Module: Introduction

Page: Introduction

CC0.1

Introduction
Please give a general description and introduction to your organization.

Company profile :
Akcansa joint venture of Sabancı Holding and HeidelbergCement is the bigggest cement producer of Turkey, and leader company of the industry. Akcansa was established with the merger of Akçimento (established in 1967) and Çanakkale Çimento (established in 1974) in 1996. Active in the Marmara, Aegean and Black Sea Regions, Akçansa produces cement and clinker in its three factories located in İstanbul-Büyükçekmece, Çanakkale and Samsun-Ladik. The Company also has five cement terminals. Akcansa provides service under the “Betonsa” brand to produce and sell ready-mixed concrete in over 35 plants throughout the Marmara and Aegean regions, and aggregate under the “Agregasa” brand in its 4 aggregate plants.
As the leader of the Turkish cement industry, Akçansa supplies 10% of our country’s cement demand and 12,5% of the country’s total cement and clinker exports. In addition to being identified as an environmentally friendly company with the award given by the Istanbul Chamber of Commerce, the Company maintains its leadership position through its outstanding service approach and its facilities that are equipped with the latest technology.

Sustainability strategy :
Akcansa vision is to maintain sustainable growth beyond all limits in the building materials industry and to be trusted by all our stakeholders and to have the most preferred business model. The mission is to create value for
our customers through the use of our innovative products, services and solutions, our stakeholders with our outstanding financial performance, our employees who form the focus point of our business model by providing constant improvement opportunities through our culture that is committed to upholding social, environmental, legal and ethical values.
The Board of Directors and the Executive Committee is highly engaged in sustainability policy and Akcansa 2020 Sustainability ambitions focused on 6 pillars defined with the guidance of World Business Council for Sustainable Development (WBCSD) Cement Sustainability Initiative (CSI) key actions and our local stakeholder priorities. These pillars are namely occupational health and safety, sustainable supply chain management, promoting biodiversity, protecting the climate and the environment, sustainable construction and stakeholder engagement. We have defined precise targets for these pillars in the Akcansa Sustainability Ambitions, which we intend to achieve by 2020.
In 2015 Akcansa top management decided to join CDP Road to Paris project to commit to responsible corporate engagement in climate policy.

Sustainability management:

Akcansa Sustainability Committee, directly reporting to the Executive Committee and indirectly to the Board of Directors, led by the Technical Director (member of Executive Committee) is in charge of the management and control of the sustainability and climate protection strategy. The committee is made up of people from various business lines and disciplines: Health&Safety, Purchasing, Raw materials&Environment, R&D, Communication and Human Resources. Operational responsibility for implementing the sustainability and climate protection goals and measures lies with the individual departments, the line managers and the employees. It was set up in 2009 with the aim of improving our performance in environmental protection and occupational safety and promoting the information between the business lines. Due to the large quantities of fuel used during the cement manufacturing process and the release of carbon dioxide from the raw materials, cement production generates more carbon emissions than any other industrial process. That is why climate protection is at the heart of our environmental policy. We have been striving for many years to minimise our CO2 emissions. Akcansa target is to reduce specific net CO2 emissions down to 845 kgCO2/ton clinker by 2015, and 830 kgCO2/ton clinker by 2020.

For further information about the company and its organization, please visit www.akcansa.com.tr and see 2014 annual report.

CC0.2

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
Wed 01 Jan 2014 - Wed 31 Dec 2014

CC0.3

Country list configuration

Please select the countries for which you will be supplying data. If you are responding to the Electric Utilities module, this selection will be carried forward to assist you in completing your response.

Select country
Turkey

CC0.4

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

CC0.6

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 sub-industries, companies in the oil and gas sub-industries, companies in the information technology and telecommunications sectors and companies in the food, beverage and tobacco industry group should complete supplementary questions in addition to the main questionnaire.
If you are in these sector groupings (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@cdp.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.cdp.net/en-US/Programmes/Pages/More-questionnaires.aspx.

Further Information

Please kindly find attached Akcansa 2014 Annual Report (in English) for further information about the company.

Attachments

https://www.cdp.net/sites/2015/33/35233/Climate Change 2015/Shared Documents/Attachments/ClimateChange2015/CC0.Introduction/2014 Akcansa Annual Report.pdf

Module: Management

Page: CC1. Governance

CC1.1

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

Board or individual/sub-set of the Board or other committee appointed by the Board

CC1.1a

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

Our Chairman of the Board Hakan Gürdal and Managing Board Member Daniel Gauthier are the highest level individuals with direct responsibility for all issues relating to environmental sustainability and climate
change.
The Chairman is monthly informed by Akcansa General Manager Mehmet Hacıkamiloglu about the developments on sustainability actions of Akcansa. The developments are periodically tracked and reported by the Sustainability Committee. On the other hand every two weeks Mr. Gauthier , and in HeidelbergCement at group level, is briefed on the developments on emissions reductions in the Group and on political and scientific developments outside our Group but of interest for us by the director Global Environmental Sustainability (Mr. Lukas). Mr. Gauthier reports on regular basis to the Management Board, normally once in a month but if needed more often. As far as climate change is concerned, Mr. Gauthier is responsible to review the progress and status of Green House Gas emissions reduction at HeidelbergCement. He is informed by the Group CO2 Coordinator who is assisted by CO2 coordinators for each region and CO2 coordinators responsible for each Member State of the European Union. In an online database the performance of each installation in the EU is monthly updated and reported to the Managing Board.

CC1.2

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

Yes

CC1.2a

Please provide further details on the incentives provided for the management of climate change issues

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
All employees	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction project Energy reduction target Efficiency project Efficiency target	Executive Committe Members, business unite managers and engineers receive monetary reward if they achieve their industrial and operational performance objectives according to the company CO2 reduction related targets such as clinker/cement substitution rate, use of alternative fuels rate, and energy efficiency.
Board/Executive board	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction project Energy reduction target Efficiency project Efficiency target	Board Members and Executive Committe Members monetary reward if if the overall performance of the Group CO2 related targets are achieved.

Further Information

Page: CC2. Strategy

CC2.1

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

CC2.1a

Please provide further details on your risk management procedures with regard to climate change risks and opportunities

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
Six-monthly or more frequently	Board or individual/sub-set of the Board or committee appointed by the Board	Akcansa operated in different locations in Turkey, all operational areas are considered.	> 6 years	Akcansa's solution strategies for the global climate change are shaped by the Corporate Governance Committee that directly reports to our Board of Directors. As a Heidelberg Cement group company, in Akcansa, risk reports for all business lines are presented to the Group Managing Board on a quarterly basis within the framework of central management reporting to ensure that risks are monitored in a structured and continuous way. Correlations between individual risks and events are considered at local level as far as possible. The process of regular identification is supplemented with an ad-hoc risk report in the event of the sudden occurrence of serious risks or of sudden damage caused. HC Supervisory Board and its Audit Committee also review the effectiveness of the risk management system on a regular basis.

CC2.1b

Please describe how your risk and opportunity identification processes are applied at both company and asset level

Akcansa risk strategy on climate change is shaped by the Corporate Governance Committee directly reporting to the Board of Directors. Operations, energy procurement, environment,H&S,risk departments in line with sustainability ambitions ensure an effective coordination. In 2014 Akcansa implemented a new

framework to evaluate its all risks. Akcansa invest to keep environmental effects minimum, energy investments are done; fossil fuels are replaced with AFR. Insurance program covers all environmental effects and pollutions. Akcansa risk policy is based on safeguarding the Group's existence and sustainably increasing its value. The Group's risk catalogue considers financial, strategic, operational, as well as legal and compliance risks. Opportunity and risk management is closely linked by Group-wide planning and monitoring systems. Opportunities are recorded in the annual operational plan and followed in monthly financial reporting. Risk identification is performed regularly by the country management and by Group Internal Audit and Group Insurance&Corporate Risk Department. Correlations between individual risks and events are considered at asset level as far as possible. Group's risk is assessed via the consolidated examination of all major compound and individual risks by the Managing Board, supported by the Group Insurance&Corporate Risk Department. Risk reports for all business lines are presented to the Managing Board on a quarterly basis. It is supplemented with an ad-hoc risk report on asset and company level in the event of the sudden occurrence of serious risks or of sudden damage caused. The Group Insurance& Corporate Risk Department is responsible for coordinating the risk management processes. It summarizes all significant quantitative and qualitative risks for assets/plants, countries and Group functions on a quarterly basis in a central risk map. The Group Internal Audit Department examines risk management to increase risk awareness

CC2.1c

How do you prioritize the risks and opportunities identified?

We prioritize the risks according to the qualitative and quantitative effects. Opportunities are managed in the same manner by the Business Strategy unit.The quantitative one are represented as an expected value in monetary figures. Qualitative effects are managed according to the severity and probability of occurrence. Our procedure is in compliance with the HeidelbergCement Risk Management Guidelines and ISO 31000. The risks and opportunities are presented to Risk Committee every two months, to HC (QMM risks) and Sabancı (compliance risks) every quarter. Akcansa applies Group's risk catalogue which considers financial, strategic, operational, legal and compliance risks. Climate change related risks include sales and market risk, substitution of products, volatility of energy and raw material prices, availability of raw materials and additives, environmental regulatory risks, sustainability and compliance risks. Thresholds are established by the individual countries, taking into account their specific circumstances. According to the Group's risk model and the defined risk category, the risks are assessed with reference to a minimum probability of occurrence of 10% and their potential extent of damage on key parameters. Opportunities are assessed based on their positive impact on the same key parameters. These are used as a benchmark and include operating income, profit after tax, and cash flow. They are prioritized in the quarterly management meetings, where the Managing Board and country managers discuss and determine appropriate measures. The Managing Board and country managers will be supported in the future by specific risk management working groups for the clarification of specific issues and exchange of information. With regard to climate change related risks and opportunities the substitution of raw materials, increased use of alternative fuels, the development of alternative binder concepts and special products have been identified as priority areas.

CC2.1d

Please explain why you do not have a process in place for assessing and managing risks and opportunities from climate change, and whether you plan to introduce such a process in future

Main reason for not having a process	Do you plan to introduce a process?	Comment

CC2.2

Is climate change integrated into your business strategy?

Yes

CC2.2a

Please describe the process of how climate change is integrated into your business strategy and any outcomes of this process

In order to tackle with climate change Akçansa is committed to reduce CO2 emissions. Akçansa adopts, as suggested by WBCSD Cement Sustainability Initiative, a tripartite strategy composed of energy efficiency in production, preferring alternative energy sources, focusing on low-clinker content products developed with alternative raw materials. The outcomes are energy efficiency obtained at the plants, new products provided to the market, ressource efficiency, shifting to the alternative fuels instead of fossil fuel.
Akçansa with this clear strategy target to create leadership and awareness in the construction materials market and cement market in Turkey.

CC2.2b

Please explain why climate change is not integrated into your business strategy

CC2.2c

Does your company use an internal price of carbon?

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

CC2.2d

Please provide details and examples of how your company uses an internal price of carbon

CC2.3

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

Direct engagement with policy makers
Trade associations
Other

CC2.3a

On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
Mandatory carbon reporting	Support	Akçansa engages in contributing in the issuance of mandatory carbon reporting regulation which includes cement industry emission reporting. Akçansa environmental department contributes in the preparation of the content of the reporting guideline, to ensure cement industry calculates and report in a correct method.	The Turkish MRV regulation has been issued. Verification will be processed in 2016.
Other: Carbon Market	Neutral	Turkey profits from a World Bank funding on Carbon Market Market Readiness Partnership program (PMR). Akcansa support the Ministry of Environment and Urbanism on the implementation of this pilot program	No legislative solution yet
Energy efficiency	Support	Akcansa support the energy efficiency policy, and position itself in leveraging the industry by promoting the best practices at public speeches and seminars.	There are energy efficiency related regulations, no further proposal yet.

CC2.3b

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

CC2.3c

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?

CC2.3d

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

CC2.3e

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

CC2.3f

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

CC2.3g

Please provide details of the other engagement activities that you undertake

Akçansa is closely working with the technical universities (İTÜ, Sabancı Üniversity) and R&D institute TÜBİTAK to create and to optimize low carbon product and ressource efficiency solutions.

CC2.3h

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?

Akçansa puts 2020 sustainability ambitions which covers CO2 reduction, low carbon product, Environmental Product Declaration targets, which provide clear direction for the activities.
Executive committee and the sustainability committee periodically check the progress. The results are shared with the stakeholders through sustainability report available on Akçansa web site.

Additionally, all personal targets available in the scorecards are connected to the corporate sustainability targets.

CC2.3i

Please explain why you do not engage with policy makers

CC2.4

Would your organization's board of directors support an international agreement between governments on climate change, which seeks to limit global temperature rise to under two degree Celsius from pre-industrial levels in line with IPCC scenarios such as RCP2.6?

Yes

CC2.4a

Please describe your board's position on what an effective agreement would mean for your organization and activities that you are undertaking to help deliver this agreement at the 2015 United Nations Climate Change Conference in Paris (COP 21)

A global wide and strong consensus covering common but differentiated responsibilities of all parties to combat climate change is in the interest of the Turkish private sector. An inclusive and fair consensus is vital. Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, developed country Parties should take the lead in combating climate change and the adverse effects thereof. In accordance with the principles of the Convention, the extent to which developing country Parties will effectively implement their commitments under the Convention will depend on the effective implementation by developed country Parties of their commitments under the Convention related to financial resources and transfer of technology and will take fully into account that economic and social development and poverty eradication are the first and overriding priorities of developing country Parties.

Further Information

Page: CC3. Targets and Initiatives

CC3.1

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

Intensity target

CC3.1a

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

CC3.1b

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
Int1	Scope 1	100%	7.5%	Other: kg CO2/ton of clinker	1990	941	2015	The longterm target is 2020.

CC3.1c

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
Int1	Decrease	5	No change	0	Akçansa installed a new cement kiln line over the years and also bought a new cement plant which resulted in an increased production capacity, therefore there is an increase in absolute value compared to 1990.

CC3.1d

For all of your targets, please provide details on the progress made in the reporting year

ID	% complete (time)	% complete (emissions)	Comment
Int1	90%	65%	

CC3.1e

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

CC3.2

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

Yes

CC3.2a

Please provide details of how the use of your goods and/or services directly enable GHG emissions to be avoided by a third party

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, Environmental Product Declarations are approved and shared with the stakeholders through our web site.

CC3.3

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

CC3.3a

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	2	
To be implemented*		
Implementation commenced*		
Implemented*	14	32848
Not to be implemented		

CC3.3b

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)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
Low carbon energy installation	Waste heat recovery power generation plant	45000		Voluntary	17540722	40000000	1-3 years	21-30 years	
Energy efficiency: Processes	Replacement in electrical equipment with efficient types, use of frequency convertors (14 projects at 3 plants)	32848		Voluntary	2007089	5602000	1-3 years	21-30 years	

CC3.3c

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	The employees performance is evaluated and awarded by the success of the key perfmance indicators like energy efficiency, AFR, clinker/cement ratio targets resulting in CO2 reduction

CC3.3d

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

Further Information

Page: CC4. Communication

CC4.1

Have you published information about your organization'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	Status	Page/Section reference	Attach the document
In voluntary communications	Underway - previous year attached	pp 7-8 / Progress in 2020 Sustainability Ambitions	https://www.cdp.net/sites/2015/33/35233/Climate Change 2015/Shared Documents/Attachments/CC4.1/AKC surdurulebilirlik rpr-31114-ing.pdf
In other regulatory filings	Underway - previous year attached	In the MRV monitoring plans 2013 figures are reported.	https://www.cdp.net/sites/2015/33/35233/Climate Change 2015/Shared Documents/Attachments/CC4.1/Büyükçekmece Monitoring Plan.pdf
In other regulatory filings	Underway - previous year attached	In the MRV monitoring plans 2013 figures are reported.	https://www.cdp.net/sites/2015/33/35233/Climate Change 2015/Shared Documents/Attachments/CC4.1/Çanakkale Monitoring Plan.pdf
In other regulatory filings	Underway - previous year attached	In the MRV monitoring plans 2013 figures are reported.	https://www.cdp.net/sites/2015/33/35233/Climate Change 2015/Shared Documents/Attachments/CC4.1/Ladik Monitoring Plan.pdf

Further Information

Module: Risks and Opportunities

Page: CC5. Climate Change Risks

CC5.1

Have you identified any inherent climate change risks 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

CC5.1a

Please describe your inherent risks that are driven by changes in regulation

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
International agreements	Turkey is in the position of delivering National Climate Change statements to COP21 Paris, the agreement might create further limitations and/or investments.	Increased capital cost	3 to 6 years	Direct	Likely	High	If not correctly managed, it may result in the decrease in production capacity.	The management of these risks is integrated into our multidisciplinary companywide risk management processes. The risk minimization is also supported with policy engagement actitivites : - Contribution in Correct calculation of GHG reduction capacities - Lobbying in regulations which will ensure higher accessibility of low carbon and/or biomass type alternative fuels in the market, which will substitute fossil fuels. The investments are done and planned for low carbon operation.	- Human ressource cost - R&D cost - Energy efficiency projects
Cap and trade schemes	In Turkey there is no regulation or requirement for ETS. The ministry has been working on still capacity building and	Increased operational cost	Unknown	Direct	More likely than not	Low-medium	Since there is no ETS system ever in Turkey, the financial implications is not known yet.	The management of these risks is integrated into our multidisciplinary companywide risk management processes. The risk	- Human ressource cost - R&D cost - Energy efficiency projects

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	impact analysis. In case and ETS system is in plance cap and trade schemes bear the potential risk to buy emission allowances in case there is no exemption rule applicable or production volumes exceed free allocation. The magnitude of risk is mainly depending on the market price for allowances, the volume of free allocation and our cement production volume.						With the help of PMR pilot project we might have the possibility to study these implications	minimization is also supported with policy engagement actitivites : - Contribution in Correct calculation of GHG reduction capacities - Lobbying in regulations which will ensure higher accessibility of low carbon and/or biomass type alternative fuels in the market, which will substitute fossil fuels. The investments are done and planned for low carbon operation.	
Other regulatory drivers	Fuel, energy and other regulatory arrangements are under discussion.	Increased operational cost	3 to 6 years	Indirect (Supply chain)	Likely	Low-medium	Not calculated	The management of these risks is integrated into our multidisciplinary companywide risk management processes.	
Product labelling regulations	Requirement for Environmental Product	Reduced demand for goods/services	1 to 3 years	Indirect (Supply chain)	Likely	Low	- Label certification and approval	Akçansa is mostly prepared for product labeling i.e.	Certification cost

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
and standards	Declaration.						costs	Environmental Product Declaration certified by IBU Institute. Akçansa JV of HeidelbergCement is also uses internal software for LifeCycle Assessement developed for cement and concrete.	

CC5.1b

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

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Change in mean (average) temperature	Cement production highly depends on natural resources as raw materials and water use.	Increased operational cost	1 to 3 years	Indirect (Supply chain)	Likely	Medium-high	Higher operational cost	- Research on other alternative ressouces, R&D studies are conducted with the universities and institutes. - Alternative water sources are studies i.e. seawater desalination plants. - Wastewater recovery systems are already installed	- R&D cost - Operational cost

CC5.1c

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

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
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	3 to 6 years	Indirect (Client)	About as likely as not	Medium	- Decrease in the interest of sustainable investors	The management of these risks is integrated into our multidisciplinary companywide risk management processes. On the other hand Akcansa puts "Stakeholder engagement" under of the 6 key sustainability pillar. Akçansa is positioning itself not only as a cement/concrete producer but also as waste recycler, energy recovery solution provider, sustainable construction solution provider.	- Marketing, stakeholder engagement activities

CC5.1d

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

CC5.1e

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

CC5.1f

Please explain why you do not consider your company to be exposed to inherent 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

Further Information

Page: CC6. Climate Change Opportunities

CC6.1

Have you identified any inherent climate change opportunities 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

CC6.1a

Please describe your inherent opportunities that are driven by changes in regulation

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
International agreements	Akçansa with the future international agreements, will switch to a low carbon economy model.	Reduced operational costs	3 to 6 years	Direct	Likely	Medium-high	- Investment cost for the changes in the plant equipment - Higher interests with new and products	New product designs	R&D costs Labelling certification costs Some additional changes in the plant
	Akçansa with this driver, can apply Life Cycle Analysis approach. By this way, may optimize its operations.	Reduced operational costs	1 to 3 years	Indirect (Supply chain)	Likely	Medium	- Investment cost for the changes in the plant equipment - Higher interests with new and products	New product designs	R&D costs Labelling certification costs Some additional changes in the plant
Cap and trade schemes	Low carbon and environmental friendly projects and applications provide advantage in tax compensation.	New products/business services	3 to 6 years	Direct	Likely	Medium	- Investment cost for the changes in the plant equipment	New product designs	R&D costs Labelling certification costs Some additional changes in the plant

CC6.1b

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

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
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.	Reduced operational costs	1 to 3 years	Direct	Likely	Medium-high	Lower water cost	Producing own water by sea water desalination plant	- 5 mio Euro

CC6.1c

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

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Reputation	Akçansa's committement for climate change adaptation and mitigation activities will impact the reputation among stakeholders.	Wider social benefits	3 to 6 years	Indirect (Client)	Likely	Medium	Higher interest of stakeholders	Communication of climate change initiatives Leadership in the market Awareness raising activities	Ressource cost

CC6.1d

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

CC6.1e

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

CC6.1f

Please explain why you do not consider your company to be exposed to inherent 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

Further Information

Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading

Page: CC7. Emissions Methodology

CC7.1

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

Scope	Base year	Base year emissions (metric tonnes CO2e)
Scope 1	Sat 31 Dec 2011 - Mon 31 Dec 2012	5660019
Scope 2	Sat 31 Dec 2011 - Mon 31 Dec 2012	306419

CC7.2

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
WBCSD: The Cement CO2 and Energy Protocol

CC7.2a

If you have selected "Other" in CC7.2 please provide details of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

N/A

CC7.3

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

Gas	Reference
CO2	Other: UNFCC

CC7.4

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

Fuel/Material/Energy	Emission Factor	Unit	Reference
Petroleum coke	97.5	Other: tCO2/Tj	IPCC
Lignite	101	Other: tCO2/Tj	IPCC
Natural gas	56.1	Other: tCO2/Tj	IPCC
Waste oils	73.3	Other: tCO2/Tj	IPCC
Waste tire derived fuels	85	Other: tCO2/Tj	IPCC
Refuse-derived fuel	75	Other: tCO2/Tj	CSI
Other: Dried sewage sludge	110	Other: tCO2/Tj	IPCC
Diesel/Gas oil	74.1	Other: tCO2/Tj	IPCC
Other: Mixed industrial wastes	83	Other: tCO2/Tj	CSI
Other: Other fossil based wastes	80	Other: tCO2/Tj	CSI
Other: Paper	110	Other: tCO2/Tj	IPCC
Other: Heavy oil	77.4	Other: tCO2/Tj	IPCC
Other: Other bilge water	73.30	Other: tCO2/Tj	IPCC

Further Information

Page: CC8. Emissions Data - (1 Jan 2014 - 31 Dec 2014)

CC8.1

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

Operational control

CC8.2

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

5731050

CC8.3

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

320340

CC8.4

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

Yes

CC8.4a

Please provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure

Source	Relevance of Scope 1 emissions from this source	Relevance of Scope 2 emissions excluded from this source	Explain why the source is excluded
Ready mix concrete plants and aggregate plants are not included	No emissions from this source	Emissions are not relevant	This source does not emit Scope 1 emission, only Scope 2. Scope 2 (indirect energy use) is relatively very low compared to cement plants.

CC8.5

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	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	Less than or equal to 2%	Assumptions	Scope 1 emissions are reported based on calculations. But raw data used in the calculations such as coal use, clinker production etc. are continously measured and reported. Operational data are cross checked with financial reports as well.
Scope 2	Less than or equal to 2%	Assumptions Metering/ Measurement Constraints	Scope 2 emissions are reported based on electrical energy use and electricty emission factor calculations. Electrical energy values are continously measured and reported. Operational data are cross checked with financial reports as well. Turkey does not have any regional emission factor, therefore we are using EIA report Turkey emission factor.

CC8.6

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

Third party verification or assurance underway for the reporting year but not yet complete - last year's statement attached

CC8.6a

Please provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements

Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported Scope 1 emissions verified (%)
Limited assurance	https://www.cdp.net/sites/2015/33/35233/Climate Change 2015/Shared Documents/Attachments/CC8.6a/2014-11 statement 2013 independent limited assurance report.pdf	page 2f Akcansa CO2 emissions reports and related data are audited by PwC at Group level assurance process.	ISAE3000	80

CC8.6b

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

CC8.7

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

Third party verification or assurance underway for the reporting year but not yet complete - last year’s statement attached

CC8.7a

Please provide further details of the verification/assurance undertaken for your Scope 2 emissions, and attach the relevant statements

Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 2 emissions verified (%)
Limited assurance		Page 2f Akcansa CO2 emissions reports and related data are audited by PwC at Group level assurance process.	ISAE3000	80

CC8.8

Please identify if any data points have been verified as part of the third party verification work undertaken, other than the verification of emissions figures reported in CC8.6, CC8.7 and CC14.2

Additional data points verified	Comment
No additional data verified	

CC8.9

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

Yes

CC8.9a

Please provide the emissions from biologically sequestered carbon relevant to your organization in metric tonnes CO2

84019

Further Information

Page: CC9. Scope 1 Emissions Breakdown - (1 Jan 2014 - 31 Dec 2014)

CC9.1

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

No

CC9.1a

Please break down your total gross global Scope 1 emissions by country/region

Country/Region	Scope 1 metric tonnes CO2e

CC9.2

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

By facility

CC9.2a

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

Business division	Scope 1 emissions (metric tonnes CO2e)

CC9.2b

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

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
Büyükçekmece Plant	1636690	41.0118	28.3327
Çanakkale Plant	3506356	39.5156	26.1439
Ladik Plant	588004	40.5607	35.5306

CC9.2c

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

GHG type	Scope 1 emissions (metric tonnes CO2e)

CC9.2d

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

Activity	Scope 1 emissions (metric tonnes CO2e)

CC9.2e

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

Legal structure	Scope 1 emissions (metric tonnes CO2e)

Further Information

Page: CC10. Scope 2 Emissions Breakdown - (1 Jan 2014 - 31 Dec 2014)

CC10.1

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

No

CC10.1a

Please break down your total gross global Scope 2 emissions and energy consumption by country/region

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 accounted for in CC8.3 (MWh)

CC10.2

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

By facility

CC10.2a

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

Business division	Scope 2 emissions (metric tonnes CO2e)

CC10.2b

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

Facility	Scope 2 emissions (metric tonnes CO2e)
Büyükçekmece Plant	112092
Çanakkale Plant	152828
Ladik Plant	55421

CC10.2c

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

Activity	Scope 2 emissions (metric tonnes CO2e)

CC10.2d

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

Legal structure	Scope 2 emissions (metric tonnes CO2e)

Further Information

Page: CC11. Energy

CC11.1

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

More than 35% but less than or equal to 40%

CC11.2

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	6484444.44
Electricity	717814
Heat	11111
Steam	
Cooling	

CC11.3

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

Fuels	MWh
Petroleum coke	4550000
Other: coal	480833.33
Other: heavy fuel	11388.88
Natural gas	5555.55

Fuels	MWh
Lignite	873055.55
Waste tire derived fuels	180833.33
Waste oils	5833.33
Refuse-derived fuel	61666.66
Other: mixed industrial wastes	81111.11
Other: other wastes	7222.22
Other: Biomass like sewage sludge	227500

CC11.4

Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor in the Scope 2 figure reported in CC8.3

Basis for applying a low carbon emission factor	MWh associated with low carbon electricity, heat, steam or cooling	Comment
No purchases or generation of low carbon electricity, heat, steam or cooling accounted with a low carbon emissions factor	0	There is no electricity grid providing site specific emission factor in Turkey. On the other hand in our Çanakkale cement plant, we use electricity produced from the waste heat recovered. This accoundt 30% of the electrical energy need of Çanakkale cement plant. Therefore 30% of less electrical energy is taken from the grid.

Further Information

Page: CC12. Emissions Performance

CC12.1

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

Decreased

CC12.1a

Please identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year

Reason	Emissions value (percentage)	Direction of change	Comment
Emissions reduction activities	2	Decrease	There are lots of reduction activities such as higher use of alternative fuels, waste heat recovery, energy saving projects
Divestment	0	No change	Not applicable
Acquisitions	0	No change	Not applicable
Mergers	0	No change	Not applicable
Change in output	0	No change	Cement production volume is increased by
Change in methodology	0	No change	Not applicable
Change in boundary	0	No change	Not applicable
Change in physical operating conditions	0	No change	Not applicable
Unidentified	0	No change	Not applicable
Other	0	No change	Not applicable

CC12.2

Please describe your gross global 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
0.004	metric tonnes CO2e	unit total revenue	16	Decrease	Higher sales and higher revenue

CC12.3

Please describe your gross global 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
5198.79	metric tonnes CO2e	FTE employee	8	Decrease	Higher number of FTE

CC12.4

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
775	metric tonnes CO2e	Other: per tonne of cementitious product	0.90	Decrease	use of alternative raw material
873	metric tonnes	Other: per tonne of clinker	1.13	Decrease	use of alternative fuels, waste heat recovery,

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
	CO2e	production			energy saving projects

Further Information

Page: CC13. Emissions Trading

CC13.1

Do you participate in any emissions trading schemes?

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

CC13.1a

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

CC13.1b

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

Turkey is in the volunteer scheme, as Akçansa we are in the process of verification of Gold Standard carbon credits from Waste Heat Power Generation plant.

CC13.2

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

No

CC13.2a

Please provide details on the project-based carbon credits originated or purchased by your organization in the reporting period

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 cancelled	Purpose, e.g. compliance

Further Information

Page: CC14. Scope 3 Emissions

CC14.1

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

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Purchased goods and services	Not evaluated				
Capital goods	Not evaluated				
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Not relevant, calculated	13	Fuel consumption data is gathers, and IPPC diesel emission factor is used to calculate CO2 emission.		This figure covers only raw materials quarry yellow machines fuel consumption, extraction and transportation from the quarry to cement plants.
Upstream transportation and distribution	Not evaluated				Coal and other raw material purchase have not been evaluated .
Waste generated in operations	Not relevant, explanation provided				Most of the waste generated in the plants are co-incinerated in the cement plant itself, therefore waste related CO2 is negligable.
Business travel	Not evaluated				Business travel CO2 emissions have not been evaluated.
Employee commuting	Not relevant, calculated	2	Fuel consumption data is gathers, and IPPC diesel emission factor is used to calculate CO2 emission.	50.00%	
Upstream leased assets	Not evaluated				
Downstream transportation and distribution	Not evaluated				Sales transportation and distribution has not been evaluated.
Processing of sold products	Not evaluated				
Use of sold products	Not evaluated				
End of life treatment of sold products	Not evaluated				
Downstream leased assets	Not evaluated				
Franchises	Not relevant, explanation				Not applicable

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
	provided				
Investments	Not relevant, explanation provided				
Other (upstream)	Not evaluated				
Other (downstream)	Not evaluated				

CC14.2

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

No third party verification or assurance

CC14.2a

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

Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of Scope 3 emissions verified (%)

CC14.3

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

No, this is our first year of estimation

CC14.3a

Please identify the reasons for any change in your Scope 3 emissions and for each of them specify how your emissions compare to the previous year

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

CC14.4

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 suppliers
Yes, other partners in the value chain

CC14.4a

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

The engagement is in the beginning phase, it is for now limited to the collection and reporting of the data.
The correct and detailed data will be an important achivement at the first step.

CC14.4b

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
5	10%	The suppliers cover raw material supply

CC14.4c

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
We do not have any data	

CC14.4d

Please explain why you do not engage with any elements of your value chain on GHG emissions and climate change strategies, and any plans you have to develop an engagement strategy in the future

Further Information

Module: Sign Off

Page: CC15. Sign Off

CC15.1

Please provide the following information for the person that has signed off (approved) your CDP climate change response

Name	Job title	Corresponding job category
Mehmet Hacıkamiloğlu	General Manager	Board/Executive board

Further Information

CDP 2015 Climate Change 2015 Information Request