

0.1

Introduction

Please give a general description and introduction to your organization

Sabancı Holding is the parent company of the Sabancı Group; Turkey's leading industrial and financial conglomerate. The main business units include financial services, energy, retail, cement, automotive, tire & tire reinforcement materials.

Akçansa, a collaborate foundation of Sabancı Holding and HeidelbergCement, is a leader company in Turkish market in cement, ready-mixed concrete and aggregate business and jetty activities.

Akçansa, with its sustainability vision, through its products of world quality standards, environmentally friendly identity, comprehension of superior service and facilities with state of art technology, meets 10% of Turkey's cement demand and 16% of Turkey's cement and clinker export.

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.

For further information about company profile and 2011 annual report, please visit www.akcansa.com.tr

0.2

Reporting Year

Please state the start and end date of the year for which you are reporting data.

The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first.

We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request. (This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year.

Please enter dates in following format: day(DD)/month(MM)/year(YYYY) (i.e. 31/01/2001).

Enter Periods that will be disclosed

Sat 01 Jan 2011 - Sat 31 Dec 2011

0.3**Country list configuration**

Please select the countries for which you will be supplying data. This selection will be carried forward to assist you in completing your response

Select country

Turkey

0.4**Currency selection**

Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.

TRY

0.5

Please select if you wish to complete a shorter information request

0.6

Modules

As part of the Investor CDP information request, electric utilities, companies with electric utility activities or assets, companies in the automobile or auto component manufacture sectors and companies in the oil and gas industry should complete supplementary questions in addition to the main questionnaire.

If you are in these sectors (according to the Global Industry Classification Standard (GICS)), the corresponding sector modules will be marked as default options to your information request. If you want to query your classification, please email respond@cdproject.net.

If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below. If you wish to view the questions first, please see <https://www.cdproject.net/en-US/Programmes/Pages/More-questionnaires.aspx>.

Further Information

For further information about company profile and 2011 annual report, please visit www.akcansa.com.tr

Module: Management [Investor]

Page: 1. Governance

1.1

Where is the highest level of direct responsibility for climate change within your company?

Individual/Sub-set of the Board or other committee appointed by the Board

1.1a

Please identify the position of the individual or name of the committee with this responsibility

Climate change is one of the 6 key issues under Akçansa's sustainability focus.

Likeas all sustainability focus areas, climate change's direct responsibility is given to the Executive Board, mainly to the General Manager. The execution of the climate change targets and actions is under the responsibility of the sustainability committee reporting to the Executive Board. Assistant General Manager of Operations is responsible for leading and managing the committee. For the sustainability committee organizational chart refer to the "Further Information" field.

1.2

Do you provide incentives for the management of climate change issues, including the attainment of targets?

Yes

1.2a

Please complete the table

Who is entitled to benefit from these incentives?	The type of incentives	Incentivised performance indicator
Board/Executive board	Monetary reward	Energy reduction per ton of clinker Increase in fossil fuel substitution rate incrb by waste derived fuels Alternative fuel substitution rate
Energy managers	Monetary reward	Energy reduction per ton of clinker
Environment/sustainability managers	Monetary reward	CO2 reduction per ton of clinker Energy per ton of clinker Increase in fossil fuel substitution rate by waste derived fuels Increase in raw materials substitution rate by waste derived materials Developping climate change CRS project
Facility managers	Monetary reward	CO2 reduction per ton of clinker Energy reduction per ton of clinker Fossil fuel substitution rate increase by waste derived fuels Raw materials substitution rate increase by waste derived materials
Other: All managers and engineers in Operations	Monetary reward	CO2 reduction per ton of clinker Energy reduction per ton of clinker Fossil fuel substitution rate increase by waste derived fuels Raw materials substitution rate by waste derived materials
Public affairs managers	Monetary reward	Communicating and developping climate change CRS project.

Further Information

The incentives are based on company climate change targets set inline with the sustainability ambitions.

Page: 2. Strategy

2.1

Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities

Integrated into multi-disciplinary company wide risk management processes

2.1a

Please provide further details (see guidance)

Akcansa's risk management activities are executed and coordinated by Internal Audit and Risk Management Manager. A risk management procedure which describes the assessment and reporting principles is applied in corporate level. Accordingly, a yearly assessment and monthly monitoring activities are conducted. The assessments are done in terms of regulatory, customer behaviour changes, reputational and environmental perspectives. The managers are determining the impact of each risk based on the risk scale of Akcansa. The priorities are determined with respect to the risk scale of Akcansa. The analysis is monthly reported to risk manager and risk owners, and if the risk is critical to Executive Board.

2.2

Is climate change integrated into your business strategy?

Yes

2.2a

Please describe the process and outcomes (see guidance)

Akcansa Cement recognizes the significant global threat caused by high concentration of Green House Gases (GHG) in the atmosphere. We consider ourselves responsible and voluntary commit and put in efforts to limit the impact on climate change.

Climate change is integrated into our company's overall business strategy. We are aware of the need to adapt to the climate change and the need to capitalize on opportunities presented by the climate change. Sustainability is one of our five strategic pillars that are needed for continuous growth.

Sustainable development is an indispensable commitment and cement sector in Turkey has adopted European norms on production, environment, health and safety issues.

As part of negotiations with the European Union accession conference in 2009 on environmental issues, greenhouse gases, Kyoto Protocol and industrial emissions were the main topics.

Our business strategy on sustainability has been mainly influenced by the need to reduce emissions and Kyoto protocol.

Our strategy for preventing climate change includes continuous efforts aimed at the following sustainability related initiatives :

- **Short term;**Renewable energy investments (waste heat recovery power plant, solar or biomass use)Increasing the rate of alternative fuels and materials use substituting fossil fuels and virgin raw materials.Investments on waste to energy technology Target of 30% AF rate by 2014 in our Buyukcekmece plant. Target of 20% AF rate by 2015 overall.
- Emission reducing and dedusting investments : Target: 10 mg/m3Reduction in clinker/cement factor. Increased use of cementitious materials. Target of 70% by 2015.Cooperation with national and local authorities on environmental issuesImproving energy efficiency and process technology
- **Long term;**Establishing a Recycling CompanyCarbon trading

Through these strategies, we will be prepared towards low carbon economy trends, requirements and market expectations. This will provide an important advantage over our competitors.

Most substantial business decisions influenced by climate change include following decisions :

- To install 15 MW waste heat recovery power generation plant,
- To invest in a dry sewage sludge storage and feeding plant, to invest in municipal refused derived fuel feeding plant, to invest in shredded tyres feeding plant to increase fossil fuel substitution rate.

2.2b

Please explain why not

2.3

Do you engage with policy makers to encourage further action on mitigation and/or adaptation?

Yes

2.3a

Please explain (i) the engagement process and (ii) actions you are advocating

Akçansa engages with policy makers through its membership in several private sector associations, like TÜSİAD, Turkish affiliate of WBCSD; İMSAD, Turkish Green Building Council, also develops sector specific positions under Turkish Cement Manufacturer's Association. The engagement process covers mostly legislative topics, strategy papers, responding in research studies, and raising awareness and disclosing commitment to set targets, to encourage stakeholders and to lead the sector.

Some actions :

- Volunteer engagement in carbon trading system, by registering Waste Heat Recovery Power Generation Plant as a Gold Standard Project.
- Disclosing best practices in different platforms such as Rio+20, REC EU Sustainability Awards.
- Our General Manager by leading sustainability committees of Construction Materials Manufacturer's Association (İMSAD) and Turkish Cement Manufacturer's Association (TCMB), Turkish Green Buildings Council, and his speeches at climate change related symposiums (like ICCI, REW, IWES) poses climate change challenges and our potential contribution.
- Position papers have been submitted to the Ministry of Environment regarding the waste handling initiatives and the synergetic role of cement plants.
- Position papers are being prepared to the Ministry of Environment regarding construction and demolition waste recovery as concrete, aggregate and cement raw materials.
- Position papers on climate change mitigation potential and targets through Turkish Cement Manufacturer's Association
- Responding to research studies, awareness questionnaires of governmental bodies and climate change platforms.
- Social and communication activities like CSR projects "1 Carbon 2 Oxygen" and Environmental Awareness Project for primary schools and Akçansa Betonic Ideas contest organized for University Student to reveal energy efficient products and solutions.

Further Information

Turkey Sustainability Development Report which has been issued at Rio+20 Summit, has been attached as supporting files. Please see page 55 for Akçansa's Best Practice considered within 25 Best Practices of Turkey.

Attachments

[https://www.cdproject.net/Sites/2012/33/35233/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/2.Strategy/Turkey'sSustainableDevelopmentReportClaimingtheFuture2012.pdf](https://www.cdproject.net/Sites/2012/33/35233/Investor%20CDP%202012/Shared%20Documents/Attachments/InvestorCDP2012/2.Strategy/Turkey'sSustainableDevelopmentReportClaimingtheFuture2012.pdf)

Page: 3. Targets and Initiatives

3.1

Did you have an emissions reduction target that was active (ongoing or reached completion) in the reporting year?

Absolute and intensity targets

3.1a

Please provide details of your absolute target

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions (metric tonnes CO2e)	Target year	Comment
A1	Scope 2	54%	30%	2010	183282	2012	Scope 2 emission of Çanakkale plant stands for 54% of total Scope 2 emissions. Çanakkale plant 2010 Scope 2 emissions were 183282 mt CO2e. Thanks to the waste heat recovery power generation plant, from the beginning of 2011 compared to 2010 each year 30% of energy will be saved, thus 60.000 tons of CO2 emissions would be saved. .

3.1b

Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions	Target year	Comment
A2	Scope 1	100%	5%	Other: kg CO2/ ton clinker	2007	877	2020	2020 target is to reach 830 kg CO2/ton clinker. Scope 1+2 emissions are monitored but quantified targets are set for cement business unit for three target years which are 2012, 2015 and 2020.

3.1c

Please also indicate what change in absolute emissions this intensity target reflects

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comments
A2	Decrease	5	No change	0	The intensity target is not related to Scope 3 emissions, however there are other initiatives resulting in the decrease in Scope 3 emissions.

3.1d

Please provide details on your progress against this target made in the reporting year

ID	% complete (time)	% complete (emissions)	Comment
A2	38	0	No visible quantified progress could be achieved in overall. Scope 1 emissions are directly linked to fuel consumption, as far as alternative fuel (waste derived fuel) and raw is increased the Scope 1 emission target will be progressed towards 2020 target.

ID	% complete (time)	% complete (emissions)	Comment
A1	30	30	The waste heat recovery power generation plant has been taken in operation since 2011 September, till the end of 2011 only 30% energy recovery could be achieved.

3.1e

Please explain (i) why not; and (ii) forecast how your emissions will change over the next five years

3.2

Does the use of your goods and/or services directly enable GHG emissions to be avoided by a third party?

Yes

3.2a

Please provide details (see guidance)

Akcansa is co-processing waste as secondary raw materials and fuel resources.

This co-business contributes in third parties to minimize their negative impact on environment and create solution to them in controlling GHG emissions especially generating from waste landfilling.

On the other hand, our innovative products increasing the heat isolation capability of the construction, results in energy efficiency of the buildings thus ensures GHG emissions to be reduced.

3.3

Did you have emissions reduction initiatives that were active within the reporting year (this can include those in the planning and/or implementation phases)

Yes

3.3a

Please identify the total number of projects at each stage of development, and for those in the implementation stages, estimated CO2e savings

Stage of development	Number of projects	Total estimated annual CO2e savings (only for rows marked *)
Under investigation	16	
To be implemented*		
Implementation commenced*		
Implemented*	11	65000
Not to be implemented		

3.3b

For those initiatives implemented in the reporting year, please provide details in the table below

Activity type	Description of activity	Estimated annual CO2e savings	Annual monetary savings (unit currency)	Investment required (unit currency)	Payback period
Low carbon energy installation	Akçansa has installed installing the Waste Heat Recovery Power Generation Plant in Çanakkale Cement Plant. The energy plant of 15 MW capacity recovers vapor steam to generate electrical energy. With this state-of-the art technology, 105 million kWh of energy will be saved per year. This saving counts for 30% of energy need of the cement plant. Considering CO2 emission reduction obtained, Akçansa is also targeting to take a position in the voluntary emission trading market.	60000	7520000	41820000	>3 years

Activity type	Description of activity	Estimated annual CO2e savings	Annual monetary savings (unit currency)	Investment required (unit currency)	Payback period
Energy efficiency: processes	Accomplishing constant improvement and efficiency is the goal in Akçansa facilities. As the result of process changes and investments that were realized in the facilities despite the rising energy consumption that increased in parallel with the increase in production amounts in 2010-2011, energy savings of 28,895 GJ in 2010 and 28,052 GJ in 2011 was accomplished and the amount of energy per cement produced was reduced. Thus CO2e savings has been achieved.	5334	875000	2455000	1-3 years
Process emissions reductions	The use of traditional Portland (CEM I 42.5) cement in the total ready-mixed concrete production compound, which was 88% in 2010 receded to 76% in 2011. As a result CEM II 32.5 and CEM II 42.5 additive cement used increased two-fold from 7% to 14%. Mineral additive use (high kiln slag and volatile ash) increased from 5% to 10%. In this way, through low carbon product a clinker savings of 60,000 tons was achieved in ready-mixed concrete production and thus greenhouse gas emissions generated from process were reduced by 52,000 tons CO2e.	52000			<1 year

3.3c

What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Dedicated budget for energy efficiency	Several energy saving gaps have been determined, accordingly necessary budget for heat and electrical energy optimization projects are planned for each plant.
Dedicated budget for low carbon product R&D	Low carbon products both in cement and ready-mixed business line are developed, necessary budgeting is planned for the R&D projects and or necessary revisions in the existing production systems.
Partnering with governments on technology development	Cooperation with institutes and governmental bodies to develop innovative concrete products, to study use mineralizer to optimize calorific energy need and to enhance cement product resistance. This will bring considerable clinker savings, thus process CO2 will be minimized.

3.3d

If you do not have any emissions reduction initiatives, please explain why not

Page: 4. Communication

4.1

Have you published information about your company's response to climate change and GHG emissions performance for this reporting year in other places than in your CDP response? If so, please attach the publication(s)

Publication	Page/Section Reference	Identify the attachment
In voluntary communications (complete)	Page 23-25	2010-2011 GRI Sustainability Report

Further Information

Please find attached 2010-2011 GRI Sustainability Report in Turkish.

Attachments

[https://www.cdproject.net/Sites/2012/33/35233/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/4.Communication/Akcansa GRI Report 2010 2011 - Turkish.pdf](https://www.cdproject.net/Sites/2012/33/35233/Investor%20CDP%202012/Shared%20Documents/Attachments/InvestorCDP2012/4.Communication/Akcansa%20GRI%20Report%202010%20-%20Turkish.pdf)

Module: Risks and Opportunities [Investor]

Page: 2012-Investor-Risks&Opps-ClimateChangeRisks

5.1

Have you identified any climate change risks (current or future) that have potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

- Risks driven by changes in regulation
- Risks driven by changes in physical climate parameters
- Risks driven by changes in other climate-related developments

5.1a

Please describe your risks driven by changes in regulation

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
R1	International agreements	Due to the delay in ratification of Kyoto Protocol, Turkish Government could not determine clearly the sectoral position. In near future, the negotiations could have driving force against national actions.	Inability to do business	1-5 years	Direct	Unknown	High
R2	Lack of regulation	There is no any national emission calculation standard nor regulation available yet.	Other: Additional cost due to deviations from target.	1-5 years	Direct	Very likely	Medium
R3	Other regulatory drivers	Fuel, energy and other regulatory arrangements are under discussion.	Increased operational cost	1-5 years	Indirect (Supply chain)	Likely	Medium
R4	Product labeling regulations and standards	Lack of awareness against carbon bans. Requirement for Environmental Product Declaration.	Reduced demand for goods/services	1-5 years	Indirect (Supply chain)	Likely	Medium

5.1b

Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk; and (iii) the costs associated with these actions

- i) we are assessing the potential threats and opportunities of the risk,
- ii) we either avoid, transfer or retain the risk,
- iii) to transfer or retain the risk we either buy insurance and / or make necessary investments within our capex plans.

5.1c

Please describe your risks that are driven by change in physical climate parameters

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
D1	Change in mean (average) temperature	Cement production highly depends on natural resources as raw materials and water use.	Increased operational cost	>10 years	Indirect (Supply chain)	Likely	Medium-high

5.1d

Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk; and (iii) the costs associated with these actions

- i) we are assessing the potential threats and opportunities of the risk,
- ii) we either avoid, transfer or retain the risk,
- iii) to transfer or retain the risk we either buy insurance and / or make necessary investments within our capex plans.

5.1e

Please describe your risks that are driven by changes in other climate-related developments

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
D2	Reputation	The cement plants are known to be among the highest CO2 emitting industries. Future trends and awareness may affect the company's reputation.	Wider social disadvantages	6-10 years	Indirect (Client)	Likely	Medium-high

5.1f

Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk; (iii) the costs associated with these actions

- i) we are assessing the potential threats and opportunities of the risk,
- ii) we either avoid, transfer or retain the risk,
- iii) to transfer or retain the risk we either buy insurance and / or make necessary investments within our capex plans.

5.1g

Please explain why you do not consider your company to be exposed to risks driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

5.1h

Please explain why you do not consider your company to be exposed to risks driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

5.1i

Please explain why you do not consider your company to be exposed to risks driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

6.1

Have you identified any climate change opportunities (current or future) that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

- Opportunities driven by changes in regulation
- Opportunities driven by changes in other climate-related developments

6.1a

Please describe your opportunities that are driven by changes in regulation

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact
O1	International agreements	Akçansa with the future international agreements, will switch to a low carbon economy model.	Reduced operational costs	1-5 years	Direct	Likely	Medium-high
O2	Product labeling regulations and standards	Akçansa with this driver, can apply Life Cycle Analysis approach. By this way, may optimize its operations.	Reduced operational costs	Current	Indirect (Supply chain)	Likely	Medium
O3	Cap and trade schemes	Low carbon and environmental friendly projects and applications provide	New products/business	1-5 years	Direct	Likely	Medium

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact
		advantage in tax compensation.	services				

6.1b

Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity; (iii) the costs associated with these actions

(i) These opportunities thanks to the implementation of low carbon investments result in potential reduced electrical and heat energy savings. In long term, these savings lead to considerable cost and competitive advantage.

(ii) These advantages are studied by means of several tools : market analysis, SWOT analysis, feasibility report.

If feasible, in order to benefit the most, Akcansa shows a proactive attitude to be the first in the market and in its sector. Akcansa plans necessary corporate, administrative, financial applications and techical investments.

(iii) The potential costs are consultancy fees and/or investments within our capex plans. However, the investments can be financed by green loans.

6.1c

Please describe the opportunities that are driven by changes in physical climate parameters

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
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6.1d

Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity; (iii) the costs associated with these actions

6.1e

Please describe the opportunities that are driven by changes in other climate-related developments

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
O4	Reputation	Akçansa's commitment for climate change adaptation and mitigation activities will impact the reputation among stakeholders.	Increased stock price (market valuation)	1-5 years	Indirect (Client)	Likely	Medium

6.1f

Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity; (iii) the costs associated with these actions

(i) These opportunities thanks to the implementation of low carbon investments result in potential reduced electrical and heat energy savings. In long term, these savings lead to considerable cost and competitive advantage.

(ii) These advantages are studied by means of several tools : market analysis, SWOT analysis, feasibility report.

If feasible, in order to benefit the most, Akçansa shows a proactive attitude to be the first in the market and in its sector. Akçansa plans necessary corporate, administrative, financial applications and technical investments.

(iii) The potential costs are consultancy fees and/or investments within our capex plans. However, the investments can be financed by green loans.

6.1g

Please explain why you do not consider your company to be exposed to opportunities driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

6.1h

Please explain why you do not consider your company to be exposed to opportunities driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

Physical changes do not have a great impact which may result in a substantive positive change on our production processes within our business line.

6.1i

Please explain why you do not consider your company to be exposed to opportunities driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading [Investor]**Page: 7. Emissions Methodology**

7.1

Please provide your base year and base year emissions (Scopes 1 and 2)

Base year	Scope 1 Base year emissions (metric tonnes CO2e)	Scope 2 Base year emissions (metric tonnes CO2e)
Fri 01 Jan 2010 - Fri 31 Dec 2010	5873476	338163

7.2

Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

Please select the published methodologies that you use

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

7.2a

If you have selected "Other", please provide details below

We are using "World Business Council for Sustainable Development Cement Sustainability Initiative CO2 Emissions Inventory Protocol, Version 2.0" which is inline with GHG Protocol.

7.3

Please give the source for the global warming potentials you have used

Gas	Reference
CO2	IPCC Fourth Assessment Report (AR4 - 100 year)

7.4

Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data

Fuel/Material/Energy	Emission Factor	Unit	Reference
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Fuel/Material/Energy	Emission Factor	Unit	Reference
Other: Pls. see attached excel sheet			Pls. see attached excel sheet

Further Information

Please see attached file for the emission factors.

Attachments

[https://www.cdproject.net/Sites/2012/33/35233/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/7.EmissionsMethodology/worksheet-to-input-of-EF.xlsx](https://www.cdproject.net/Sites/2012/33/35233/Investor%20CDP%202012/Shared%20Documents/Attachments/InvestorCDP2012/7.EmissionsMethodology/worksheet-to-input-of-EF.xlsx)

Page: 8. Emissions Data - (1 Jan 2011 - 31 Dec 2011)

8.1

Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

Equity share

8.2a

Please provide your gross global Scope 1 emissions figure in metric tonnes CO₂e

5746152

8.2b

Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e - Part 1 breakdown

Boundary	Gross global Scope 1 emissions (metric tonnes CO2e)	Comment
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8.2c

Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e - Part 1 Total

Gross global Scope 1 emissions (metric tonnes CO2e) – Part 1 Total	Comment
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8.2d

Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e - Part 2

Boundary	Gross global Scope 1 emissions (metric tonnes CO2e)	Comment
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8.3a

Please provide your gross global Scope 2 emissions figure in metric tonnes CO2e

325476

8.3b

Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e - Part 1 breakdown

Boundary	Gross global Scope 2 emissions (metric tonnes CO2e)	Comment
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8.3c

Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e - Part 1 Total

Gross global Scope 2 emissions (metric tonnes CO2e) - Total Part 1	Comment
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8.3d

Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e - Part 2

Boundary	Gross global Scope 2 emissions (metric tonnes CO2e) - Other operationally controlled entities, activities or facilities	Comment
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8.4

Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions which are not included in your disclosure?

8.4a

Please complete the table

Reporting Entity	Source	Scope	Explain why the source is excluded
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8.4

Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions which are not included in your disclosure?

Yes

8.4a

Please complete the table

Source	Scope	Explain why the source is excluded
Ready mixed concrete and aggregate plants	Scope 1 and 2	Only cement plants are included in our CO2 calculations, because there is a clear methodology. For RMC and aggregate plants, a gap analysis will be done prior to establish a system for CO2 calculations and its follow-up.

8.5

Please estimate the level of uncertainty of the total gross global Scope 1 and Scope 2 figures that you have supplied and specify the sources of uncertainty in your data gathering, handling, and calculations

Scope 1 emissions: Uncertainty range	Scope 1 emissions: Main sources of uncertainty	Scope 1 emissions: Please expand on the uncertainty in your data	Scope 2 emissions: Uncertainty range	Scope 2 emissions: Main sources of uncertainty	Scope 2 emissions: Please expand on the uncertainty in your data
Less than or equal to 2%	No Sources of Uncertainty		Less than or equal to 2%	Assumptions	Turkish electricity emission factor is not clearly declared by the Ministry of Energy. Therefore Scope 2 emissions calculations are based on an assumption at all locations.

8.6

Please indicate the verification/assurance status that applies to your Scope 1 emissions

Not verified or assured

8.6a

Please indicate the proportion of your Scope 1 emissions that are verified/assured

8.6b

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Level of verification or assurance	Relevant verification standard	Relevant statement attached

8.7

Please indicate the verification/assurance status that applies to your Scope 2 emissions

Not verified or assured

8.7a

Please indicate the proportion of your Scope 2 emissions that are verified/assured

8.7b

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Level of verification or assurance	Relevant verification standard	Relevant statement attached
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8.8

Are carbon dioxide emissions from the combustion of biologically sequestered carbon (i.e. carbon dioxide emissions from burning biomass/biofuels) relevant to your company?

Yes

8.8a

Please provide the emissions in metric tonnes CO2e

0

Further Information

Regarding 8.8a data

According to the methodology we use for the CO2 emission calculations, the CO2 from biomass is also included in direct CO2 emissions.

Page: 9. Scope 1 Emissions Breakdown - (1 Jan 2011 - 31 Dec 2011)

9.1

Do you have Scope 1 emissions sources in more than one country or region (if covered by emissions regulation at a regional level)?

No

9.1a

Please complete the table below

Country	Scope 1 metric tonnes CO2e
---------	----------------------------

9.2

Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)

By facility

9.2a

Please break down your total gross global Scope 1 emissions by business division

Business Division	Scope 1 metric tonnes CO2e
-------------------	----------------------------

9.2b

Please break down your total gross global Scope 1 emissions by facility

Facility	Scope 1 metric tonnes CO2e
Büyükçekmece plant	1675037
Çanakkale plant	3485590
Ladik plant	585523

9.2c

Please break down your total gross global Scope 1 emissions by GHG type

GHG type	Scope 1 metric tonnes CO2e
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9.2d

Please break down your total gross global Scope 1 emissions by activity

Activity	Scope 1 metric tonnes CO2e
----------	----------------------------

Further Information

Remark about 9.2b
The plants whose Scope 1 emissions are given above, have different production capacities.

Page: 10. Scope 2 Emissions Breakdown - (1 Jan 2011 - 31 Dec 2011)

10.1

Do you have Scope 2 emissions sources in more than one country or region (if covered by emissions regulation at a regional level)?

No

10.1a

Please complete the table below

Country	Scope 2 metric tonnes CO ₂ e

10.2

Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)

By facility

10.2a

Please break down your total gross global Scope 2 emissions by business division

Business division	Scope 2 metric tonnes CO2e
-------------------	----------------------------

10.2b

Please break down your total gross global Scope 2 emissions by facility

Facility	Scope 2 metric tonnes CO2e
Büyükçekmece Plant	110392
Çanakkale Plant	164591
Ladik Plant	50492

10.2c

Please break down your total gross global Scope 2 emissions by activity

Activity	Scope 2 metric tonnes CO2e
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Further Information

Remark about 10.2b
The plants whose Scope 1 emissions are given above, have different production capacities.

11.1

Do you consider that the grid average factors used to report Scope 2 emissions in Question 8.3 reflect the contractual arrangements you have with electricity suppliers?

No

11.1a

You may report a total contractual Scope 2 figure in response to this question. Please provide your total global contractual Scope 2 GHG emissions figure in metric tonnes CO2e

325476

11.1b

Explain the basis of the alternative figure (see guidance)

Akcansa's global contractual Scope 2 GHG emissions are determined based on following criteria :

- Akcansa is purchasing electricity from the local grids close to its plant location. Until today, we did not retire renewable energy certificates.
 - In Turkey, electricity suppliers do not declare different emission factors but Turkish electricity governmental body declares a default value.
 - The emission factor applied is 453 kg CO2/MWh.
-

11.2

Has your organization retired any certificates, e.g. Renewable Energy Certificates, associated with zero or low carbon electricity within the reporting year or has this been done on your behalf?

No

11.2a

Please provide details including the number and type of certificates

Type of certificate	Number of certificates	Comments

Further Information

Explanation for 11.2

We have not retired any renewable energy certificates yet, in 2011 we are in the Gold Standard VER project validation process.

Page: 12. Energy

12.1

What percentage of your total operational spend in the reporting year was on energy?

More than 75% but less than or equal to 80%

12.2

Please state how much fuel, electricity, heat, steam, and cooling in MWh your organization has consumed during the reporting year

Energy type	MWh
Fuel	6220000
Electricity	751012
Heat	0
Steam	0
Cooling	0

12.3

Please complete the table by breaking down the total "Fuel" figure entered above by fuel type

Fuels	MWh
Petroleum coke	2280000
Natural gas	4880
Lignite	2590000
Diesel/Gas oil	898
Refuse-derived fuel	291000
Other: Fuel oil	25700
Other: Coal	495840

Page: 13. Emissions Performance

13.1

How do your absolute emissions (Scope 1 and 2 combined) for the reporting year compare to the previous year?

Decreased

13.1a

Please complete the table

Reason	Emissions value (percentage)	Direction of change	Comment
Emissions reduction activities	100	Decrease	Emission reduction activities include : Increasing alternative raw materials and additive rate Increasing waste derived fuel rate Energy efficiency investments

13.2

Please describe your gross combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per unit currency total revenue

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for Change
0.006	metric tonnes CO2e	unit total revenue	20	Decrease	Emission has been reduced and revenues have increased.

13.3

Please describe your gross combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per full time equivalent (FTE) employee

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for Change
5621	metric tonnes CO2e	FTE Employee	4	Decrease	Emission has been reduced and FTE has increased.

13.4

Please provide an additional intensity (normalized) metric that is appropriate to your business operations

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for Change
877	metric tonnes CO2e	metric tonne of product	0	No change	The intensity metric is kg CO2 per ton of clinker, and include only Scope 1 emissions. In 2011, the intensity figures remained same with 2010's value. There are improvements in Büyükçekmece and Ladik plants, whereas there is no progress in Çanakkale plant Scope 1 emissions.

14.1

Do you participate in any emission trading schemes?

No, but we anticipate doing so in the next two years

14.1a

Please complete the following table for each of the emission trading schemes in which you participate

Scheme name	Period for which data is supplied	Allowances allocated	Allowances purchased	Verified emissions in metric tonnes CO2e	Details of ownership

14.1b

What is your strategy for complying with the schemes in which you participate or anticipate participating?

Turkey is in the voluntary market. Our strategy is to follow-up the regulatory and market oriented developments and to be prepared for CDM or other mechanisms. Our strategy for preventing climate change includes continuous efforts aimed at the following sustainability related initiatives:

Short term;

- Renewable energy investments (waste heat recovery power plant, solar or biomass use)
- Increasing the rate of alternative fuels and materials use.
- Investments on waste to energy technology
- Target of 30% AF rate by 2014 in our Buyukcekmece plant.
- Target of 20% AF rate by 2015 overall.
- Emission reducing and dedusting investments, Target: 10 mg/m3
- Reduction in Clinker factor. Increased use of cementitious materials. Target of 70% by 2015.
- Cooperation with local authorities on environmental issues
- Improving energy efficiency and process technology

Long term;

- Establishing a Recycling Company

Carbon trading

Most substantial business decisions influenced by climate change include a decision on waste heat recovery power generation plant investment in Canakkale, a decision to invest in sewage sludge plant (increased AF use) in our Buyukcekmece plant.

14.2

Has your company originated any project-based carbon credits or purchased any within the reporting period?

No

14.2a

Please complete the following table

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes of CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits retired	Purpose e.g. compliance
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Further Information

Clarification to Question 14.2

Akcansa through 15.2 MW Capacity Waste Heat Power Generation Project in Çanakkale Cement Plant has been registered for Gold Standard VER credits. The validation by TÜV Rheinland is ongoing.

15.1

Please provide data on sources of Scope 3 emissions that are relevant to your organization

Sources of Scope 3 emissions	metric tonnes CO2e	Methodology	If you cannot provide a figure for emissions, please describe them
Business travel			Business travel by flygt and by car are included in this category. There is an initiative for minimizing the business travels by replacing them where possible by video/phone conference. Scope 3 emissions data tracking is not reliable yet.
Purchased goods & services			Purchased services include : Employee transportation Contractors vehicles consumptions Scope 3 emissions data tracking is not reliable yet.

15.2

Please indicate the verification/assurance status that applies to your Scope 3 emissions

No emissions data provided

15.2a

Please indicate the proportion of your Scope 3 emissions that are verified/assured

15.2b

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Level of verification or assurance	Relevant verification standard	Relevant statement attached
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15.3

Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?

No, we don't have any emissions data

15.3a

Please complete the table

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
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Module: Sign Off

Page: Sign Off

Please enter the name of the individual that has signed off (approved) the response and their job title

Hakan Grdal
General Manager
Akansa imento Sanayi ve Ticaret A.Ő.

CDP 2012 Investor CDP 2012 Information Request