# Module: Introduction

## Page: Introduction

**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 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 |
| --- |
| Sun 01 Jan 2012 - Mon 31 Dec 2012 |

**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

**0.6**

**Modules**
As part of the request for information on behalf of investors, electric utilities, companies with electric utility activities or assets, companies in the automobile or auto component manufacture sectors, companies in the oil and gas industry and companies in the information technology and telecommunications sectors 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 not appear below but will automatically appear in the navigation bar when you save this page. 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.

# 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 pillars under Akçansa's sustainability roadmap.
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 **Akçansa Sustainability Committee** reporting to the Executive Board.
Assistant General Manager of Operations is responsible for leading and managing the Sustainability Committee.
For the details kindly refer to the **"Corporate Governance and Sustainability Committee section** of the sustainability report from below link.
http://www.akcansagriraporu.com/2011/en/governance-and-sustainability/sustainability-committee

**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 | Incentivized performance indicator |
|---|---|---|
| Board/Executive board | Monetary reward | Meeting following KPIs : Energy reduction per ton of clinker Increase in fossil fuel substitution rate by waste derived fuels Clinker incorporation rate which is directly affecting CO2 emissions |
| Energy managers | Monetary reward | Meeting following KPIs : Energy reduction per ton of clinker |
| Other: Environment/sustainability managers | Monetary reward | Meeting following KPIs : For research and CO2 reporting For incorporating Energy management system Developping climate change CRS project For awareness and training programs |
| Facility managers | Monetary reward | Meeting following KPIs : Clinker incorporation rate which is directly affecting CO2 emissions Energy reduction per ton of clinker Increase in fossil fuel substitution rate by waste derived fuels 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 | Meeting following KPIs : 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 | Meeting following KPIs : Communicating and developing climate change CRS project. |

**Further Information**

Please refer to
http://www.akcansagriraporu.com/2011/ for all information about governance and sustainability.
http://www.akcansa.com.tr/docs/20130515143331_akcansa_fr_2012.pdf for annual report and activities.

## 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**

An Internal Control and Risk Management Unit, reporting its practices directly to the Board of Directors, has been established in order to prevent corporate sustainability against potential risks that Akçansa may encounter. Auditing practices are conducted by CIA and CISA certified specialists according to standards published by the International Institute Internal Auditors.

In the activities that will be conducted in 2012, according to the ISO 31000 standards, primary indicators are determined for all critical risks.

A risk management prodecure which describes the assessment and reporting principles is applied in corporate level. Accordingly, a yearly assessment and monthy monitoring activities are conducted. The assessements 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**

The understanding of Akçansa to combat climate change is shaped by improving the business processes and developing new products while complying with the low carbon strategy in the whole product life cycle and voluntarily participating in local as well as international initiatives.

Akçansa therefore aims at energy efficiency and use of alternative energy resources in its operations; preventing emission of pollutants through process

improvements and reducing GHG emission values of products through alternative materials use. Expansion of the field of influence for these measures is ensured through participation in the national, sector-based and international initiatives along with various communication projects

Climate change is integrated into our company's overall business strategy and monitored with the sustainability pillars and 2020 ambitions.

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 technologyEmission reducing and dedusting investmentsReduction in clinker/cement factor. Increased use of cementitious materials.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.

The progress towards 2020 Ambitions are given as an attachment in the further information section.

**2.2b**

**Please explain why not**

**2.3**

**Do you engage in activities that could either directly or indirectly influence policy on climate change through any of the following? (tick all that apply)**

Direct engagement

**2.3a**

**On what issues have you been engaging directly?**

| Focus of legislation | Corporate Position | Details of engagement | Proposed solution |
|---|---|---|---|
| Mandatory carbon reporting | Support with minor exceptions | The mandatory carbon reporting regulation in Turkey is in the transition period. We are engaging ourselves for a better execution of the regulation for cement industry. We are saying that the cement industry is one of the most ready industry for reporting. | We proposed to use GHG protocol calculation methodology developed for cement industry. |

**2.3b**

**Are you on the Board of any trade associations or provide funding beyond membership?**

**2.3c**

**Please enter the details of those trade associations that are likely to take a position on climate change legislation**

| Trade association | Is your position on climate change consistent with theirs? | Please explain the trade association's position | How have you, or are you attempting to influence the position? |
|---|---|---|---|

**2.3d**

**Do you publically disclose a list of all the research organizations that you fund?**

**2.3e**

**Do you fund any research organizations to produce public work on climate change?**

**2.3f**

**Please describe the work and how it aligns with your own strategy on climate change**

2.3g

Please provide details of the other engagement activities that you undertake

**2.3h**

**What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?**

The environmental legislative changes are continuously tracked and position papers are established in line with the company climate change strategy.

In addition to the legislation tracking, the committment with the strategy and positioning are maintained with the leadership of our General Manager at different platforms such as REC, Ministry of Environment, etc. The activities are also supported through the membership at the Climate Change committees at TÜSİAD, İMSAD (Construction Materials Assosication), TÇMB (Turkish Cement Manufacturers Association).

2.3i

Please explain why you do not engage with policy makers

## 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?**

Intensity target

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 |
|---|---|---|---|---|---|---|---|

**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 |
|---|---|---|---|---|---|---|---|---|
| CO2 | Scope 1+2 | 100% | 3% | Other: kg CO2 / ton of clinker | 2011 | 2011 | 2012 | The target was to reach 855 kgCO2/ton product |

**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 | Comment |
|---|---|---|---|---|---|
| CO2 | Decrease | 3 | No change | 0 | |

**3.1d**

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

| ID | % complete (time) | % complete (emissions) | Comment |
|---|---|---|---|
| CO2 | 100% | 50% | There is an important decrease compared to the last year but the target for 2012 could not be achieved because long term strategies (higher alternative fuel, lower clinker use) supporting this target could be implemented in part because of market conditions. It will be developped step by step till 2020. |

**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.
The effects of our low carbon products are calculated based on Life Cycle Analysis, draft Environmental Product Declaration is finalized. For the communication third party validation is expected.

**3.3**

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

Yes

**3.3a**

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

| Stage of development | Number of projects | Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *) |
|---|---|---|
| Under investigation | 1 | |
| To be implemented* | | |
| Implementation commenced* | | |
| Implemented* | 3 | 69500 |
| 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 (metric tonnes CO2e) | Annual monetary savings (unit currency - as specified in Q0.4) | Investment required (unit currency - as specified in Q0.4) | Payback period |
|---|---|---|---|---|---|
| Product | A cement composition with lower clinker has been designed, clinker has been | 50000 | 2000000 | 0 | <1 year |

| Activity type | Description of activity | Estimated annual CO2e savings (metric tonnes CO2e) | Annual monetary savings (unit currency - as specified in Q0.4) | Investment required (unit currency - as specified in Q0.4) | Payback period |
|---|---|---|---|---|---|
| design | substituted by slag which is a by-product of steel industry. The low carbon product called "Safkan" will be an alternative to CEM I 42.5R type cement providing the same strength with a lower carbon footprint. This product has been awarded by İstanbul Chamber of Industry as " Environmental friendly innovative product" in 2012. | | | | |
| Product design | Thanks to the concrete design "A+ beton" where cement in concrete is replaced with more than 50% slag, provides a low carbon product to the market. Annual saving depends on the amount of sales. Based on 40.000 m3 A+ concrete estimated savings are shown. The product broshure attached in the further information section. Only cost is for marketing activities. | 4500 | 150000 | 10000 | <1 year |
| Low carbon energy purchase | To increase the use of alternative fuels subtituting the fossil fuels, long term agreement have been done for the supply of Refused Derived Fuel of İstanbul Municipality and for the dry sewage sludge of İstanbul wastewater treatment plant operators. To meet the storage and feeding capacity, big investments have been done on plants. | 10000 | | 16000000 | 1-3 years |

**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 developped, 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. |
| Employee engagement | Thanks to the vision of the Board, the employees are committed to the company targets. |

3.3d

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

**Further Information**

Safkan environmental award logo
A+ Beton broshure

**Attachments**

https://www.cdproject.net/sites/2013/33/35233/Investor CDP 2013/Shared Documents/Attachments/InvestorCDP2013/3.TargetsandInitiatives/20130508164924_aplus.pdf
https://www.cdproject.net/sites/2013/33/35233/Investor CDP 2013/Shared Documents/Attachments/InvestorCDP2013/3.TargetsandInitiatives/2_Inova_Cevre_Dostu_Urun.jpg

## 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 places other than in your CDP response? If so, please attach the publication(s)**

| Publication | Page/Section reference | Attach the document |
|---|---|---|
| In voluntary communications | p8, pp22-23, p25, | https://www.cdproject.net/sites/2013/33/35233/Investor CDP 2013/Shared |

| Publication | Page/Section reference | Attach the document |
|---|---|---|
| (underway) – previous year attached | p52 | Documents/Attachments/Investor-4.1-C3-IdentifytAttachment/akcansa-surdurulebilirlik-raporu-2011-en.pdf |

## Module: Risks and Opportunities [Investor]

### Page: 5. Climate Change Risks

**5.1**

**Have you identified any climate change risks (current or future) that have the 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 |

| ID | Risk driver | Description | Potential impact | Timeframe | Direct/ Indirect | Likelihood | Magnitude of impact |
|---|---|---|---|---|---|---|---|
| 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 Envirınmental 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 | Cement production highly depends on | Increased | >10 years | Indirect | Likely | Medium-high |

| ID | Risk driver | Description | Potential impact | Timeframe | Direct/ Indirect | Likelihood | Magnitude of impact |
|---|---|---|---|---|---|---|---|
| | (average) temperature | natural resources as raw materials and water use. | operational cost | | (Supply chain) | | |

**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 the be among highest CO2 emitting industries. Future trends and awareness may effect 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**

## Page: 6. Climate Change Opportunities

**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 physical climate parameters
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 advantage in tax compensation. | New products/business services | 1-5 years | Direct | Likely | Medium |

**6.1b**

**Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity and (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 |
|---|---|---|---|---|---|---|---|
| O4 | Induced changes in natural resources | Physical changes have mostly negative impact for all construction and cement industry; however we may have a minor opportunity for being more prepared than our competitors. Also physical changes may bring the need for alternative construction solutions, material and applications which can be benefited as terms of product design. | Investment opportunities | 6-10 years | Indirect (Client) | About as likely as not | Medium-high |

**6.1d**

**Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity and (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.

**6.1e**

**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 |
|---|---|---|---|---|---|---|---|
| O5 | Reputation | Akçansa's committement 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, 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.

**6.1g**

**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**

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 |
|---|
| IPCC Guidelines for National Greenhouse Gas Inventories, 2006 |

**7.2a**

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

**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 |
|---|---|---|---|

**Further Information**

Excel datasheet required for 7.4 has been given in the attachement.

**Attachments**

https://www.cdproject.net/sites/2013/33/35233/Investor CDP 2013/Shared Documents/Attachments/InvestorCDP2013/7.EmissionsMethodology/Fuel factors 2012.xlsx

## Page: 8. Emissions Data - (1 Jan 2012 - 31 Dec 2012)

**8.1**

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

Equity share

**8.2**

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

5733480.37

**8.3**

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

298832.95

**8.4**

**Are there are 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 |
|---|---|---|
| Concrete plants | Scope 2 | Concrete plants do not have Scope 1 emissions. Fuel consumption due to the transportation are not given because the transportation activity is outsourced. |

**8.5**

**Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions 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% | Assumptions<br>Metering/ Measurement Constraints | Uncertainty surrounding the calculation of published emissions factors. | Less than or equal to 2% | Metering/ Measurement Constraints | Uncertainty surrounding the calculation of published emissions factors and also electricity measuring devices. |

**8.6**

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

No third party verification or assurance

**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**

| Type of verification or assurance | Relevant standard | Attach the document |
|---|---|---|
| | | |

**8.6c**

**Please provide further details of the regulatory regime to which you are complying that specifies the use of Continuous Emissions Monitoring Systems (CEMS)**

| Regulation | % of emissions covered by the system | Compliance period | Evidence of submission |
|---|---|---|---|
| | | | |

**8.7**

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

No third party verification or assurance

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

| Type of verification or assurance | Relevant standard | Attach the document |
|---|---|---|
| | | |

**8.8**

**Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?**

No

8.8a

Please provide the emissions in metric tonnes CO2

## Page: 9. Scope 1 Emissions Breakdown - (1 Jan 2012 - 31 Dec 2012)

**9.1**

**Do you have Scope 1 emissions sources in more than one country?**

No

**9.1a**

**Please complete the table below**

| Country/Region | 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 emissions (metric tonnes CO2e) |
|---|---|
| | |

**9.2b**

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

| Facility | Scope 1 emissions (metric tonnes CO2e) | Latitude | Longitude |
|---|---|---|---|
| Büyükçekmece plant | 1601415.38 | | |
| Çanakkale plant | 3574636.30 | | |
| Ladik plant | 557428.69 | | |

**9.2c**

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

| GHG type | Scope 1 emissions (metric tonnes CO2e) |
|---|---|

**9.2d**

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

| Activity | Scope 1 emissions (metric tonnes CO2e) |
|---|---|

**9.2e**

**Please break down your total gross global Scope 1 emissions by legal structure**

| Legal structure | Scope 1 emissions (metric tonnes CO2e) |
|---|---|

**Further Information**

**The geo data are given below :**
Büyükçekmece plant coordinates : **35 T / X: 4542402 Y: 0631075**
Çanakkale plant coordinates :**27 / X: 4413185 Y: 435463**
Ladik plant coordinates **X: 4627444 Y: 475392**

## Page: 10. Scope 2 Emissions Breakdown - (1 Jan 2012 - 31 Dec 2012)

**10.1**

**Do you have Scope 2 emissions sources in more than one country?**

No

**10.1a**

**Please complete the table below**

| Country/Region | Scope 2 metric tonnes CO2e | Purchased and consumed electricity, heat, steam or cooling (MWh) | Purchased and consumed low carbon electricity, heat, steam or cooling (MWh) |
|---|---|---|---|

**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 emissions (metric tonnes CO2e) |
|---|---|

10.2b

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

| Facility | Scope 2 emissions (metric tonnes CO2e) |
|---|---|
| Büyükçekmece plant | 109368.05 |
| Çanakkale plant | 142205.47 |
| Ladik plant | 47259.43 |

10.2c

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

| Activity | Scope 2 emissions (metric tonnes CO2e) |
|---|---|

10.2d

Please break down your total gross global Scope 2 emissions by legal structure

| Legal structure | Scope 2 emissions (metric tonnes CO2e) |
|---|---|

## Page: 11. Energy

### 11.1

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

More than 5% but less than or equal to 10%

### 11.2

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

| Energy type | MWh |
|---|---|
| Fuel | 6313000 |
| Electricity | 741 |
| Heat | 0 |
| Steam | 0 |
| Cooling | 0 |

### 11.3

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

| Fuels | MWh |
|---|---|
| Other: Fossil fuels | 5984661 |

| Fuels | MWh |
|---|---|
| Other: Alternative fuels from waste | 328358 |

**11.4**

**Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor**

| Basis for applying a low carbon emission factor | MWh associated with low carbon electricity, heat, steam or cooling | Comments |
|---|---|---|
| Non-grid connected low carbon electricity generation owned by company, no instruments created | 83 | 15MW capacity waste heat power generation plant is installed in Çanakkale plant,; it recovers waste heat generated from clinker production and turns it to the electricity by a turbine.Thus, it saves up to 30% of Çanakkale plant electricty need. During the reporting year our on-site renewable installation in Çanakkale, generated 83 MWh which were entirely consumed for our internal production processes. |

**Further Information**

Çanakkale waste heat power generation plant has been first in Turkish cement industry, and nominated as Best Available Sustainable Practices in UN Rio+20 summit. For the details of the practices please find here the link of the broshure.
http://www.surdurulebilirkalkinma.gov.tr/PortalDesign/PortalControls/WebIcerikGosterim.aspx?Enc=83D5A6FF03C7B4FCCA625F5B009861F6

## Page: 12. Emissions Performance

**12.1**

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

Decreased

**12.1a**

**Please complete the table**

| Reason | Emissions value (percentage) | Direction of change | Comment |
|---|---|---|---|
| Emissions reduction activities | 1 | Decrease | Gross Scope 1+2 emission has been reduced because - The clinker incorporation rate has been decreased. - The substitution rate of alternative fuels has been increased from 4,8% to 5,2 - The electricity consumption has been lowered thanks to the waste heat power generation plant in Çanakkale plant. |
| Divestment | | | |
| Acquisitions | | | |
| Mergers | | | |
| Change in output | | | |
| Change in methodology | | | |
| Change in boundary | | | |
| Change in physical operating conditions | | | |
| Unidentified | | | |
| Other | | | |

**12.2**

**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 |
|---|---|---|---|---|---|
| 0.0057 | metric tonnes CO2e | unit total revenue | 5 | Decrease | Total revenue has increased, also Scope 1+2 emissions have been decreased because of the reasons explained above. |

**12.3**

**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 |
|---|---|---|---|---|---|
| 5395.62 | metric tonnes CO2e | FTE employee | 0.42 | Decrease | FTE has very slightly increased, but Scope 1+2 emissions have been decreased because of the reasons explained above. |

**12.4**

**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 |
|---|---|---|---|---|---|
| 0.880 | metric tonnes CO2e | Other: Tonne of clinker produced | 0.73 | Decrease | The clinker production has been increased by 0.05% and Scope 1 emissions have been decreased by 0.2% thanks to lower clinker incorporation rate and to the increase in the substitution rate of alternative fuels from 4.8% to 5.2. |

## Page: 13. Emissions Trading

**13.1**

**Do you participate in any emissions trading schemes?**

No, but we anticipate doing so in the next 2 years

13.1a

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 |
|---|---|---|---|---|---|
| | | | | | |

**13.1b**

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

In Turkey, we do have only voluntary emission trading system for now. We are in the verification of Gold Standard VER Carbon Credit process with our Çanakkale Waste Heat Power Generation Plant. You may find the project among the VER listed projects.

However,Turkey is now working in the Partnership for Market Readiness Program for the emission trading system.
As Akçansa, based on the decision of the Ministry of Environment for the selection of pilot industries, if the cement industry is invited, we will be looking to be a pilot company.

Based on the regulation, only our cement business line should be complying with the schemes.

**13.2**

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

No

13.2a

Please complete the 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 |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

## Page: 14. Scope 3 Emissions

**14.1**

**Please account for your organization's Scope 3 emissions, disclosing and explaining any exclusions**

| Sources of Scope 3 emissions | Evaluation status | metric tonnes CO2e | Methodology | Percentage of emissions calculated using primary data | Explanation |
|---|---|---|---|---|---|
| Purchased goods and services | | | | | |
| Capital goods | | | | | |
| Fuel-and-energy-related activities (not included in Scope 1 or 2) | | | | | |
| Upstream transportation and distribution | Relevant, not yet calculated | | | | It is out of the boundary |
| Waste generated in operations | Not relevant, explanation provided | | | | We do not generate waste, the waste are used as alternative raw materials and alternative fuel in cement plants. |
| Business travel | Relevant, not yet calculated | | | | |
| Employee commuting | | | | | |
| Upstream leased assets | | | | | |
| Investments | | | | | |
| Downstream transportation and | | | | | |

| Sources of Scope 3 emissions | Evaluation status | metric tonnes CO2e | Methodology | Percentage of emissions calculated using primary data | Explanation |
|---|---|---|---|---|---|
| distribution | | | | | |
| Processing of sold products | | | | | |
| Use of sold products | | | | | |
| End of life treatment of sold products | | | | | |
| Downstream leased assets | | | | | |
| Franchises | | | | | |
| Other (upstream) | | | | | |
| Other (downstream) | | | | | |

**14.2**

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

No emissions data provided

**14.2a**

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

**14.2b**

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

| Type of verification or assurance | Relevant standard | Attach the document |
|---|---|---|
| | | |

**14.3**

**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

**14.3a**

**Please complete the table**

| Sources of Scope 3 emissions | Reason for change | Emissions value (percentage) | Direction of change | Comment |
|---|---|---|---|---|
| | | | | |

**14.4**

**Do you engage with any of the elements of your value chain on GHG emissions and climate change strategies? (Tick all that apply)**

Yes, our customers

**14.4a**

**Please give details of methods of engagement, your strategy for prioritizing engagements and measures of success**

We are committed to supply low carbon products.

14.4b

**To give a sense of scale of this engagement, please give the number of suppliers with whom you are engaging and the proportion of your total spend that they represent**

| Number of suppliers | % of total spend | Comment |
|---|---|---|

14.4c

**If you have data on your suppliers' GHG emissions and climate change strategies, please explain how you make use of that data**

| How you make use of the data | Please give details |
|---|---|

14.4d

**Please explain why not and any plans you have to develop an engagement strategy in the future**

## 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 Gürdal
General Manager

**CDP 2013 Investor CDP 2013 Information Request**