trained on human rights. Issues regarding contractors and suppliers are within the responsibilities of Purchasing Department. Local neighbors and administrations are among Akçansa's key stakeholders and all concerning issues are monitored by the relevant plant management.

Akçansa does not perform a special assessment of whether its suppliers comply with human rights standards. However, it encourages all its services and goods suppliers to act in accordance with labor laws and fulfill the necessary legal regulations. Akçansa monitors the suppliers' systematically, as described in the detailed selection procedure on page 52.

Since all 260 (%100) of the suppliers are regularly monitored and audited by Akçansa to ensure the social security of their employees and good working environments are provided for them, no nonconformities are observed in any suppliers selected during the reporting period and no contracts were terminated.

For the next reporting period Akçansa aims to develop a training package on human rights to complement the current training package.



## OUR CONTRIBUTION TO OUR EMPLOYEES

**OUR GOAL is to be perceived by our employees as a sharing and caring company which rewards participation and performance and creates loyalty.**

### Invested TRY 300.327 for 17.250 hours training in 2009

Provided performance assessment to all the white collars which constitute 44% of the total number of employees

### Human Resources and Business Life Management

Improving the performance of employees and consequently the company by creating satisfaction at the workplace constitutes the business life management philosophy of Akçansa.

Any kind of practices relating to its employees are performed in accordance with labor laws, the provisions of collective bargaining agreement and written company policies. In Akçansa, recruitment, promotion, training and development, performance management, remuneration policies and regulations are defined in written form. All these systems and practices are based on a fair and transparent management approach.

The company's human resources approach and priorities are shaped according to the company strategies and objectives that take into consideration the regional, national, global, sectoral and economic developments.

Akçansa attaches importance to the mutual open communication between the management and its employees. The company's goals, their results, managerial decisions, changes in business life are shared with employees in written and verbal forms. Details on this issue are given in the section "Our Dialogue with Our Employees" on page 23.

Monitoring the contemporary human resources systems and practices and realizing them in compliance with the company's culture are under the responsibility of the human resources managers and other function managers. Employees are responsible for their own performance and development as well.

### Overview of 2009

The economical and sectoral recession in 2009 required to take some precautions for human resources planning. To turn the disadvantage of the downsizing sector into an opportunity, actions are taken to prevent accumulated holiday leave, and overtime payments were reduced by 29% of the budget figures through labor planning.

In 2009 the personnel turnover rate was 4% for white-collar employees and 9,1% for blue collar employees. Organizational dynamics are reviewed and a total of 65 personnel movements were made within the company, 22 of which are reassignments, 14 organizational connection changes and 29 promotions. Details can be found in the Personnel Turnover Table on page 54.

In 2009 Akçansa focused on occupational health and safety, environment and quality training and also management skills, personal and occupational development training. A total of 17.250 hours of training was provided for all white and blue collar employees. Details are given in the Training and Development Table on page 55.

According to the basic principle of "Work Safely, Live Healthy", many activities for increasing the safety awareness and culture are carried out throughout the company. The section "Occupational Health and Safety" on page 48 provides detailed information on this issue.

Activities regarding potential human resources are carried out in Akçansa. In 2010, research will be performed to measure employee satisfaction. According to the research results, actions will be taken for the development areas.

The human resources statistics in Akçansa are given in the table below in page 54 by employee category. Since the cement industry is located in the heavy and dangerous business category, the number of woman employees in the operations is low. The percentage of woman employees working in administrative functions is higher.

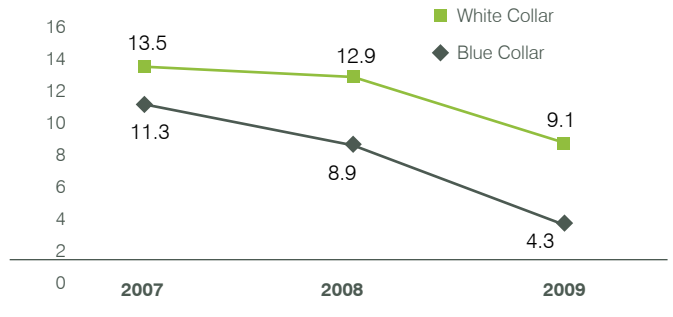


Workforce Distribution			
Total workforce	2007	2008	2009
White Collar Employees	448	479	448
Blue Collar Employees	595	624	582
Employees of the contractors	613	496	542
Employees by contract			
Permanent employees	1.043	1.103	1.030
Temporary employees	none	none	none
Full-time employees	1.043	1.103	1.030
Part-time employees	none	none	none
Employees by gender			
Male employees	977	1042	973
Female employees	66	61	57
Employees by age			
Employees 20 to 30	133	192	220
Employees 30 to 40	423	470	455
Employees 40 to 50	381	365	305
Employees 50 to 60	106	76	50
Employees by minority group			
Employees by category			
Senior management employees	32	30	31
Middle management employees	52	54	120
Supervisory Level employees	949	1.010	869
Staff			

Comparing with TCMA (Turkish Cement Manufacturers Association) data and Turkey in general, Akçansa represents 7% of the employment in Turkish cement plants. Furthermore, when the contractors employed in Akçansa regions are added to the calculation, it is seen that the company represents 12% of the total employment in Turkey.

Cement Plants in Turkey	2007	2008	2009
Total number of employees	9.683	10.285	9.841
Employees of contractors	4.178	4.151	4.371
Akçansa Cement Plants			
Total number of employees	2007	2008	2009
	793 (%8)	781 (%8)	723 (%7)
Employees of contractors	613 (%15)	496 (%12)	542 (%12)

### Akçansa Employee Turnover (%)



### Calculation Method for Personnel Turnover Rate

$$\frac{[(\text{Total Hired personnel} + \text{Total left personnel})/2]}{[(\text{Number Beginning of year headcount} + \text{End of year headcount})/2]}$$

The reduction of 50% in personnel turnover rate in 2009 compared with the previous years' results from the limited employment policy applied by Akçansa due to economic recession.

### H1N1 Swine Influenza Conferences

To inform employees and explain the protection and treatment methods of the "swine influenza" which threatened health throughout the country in 2009, informative e-mails were issued. In addition; leaflets and posters were delivered to the families of the employees, and "Ask an expert" conferences were organized by Akçansa in Büyükçekmece Plant Hall and Kozyatağı Head Office. In total 65 people attended the conference in which the speaker was Dr. Songül Özer from German Hospital, Çamlica Department of Infectious Diseases and Clinic Microbiology.

### Training and Development

In Akçansa, training and development activities addressing individual and corporate needs are performed by the Human Resources function. All the managers and employees in the company have responsibilities for the performance of training and development activities. The needs of employees for development are determined through mutual negotiations with their managers on an annual basis. Annual Training Plans issued according to Individual Development Plans and these are communicated to the entire organization via the Akçansa Portal.

### Building Blocks of Organizational Climate: Our Managers

Akçansa organizes training activities to improve the management skills of its managers, ensure their support in the process of change and development, and reinforce and extend the organizational climate. The training activity was first organized in 1-4 July 2009 in connection with the activities planned by the human resources function in 2006 and continues to be implemented during the 2009 – 2010 period. It is planned that this area of training will continue in 2011.

At the Management Meeting held in November 2007, the senior management focused on the concept of “Organizational Climate”. As the result of workshops, where assessments and development areas were shared, the Members of the Executive Committee performed a further study and finalized action plans taking into account the suggestions from their teams. These plans are shared with Akçansa Management consisting of function managers in February 2008. In line with these activities, the “Akçansa Management Program” was initiated.

The organizational climate created within the scope of this program has had a significant effect on the level of satisfaction within the work environment and also on work performance. It is based on the concepts of “management functions” and “competency”. The management functions that participants mainly focus their time and energy are identified along with the value / importance they attach to these functions and their managerial competencies. A 360 degree performance assessment process is initiated for feedback that is received during the program by all the participants. The goal is to continue with the program in 2010 and involve more than 60 managers in the coming year.

In Akçansa training is provided under five main topics;

1. On-the-job training
2. Occupational / Technical trainings
3. Individual development trainings
4. Management skills trainings
5. Quality, environment and OHS trainings.

Akçansa çalışanlarının raporlama döneminde almış olduğu eğitimlerin kişi başına dökümü aşağıdaki tabloda mavi yaka ve beyaz yaka bazında verilmiştir.

#### Average Training Hours per Employee

2007		2008		2009	
Blue Collar	White Collar	Blue Collar	White Collar	Blue Collar	White Collar
10	19	5	15	8	11

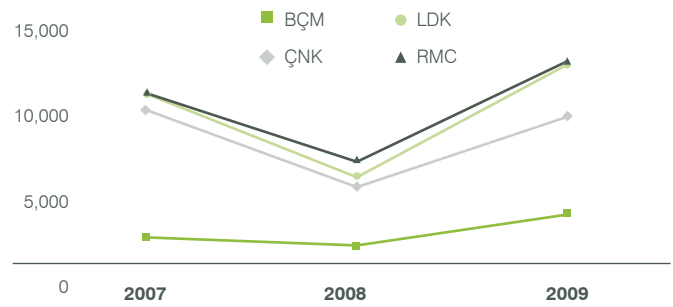
BÇM: Büyükçekmece, ÇNK: Çanakkale, LDK: Ladik, RMC: Ready Mixed Concrete

The average training / hour performance of Akçansa is 19-20 hours. It reached a maximum value of 29 hours in 2007. The reasons for this are listed below.

- Provision of SA-Ethics Training for the entire company,
- Provision of “Effective Human Management Training” for all the managerial positions from technicians and higher,
- Provision of an intensive system, procedure and OHS training within the scope of integration activities upon acquisition of the Ladik plant,
- Provision of OHS and Quality Management Systems and working instructions training for blue collars recently recruited for the Çanakkale plant 2nd Line project.

Although a decrease is observed in the training hours per person in 2008 when compared to 2007, a significant increase was achieved in 2009.

### Employee Trainings Total Hours



BÇM: Büyükçekmece, ÇNK: Çanakkale, LDK: Ladik, RMC: Ready Mixed Concrete

### Internal trainings from finance department

“Finance Meetings” with purpose to inform and themes like ‘Compliance with Competition Law’, ‘Basic Points to Take into Account when Preparing Contracts’, ‘Assurance Law, Procedure and Effects of Postponement of Bankruptcy’ and ‘Legal and Penal Obligation Resulting from Nonconformity with Occupational Safety Regulations’ were prepared and presented by the company’s Legal Counselor. These took place in Kozyatağı Head Office, Büyükçekmece, İzmir, Samsun and Karabük regions. All the Akçansa employees attended the meeting with the theme “Finance for Non-Financiers” organized by the employees of Department of Financial Affairs.

The goal of the company is to extend similar training in coming years.

### OUR CONTRIBUTION TO OUR COMMUNITY

**OUR GOAL is to be perceived by the public as a company which is open to communication, transparent, committed to law and ethics, caring for society and protecting environment when performing its activities.**

For Akçansa, as the biggest player in the cement sector, leadership brings the responsibility of advancing the community for the future along with its sector.

Inherently, cement companies have affected the social life positively for hundreds of years in the regions where they have been established. Growing the economy through creating job opportunities plays a significant role in the development of social life.

Considering provision of benefits for the society as part of its business, Akçansa maintains its social responsibility projects with continues commitment. Within this scope, Akçansa is a corporate citizen, which supports the regions in which it operates and contributes to development with its plants and facilities.

While Akçansa contributes to the economy through employment, production, exports and industrial investments, it utilizes the sources it gains from its industrial and commercial activities for creating value in areas such as health, culture, arts, education and environment, within the scope of its social responsibilities. The company makes some of these contributions through the Sabancı Foundation.

Many joint projects are initiated through the cooperation with non-governmental organizations, local governments and private establishments to protect historical, cultural and natural values. Some examples are the 13th Ladik Akdağ Festivals and Büyükçekmece Culture and Arts Festival which were organized in July 2009, which were mainly sponsored by Akçansa. Furthermore, Akçansa put into service a heliport suitable for arrival and departure of helicopters within the area of Ladik plant for serving to possible emergency needs of both the employees and the local community.

Akçansa also takes many steps to support primary education which is very important in the development of our country. Akçansa concentrates this support primarily in the regions where its production sites are located.

#### Sectoral Trainings And Projects

Betonsa, the affiliate of Akçansa, operating in ready-mixed concrete industry, organizes periodical training for raising awareness of people operating in the sector and the society in general. The participants of this training are

- Customers,
- Engineers and technical staff from local and central authorities and
- University students (See page 57)

In the training information on concrete technology; durability of concrete, the importance of maintenance and treatment are explained and information such as concrete casting techniques in cold and warm weather are shared.

“Concrete Symposiums” in 2009 were organized in Izmir, Tokat, Manisa and İstanbul where an extensive participation took place.

A total of 1.100 concrete trials were performed within the scope of R&D, special product and prescription optimization studies in Betonsa Technology Center Laboratory in 2009.

Within the Technical – Occupational Trainings Project, a total of 119 training sessions were provided in 2009, 20 of which are external trainings. A total of 8.015 hours of training were given of which external trainings were 1.917 hours and internal trainings were 6.098 hours. Turkish Ready-Mixed Concrete Association (THBB) training has the biggest share in these training sessions.





### Engineers of the future are at Akçansa plants

In addition to technical visits to cement plants and ready-mixed concrete facilities, Akçansa organizes ready-mixed concrete production and technology seminars', for university students.

A total of 420 students participated in 13 different technical visit programs organized in 2009. The students were from; Department of Civil Engineering of İstanbul Technical University, Bosphorus University, Yıldız Technical University, İstanbul University, İstanbul Culture University, Namık Kemal University, Dokuz Eylül University and Celal Bayar University and also from Havza Vocational High.

Furthermore, 15 students had the opportunity of doing an internship at different regions and facilities of Akçansa. The students received theoretical and practical training on subjects such as; ready-mixed concrete production technology, special concretes, and the strength and durability of concrete and ready-mixed concrete quality control processes throughout their apprenticeships.

### Akçansa Carries On Its Support For Primary Education

- Akçansa incurred all the expenses for maintenance and landscaping of Gökçebayır Primary Education School located 6 km away from the Ezine district of Çanakkale. It had not been renovated in the 53 years since its establishment. The school gained a modern look after one month's work and also classroom education materials were supplied. In 2009, the maintenance, repair and landscaping of Pınarbaşı Village primary school 2 km away from the Çanakkale plant was completed and the school was ready for the opening of the school semester.
- Akçansa rebuilt Fatih Sultan Mehmet Primary School which the municipality had decided to demolish, was severely damaged during the earthquake of 1999 in Büyükçekmece. It was rebuilt in 9000 meter square area with very modern equipment, 34 classrooms, 3 computer rooms, 3 laboratories, 1 library, 1 special classroom, 1 gymnasium room and a conference hall with a capacity of 200 people, the school was completed prior to the school year of 2007. Büyükçekmece plant also provided assistance to the schools in the region with paints, roof and wall maintenance and with cement for the repair and construction of gymnasium rooms.
- Akçansa built a special classroom to provide the disabled children studying in the Atatürk Primary Education School in Ladik with a better education. In 2009, Akçansa sponsored the symposium titled History, Today and Future of Ladik" organized every year.



### Akçansa Triggers The Creativity Of University Students Concrete Ideas

Akçansa believes in the importance of the cooperation between university and industry for the development of national economy and strives to take necessary actions.

The Concrete Ideas Project Competition is an exemplary approach by Akçansa. It was organized to facilitate the adaptation of university students to business life, reveal their creativity and allow them to add value to the area they are educated in. There were 250 applications for the competition which indicates the strong interest drawn by the project.

At the end of the competition which is open to undergraduates and postgraduates from civil engineering and architecture departments of universities, Teknosa Technology Shop gift vouchers with the following amounts were awarded;

1st group, 4.000 TRY

2nd group, 2.000 TRY

3rd group, 1.000 TRY

The team in the first place also had the opportunity of an apprenticeship at Akçansa.

By donating one sapling to TEMA for each youngster participating in the competition, Akçansa associated the young people to the projects it contributes for a greener world. The awards to the winning students were presented at a ceremony organized in Sabancı Center on 16 February 2009.



## Sustainability Ambitions

Giving highest priority to health & safety							
	Main project	KPI	Unit	Actual 2009	Ambition 2010	Ambition 2012	Ambition 2020
CEM	Achieving and maintaining the highest standards of health and safety for all employees, contractors and third parties.	Accident frequency rate	%	12,80	10	8	0
		Accident severity indicator	%	0,14	0,10	0	0
		Accident with Fatality	number/year	0	0	0	0
		Lost days for each lost day accidents	%	13,68	12	10	0
RMC		Accident frequency rate	%	8,22	7	6	0
		Accident severity indicator	%	0,13	0,10	0	0
		Accident with Fatality	number/year	1	0	0	0
		Lost days for each lost day accidents	%	16	10	0	0
AGG		Accident frequency rate	%	n.a.	0	0	0
		Accident severity indicator	%	n.a.	0	0	0
			number/year	n.a.	0	0	0
		Lost days for each lost day accidents	%	n.a.	0	0	0
Delivering a prominent positive contribution to biodiversity							
CEM + AGG	Submission and approval of rehabilitation plans to Authorities	Rate of quarries with rehabilitation plan	%	80	90	100	100
	Rehabilitation of abandoned quarry areas	Area rehabilitated	ha	2,6	5,0	10,0	25,0
Working for sustainable construction							
RMC	Being a Solution Partner in "green building projects"	Rate of Projects involved in Marmara Market	%	n.a.	n.a.	20	30
AGG	Production of recycled aggregates	Rate of Recycled aggregates production in Total aggregates production	%	n.a.	n.a.	10	20
Using waste as a resource							
CEM	Reducing use of fossil fuels	substitution rate of fuel by waste (in calorific basis)	%	2,86	4,50	10,20	29,00
		substitution rate of fuel by biomass (in calorific basis)	%	0,04	0,75	2,65	6,33
	Reducing clinker use in cement	Clinker incorporation ratio	%	87,14	85,65	83,00	79,00
Climate Change and protecting the climate							
CEM	Permenant control of emissions	NOx level	mg/m³	738,11	< 800	< 800	< 800
		SOx level	mg/m³	41 (2008)	< 300	< 50	< 50
			mg/m³	47,62	< 50 (new plants)	< 30	< 10
					< 120 (old plants)		
		CO₂ level	kg CO₂/t clinker	873	869	864	829
Further reducing other environmental impacts							
CEM	On-line Monitoring of NOx and SOx values	Rate of kiln lines with on-line monitoring	%	0	17	100	100
	Dedusting of Plants	Rate of Coal stocks in covered stockhole	%	60	60	100	100
		Rate of Dedusting Clinker conveying lines and covered stockholes	%	80	85	90	100
	Changing the ESP's to bag filters	Rate of Raw mill & kiln process and cement mills with bagged filters (based on capacities)	%	40	45	95	100
RMC	Covering aggregate stockholes	Rate of Plants with covered aggregate stockholes	%	65	65	70	100
	Use of new truckmixers and pumps	% of owned truckmixers and pumps max 10 years old	%	79	79	90	100
	Reducing environmental complaints	Amount of complaints	number/year	n.a.	< 5	< 3	< 2
AGG	Constructing wheel washing system	Rate of Plants with wheel washing system	%	n.a.	15	100	100
	Covering of Plants	Rate of Covered Plants	%	25	30	100	100

### OTHER TARGETS

#### Decreasing local negative impacts and Rehabilitation

Rehabilitation of a total of 10 ha of abandoned quarry area by the end of 2012 is envisaged.

#### Climate Change and protecting the climate

It is aimed to comply with Turkey's international climate regime policy on CO<sub>2</sub> emissions and decisions of TÇMB and authorities.

#### Environmental Management System

Ladik Plant is planned to be included into the scope of ISO 9001 and OHSAS certificates in 2010.

Büyükgöçmece Quarry is planned to be included into the scope of ISO 9001ve OHSAS 14001 certificates in 2010.

Akçansa Headquarters is envisaged to be included into the scope of ISO and OHSAS 14001 certificates in 2010.

It is aimed to include the terminals /seaports into the scope of ISO and OHSAS 14001 certificates in 2012.

## GRI Environmental Indicators

	TOTAL			
	Unit	2007	2008	2009
Clinker	t	2.400.100	3.754.297	4.150.419
Cement	t	5.239.689	5.428.061	5.287.535
Materials used by weight or volume (GRI EN1)				
Total quantity of natural raw material quarried	t	5.973.771	8.312.818	8.296.092
Total amount purchased from suppliers	t	716.056	767.415	606.148
Total alternative raw materials	t	258.960	266.066	149.520
Clinker/Cement factor	%	84	84	87
Fuels				
Conventional fuels	t	537.419	685.023	630.672
Alternative fuels	t	19.301	29.247	32.038
Percentage of materials used that are recycled (GRI EN2)				
Percentage of alternative raw materials used in clinker and cement production	%	3,76	2,73	1,57
Aspect: Energy				
Direct energy consumption (GRI EN3)				
Direct Energy consumption (Total thermal energy consumption)	TJ	15.212,99	19.891,72	19.833,71
Specific heat consumption of clinker production	MJ/ton clinker	3.554,34	3.523,87	3.490,95
Indirect energy consumption (GRI EN4)				
Electricity (grid mix)	TJ	2.048,57	2.370,94	2.314,47
Energy saved (GRI EN5)				
Total thermal substitution rate by alternative fuels (% of thermal energy from alternative fuels)	%	2,64	2,83	2,86
Aspect: Water				
Water withdrawn (GRI EN8)				
Spring Water	Mm³/y	1,161544	1,254363	1,324953
Municipality Network Water	Mm³/y	0,066	0,046	0,04
Aspect: Emissions and Waste				
GHG emissions, (GRI EN16)				
Total Gross Scope 1 and 2	t/y	1.601.595	2.127.057	2.085.064
Specific direct (scope 1) gross CO <sub>2</sub> emission per tonne of clinker produced	kg CO <sub>2</sub> /t clinker	871	883	873
Specific direct net CO <sub>2</sub> emission per tonne of clinker produced	kg CO <sub>2</sub> /t clinker	871	883	873
Specific direct gross CO <sub>2</sub> emission per tonne of cementitious product	kg CO <sub>2</sub> /t cement	714	757	769
Specific direct net CO <sub>2</sub> emission per tonne of cementitious product	kg CO <sub>2</sub> /t cement	714	757	769
Dust specific	gr/ton clinker	136	142	116
Dust total	t/y	557	743	623
NOx specific	gr/ton clinker	1.438	1.715	1.425
NOx total	t/y	6.615	10.961	9.673
Metals specific	gr/ton clinker	0,02	0,01	0,02
Metals total	t/y	0,08	0,04	0,11
Volatile organic compounds specific	gr/ton clinker	64	53	31
Volatile organic compounds total	t/y	251	272	170
Dioxin specific	µg/t clinker	0,02	0,02	0,05
Dioxin total	g/y	0,06	0,09	0,26
Waste (GRI EN22)				
Hazardous waste	t/y	82,55	313,70	73,16
Non-Hazardous waste				
Domestic waste	t/y	371	327	184
Waste to recycling	t/y	1673,05	1.763	404,45
AGREGA				
Electricity consumption	kWh	991.252	1.540.108,44	1.153.239,16
*Water consumption	m³/y			42.400
READY-MIX CONCRETE				
Number of production centers		27	31	35
Production	m³/y	3.213.217	3.744.499	4.051.059
Electricity production	kWh	4.969.804	6.194.781	6.930.000
Alternative raw materials				
Fly ash	t	108.697	45.804	20.009
Blast furnace slag	t	98.999	98.083	131.211
Water consumption	kg/m³ concrete		164	164
ton: t gram: g year: y				

## GRI Index Table – Strategy and Analysis

GRI	Strategy and Analysis	References & Comments	Level of Reporting
GRI 1.1.	Sustainability strategy	Page 2 -3	Full
GRI 1.2.	Key impacts and effects	Page 2 -3	Full
GRI 1.2	Risks and opportunities	Page 2 -3	Full
GRI	Organizational Profile	References & Comments	Level of Reporting
GRI 2.1.	Name of the organization	Akçansa Çimento Sanayi ve Ticaret A.Ş.	Full
GRI 2.2.	Primary brands, products, and/or services	Pages 6 - 7 - Corporate Profile	Full
GRI 2.3.	Operational structure	Pages 6 - 7 Annual Report 2009 - <a href="http://www.akcansa.com.tr/en/d_yatirimci_merk_faaliyetr.asp">http://www.akcansa.com.tr/en/d_yatirimci_merk_faaliyetr.asp</a>	Full
GRI 2.4.	Location of headquarters	Hüseyin Bağdatlıoğlu İş Merkezi, Kaya Sultan Sk. No: 97 Kat:5 Kozyatağı 34742 İSTANBUL / TURKEY	Full
GRI 2.5.	Countries of operation	Akçansa's all production operations take place within Turkey. Akçansa's products are exported by Heidelberg Cement Trading. There's no direct export from Turkey.	Full
GRI 2.6.	Ownership	Akçansa, joint-venture of Sabancı Holding (39.72%) and Heidelberg Cement Mediterranean Holdings, S.L. (39.72%) is a joint-stock company. 20.57% is open to public.	Full
GRI 2.7.	Markets served	Pages 6 - 7	Full
GRI 2.8.	Scale and Size	Pages 6 - 7 Annual Report 2009 - <a href="http://www.akcansa.com.tr/en/d_yatirimci_merk_faaliyetr.asp">http://www.akcansa.com.tr/en/d_yatirimci_merk_faaliyetr.asp</a>	Full
GRI 2.9.	Significant changes of ownership and buildings	Acquisition of Ladik plant in Samsun in May 2007. Establishment of Hopa Terminal in 2009. Capital Structure of the company has not changed as a result of these developments.	Full
GRI 2.10.	Awards	Page 7	Full
GRI	Report Parameters	References & Comments	Level of Reporting
GRI 3.1.	Reporting period	Inside front cover-About The Report	Full
GRI 3.2.	Date of previous report	This is the first report.	Full
GRI 3.3.	Reporting frequency	Inside front cover-About The Report	Full
GRI 3.4.	Contact	Inside back cover-The Report Tag	Full
GRI 3.5.	Defining content	Inside front cover-About The Report and pages 27 – 29 under Stakeholder Dialogue	Full
GRI 3.6.	Boundary of the report	All of Akçansa's production facilities are included within the boundary of this report. Karşımsa Cement and export operations are not included within this report. The main reason of omission is that they are not 100% controlled by Akçansa.	Full
GRI 3.7.	Scope and limitations of the report	Inside front cover-About The Report	Full
GRI 3.8.	Basis for reporting	Inside front cover-About The Report	Full
GRI 3.9.	Data Measurement Techniques	Page 68 – Appendix	Full
GRI 3.10.	Re-statements from previous reports	This is the first report.	Full
GRI 3.11.	Changes from previous reports	This is the first report.	Full
GRI 3.12.	GRI Content Index	This is the GRI Content Index	Full
GRI 3.13.	Assurance	This report is not assured by a third party.	Full



GRI	Governance & Commitments	References & Comments	Level of Reporting
GRI 4.1.	Governance structure of the organization	Corporate Governance Compliance Report - Annual Report 2009 Page 32 - Committees Pages 11 -12 under Corporate Profile	Full
GRI 4.2.	Chairman Of The Board Of Directors	President of Cement Group of Sabancı Holding Mehmet Göçmen is also the Chairman of the Board in Akçansa. Mehmet Göçmen's long years of experience in the Holding and in the cement sector, is the main reason behind this arrangement. The board acts as an advisory to the General Manager who actually manages the company with his executive team.	Full
GRI 4.3.	Independent members in The Board Of Directors	Board of Akçansa has six members who are independent. None of the independent members are authorized as representative by any of the main shareholders through official notification, but are selected as a result of their candidacy.	Full
GRI 4.4.	Mechanisms for participation of stakeholders and employees in management	Shareholders: Page 25 Employees: Suggestions and complaints about ethical issues are collected in the Sabancı Holding for all group companies. After evaluation the suggestions are sent to the Sabancı Ethics Committee representative of Akçansa and General Manager to take action. Details on Employee Suggestion System and Communications Meeting are on page 24	Full
GRI 4.5.	Compensation of upper management and sustainability performance of the organization	As Board members are not remunerated for their service, their performance is not related to compensation. Executive Committee compensation is directly related to the company's sustainability performance. Akçansa's short and long term targets including sustainability topics are set by the Board every year and shared with the whole organization. All employees including the Executive Committee members set their annual personal targets according to their qualifications. Each target set has a KPI and the evaluation results of comparison of the targets and realizations at the end of the year are directly reflected in the compensations.	Full
GRI 4.6.	Processes for avoiding Conflicts of Interest	Although Board Members are not remunerated and are not partners of the company, a letter of obligation in line with SPK (Capital Markets Board of Turkey) is sent to each of them in order to protect insider information and to avoid conflicts of interest. In accordance with this letter of obligation, necessary monitoring is done by SPK, IMKB (İstanbul Stock Exchange) and Sabancı Ethics Committee. As a requirement of the Turkish Commercial Code 2 auditors work internally in Akçansa in addition to the Independent audit company.	Full
GRI 4.7.	Qualifications of the experts who lead the strategy of the organization on economical, environmental and social subjects	Board and Executive Committee members of Akçansa's qualifications and their levels are defined within the scope of Sabancı Holding strategic leadership model. Performances of these people are evaluated according to their positions in the organization annually within the performance evaluation system. The qualifications under Shaping our Future topic are: Foreseeing the Market, Focusing on Growth, Goer Thought; qualifications under Combining our Strengths topic are: Developing Cooperation, Effecting for Success, Corporate Consciousness; qualifications under Leading the Success topic are: Participant Leadership, Improving Skills and Demanding High Performance.	Full
GRI 4.8.	Mission and Values	Ethical Standards of both Sabancı Group and Heidelberg Group are accepted and Handbooks of Corporate Ethics are given to each employee. Akçansa has updated and broadened its sustainability mission within the scope of its sustainability report preparations. The related explanations are given on page 10.	Full
GRI 4.9.	Overseeing sustainability	Pages 11 - 13 - Managing Sustainability	Full
GRI 4.10.	Board of Directors' Evaluation of their own sustainability performance	Chairman of Akçansa Board is also the President of Cement Group of Sabancı Holding and Vice President is the Manager of TEAM Region and also the Head of Sustainability Department of HeidelbergCement. Chairman is also the President of WBSCD Turkey.  The Board continuously evaluates the sustainability of operations by questioning every decision made. All company goals are set and monitored according to the sustainability subject. Executive Committee reports to the Board and is responsible for setting and monitoring sustainability ambitions. All members' personal goals (evaluated under performance management system) are directly related to the sustainability goals.	Full

GRI	Governance & Commitments	References & Comments	Level of Reporting
GRI 4.11.	Precautionary approach	Akçansa's overall approach is to increase the company value by "Doing better" (Page 10) In addition to the corporate risk committee, a sustainability risk committee is present to assess the sustainability risks of Akçansa (pages 11 - 12) An internal audit department, directly reporting to the Board of Directors, has been established to prevent potential risks of Akçansa. (Page 13) To identify stakeholder concerns and prioritize key issues Akçansa is in dialogue with stakeholders (Pages 22 -26 ) To determine the material sustainability issues highlighted within this report, Akçansa Sustainability Committee created platforms to engage with key stakeholders (pages 26 -29) Akçansa takes into account the feedback of external and internal stakeholders and takes actions. As an example, although the amount of dust emissions is far lower than the legal limits, Akçansa advances with determined steps to continuously reduce this value further. With this purpose, a continuous online monitoring system for dust sources was established to control the emission levels within Akçansa (Page 34). Beyond legal requirements, Akçansa has set new targets for quarry rehabilitation. (Pages 44 - 45 )	Full
GRI 4.12.	External economic, environmental and social principles of the organization	Akçansa is an active member of TCMA - Turkish Cement Manufacturers' Association - which is a member of CEMBUREAU - The European Cement Association and THBB - Turkish Ready Mixed Concrete Association - which is a member of ERMCO - European Ready Mixed Concrete Organization.	Full
GRI 4.13.	Memberships in associations	List of memberships in sectoral associations is given on page 67.	Full
GRI 4.14.	Stakeholder Groups	Page 22- 23	
GRI 4.15.	Basis for selection of stakeholders	Stakeholder priorities are generally determined on project basis. For this first sustainability report of Akçansa our employees are selected by the project group as the most prior stakeholder. The rest of the priority stakeholders to be engaged with were selected by the employees through an internal survey. More detailed information is give on pages 22.	Full
GRI 4.16.	Approaches to stakeholder engagement	Pages 23 - 26	Full
GRI 4.17.	Key topics from stakeholder engagement	Page 29	Full

GRI	Economic Performance	References & Comments	Level of Reporting
GRI	Management Disclosure	Pages 16 – 19	Full
EC1 (Core)	Direct economic value generated and distributed	Page16	Full
EC3 (Core)	Organization's defined benefit plan obligations	Page 17	Full
EC4 (Core)	Significant financial assistance received from government	Page 18	Full
EC5 (Add)	Ratios of standard entry level compared to local minimum wage	The standard entry level wages at all locations of Akçansa are higher than the minimum local wage and are set to meet the living standards of the relevant region.	Full
EC6 (Core)	Policy, practices and proportion of spending on local suppliers	Page 19	Full
EC7 (Core)	Procedures for local hiring	Although a special local hiring process does not exist under Akçansa Recruitment and Replacement procedure, local hiring is preferred for blue collar staff. The critical question for the white collar staff is their mobility. Even local people can be transferred to another location after a certain period of time. Relocation is a part of the company culture.	Partial
EC8 (Core)	Impact of infrastructure investments and services for public benefit	Construction of water transmission line of 5,1 km. (Saray - Kavacık line) for Saray Municipality with a population of about 41.200, was started in June 2009 and completed in December 2009. The cost borne by Akçansa was 422.000 TRY. This amount is included in donation amount table on page 16.	Partial

GRI	Social Performance (Employees)	References & Comments	Level of Reporting
GRI	Management Disclosure	Pages 23 – 24, 53 – 55	Full
LA1 (Core)	Breakdown of workforce by employment type, contract and region	Page 54	Full
LA2 (Core)	Employee age, gender, and area ratio	Page 54. The breakdown of the fluctuation ratio is not available broken down into age and gender aspects.	Partial
LA3 (Add)	Benefits provided only to full-time employees	As all employees of Akçansa are full-time employees, the following benefits are provided for all employees; health insurance, life insurance, private pension plan (certain level of employees), incentive premium, food & beverage , personnel transportation, movement fund, personal development opportunities	Full
LA4 (Core)	Number and percentage of employees covered by collective bargaining agreements	582 people; %56 of the total employees	Full
LA5 (Core)	Minimum notice period(s) regarding significant operational changes	Labor law and collective bargaining agreement's rules were implemented.	Partial
LA6 (Add)	Percentage of total workforce represented in occupational health and safety committees	80% of H & S committees are Akçansa employees with labor union and department representatives. The rest are contractor representatives.	Full
LA7 (Core)	Injuries, occupational diseases, working days lost, absentee rate and work-related fatalities	Page 50	Full
LA8 (Core)	Preventive healthcare counseling and training regarding serious diseases	Info on the relevant training for employees is given on Page 54. There are no specific counseling programs for preventing serious diseases including employee families and local neighbors.	Partial
LA9 (Add)	Health and safety topics covered in agreements with trade unions	The relevant details can be found on pages 38,39, and 40 of the agreement between CEIS Cement Industry Employers' Association and ÇİMSE-İŞ Union dated 1.1.2008-31.12.2010, under the following topics; 1-Protective Precautions 2-Diseases and Accidents 3-Occupational Safety Rules	Full
LA10 (Core)	Average training hours per year	Pages 54 – 55 under Training and Development	Partial
LA11 (Add)	Skills management and lifelong learning that support the continued employability of employees	Pages 54 – 55 under Training and Development	Full
LA12 (Add)	Employee performance and career development reviews	448 employees - 44% of total employees.	Full
LA13 (Core)	Diversity in senior management and employee structure	Page 54	Full
LA14 (Core)	Ratio of basic salary of male and female employees	In each employment category the basic salary of male and female employees are the same. According to the positions there's a scale of salaries where the amount of salaries are equal for male and female employees.	Full

GRI	Social Performance (Human Rights)	References & Comments	Level of Reporting
GRI	Management Disclosure	Pages 10 – 12, 48 – 50, 52 – 53, 57	Full
HR1 (Core)	Investment agreements that include human rights clauses	All of Akçansa's investment contracts include clauses concerning age, social security, work hours and health and safety of the people who will work in the projects.	Full
HR2 (Core)	Suppliers that have undergone screening on human rights	Page 52, Our Social Performance	Full
HR4 (Core)	Incidents of discrimination and actions taken	There's no incident of discrimination in Akçansa. We have a huge and diverse staff in many aspects and from various regions of Turkey. Akçansa also has managers from different nations in the Finance and Operations departments.	Full
HR5 (Core)	Operations with significant risk concerning the freedom of association and collective bargaining	Akçansa supports collective bargaining and freedom of association in its 3 cement plants. At the other operations collective bargaining is not applicable as the number of workers is not sufficient and no risks are described in any of the operations.	Full
HR6 (Core)	Operations with significant risk of incidence of child labor and measures taken	There's a risk of incidence of child labor in the operations with contractors. This risk is eliminated by two methods; through regular audits on site and through contracts. All workers to work on Akçansa sites should have social security and being 18 is the first requirement. The contractors' staff can only work on Akçansa sites after their social security documents are received. So this risk is automatically eliminated.	Full
HR7 (Core)	Operations with significant risk of incidence of forced and compulsory labor	There's no incidence of forced or compulsory labor during the reporting period.	Full
HR8 (Add)	Percentage of security personnel trained on human rights that are relevant to operations	100% of the security personnel at Akçansa are trained on human rights. Akçansa security is outsourced. As all our service providers are object to our supplier audit and are selected through a certain procedure, all of their personnel are given the necessary training, including human rights, to be a licensed security personnel authorized by governorship. Akçansa's security service suppliers all function in line with the law Number 5188 regarding private security services. One hour of one day security training covers human rights.	Full
HR9 (Add)	Incidence of violations involving rights of indigenous people	The complaints of the indigenous people are taken into consideration by the plant management without hesitation. In case of a complaint one technical person and the social services chief of the plant visit the related site and talk to the people face to face to understand the problem. After the necessary analyses the results are shared with the owner of the complaint. If the source of the complaint is the Akçansa plant necessary actions are taken immediately. Within the reporting period Akçansa received a few complaints about dust from the plant. In order to overcome the problem dust filters are adapted, sweeping and watering vehicles were bought and used.	Full



GRI	Social Performance (Community)	References & Comments	Level of Reporting
GRI	Management Disclosure	Pages 10 – 13, 56 – 57, 2009 Annual Report 24, 29, 36, 38	Full
SO3 (Core)	Employee training regarding anti-corruption	100 % of our employees are trained on Corporate Ethics in the first month they start working.	Full
SO5 (Core)	Public policy participation and lobbying	Akçansa has no participation in public policy development and lobbying.	Full
SO6 (Add)	Financial and in-kind contributions to political parties and politicians	Akçansa does not do any contribution to any political party or politician.	Full
SO7 (Add)	Number of legal actions for anti-competitive behavior	There's no filing suit towards Akçansa regarding anti-competitive behavior but there were 5 enquiries opened by the Turkish Competition Authority in the reporting period. Three of these enquiries resulted to the disadvantage of Akçansa and the fines paid can be seen at the following link. <a href="http://www.akcansa.com.tr/en/images/content/img/faaliyet_rap/Cmb_Report-December-2008.pdf">http://www.akcansa.com.tr/en/images/content/img/faaliyet_rap/Cmb_Report-December-2008.pdf</a>	Full
SO8 (Core)	Number of fines for non-compliance with laws	As there has been no incidence for non-compliance with laws and regulations, no cases were brought and so no fines were paid by Akçansa.	Full
GRI	Social Performance (Product Responsibility)	References & Comments	Level of Reporting
GRI	Management Disclosure	Pages 25 – 26	Full
PR2 (Add)	Incidents of non-compliance with regulations concerning the health and safety of products	No incidents	Full
PR3 (Core)	Principles and measures related to product and service information and labeling	Akçansa prints and distributes several product brochures including relevant information for the user about where (areas of usage), when (seasonal usage) and how (techniques) the product can be used. Technical details, quality labels and information on how to store the product is printed on the cement packages.	Full
PR4 (Add)	Incidence of non-compliance with regulations and voluntary codes concerning product information and labeling	No incidents	Full
PR5 (Add)	Customer satisfaction practices	Pages 25 - 26	Full
PR6 (Core)	Programs for compliance with laws, standards related to marketing communications	There are no plans to develop measurement in this area. Akçansa has no specific programs beyond general compliance with laws and regulations and our voluntary approach of achieving best practice.	Full
PR7 (Add)	Incidence of non-compliance with regulations relating to marketing communications	There has been no incident of non-compliance with laws related to marketing communications within the reporting period.	Full
PR8 (Add)	Number of substantiated data protection complaints by customers	No incidents	Full
PR9 (Core)	Significant fines for non-compliance concerning the provision and use of products and services	No incidents	Full

GRI	Environmental Performance	References & Comments	Reporting Status												
GRI	Management Disclosure	Pages 10 -13, 22 – 29, 34 – 42, 44, 45, 66, 67	Full												
EN1	Materials used (in terms of volume and mass)	Pages 44, 59	Full												
EN2	Rate of using recycled input material	Pages 40, 59	Full												
EN3	Direct energy consumption according to primary energy source	Pages 42, 43, 59	Full												
EN4	Indirect energy consumption according to primary energy source	Pages 43, 59	Full												
EN5	Energy saving provided thanks to protection of resources and efficiency improvement activities	Pages 38, 59	Full												
EN8	Total draught according to its resource	<p>The total water consumption of Akçansa cement plants between the years 2007 and 2009 is given in the table below.</p> <table> <tr> <th></th><th>2007</th><th>2008</th><th>2009</th></tr> <tr> <td>Ground water (million m³/y)</td><td>1.161544</td><td>1.254363</td><td>1.324953</td></tr> <tr> <td>Municipal water supply (million m³/y)</td><td>0.066</td><td>0.046</td><td>0.040</td></tr> </table> <p>The total water consumption of Akçansa cement plants for 2009 was 1,365 million m³/year. In 2009, water consumption in ready-mixed concrete production was 164 kg/m³ (concrete).</p> <ul style="list-style-type: none"> <li>• Water consumption for the production of aggregate was 42.400 m³/year in 2009.</li> <li>• Bursa and Ayazağa facilities are not included in water consumption for the production of aggregate.</li> </ul> <p>Akçansa attaches importance to the installation of recycling systems in line with its sustainable environmental approach. With this purpose, improvement activities were performed in the treatment pools at Mahmutbey, Yeni Bosna, Esenyurt and Kemerburgaz facilities of Betonsa. Treatment pools established in facilities were opened in 2009 where waste water of the facilities is recovered for production and results in savings in waste disposal costs. There are waste water recycling pools at a total of 20 facilities.</p>		2007	2008	2009	Ground water (million m³/y)	1.161544	1.254363	1.324953	Municipal water supply (million m³/y)	0.066	0.046	0.040	Full
	2007	2008	2009												
Ground water (million m³/y)	1.161544	1.254363	1.324953												
Municipal water supply (million m³/y)	0.066	0.046	0.040												
EN11	Location and size of environmental protection areas or lands owned, leased or managed within or bordering areas with high bio-diversity values	Pages 44, 45	Full												
EN12	Definition of the significant effects of the activities, products and services in protection areas or not in protection areas but with high biological diversity values on biological diversity	Pages 44, 45	Full												
EN14	Strategies created management of effects on biological diversity, ongoing activities and future plans	Pages 44, 45	Full												
EN16	Total direct or indirect greenhouse gas emissions according to weight	Pages 42, 43, 59	Full												
EN18	Activities for reducing greenhouse gas emissions and amount of reduction achieved	Pages 40 – 43	Full												
EN20	NOx, SOx, and other important air emissions	Pages 34, 36, 59	Full												

GRI	Environmental Performance	References & Comments	Reporting Status																				
EN22	Total amount of waste according to its type and method of disposal	<p>Waste management systems are implemented at all the cement plants. Akçansa cement plants' waste data according to type and method of disposal is given in the table below:</p> <table> <tr> <th></th><th>2007</th><th>2008</th><th>2009</th></tr> <tr> <td>Hazardous waste (t/y)</td><td>82.55</td><td>313.7</td><td>73.16</td></tr> <tr> <td><b>Non-hazardous waste</b></td><td></td><td></td><td></td></tr> <tr> <td>Municipal waste (t/y)</td><td>371</td><td>327</td><td>184</td></tr> <tr> <td>Waste to recycling (t/y)</td><td>1673.05</td><td>1763</td><td>404.45</td></tr> </table> <p>Akçansa attaches importance to the recycling of waste: Waste such as glass and bottles are sent to recycling firms. The amount of recycled waste was 404.45 ton/year in 2009. The reason of the reduction in the amount compared to previous years is the separate recording of waste delivered as scrap. In 16 of a total of 36 ready-mixed concrete facilities at Akçansa, waste concretes can be recycled.</p>		2007	2008	2009	Hazardous waste (t/y)	82.55	313.7	73.16	<b>Non-hazardous waste</b>				Municipal waste (t/y)	371	327	184	Waste to recycling (t/y)	1673.05	1763	404.45	Full
	2007	2008	2009																				
Hazardous waste (t/y)	82.55	313.7	73.16																				
<b>Non-hazardous waste</b>																							
Municipal waste (t/y)	371	327	184																				
Waste to recycling (t/y)	1673.05	1763	404.45																				
EN30	Total amount of environmental protection expenses and investments according to their types	The total amount of environmental investments made during the reporting period was 14,841,944 TRY.	Full																				

Non-reported GRI Indicators: Economy Indicators: EC2, EC9;  
Social Indicators: HR3, SO1, SO2, SO4, PR1;  
Environmental Indicators: EN 6, EN7, EN9, EN10, EN13, EN15, EN17, EN19, EN21, EN23, EN24, EN25, EN26, EN27, EN28, EN29

Memberships		
Chambers	Akçansa Representative	Position
Aegean Region Chamber of Industry (EBSO)		
Aliağa Chamber of Commerce (ALTO)		
Balıkesir Chamber of Industry (BSO)		
Çanakkale Chamber of Commerce and Industry		
Chamber of Shipping (DTO)	Hakan Gürdal	Branch Supervisor
Çorum Chamber of Commerce and Industry (ÇTSO)	Engin Balcıoğlu-Musa Keşaplı	Branch Supervisor
Gebze Chamber of Commerce (GTO)		
Istanbul Chamber of Industry (İSO)	Cem May	Branch Supervisor
Istanbul Chamber of Trade (İTO)		
Kocaeli Chamber of Industry (KSO)		
Manisa Chamber of Commerce and Industry	Engin Özcan-Hakan Susup	Branch Supervisor
Merzifon Chamber of Commerce and Industry	Mecit Biten -Musa Keşaplı	Branch Supervisor
Samsun Chamber of Commerce and Industry	Ali Kipri	Branch Supervisor
Tokat Chamber of Commerce and Industry	Mecit Biten -Musa Keşaplı	Branch Supervisor
Unions of Importers and Exporters	Akçansa Representative	Position
Aggregate Producers Association (AGÜB)	Özgür Öztürk-Şevket Koruç	Member of the Board and Member of Audit Committee
Cement Manufacturers' Association (TÇMB)	Hakan Gürdal	Member of the Board
Cement Manufacturers' Association (TÇMB)	Cem May	Member of the Board
Central Anatolian Exporters Union (OAİB)		
Turkish RMC Producers' Association (THBB)	Cenk Eren	Member of the Board
Istanbul Chemicals and Chemical Products Exporters Association		
Istanbul Textile and Apparel Exporters' Associations (İTKİB)		
Associations	Akçansa Representative	Position
Association of Industrialists and Businessmen of Çanakkale (ÇASİAD)		
Association of Minors of Turkey (TMD)	Özgür Öztürk-Şevket Koruç	Member
Association of Turkish Building Material Producers (İMSAD)	Hakan Gürdal	Representative
Business Council for Sustainable Development Turkey (TBCSD)	Hakan Gürdal	Representative
DenizTemiz Foundation (TURMEPA)	Hakan Gürdal	Representative
Environment-Friendly Green Buildings Association (ÇEDBİK)	Hakan Gürdal	Representative
Port Operators Association of Turkey (TÜRKLİM)	Hakan Gürdal	Member of the Board
Turkish Industrialists' and Businessmen's Association (TÜSİAD)	Mehmet Göçmen	Member
Chamber of Mining Engineers Turkey (TMMOB)	Ertuğ Karaduman-Hakan Alaca-Şevket Koruç	Member of the Board-Kocaeli Provincial Representative

### Measuring Techniques and Basis for Calculation

The environmental parameters included in the report are measured using different methods.

Measurement standards for different substances:  
Dust: TS ISO 9096, TS EN 13284; NOx: EPA CTM-022; Metals: EPA Method 29; Organics: TS EN 13526, TS EN 12619; Dioxin-Furan: TS EN 1948. In dust and NOx emissions, values of the entire plant are used (in terms of kg/hour). Clinker and calculations on an annual basis are based on the capacity report. Measurement of organics is performed on the main flues and unit flues which receive inert gas from the rotary furnace where using waste as an additional fuel. Dioxin – furan and heavy metal measurements are performed on the main flues of the rotary furnaces using waste as additional fuel.

The average of the results of the measurements performed on a flue basis during the year is taken and then the average values determined on a flue basis is summed up with the other flue gas values so as to represent the entire facility. The measuring and calculation methods of other environmental and social indicators are specified in the respective sections of this report.

### References

TCMA Web Site  
CEMBUREAU Web Site,  
TCMA-Cement Engineering Manual,  
Doç. Dr. Ömer Kuleli,  
T.C. Ministry of Industry and Commerce, Cement Industry Report, April 2010





## Statement GRI Application Level Check

GRI hereby states that **Akçansa Çimento Sanayi ve Ticaret A.Ş.**, has presented its report "In the foundations of our future..." (2007-2009) to GRI's Report Services which have concluded that the report fulfills the requirements of Application Level B.

GRI Application Levels communicate the extent to which the content of the G3 Guidelines has been used in the submitted sustainability reporting. The Check confirms that the required set and number of disclosures for that Application Level have been addressed in the reporting and that the GRI Content Index demonstrates a valid representation of the required disclosures, as described in the GRI G3 Guidelines.

Application Levels do not provide an opinion on the sustainability performance of the reporter nor the quality of the information in the report.

18 January 2011, Amsterdam

Nelmar Arbex  
Deputy Chief Executive  
Global Reporting Initiative



The Global Reporting Initiative (GRI) is a network-based organization that has pioneered the development of the world's most widely used sustainability reporting framework and is committed to its continuous improvement and application worldwide. The GRI Guidelines set out the principles and indicators that organizations can use to measure and report their economic, environmental, and social performance. [www.globalreporting.org](http://www.globalreporting.org)

**Disclaimer:** Where the relevant sustainability reporting includes external links, including to audio visual material, this statement only concerns material submitted to GRI at the time of the Check on 10 January 2011. GRI explicitly excludes the statement being applied to any later changes to such material.

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