Climate Change 2016 - ÇİMSA ÇİMENTO SANAYİ VE TİCARET A.Ş.

Module: Introduction

Page: Introduction

CC0.1

Introduction

Please give a general description and introduction to your organization.

ÇİMSA is one of the industrial companies of Sabancı Group, Turkey's leading industrial and financial conglomerate. Sabancı Group companies are market leaders in their respective sectors that include financial services, energy, cement, retail and industrials. Listed on the Borsa Istanbul (BIST), Sabancı Holding has controlling interests in 12 companies that are also listed on the BIST.

Sabancı Group companies currently operate in 16 countries and market their products in regions across Europe, the Middle East, Asia, North Africa, North and South America. Having generated significant value and know-how in Turkey, Sabancı Holding has experienced remarkable growth in its core businesses. The Holding's reputation, brand image and strong joint ventures helped further extend its operations into the global market. Sabancı Holding's multinational business partners include such prominent companies as Ageas, Aviva, Bridgestone, Carrefour, Citi, E.ON, Heidelberg Cement and Philip Morris.

In addition to coordination of finance, strategy, business development and human resource functions, Sabancı Holding determines the Group's vision and strategies.

In 2014, the consolidated revenue of Sabancı Holding was TL 27.4 billion (US$ 12.5 billion) with operating profit of TL 5.1 billion (US$ 2.3 billion). The Sabancı Family is collectively Sabancı Holding's major shareholder with 57.7% of the share capital. Sabancı Holding shares are traded on the Borsa Istanbul with a free float of 40.1%, the largest float percentage among holding companies. Depository

receipts are quoted on the SEAQ International and PORTAL.
Çimsa has been established in Mersin in 1972. Clinker production capacity of Çimsa's facilities in Mersin, Kayseri, Eskisehir and Niğde, which started its activities in 1975 with its first production facility reached from 5 million tons to 5.5 million tons. Çimsa, by manufacturing special cements such as white cement and Calcium Aluminate Cement and innovative concretes besides grey cement, is leading the Turkish cement and ready-mixed concrete regarding innovation.

ÇİMSA is one of the pioneering companies on Sustainability in cement industry in Turkey. We are the first Turkish company becomes a member of WBCSD Cement Sustainability Initiative (CSI), published first GRI A+ Sustainability Report and first signatory of UN Global Compact in its sector in Turkey.ÇİMSA became the sponsor of CDP Turkey Climate Change Programme in 2016

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
Thu 01 Jan 2015 - Thu 31 Dec 2015

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

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

Climate Change is one of the most important subjects in sustainability management at Çimsa. The sustainability performance and the targets are particularly managed by a Sustainability Committee which reports to Board of Directors. The committee is led by the CEO and meets in every 3 months. Chief Technical Officer is the main responsible person for environmental aspects of sustainability and he is responsible for leading, monitoring and managing the sustainability committee and the action plans taken by the committee.

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
Board/Executive board	Monetary reward	Emissions reduction target Energy reduction target Efficiency target Behaviour change related indicator	In cement industry; emissions could be particularly reduced by 2 sources. The first one is to increase the ratio of additives to clinker and the other is to reduce energy emissions both by increasing the use of alternative fuels and energy efficiency. The Board is the main responsible of the performance driven by ÇİMSA and these 2 points are of their main KPIs. For example: energy reduction per ton of clinker, reducing the use of fossil fuels by increasing the use of alternative fuels, increase clinker cement ratio which directly affects the GHG emission because of the clinker incorporation rate, increase the use of alternative raw materials instead of naturel additives. ÇİMSA puts great importance to Sustainable Business Model, therefore behavioural change on Climate Change is one of the topics to be integrated both to core business and to corporate culture.

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
Other: CTO - Chief Technical Officer	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction project Energy reduction target Efficiency project Efficiency target Behaviour change related indicator	Chief Technical Officer is the main responsible person for environmental aspects of sustainability in ÇİMSA and she/he is responsible for leading, monitoring and managing the sustainability committee and the action plans taken by the committee. Energy reduction per ton of clinker, reducing the use of fossil fuels by increasing the use of alternative fuels, increase clinker cement ratio which directly affects the GHG emission because of the clinker incorporation rate, increase the use of alternative raw materials instead of natural additives are of main KPIs. Bonus is delivered as a monetary reward once a year according to the KPIs, therefore there is a monetary rewards for Climate Related issues for CTO.
Energy managers	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction project Energy reduction target Efficiency project Efficiency target Behaviour change related indicator	In cement industry; emissions could be particularly reduced by 2 sources. The first one is to increase the ratio of additives to clinker and the other is to reduce energy emissions both by increasing the use of alternative fuels and energy efficiency. Consequently; energy managers are the main responsible persons for energy and emission reduction issues. Energy reduction per ton of clinker, reducing the use of fossil fuels by increasing the use of alternative fuels, developing energy efficiency projects are of the KPIs which directly affects the GHG emissions. Bonus is delivered as a monetary reward once a year according to the KPIs, therefore there is a monetary rewards for Climate Related issues for Energy Managers.

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
Environment/Sustainability managers	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction project Energy reduction target Efficiency project Efficiency target Behaviour change related indicator	In cement industry; emissions could be particularly reduced by 2 sources. The first one is to increase the ratio of additives to clinker and the other is to reduce energy emissions both by increasing the use of alternative fuels and energy efficiency. Therefore; reducing the use of fossil fuels by increasing the use of alternative fuels,increase the use of alternative raw materials instead of naturel additives. Sustainability Reporting, Climate Change Management (including CDP- Climate Change and CDP-Water Reporting), environment and waste management legal compliance on environment are of main KPIs.
Facility managers	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction project Energy reduction target Efficiency project Efficiency target Behaviour change related indicator	ÇİMSA has more than one facilities for cement production and grinding. In each facility; Facility Managers are the main responsible persons for energy efficiency, emission reduction, waste management processes. For example; energy reduction per ton of clinker, reducing the use of fossil fuels by increasing the use of alternative fuels, increase clinker cement ratio which directly affects the GHG emission because of the clinker incorporation rate, increase the use of alternative raw materials instead of natural additives. Bonus is delivered as a monetary reward once a year according to the KPIs, therefore there is a monetary rewards for the performances of Facility Managers.
All employees	Monetary reward	Emissions reduction project Energy reduction project Efficiency project Efficiency target Behaviour change related indicator	ÇİMSA has a suggestion system for employee engagement and continuous improvement. Not only employees who have Environmental KPIs, but also all employees are included and encouraged to provide suggestions for improvements on Climate Change Management. The system is called "Idea Factory" and the suggestions are assessed by relevant experts on each topic. As a conclusion; ideas are assessed and the ones deemed worthy are rewarded cheques inline with the value added by their ideas.

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
All employees	Recognition (non-monetary)	Emissions reduction project Emissions reduction target Energy reduction project Energy reduction target Efficiency project Efficiency target Behaviour change related indicator	ÇİMSA has a suggestion system for employee engagement and continuous improvement. Not only employees who have Environmental KPIs, but also all employees are included and encouraged to provide suggestions for improvements on Climate Change Management. The system is called "Idea Factory" and the suggestions are assessed by relevant experts on each topic. As a conclusion; ideas are assessed and the ones deemed worthy are rewarded both by cheques and "Certificate of Appreciation". The certificate of appreciation is given in a meeting by Upper Management, therefore it also gives a recognition to the rewarded employee.

Further Information

Enclosed there is the procedure of Idea Factory (proposal system) which is mentioned at the answer of Q.1.2.a incentives relevant to climate change for all employees. The attached document is the original signed version in Turkish.

Attachments

Idea Factory Procedure.pdf

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

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	The main focus of interest, as geographical areas, is our country; Turkey. In the second circle; we evaluate the countries of export for our products and the countries of import for our raw materials.	> 6 years	Our company wide risks are assessed mainly by Board and our Corporate Risk Management Department. Ordinary risks assessed in 130 items, which also includes the Climate Change Management related risks. Some of the items could be both assessed in risk and opportunity aspect. Examples of the risk&opportunity items are; - Efficient use of energy, use of alternative resources, - Sufficiency of both R&D operations & projects and supportive actions&projects mutual for the environment, - Prevention of the physical effects of Climate Change, - Legal compliance on environment. Risk & Opportunity Management System is performed & revised annually and critical risks are tracked monthly.

CC2.1b

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

Company level Risk & Opportunity assessment processes could be divided into 2 main parts. The first one is driven by Çimsa, risks are assessed and monitored in a wide range of categories such as operational, environmental, compliance, competition, financial, sustainability, crisis management, etc. Our enterprise risk management process contains climate change risks integrated into the overall risk management activities. The second one is driven by Sabancı Group, which is the holding (parent company) of ÇİMSA.

In asset level; compliance with government regulations, reducing the financial effect about failure to comply with the law in environmental aspects are very important in Sabancı Group. In ÇİMSA risk & opportunities evaluated and tracked in asset level are;
- Efficient use of energy, use of alternative resources,
- Sufficiency of both R&D operations & projects and supportive actions&projects mutual for the environment,
- Prevention of the physical effects of Climate Change,
- Legal compliance on environment.

Risk & Opportunity Management System is performed & revised annually and critical risks are tracked monthly.

CC2.1c

How do you prioritize the risks and opportunities identified?

In order to keep our risk assessments up-to-date, a workshop is held yearly and the top management reviews Çimsa's risk map. They evaluate risks that company face, which consists of 130 identified risks in 2015, in terms of their probability and impact and then prioritize them. After identification of critical

risks, Key Risk Indicators (KRIs), their limits and responsible departments are set for monitoring purposes. These risks are monitored monthly and action plans are followed accordingly. Results are shared with a committee which has members from the board.
We evaluate each risk as an opportunity and we internalized the continuous improvement approach. We put effort to integrate the Climate Change Management to our core business processes and products. Having Environmental Product Declarations (EPDs) for our products is an example. The names of our products with EPD and the year of EPD issue are as follows: CEM IV / B(P)32,5R (in 2012) ISIDAÇ 40 - Calcium Aluminate Cement (in 2015) and Çimsa Super White - CEM I 52,5 R - White Portland Cement (in 2015). EPDs are attached at the 'Further Information' part.

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

Climate change is integrated into our company’s overall business strategy. Sustainability is one of the four main strategic objectives of the Company and it takes part in the Company's Mission Statement. Climate Change Management performance is followed as a part of this objective.

We do evaluate Climate Change Management Risks & Opportunities and integrate them into our core business activities. We develop our strategies, systems, processes and products inline with this. Beyond that we perform R&D activities on that purpose. We developed less pollutant (or emittant) and more environmental products. ÇİMSA is one of the pioneering companies, who has Environmental Product Declaration (EPD) in Turkey. Our product named CEM IV / B(P)32,5R. In addition to this product, Çimsa got two more EPDs to its products named ISIDAÇ 40 - Calcium Aluminate Cement and Çimsa Super White - CEM I 52,5 R - White Portland Cement in 2015. Environmental Product Declaration attached below could be examples.

Our Key Performance Indicators (KPIs) to follow up the climate change performance are alternative fuel rate, electricity consumption, clinker/cement ratio, kiln heat consumption, tCO2e/ton clinker, tCO2e/ton cementitious and absolute gross CO2e values.
They are followed at plant level individually, and consolidated for annual reporting at Çimsa Group level. These KPIs are keys to input in modelling for future scenarios.

Our strategy for climate change related initiatives are:

-Waste Heat Recuperation (WHR) investments (the waste heat recovery system put into use in April 2012 and the generation of electricity has been started. With the help of project, the waste gas coming from 1 st and 2 nd rotary kilns are transformed to electricity and WHR generates 20% of its electricity consumed in these two lines)

-Increasing the use of alternative fuels by HOTDISC System (The HOTDISC is a safe, simple and effective combustion device – a large, moving hearth furnace – integrated with the preheater and calciner systems. It has proven to be the best available technology for substituting calciner fuel with coarse alternative fuels. The HOTDISC combustion device provides the flexibility to burn all kinds of solid waste in sizes up to 1.2 metres in diameter, from sludge or grains to huge whole truck tyres. This eliminates the need for expensive shredding of lumpy waste material.) It is a unique technologic system, only used by Çimsa in Turkey.

-Improving energy efficiency and process technology
-Reduction in clinker/cement factor
-Cooperation with national and local authorities on environmental issues
-Stakeholder engagement

CC2.2c

Does your company use an internal price of carbon?

No, and we currently don't anticipate doing so in the next 2 years

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

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	The mandatory carbon reporting regulation in Turkey came into the force May 2014. The carbon monitoring plans of our cement plants were prepared and submitted to Ministry of Environment in September 2014. 01.01.2015-31.12.2015 was the first year of monitoring period. It was expected that by the end of the 2015; we would have prepared our GHG report and submit it to Ministry of Environment to be evaluated for compliance. But online reporting system had not been activated by Ministry of Environment until the end of 2015.	We supported the Mandatory Carbon Reporting legislation and took the necessary precautions and actions for full compliance. We are putting effort to determine the most accurate and efficient GHG Monitoring Methodology. On this purpose; we are working together with World Business Council of Sustainable Development - Cement Sustainability Initiative (WBCSD CSI) as a member. WBCSD CSI is one of the world's pioneering organization on sustainability in cement industry. Therefore we evaluate all the methodologies relevant to GHG Monitoring available for the best fit. We finalized our preparations for GHG reporting and ready. We are open and willing to share our accumulated experiences with legal authorities to access to the most accurate and efficient reporting system. In addition to that we are working together with Turkish Cement Manufacturers Association (TÇMB) on this purpose.
Other: Climate change adaptation	Support with minor exceptions	We express our opinion through Turkish Industry & Business Association (TUSİAD) Turkish Cement Manufacturers Association (TÇMB) about climate change. The mandatory carbon reporting regulation in Turkey came into the force 17th of May 2014. We engage with the policy makers to improve the implementation of the law. An example is given at the proposed solution part.	As ÇİMSA; we support the Climate Change Adaptation and Mandatory Carbon Reporting legislation with minor exception. The exception point was as follows: Turkey is an emerging economy, therefore its fragile economy should not be exposed to risks due to the limitation of production. Instead of that; the use of new technology, process improvements investments on renewable energy should be encouraged by more focusing on intensity targets rather than focusing on absolute targets. As an example for the improvement of the law; we propose to include the biomass sourced CO2e in GHG calculations.

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
Other: Emission Reduction via reducing the use of fossil fuels)	Support	Cement industry is an energy intensive industry and we aim to reduce the fossil fuel usage. Therefore we are willing to use Refuse Derived Fuel (RDF) as much as possible as an alternative fuel to fossil fuels which has a lower emission factor. At the current situation; the use of RDF (RDF consists both hazardous and non-hazardous wastes,) ratio as fuel is limited to 40% in terms of calorific value.	Together with Turkish Cement Manufacturers Association (TÇMB), our proposition is to abrogate the 40% restriction in terms of calorific value for the non-hazardous waste usage. The laws in EU is as mentioned above and it allows more use of RDF and less GHG emissions.

CC2.3b

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

Yes

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?
Turkish Cement Manufacturers Association (TÇMB)	Consistent	TCMA is a strong and an active association of cement manufacturing companies in Turkey. Beyond business wise topics it also started to guide and raise the awareness of its members on Sustainable Business. It tries to develop action plans for cement manufacturers.	The Vice Chairman of the Board and Chairman of the Sustainability Sub-Committee is a member of our Board and the Industry Group Head of Sabancı Holding. Therefore, we take an active role in pioneering the cement industry on sustainability in Turkey. Çimsa's Environment and Resource Recovery Manager is the chairman of the Waste Committee of TCMA. He shares his accumulated experience and fosters the use of alternative raw materials and alternative fuels which is important for reducing emissions at cement industry.

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?
Business and Sustainable Development Association	Consistent	Business & Sustainable Development Association is a part of global organization, World Business Council for Sustainable Development (WBCSD). It performs to foster sustainable development and raise the awareness. It tries to develop action plans for switching to Sustainable Business.	Çimsa is a member of Business and Sustainable Development Association and actively engage. Involve all the meetings and shares its opinions for decision making / action taking processes. Also provides feedbacks and vision on behalf of cement industry for the further plans.
Cement Sustainability Initiative	Consistent	Core members of the Cement Sustainability Initiative (CSI) include cement companies who are also members of the World Business Council for Sustainable Development (WBCSD). They manage the CSI, maintain the CSI Charter (which identifies company commitments and responsibilities), define and fund its work program, and invite new members. Reducing GHG emissions from cement production is a key focus of the CSI's work.	We engage with CSI and search for the solutions to mitigate and adapt to our Climate Change effects. We also discuss about legislations and also gather opinions from pioneering and peer companies all around the World.
Sabancı Holding	Consistent	Çimsa is a group company of Sabancı Holding and there is an Environment Committee established by the members from all Sabancı Group companies.	Çimsa is also a member and reflects its own and industries opinions. Common solutions are searched for environmental issues and legislations.
Association of Turkish Consruction Material Producers (IMSAD)	Consistent	IMSAD is a non-governmental organization representing the construction industry domestically and abroad. IMSAD sustainability committee focuses on environment, energy management, energy efficiency to develop climate change adaptation policies. Besides; it aims the coordination within the construction industry and performs to take the necessary actions on these issues in the name of industry. It works to raise awareness by informing its members. Çimsa is a member of Sustainability Committee which conducts above mentioned duties precisely..	Çimsa is also member and shares its own improvement works in sustainability meeting, contributes IMSAD sustainability report, follows all construction industry working about sustainability issues for sustainability world.

CC2.3f

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?

Our company strategy is to track the environmental legislation of climate change continuously and attend platforms such as, Climate Change Committees of Ministry of Environment, TÇMB (Turkish Cement Manufacturers Association) and Association of Turkish Construction Material Producers (IMSAD).

We take an active role in particular associations on sustainability, climate change and environmental pillars.
We develop common solution about environmental issues, share studies, learnings and enhancements in production processes; share targets about climate change inline with all companies related to the Sabancı Holding.

In cement industry, efforts are driven to decrease GHG emissions. Most important pillars are; reduction of kiln heat consumption, reduction of electricity consumption, increase of alternative fuels by reducing the use of fossil fuels and increase of cement additives.

Also Çimsa becomes the first and only Turkish company joining Cement Sustainability Initiative (CSI). As sustainability committee members, we take part in task forces of CSI since 2013.

Further Information

Attachments

EPD-Cimsa Super White - CEM I 52,5 R - White Portland Cement.pdf
EPD-Cimsa CEM IV B(P)32-5R.pdf
EPD-Cimsa ISIDAC 40 - Calcium Aluminate Cement.pdf

Page: CC3. Targets and Initiatives

CC3.1

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

Intensity target

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 covered by target	Target year	Is this a science-based target?	Comment

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions covered by target	Target year	Is this a science-based target?	Comment
Int1	Scope 1	94.13%	0.12%	Other: Metric tonnes CO2e per tonne of clinker	2015	0.864	2016	No, but we anticipate setting one in the next 2 years	We care energy & emission efficiency and put effort to decrease the intensity figure for emissions released per cement produced. Our intensity figure for 2015 is 0.864 metric tonnes CO2 / clinker and we aim to decrease it to 0.863 metric tonnes CO2 / clinker in 2016. That means 0.12 % decrease in intensity figure.

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions covered by target	Target year	Is this a science-based target?	Comment
Int2	Scope 1	94.13%	0.13%	Metric tonnes CO2e per tonne of cement*	2015	0.731	2016	No, but we anticipate setting one in the next 2 years	We care energy & emission efficiency and put effort to decrease the intensity figure for emission per cement. Our intensity figure for 2015 is 0.731 metric tonnes CO2 / cementitious and we aim to decrease it to 0.730 metric tonnes CO2 / cementitious in 2016. That means 0.13% decrease in intensity figure.

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

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	0.11	No change	0	Our intensity figure for 2015 is 0.864 metric tonnes CO2 / clinker and we aim to decrease it to 0.863 metric tonnes CO2 / clinker in 2016. That means 0.12 % decrease in intensity figure. This 0.12% mitigation will occur from our scope 1 emissions which is 3,357,105 metric tonnes CO2e. Our Scope 1 emissions are 3,357,105 metric tonnes CO2e. and Scope 2 is 209,071 metric tonnes CO2e. Our overall Scope 1+2 is 3,566,176 metric tonnes CO2e and the relevant mitigation means 4028 tCO2e in absolute emissions.. Anticipated change percentage in Scope 1+2 is 0.112%.
Int1	Decrease	0.12	No change	0	Our intensity figure for 2015 is 0.731 metric tonnes CO2 / cementitious and we aim to decrease it to 0.730 metric tonnes CO2 / cementitious in 2016. That means 0.13% decrease in intensity figure. This 0.13% mitigation will occur from our scope 1 emissions which is 3,357,105 metric tonnes CO2e. Our Scope 1 emissions are 3,357,105 metric tonnes CO2e. and Scope 2 is 209,071 metric tonnes CO2e. Our overall Scope 1+2 is 3,566,176 metric tonnes CO2e the relevant mitigation means 4364 tCO2e in absolute emissions. Anticipated change percentage in Scope 1+2 is 0.12%.

CC3.1e

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

ID	% complete (time)	% complete (emissions or renewable energy)	Comment

ID	% complete (time)	% complete (emissions or renewable energy)	Comment
Int1	100%	0%	Our intensity figure for 2015 is 0.731 metric tonnes CO2 / cementitious and we aimed to decrease it to 0.725 metric tonnes CO2 / cementitious in 2015. That means 500 % increase in targeted intensity figure. Cement is made of clinker and additives and we were expecting to use more additives at our cement production. However, the demand of the customer was high on Portland Cement (cement with less additives). Therefore, our intensity figure was higher than expected. Even though it is hard to change the consumer behaviour in short term, we are putting effort on increasing the customer awareness for more use of Blended Cement (cement with more additives) .
Int2	100%	100%	We care energy & emission efficiency and put effort to decrease the intensity figure for emission per clinker. Our intensity figure for 2015 is 0.864 metric tonnes CO2 / clinker and we aimed to decrease itfrom 0.872 metric tonnes CO2 / clinker to 0.871 metric tonnes CO2 / clinker in 2015. That means 800 % decrease in targeted intensity figure. Inline with our efforts for energy & emission efficient production, we increased the alternative fuel ratio, and decreased the heat consumption of kilns to achieve our target.

CC3.2

Do you classify any of your existing goods and/or services as low carbon products or do they enable a third party to avoid GHG emissions?

Yes

CC3.2a

Please provide details of your products and/or services that you classify as low carbon products or that enable a third party to avoid GHG emissions

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
Company-wide	Clinker produced by co-incineration of Refuse Derived Fuel	Avoided emissions	Other: WBCSD Cement Sustainability Initiative	1%	Less than or equal to 10%	Çimsa Eskişehir Plant is co-incinerating of industrial alternative fuel (RDF-Refuse Derived Fuel) about 46,061 tonnes, Tyres about 1034

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
						tonnes, waste oil about 877 tonnes , other fossil based waste and mix fuel about 4238 tonnes per year. This co-processing contributes in third parties to minimize their negative impact on the environment such as decreasing GHG emissions generated from waste landfilling. This is the energy recovery process, which helps us to reduce our fossil fuel consumption. Çimsa puts forth the sustainable product approach with the environmental products having less GHG emissions due to less clinker amount. On the other hand our

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
						innovative products which has high isolation capability gives rise to energy efficiency which generates low GHG emissions .

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	0	0
To be implemented*	1	4364
Implementation commenced*	0	0
Implemented*	2	29260
Not to be implemented	0	0

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

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
Waste recovery	To increase the use of alternative fuels instead of fossil fuels, and decrease of kilns heat consumption.	17557	Scope 1	Voluntary	1193000	3017000	1-3 years	16-20 years
Process emissions reductions	Process emissions are decreased due to change in raw material composition.	11703	Scope 1	Voluntary	500000	30000	<1 year	>30 years

CC3.3c

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

Method	Comment

Method	Comment
Dedicated budget for low carbon product R&D	As one of our sustainability based tasks is to steer market to foster the extensive usage of blended cement, which has more additives rather than clinker. Because clinker has higher emission than the other additives used in cement. Blended cement is manufactured by recycling wastes of other industries like blast furnace slag, fly ash instead of the cement including high percentage of clinker. For that reason; Çimsa puts importance on R&D activities and sustainable products with its environmental products having less carbon dioxide oscillation due to less clinker amount and its product quality.
Employee engagement	Employees are one of the most important stakeholders of Çimsa. Emloyees' role is extremely critical in the achievement of company's sustainability objectives both in operation and production processes. The behavioural change of employees will both help the integration of sustainability aspects to core business activities and also achievement of the targets in an effective and efficient way.
Dedicated budget for other emissions reduction activities	Technologies in production processes to be supported by innovative implementations also play a big role in energy savings. Energy Management System ISO 50001 standard ensuring a systematic approach to energy management has been integrated in our Çimsa Kayseri Plant to mitigate energy losses and decreasing costs. It also helps to implement processes ensuring us to understand our base energy consumption. It ensures us to form our action plans, to determine our objectives to decrease our consumption and to form energy performance indicators; to determine improvement opportunities to develop our energy performance and to determine our priorities.

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	Comment
In voluntary communications	Underway - previous year attached	pg 43-54	Sustainability Report 2014.pdf	We have a special chapter for environmental management in Çimsa.
In mainstream reports (including an integrated report) but have not used the CDSB Framework	Underway - previous year attached	pg 50-52, 56	Annual Report 2014.pdf	Climate change and environmental management is also published at our annual report.

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	Estimate financia implicatio
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. As we are energy intensive sector, limiting of emissions could cause decreasing of our clinker production.	Reduction/disruption in production capacity	3 to 6 years	Direct	Very likely	High	If our production decreased by 50%, th may cause 535.5 Milli TL of incor decrease f a year. Ou 2015 turnover is 1071 Millic TL therefo we could assume th the turnov will be halved.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimate financia implicatio
Fuel/energy taxes and regulations	Due to the arising carbon emissions of electrical energy sector, the cost of upgrading the unit price of electricity could increase and as a result, it will increase the energy operating costs of ÇİMSA.	Increased operational cost	1 to 3 years	Direct	Likely	Medium-high	If electricit unit price i increased 10%, ener cost will increase 121,816,9 TL
Carbon taxes	Emergence of future regulations on carbon taxes and the uncertainty of the carbon price will adversely affect our operational cost (profitability)	Increased operational cost	>6 years	Direct	Likely	Medium-high	If carbon t unit price i assumed t be 1 TL, o total annu tax is calculated 3.357.105 TL. If carb tax unit pri is assume to be increased from 1 TL 2 TL, our yearly tax would become a 6.717.210 TL. It caus a raise of 3.357.105 TL.

CC5.1b

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

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Ma r
Change in	CİMSA	Increased	1 to 3	Direct	Likely	Medium	It may	As

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Ma
mean (average) precipitation		operational cost					increase the energy consumption	ass and
	operates in cement industry and cement industry is very depended on natural resources (limestones, etc.). Increase in mean precipitation may adversely affect our production processes and GHG emissions particularly in 2 ways. 1) Floods many bring difficulties in supplying raw materials from quarries and it may lead distruptions in raw materials. 2) To produce cement we should decrease the humidity in those natural resources, therefore we heat them in kilns. We have significant amount of fuels used during our processes rises from this process. For these reasons;						and it could also increase our emissions. Beyond that, cost of raw materials used could be higher. For example; if we assume that this effect will increase our emissions by 10% and if we assume we are paying 1 TL tax per tCO2e of emission, the financial impact will be 338,636.5 TL increase in tax.	mar Clin Cha Also eng with stak e.g. ass to m the amo sec amo indu add ther con to r owr valu emi

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Mar r
	increase in mean precipitations may increase our fuel consumption and consequently our emissions.							

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	Ma
Reputation	Çimsa is reputational, public traded and exporting company and also one of Sabancı Group companies. Any detrimental effect created by Çimsa may harm its reputation, brand value and turnover as well.	Reduced demand for goods/services	Up to 1 year	Direct	Unlikely	Medium-high	The financial impact may be decrease in sales. If we assume a Climate Change Management sourced issue led a 10% decrease in turnover, it means a 107.1 Million TL loss. If our market value decreases by 1%, this may cause 20 million TL decrease for a year.	As ar as an ma Cl Ch Al en wi sta e.g as to th an se an inc ad th co to ov va en

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	Es fi imp
Other regulatory drivers	In cement industry, we can use alternative fuels like used tyres, biomass and wastes containing biomass. Therefore; it is both important for reuse and waste management. If a new regulation to incentivise the use of alternative fuels comes into force, it means an additional support mechanism for us.	Other: lower absolute CO2 value	>6 years	Direct	Likely	Low-medium	We 1.0 of t alte fue 201 TL mo inc ton tyre inci and alte fue pro pro cen ind me 103 of a inc Çim

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Es fi imp
Product labelling regulations and standards	If "Product Labelling" regulations will be published by Turkish authorities, the Turkish cement sector and ÇİMSA need to be work on reducing CO2 emissions and this situation will contribute Çimsa's domestic sales and exports.	New products/business services	Up to 1 year	Direct	Very likely	Low-medium	The imp be in c and we tha incı der 10% me incı turr 107 TL.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Es fi imp
Cap and trade schemes	As cement sector is a high CO2 emissions, it is possible to get important gains by making some improvements. Obtained emissions mitigations could be assessed as carbon credit at the carbon market.	New products/business services	>6 years	Direct	Likely	Medium	The est fina imp will with am GH em mit we tota CO em 1% ass sell cer it w 16.

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	Ma

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	M
Change in mean (average) precipitation	We produce cement and if there happens an increase in mean precipitation, the demand on cement could rise to be prevented against the detrimental effects of the Climate Change. Some investments like infrastructures, dams, discharge systems, retaining walls may be needed.	Increased production capacity	3 to 6 years	Direct	More likely than not	Medium-high	The financial impact may be increase in demand and sales. If we assume that the increase demand is 10% than it means an increase in turnover by 107.1 Million TL.	W th op fro Ch try th de str an W wi sta

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

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications
Reputation	ÇİMSA is one of the Sabancı Group companies which has a high brand value. it is also one of the pioneering companies in cement industry in Turkey. therefore its climate change mitigation and adaptation activities has an impact on ÇİMSA's reputation.Çimsa's energy efficiency and efforts to foster climate change management activities in cement sector increases its stock prices. Besides, Çimsa can provide cheap credit facilities from banks and to be one step ahead among the other competitors.	Increased stock price (market valuation)	1 to 3 years	Direct	Very likely	Medium-high	Estimated financial implications could be both from market value side and also could increase as our sales. If our market value increase by 1%, this may cause 20 million TL value contributed to our company. If we assume a Climate Change Management sourced issue led a 10% increase in turnover, it means a 107.1 Million TL of increase in revenue.

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	Thu 01 Jan 2015 - Thu 31 Dec 2015	3357105
Scope 2 (location-based)	Thu 01 Jan 2015 - Thu 31 Dec 2015	209071
Scope 2 (market-based)	Thu 01 Jan 2015 - Thu 31 Dec 2015	

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

Cement CO2 and Energy Protocol, Version 3.1, CO2 Emissions and Energy Inventory

CC7.3

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

Gas	Reference
CO2	Other: WBCSD Cement Sustainability Initiative (CSI) Cement CO2 and Energy Protocol Version 3.1
CO2	IPCC Fourth Assessment Report (AR4 - 100 year)

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
Refuse-derived fuel	75	Other: kg CO2/GJ	CSI default
Other: Coal+anthracite+waste coal	96	Other: kg CO2/GJ	IPCC default
Petroleum coke	92	Other: kg CO2/GJ	CSI default
Other: Heavy fuel	77	Other: kg CO2/GJ	IPCC default
Natural gas	56	Other: kg CO2/GJ	IPCC default
Lignite	101	Other: kg CO2/GJ	IPCC default
Waste oils	74	Other: kg CO2/GJ	CSI default
Other: Tyres	85	Other: kg CO2/GJ	CSI default
Other: Other fossil based wastes	80	Other: kg CO2/GJ	CSI default
Other: Biomass content from alternative fuels	110	Other: kg CO2/GJ	CSI default

Further Information

Attachments

Default CO2 emissions factors.pdf

Page: CC8. Emissions Data - (1 Jan 2015 - 31 Dec 2015)

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

3357105

CC8.3

Does your company have any operations in markets providing product or supplier specific data in the form of contractual instruments?

No

CC8.3a

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

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment
209071		We produce 3 types of cement and we calculate Grey, White and CAC cement CO2 emission values seperately. The figure seen in the location-based Scope 2 is the relevant value for only grey cement. In addition to grey cement; in 2015 we decided to disclose the Scope-2 emissions for white cement and calcium aluminate cement (CAC) as follows: White Cement Scope-2 emissions: 74.121 tCO2/yr Calcium Aluminate Cement Scope-2 emissions: 2.447 tCO2/yr

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 location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source (if applicable)	Explain why the source is excluded
Ready mixed concrete business line	No emissions excluded	Emissions are relevant and calculated, but not disclosed	No emissions excluded	Ready mixed concrete is an other business line in Çimsa and we did not include the activities & emissions released from this business line at the moment. We can provide consumption of electricity and relevant CO2 emissions in Scope 2. We hope to include and disclose it in the future.

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	More than 5% but less than or equal to 10%	Data Gaps Assumptions Metering/ Measurement Constraints Sampling Data Management Other: Default factor from CSI(Cement Sustainability I)	Data Gaps, Assumptions, Sampling, Data Management, Default Emission Factor from CSI are the sources of uncertainty. However our Quality Management Department cross checks the calculation & the methods to minimize the uncertainty.

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 2 (location-based)	More than 2% but less than or equal to 5%	Data Gaps Assumptions Sampling Data Management Other: Published emission factor	The uncertainty in Our Scope 2 emissions is lower than Our Scope 1 emissions. Because the annual emission factor for the grid is declared by the relevant governmental authority and the energy consumed by our plants are measured by meters and verified.
Scope 2 (market-based)	Less than or equal to 2%		We do not use market based electricity and therefore no emissions and uncertainty.

CC8.6

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

Third party verification or assurance process in place

CC8.6a

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

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported Scope 1 emissions verified (%)
Biennial process	Complete	Limited assurance	EY Assurance Statement - Çimsa CDP FY15-ENG.pdf		ISAE3000	100

CC8.7

Please indicate the verification/assurance status that applies to at least one of your reported Scope 2 emissions figures

Third party verification or assurance process in place

CC8.7a

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

Location-based or market-based figure?	Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 2 emissions verified (%)
Location-based	Biennial process	Complete	Limited assurance	EY Assurance Statement - Çimsa CDP FY15-ENG.pdf	1/1	ISAE3000	100

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
Other: NOx, SOx, Dust emissions	In addition to Carbon emissions, major emissions of cement industry are NOx, SOx, Dust emissions. These parameters are measured by Continuous Measuring Systems (CMS) in 2015 and verified by 3rd party.

CC8.9

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

No

Further Information

Page: CC9. Scope 1 Emissions Breakdown - (1 Jan 2015 - 31 Dec 2015)

CC9.1

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

No

CC9.2

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

By facility

CC9.2b

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

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
Mersin Cement Plant Grey Cement	1097312	36.8	34.633333
Eskişehir Cement Plant	1178758	39.78	30.520556
Kayseri Cement Plant	694535	38.75	35.549791
Niğde Cement Plant	386045	37.947292	34.686367
Mersin Cement Plant White Cement	1138304	36.8	34.63333
Mersin Cement Plant CAC	29084	36.8	34.633333
Ankara Grinding Plant	456	39.971	33.11712

Further Information

Scope 1 CO2 emissions figure that was given at C.C.8.2 is belonging to grey cement for ÇİMSA. In Mersin Plant, besides grey cement, White cement and CAC cement are produced. All type of cements Scope 1 and Scope 2 CO2 emissions are calculated by CSI software and only Scope-1 emissions disclose on C.C.9.2.b

Attachments

Mersin Plant CAC Cement-A1 method.pdf

Mersin Plant White Cement-A1 method.pdf

Page: CC10. Scope 2 Emissions Breakdown - (1 Jan 2015 - 31 Dec 2015)

CC10.1

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

No

CC10.2

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

By facility

CC10.2b

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

Facility	Scope 2 emissions, location based (metric tonnes CO2e)	Scope 2 emissions, market-based (metric tonnes CO2e)
Mersin Cement Plant Grey Cement	52675	
Eskişehir Cement Plant	75249	
Kayseri Cement Plant	44638	
Niğde Cement Plant	28635	
Ankara Clinker Grinding Plant	7874	
Mersin Cement Plant White Cement	74121	
Mersin Cement Plant CAC Cement	2447	

Further Information

All type of cements Scope 1 and Scope 2 CO2 emissions are calculated by CSI software and only Scope-2 emissions disclose on C.C.10.2.b. We calculate Scope 2 emissions with International Energy Agency value by multiplying external power delivered to our plants.

Page: CC11. Energy

CC11.1

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

More than 10% but less than or equal to 15%

CC11.2

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

Energy type	Energy purchased and consumed (MWh)
Heat	4165246
Steam	0
Cooling	0

CC11.3

Please state how much fuel in MWh your organization has consumed (for energy purposes) during the reporting year

3674246

CC11.3a

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

Fuels	MWh
Other: Coal+Anthracite	88308
Petroleum coke	3098854
Other: heavy fuel	3610
Natural gas	19994
Lignite	221882
Waste oils	8331
Other: tyres	4443
Refuse-derived fuel	204942
Other: fossil based wastes	22216
Other: Biomass content from alternative fuel	1666

CC11.4

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

Basis for applying a low carbon emission factor	MWh consumed associated with low carbon electricity, heat, steam or cooling	Comment
Off-grid energy consumption from an onsite installation or through a direct line to an off-site generator	48052	In Cimsa Mersin Plant we produce our own electricity from the waste heat gases of 1 st and 2nd production kilns. By this method; we generate %20 of our electricity spend in these two production lines. During the reporting year, we generate 48052 MWh electricity and all is used for our own production prosesses

CC11.5

Please report how much electricity you produce in MWh, and how much electricity you consume in MWh

Total electricity consumed (MWh)	Consumed electricity that is purchased (MWh)	Total electricity produced (MWh)	Total renewable electricity produced (MWh)	Consumed renewable electricity that is produced by company (MWh)	Comment
333691	285639	48052	0	0	285639 MWh of electricity is purchased from the grid and used in our facilities. For energy efficiency we have a waste heat recovery unit which electricity is produced by heat of waste gases from kilns. By this process we generate 48052 MWh electricity. Therefore total energy consumed is 333691 MWh.

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	Please explain and include calculation
Emissions reduction activities	0.70	Decrease	Gross global emissions (scope 1 and scope 2) are decreased as a conclusion of our emission reduction activitie. This mitigation is achived by 2 particular efforts. First one is to increase of alternative fuels and the second one is to decrease the heat consumption of kilns and raw material composition change.
Divestment	0	No change	

Reason	Emissions value (percentage)	Direction of change	Please explain and include calculation
Acquisitions	0	No change	
Mergers	0	No change	
Change in output	0.05	Increase	The particular part of our emissions are released during the production process of clinker. Our production of clinker has increased during the reporting year and 0.05% of the increase in our emissions is sourced from the increase in the production volume of clinker.
Change in methodology	0	No change	
Change in boundary	0	No change	
Change in physical operating conditions	0	No change	
Unidentified	0	No change	
Other	0	No change	

CC12.1b

Is your emissions performance calculations in CC12.1 and CC12.1a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

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 (Gross global combined Scope 1 and 2 emissions)	Metric denominator: Unit total revenue	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator: Unit total revenue	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
0.003329	metric tonnes CO2e	1071000000	Location-based	1.46	Increase	Total emissions released in 2015 is 3.566.176 tCO2e. The total turnover for 2015 is 1.071.000.000 TL and for 2014 is 1.094.000.000 TL. Therefore, while intensity figure was increasing 1.46% the turnover decreased by 2.10% .

CC12.3

Please provide any additional intensity (normalized) metrics that are appropriate to your business operations

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator	Metric denominator: Unit total	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
3602	metric tonnes CO2e	full time equivalent (FTE) employee	990	Location-based	2.75	Decrease	The tCO2e emissions decreased by 2,75%.

Further Information

Page: CC13. Emissions Trading

CC13.1

Do you participate in any emissions trading schemes?

No, and we do not currently anticipate doing so in the next 2 years

CC13.2

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

No

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	Relevant, not yet calculated	0			As we are operating in Turkey, the Life Cycle Analysis and/or Emission Accounting is not so common in every industry/company, therefore there is no data available and it is so hard to calculate the emission released by Scope 3 Purchased Goods & Services. We are eager to do so in the future.
Capital goods	Relevant, not yet calculated	0			As we are operating in Turkey, the Life Cycle Analysis and/or Emission Accounting is not so common in every industry/company, therefore there is no data available and it is so hard to calculate the emission released by Scope 3 Capital Goods. We are eager to do so in the future.
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Relevant, calculated	32148	OVERSEAS TRANSPORTATION BETWEEN ABROAD LOADING PORT and TURKEY UNLOADING PORT Formula: ∑(Distance between two ports x weight of goods x	80.00%	Petroleum coke and coal transport activities are included in reported figures (except abroad logistic until loading port to

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
					vessels). These two items are compose of most of energy source for Çimsa .%80 coverage is given considering only transport activities of those two items..
			CO2 emission factor for 1 km-1 ton for related vessel) CO2 emission factor : Reference Greenhouse Gas Calculator Emission Factors 5 g CO2e/t-km for bulk shipping. Distance between abroad loading port and Turkey unloading port is calculated by official road map tools ROAD TRANSPORTATION : Formula: ∑(1 round trip distance x number of round trip x CO2 emission factor for 1 km for related vehicle) 1 round trip distance : Either measured by vehicle devices or calculated by official road map tools Number of round trip : Total weight received from supplier in 2014 /average weight shipped in 1 trip considering vehicle type. Source of CO2 emission factors: :Reference Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories 0,987 t/km RAILTRANSPORTATION : Formula: ∑(Distance between two end-stations x weight of goods x CO2 emission factor for 1 km-1 ton) CO2 emission factor : Reference Greenhouse Gas Calculator Emission Factors 17.85 g CO2e/t-km.		

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
Upstream transportation and distribution	Relevant, calculated	20266	Formula: ∑(1 round trip distance between supplier or customer and Çimsa locations x number of round trip x CO2 emission factor for 1 km for related vehicle) 1 round trip distance between supplier or customer and Çimsa locations: Either measured by vehicle devices or calculated by official road map tools Number of round trip : Total weight received from supplier or delivered to costumer in 2015 /average weight load shipped in 1 trip considering vehicle type. Source of CO2 emission factors (road,sea,railway) : Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories	90.00%	Most of the materials which are transported to Çimsa Cement Production Plants are composed of limestones, other aggregates.and chemicals by tier 1 suppliers. Those are already included in given figures. And %50 of sold goods are delivered to customer by tier 1 logistic service supplier of Çimsa Cement Production facilities.which are included in this report as upstream .

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
Waste generated in operations	Relevant, not yet calculated	0			As we are operating in Turkey, the Life Cycle Analysis and/or Emission Accounting is not so common in every industry/company, therefore there is no data available and it is so hard to calculate the emisssion released by Scope 3 Waste Generated in Operations. We are eager to do so in the future.
Business travel	Relevant, not yet calculated	0			As we are operating in Turkey, the Life Cycle Analysis and/or Emission Accounting is not so common in every industry/company, therefore there is no data available and it is so hard to calculate the emission released by Scope 3 Business Travel. We are eager to do so in the near future.

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
Employee commuting	Relevant, calculated	234	Formula: ∑(number of round trip x passenger capacity of related vehicle for 1 trip x reference route distance measured by vehicle device x CO2 emission factor for 1 km – 1 passenger for related vehicle) Source of CO2 emission factors (bus,minibus) : Man Bus and Truck Company web-site (BUS co2 factor 11 gr/ person-km, MINIBUS 8 gr/person-km)	100.00%	Employee commuting is realized by scheduled buses & minibuses. Since employee number carried in each trip is assumed as equal to full capacity of vehicles, this calculation may include a little overestimation.
Upstream leased assets	Relevant, not yet calculated	0			As we are operating in Turkey, the Life Cycle Analysis and/or Emission Accounting is not so common in every industry/company, therefore there is no data available and it is so hard to calculate the emission released by Scope 3 Upstream Leased Assets. We are eager to do so in the future.

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
Downstream transportation and distribution	Relevant, calculated	25574	Formula: ∑(1 round trip distance between customer and Çimsa locations x number of round trip x CO2 emission factor for 1 km for related vehicle) 1 round trip distance between Çimsa and customer locations: Average values are taken as reference distances which calculated by using actual measurement data gathered for upstream ones for each location. Number of round trip : Total weight sold to customer in 2014 /average weight load shipped in 1 trip considering vehicle type. Source of CO2 emission factors (road,sea,railway) : Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories	80.00%	%50 of sold goods are delivered to customer as exwork or FOB which transportation from Çimsa plants to customer locations are controlled by customer, Only CO2 emissions due to the inland transport are included in that report.For exported goods, overseas activities were kept as out of scope in 2014 due to complexity of supply chain.

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
Processing of sold products	Relevant, not yet calculated	0			As we are operating in Turkey, the Life Cycle Analysis and/or Emission Accounting is not so common in every industry/company, therefore there is no data available and it is so hard to calculate the emission released by Scope 3 Processing of sold goods. We are eager to do so in the future.
Use of sold products	Relevant, not yet calculated	0			As we are operating in Turkey, the Life Cycle Analysis and/or Emission Accounting is not so common in every industry/company. In addition to that, we are exporting to many countries. Therefore there is no data available and it is so hard to calculate the emission released by Scope 3 Use of Sold Products. We are eager to do so in the future.

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
End of life treatment of sold products	Relevant, not yet calculated	0			As we are operating in Turkey, the Life Cycle Analysis and/or Emission Accounting is not so common in every industry/company. In addition to that, we are exporting to many countries. Therefore there is no data available and it is so hard to calculate the emission released by Scope 3 End of Life Treatment of Sold Products. We are eager to do so in the future.

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
Downstream leased assets	Relevant, not yet calculated	0			As we are operating in Turkey, the Life Cycle Analysis and/or Emission Accounting is not so common in every industry/company, in every industry/company. In addition to that, we are exporting to many countries. therefore there is no data available and it is so hard to calculate the emission released by Scope 3 Downstream Leased Assets. We are eager to do so in the future.
Franchises	Not relevant, explanation provided	0			ÇİMSA has no franchises.
Investments	Not relevant, calculated	0			We dont have investments during reporting process.

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
Other (upstream)	Relevant, calculated	992	Formula: ∑ (number of working hours of vehicle x amount of fuel consumption of related vehicle in 1 hour x CO2 emission factor per 1 lt fuel consumption of related vehicle) Source of CO2 emission factors : Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories	100.00%	We operate in cement industry and transportation also took place inside the Cement Plants by leased vehicles. According to CSI (Cement Sustainability Initiative) guidelines, we are declaring it in other upstream emissions.
Other (downstream)	Not relevant, explanation provided	0			No other downstream emission is evaluated

CC14.2

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

No third party verification or assurance

CC14.3

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

Yes

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
Fuel- and energy-related activities (not included in Scopes 1 or 2)	Emissions reduction activities	8.3	Decrease	ÇİMSA is putting great importance on Sustainability and Climate Change Mitigation and Adaptation Activities. Therefore it puts efforts to reduce both its direct and indirect emissions. For fuel and energy related activities (not included in Scopes 1 and 2) has reduced by 8.3% with the help of our emission reduction activities.

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Upstream transportation & distribution	Change in boundary	41.7	Decrease	We are try to continuously improve our emission calculating system. By going into deeper in Scope 3 calculations, we decided to transfer some of our upstream transportation & distribution emission sources to downstream transportation & distribution. It will be more appropriate.
Employee commuting	Other: No change	0	No change	There has been no change according to the former year.
Downstream transportation and distribution	Change in boundary	162	Increase	We are try to continuously improve our emission calculating system. By going into deeper in Scope 3 calculations, we decided to transfer some of our upstream transportation & distribution emission sources to downstream transportation & distribution. It will be more appropriate.
Other (upstream)	Change in output	14.3	Increase	The cement production has increased in parallel to this the raw material demand has increased. We operate in cement industry and transportation also took place inside the Cement Plants by leased vehicles. According to CSI (Cement Sustainability Initiative) guidelines, we are declaring it in other upstream emissions.

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)

No, we do not engage

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

As ÇİMSA, we are putting great importance on sustainability and climate change. In parallel to our vision we took many pioneering steps, such as being one the leading companies in sustainability reporting, commitment to integrating reporting, sponsoring CDP Turkey Climate Change Programme, We are try to continuously improve our sustainability management system. We are willing to include our value chain step by step 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
Gürol ÖZER	Chief Technical Officer - CTO	Chief Operating Officer (COO)

Further Information

CDP: [X][-,-][P2]

Need help? Contact us.

Select your location