

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Limak Group of Companies entered into the cement sector when it took over Siirt Kurtalan Cement Plant in 2000. It acquired Ergani and Gaziantep Cement Plants in 2006 through asset sale from the Savings Deposit Insurance Fund (SDIF), and Urfa Cement Plant in 2007. Group has completed investments in Bitlis in 2008 and in Mardin-Derik in 2009. At the end of 2010, the market share of Limak reached 7% in Turkey. In 2011, Group took over 4 cement plants located in Ankara, Balıkesir, Trakya & Ambarlı and 12 ready-mixed concrete facilities from Set-İtalcementi, and market share reached to 11%. By the completion of modernizations studies in factories, the clinker and the cement capacities of the Group have been increased to 8,000 ktons/year and 14,800 ktons/year respectively. Group started a grinding & packaging cement plant investment in March 2015 in Matola port located in Maputo, capital city of Mozambique, which has a capacity of 700.000 tons/year. The plant became operational at the end of 2016 Q4. Group had commissioned the new integrated cement plant in Ankara, Temelli, in Q3 of 2018 which have 1,800 ktons/year cement capacity. The second investment in Africa, which is another grinding & packaging cement plant with ready- mix concrete plant in Abidjan, commercial capital city of Côte d'Ivoire, has a capacity of 1.000.000 tons cement/year and 1.000.000 m3 of ready-mix concrete. The plant was put into operation in 2018 Q4. Furthermore, Group decided to invest in a new integrated cement plant in Kilis with a cement capacity of 2,3 mtons/year which is located in South Anatolia. The plant was put into operation in Q4 of 2019 and started commercial activities in January 2020. Today, Limak Cement Group has the second biggest production capacity in Turkey and has 14 % of domestic market share. Since 2000, the major achievements of Limak Cement over the years are operations and investments continued in 4 different countries, largest Turkish investments in two different Sub-Saharan African countries, ranked 111th among all companies and first in the cement sector according to the Top 500 Industrial Organizations of Turkey researches prepared by İstanbul Chamber of Industry (ISO), received "Best Industrial Investment Made in 2014-2017 Award" in Mozambique, 3 ready-mixed concrete R&D centers with international accreditation certificates, first projects in the Turkish cement sector with the energy efficiency and clean technology funds of the World Bank and European Investment Bank, low NOx emission rotary kilns with calcinators taken into operation for the first time in the Turkish cement sector, first rank among integrated cement factories in Turkey in the low energy consumption listing, according to the Ministry of Energy and Natural Resources data, first integrated cement factory with a GOLD Certificate (2 GOLD and 1 SILVER certificates), full compliance with the Sustainable Growth Objectives published by United Nations, "Most Environment Friendly Firm" in Turkey in 2018 award by the Ministry of Energy and Natural Resources, In Cote d'Ivoire, Limak Africa SA rewarded with the only cement plant to be in the top 10 in the ranking of the most environmentally friendly companies. An Integrated Management System, including the OHSAS 18001 & ISO 45001 Occupational Health and Safety Standard, is implemented at all cement factories. The Group has continued to reinforce the significance it attaches to the health and safety of all permanent and subcontractor employees, who are directly or indirectly employed within its organization, with the "zero accident, zero fatality" objective. Limak Cement Group has adopted an Integrated Management System in the group in general, in order to make more effective planning, define common objectives that are measurable and have added value, identify strengths and weaknesses, share correct and incorrect practices over a single platform, minimize unnecessary resource use and increase employee motivation by corporate synergy and common objectives. Studies on compliance with the current versions of ISO 14001 Environment Management System and ISO 9001 Quality Management System, which have been issued in 2015, have also been carried out in the Group in general. Limak Cement Anka Plant, which has been taken into operation in 2018, has received the title of being the first cement factory in Turkey holding an ISO 45001 certificate. Limak Cement Group has an action agenda primarily in 5 fields within the scope of its sustainability activities. These could be classified as CO2 & Environment Protection, Responsible Fuel and Raw Material Use, Employee Safety and Health, Emission Monitoring and Reduction, Local Impact on Soil and Community, Limak Cement Group participated in Limak Holding's sustainability reporting process every year, in compliance with the "Core" option of the GRI Standards developed by Global Reporting Initiative (GRI) and continued its activities within this context.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2020	December 31 2020	Yes	3 years

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

Côte d'Ivoire
Mozambique
Turkey

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

TRY

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C-CE0.7

(C-CE0.7) Which part of the concrete value chain does your organization operate in?

- Limestone quarrying
- Clinker production
- Portland cement manufacturing
- Blended cement
- Alternative 'low CO2' cementitious materials production
- Concrete production

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Chief Executive Officer (CEO)	The CEO of Limak Cement Group should have knowledge and responsibilities on sustainability and climate related issues since these concepts should be integrated and taken into consideration in all phases of the management studies as requirement of global mitigation actions. The Sustainability Committee forms and develops the main strategies of the company to keep the sustainability and climate change targets updated and applicable. The CEO should stand over the studies of the Committee and evaluate the existing and future trends regarding current topics such as climate funding, carbon pricing and energy efficiency investments. While planning the financial strategies and future investments of the Group, the acting with the a climate sensitive consideration will provide significant contribution on sustainable development and risk reduction strategies of the company.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – all meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures Monitoring and overseeing progress against goals and targets for addressing climate-related issues	<Not Applicable>	The sustainability and climate change issues are reviewed and evaluated during the weekly meetings. The Sustainability and Climate Change department searches for opportunities and follows the new developments to be able to maintain current operations and new investments in a more sustainable and free of climate related risk ways. There is a significant interest in sustainable manufacturing and reduction of climate related risks subjects in recent years since the devastating results of previous activities conducted with lack of environmental consideration are started to affect our daily lives and nature dramatically. As Limak Cement Group, we have completed, ongoing and planned studies on energy efficient, sustainable and less carbon emission manufacturing methods. Under the leadership of our board, we have decided to carry our studies in international scale by following and implementing most recent developments and participating top organizations actively working on climate related risks and sustainability.

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Other, please specify (Corporate Sustainability and Climate Change Leader)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	As important matters arise
Sustainability committee	<Not Applicable>	Assessing climate-related risks and opportunities	<Not Applicable>	As important matters arise

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

The CEO of Limak Cement Group should have knowledge and responsibilities on sustainability and climate related issues since these concepts should be integrated and taken into consideration in all phases of the management studies as requirement of global mitigation actions. The Sustainability Committee forms and develops the main strategies of the company to keep the sustainability and climate change targets updated and applicable. The CEO should stand over the studies of the Committee and evaluate the existing and future trends regarding current topics such as climate funding, carbon pricing and energy efficiency investments. While planning the financial strategies and future investments of the Group, the acting with the a climate sensitive consideration will provide significant contribution on sustainable development and risk reduction strategies of the company.

Corporate Sustainability and Climate Change Leader is main responsible for the implementation of the sustainability policies and troubleshooting of the climate related issues of the Group. The planning and follow-up of the factory based studies and the coordination of the sustainability and climate change responsible charged in each factory are in the responsibility of Corporate Sustainability and Climate Change Leader. The climate related issues should be monitored continuously and the immediate action plans should be prepared to get accurate results in terms of both environmental and financial aspects. Nowadays, climate related issues have reached to a certain level which could affect the financial development strategies and daily operational activities of most of the companies. By considering all these, it is decided to direct connection of Corporate Sustainability and Climate Change Leader to CEO to be able to facilitate and accelerate the evaluation and implementation of the determined development actions. Limak Cement Group has great passion and motivation for the remediation and improvement of climate related issues and company's sustainability perspective.

The sustainability studies of the Limak Group are managed by the Sustainability Governance Platform which lead by the Limak Group Sustainability Leadership. This Governance Platform determines strategic sustainable growth targets and submit to management for approval, implements the sustainability approach in all business groups and integrates into all business, manages value proposals, corporate reputation and stakeholder communication, provides corporate compliance, KPI, risk, performance and motivation management, manages financial and non-financial assets and corporate information, ensures the release of institutional reports such as the Global Compact Progress Statement Report and establishes the infrastructure required for the monitoring and following up of the sustainability activities. The Sustainability Support Office and Sustainability Committees are the subsidiaries of the Governance Platform to provide support with well-organized responsibility distribution. Sustainability Committee consists of three main committees which are Inclusive Development Committee, Social People and Healthy Planet Committee. The major responsibilities of those committees are performing feasibility studies for the accomplishment of the sustainability goals, monitoring and following up of the sustainability goals and drawing up the progress reports on the goals. The Corporate Sustainability and Climate Change department of the Limak Cement Group established its own Sustainability Committee to contribute to Limak Group Committees with its own sustainability targets and strategies (Stakeholder Engagement, Supply Chain Management, Occupational Health & Safety Management, Emission Control & Climate Change, Water & Energy Efficiency, Biodiversity, Zero Waste, Alternative Raw Material & Fuel) Corporate Sustainability and Climate Change Leader is the key responsible for the coordination and implementation of the sustainability goals and remediation of climate-related issues.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	For the reduction of climate related risks and sustainable development, Limak Cement Group set rigid targets to achieve sustainability KPIs. By the contribution of all the departments but mostly under the focus of Sustainability and Climate Change Department, technical center and R&D are studying on several projects such as alternative fuel and raw material usage, the decrease in raw material utilization and clean or renewable energy production. The aim of those studies is rising awareness for sustainability and climate related risk topics in all units of the Group together with the financial concerns. These studies could be supported with monetary and non-monetary rewards to increase the motivation of project attendees and spread the sustainability consciousness to all bodies of the Group.

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity incentivized	Comment
Chief Executive Officer (CEO)	Non-monetary reward	Emissions reduction target	Ensuring the implementation of the KPIs and operational performance indicators is the under the responsibility of CEO. The basic attempts to achieve the sustainable and financial development goals such as decreasing fossil fuel, energy and raw material consumptions and increasing the alternative fuel usage should be reviewed and projected by the corporate team and the CEO. These attempts will directly affect the greenhouse gas emissions so it is essentially important in scope of climate-related issues. The investments for climate related risks and opportunities should be projected both Management and Sustainability Committee under the control of CEO.
Other, please specify (Corporate Sustainability and Climate Change Leader)	Non-monetary reward	Emissions reduction project Emissions reduction target Energy reduction project Energy reduction target Efficiency project Efficiency target Company performance against a climate-related sustainability index	Corporate Sustainability and Climate Change Leader is main responsible for the implementation of the sustainability policies and improvement of the climate-related issues of the company. The planning and follow-up of the factory-based studies and the coordination of the sustainability and climate change responsible of each factory are in the responsibility of Corporate Sustainability and Climate Change Leader.

Entitled to incentive	Type of incentive	Activity incentivized	Comment
Other, please specify (R&D and Central Technical Organization)	Non-monetary reward	Emissions reduction project Emissions reduction target Energy reduction project	Apart from the product quality control laboratories, there is a central cement laboratory used for the R&D studies within the scope of Limak Cement Group. Together with the special experiments such as analysis and optimization of alternative materials, waste analysis, burnability analysis, there are some other on-going studies for alternative raw material usage, carbon dioxide decreases to be able to participate in low carbon road map. A new type of cement named as Limak CEM PLUS+ has already been developed to achieve low carbon footprint target of the Group. This product has been patented and released to market as a low carbon cement type. Also, a study was conducted for the use of fly ash, bottom ash and synthetic plaster coming from thermal energy plants in cement production following an effective quality and product management period. As a first manufacturer in both Turkey and European Union countries, two new cement products coded as CCBA 42,5 R and CCBA 32,5 N (Cement with Coal Bottom Ash –CCBA) has taken European Assessment Documentation (ETA) from European Organization for Technical Assessment (EOTA) in 2019.
Other, please specify (Process Operation Director)	Non-monetary reward	Emissions reduction project Emissions reduction target Efficiency target	Within the scope of emission reductions studies, Process Operation Director and facility managers should follow the defined KPIs. Sustainability risks and opportunities could be defined by following the process inputs/outputs systematically. The attempts like reduction of energy consumption, the use of fossil fuels, increasing the use of alternative fuels, decreasing used clinker amount for cement production for elimination of the climate related risks should be achieved by the process team under the control of Process Operation Director.
Other, please specify (Energy Director)	Non-monetary reward	Energy reduction project Energy reduction target	In the energy benchmark study conducted in 2019, Limak Cement has ranked top 6 with its 4 factories among 52 integrated plants operating within Turkish cement sector Thanks to the investments done since 2008, Limak Cement is Turkey's best performance company in the energy consumption of the sector. Despite this outstanding performance, prioritizing continuous improvement in sustainability, Limak Cement continues to set new goals with innovative studies. Certification processes shall be concluded until 2023 for the plants not in possession of ISO 50001 Energy Management System. (Starting from 2019) 6.8% energy efficiency shall be ensured until 2026.
Other, please specify (Procurement Director)	Non-monetary reward	Environmental criteria included in purchases Supply chain engagement	In the energy benchmark study conducted in 2019, Limak Cement has ranked top 6 with its 4 factories among 52 integrated plants operating within Turkish cement sector Thanks to the investments done since 2008, Limak Cement is Turkey's best performance company in the energy consumption of the sector. Despite this outstanding performance, prioritizing continuous improvement in sustainability, Limak Cement continues to set new goals with innovative studies. Certification processes shall be concluded until 2023 for the plants not in possession of ISO 50001 Energy Management System. (Starting from 2019) 6.8% energy efficiency shall be ensured until 2026. The suppliers are evaluated according to their environmental impacts of whole operations. They are rated by using "Supplier Evaluation Form" and according their performances, the further procurement strategies are determined with those suppliers.
Other, please specify (Mining Department)	Non-monetary reward	Other (please specify) (R&D studies to decrease the fossil fuel and raw material consumptions)	The research for the alternative raw material to decrease the emission and increase the efficiency (The effective grindability raw material to decrease the energy consumption, fossil fuel with high calorific value).
Other, please specify (Corporate Finance and Risk Manager)	Non-monetary reward	Other (please specify) (Funding/Grant Alignment to Climate-Related Objectives)	Risk management includes both strategy and the operational sides. The determined risks are classified according to their severity, possibility and frequency rates and both Management & Sustainability Committee are informed about high level risks for advised alternative solutions and budget approval. The climate change and carbon trading are the major risks groups followed.
Other, please specify (Facility Directors)	Non-monetary reward	Other (please specify) (Implementation of the emissions reduction, energy reduction and efficiency targets)	Within the scope of emission reduction studies, facility managers should follow the defined KPIs to decrease in GHG emissions which is the major reason of climate related issues. All members of the factory are supported with required trainings, meetings etc. to raise awareness on their responsibilities and importance of sustainable development and climate related issues.
Other, please specify (Facility Environment/Sustainability Leaders)	Non-monetary reward	Other (please specify) (Monitoring of the emissions reduction, energy reduction and efficiency targets)	The monitoring of the production activities to ensure the KPIs are followed in all phases of process is major responsibilities of Facility Environment/Sustainability Leaders. The arrangement of the trainings to increase the sustainability and climate change awareness of the factory personnel.
All employees	Monetary reward	Behavior change related indicator	Limak Cement Group has a self-developed application named as LIMBES. It provides online access to HSE forms, entrance and exit control sheets, risk management documents, suggestion and complaint sheets. This application is available for all Limak Cement personnel with defined username and password so it provides convenient communication for all factory activities. We arranged HSE a near miss reporting competition through LIMBES among all blue-collar workers in Limak Anka Cement factory and the worker sharing highest amount of near miss report had a monetary reward. This type of monetary rewarded events could be organized to contribute corporate sustainability targets and climate related issues to be able to increase energy efficiency, decrease raw material consumptions and so on.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	1	3	Together with the current climate related issues, there could be further changes in regulations to limit the CO2 emissions, decrease fossil fuel usage, promote alternative fuel usage and increase the energy efficiency so these could cause in short-term risks if the required pre-studies were not conducted in advance. According to the provisions of the European Green Deal and Paris Agreement, the carbon pricing mechanism will become valid until 2023 so this will cause an economical burden for the importer/exporter companies. Also, climate change could cause unexpected weather conditions like heavy rains, floods, droughts, windstorms etc. and this will create short-term risks for operational activities.
Medium-term	3	5	The increase in CO2 level is one of the major sources of the climate related issues so low carbon economy became initial remediation strategy in worldwide. The formation of a carbon pricing mechanism and board tax (ETS or carbon tax) is accepted as best available technique for near future. These will bring some additional responsibilities to companies both financially and technically. The determination of future strategies according to those new trends will also provide great opportunity to company. The use of alternative fuels and biomass as fuel source is one of the common strategies to lower the carbon release during the operations. The organizations and individuals have started to have more environmental conscious and it will require to have a better Stakeholder Engagement strategy to present their environmental impacts in an understandable way. The raw materials for the clinker production are less available day by day together with increase in manufacturing capacity. The accelerating the research and development studies for alternative raw material will provide great opportunity for the future operations of company.
Long-term	5	10	The use of alternative energy sources such as renewable and clean energy to provide required energy for the clinker & cement manufacturing will become an obligatory in future since the negative effects of the fossil fuel to the environment have already started to be observed and it will continue much more dramatically in time. The participating in global organizations dealing with climate related issues and mitigation development strategies could provide real opportunities for the company to be able to plan their future manufacturing strategies in environmentally friendly way such as decrease clinker factor in cement, increase the use of alternative fuels and energy efficiency.

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

The Group defines existing and further risks in line with the criteria indicated in risk management plan of the company. The Sustainability and Climate Change department defines climate related risks by considering the current environmental situation of the affected regions and expected further risks for the Group operation both environmentally and financially. The risk analysis is updated and revaluated in determined period of time. Each department of the Group has weekly meeting with CEO and the major topics could be discussed on those meetings. Also, there are daily executive meetings which enables to discuss ongoing or latest topics with management so new detected risks and existing ones could be evaluated with related departments without any delay.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

Annually

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

Environmental risk analysis and assessment are performed in order to prevent negative impacts on the environment and society, to reduce them to a minimum level where they cannot be prevented and to ensure that appropriate measures are taken. As a result of these analyses and evaluations, mitigating or completely eliminating activities for the environmental impacts determined are determined as objective and continuously monitored. Related performance data and intensity indicators (per capita consumption) are collected and monitored and evaluated in line with the targets set. Corrective actions are determined with a continuous improvement approach, thus ensuring that measures are taken to eliminate potential negative issues and prevent their recurrence. The company periodically organizes trainings for all its employees on environmental management practices, environmental impact and dimensions, waste management and energy efficient use in order to raise environmental awareness in all areas of activity.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	"GHG Monitoring Reporting Verification" is the only regulation which is directly related with the climate related risks. The requirements of that regulation such as CO2 emissions calculation are provided with annual reports to Ministry of Environment. This report is prepared by the third-party company including audit observations and calculation verifications. The Paris Agreement did not affirmed by the Turkish parliament yet so there is no certain obligations and this report has no financial value for the company but it is an opportunity regarding the further updates on Turkish regulations.
Emerging regulation	Relevant, always included	The potential climate related risks are followed and identified by the Corporate Sustainability and Climate Change Department. Those risks are evaluated together with the Risk Department in Sustainability Committee. ETS and EU Green Deal are the major two emerging regulation within the scope of regulative action of the Turkey. Even though, Turkish Parliament did not confirm the Paris Agreement yet, the GHG emissions of the companies are followed in accordance with GHG Monitoring Reporting Verification" which is the only direct regulation related to climate change. The cement sector will be affected mostly from the carbon tax and other financial changes since it has one of the highest emissions among the other sector so the pre-studies have high importance for further changes. EU Green Deal is another hot agenda for the adjustment of climate related risks in Turkey. There should be some required adjustment strategies to have smooth integration period for further changes.
Technology	Relevant, always included	The technological developments mostly are aimed and presents carbon mitigation opportunities to companies but these technologies require high investment cost most of the cases. The emission reduction could be one of the major duties of the companies in future also due to the financial and legal obligations so the following the further technologies could provide opportunities to avoid from the sanctions. The Limak cement have existing and further strategies within that scope such as alternative fuel usage technologies and new clinker types causing less emission during the manufacturing.
Legal	Relevant, always included	The climate related risks are continuously evaluated and available strategies are implemented to current operations. Since the Turkish parliament did not confirm Paris Agreement, there is no strict obligations within that scope but Ministry conducts some pre-studies which identify potential carbon prices for the Turkey. Those studies are closely monitored by the Sustainability and Climate Change of the Group to be able to conduct the required pre-studies.
Market	Relevant, always included	The one of the major financial risks for the cement sector is carbon pricing. The market prices of the cement could change according to the further regulative applications. The climate related risks could also cause further burdens for the companies to be able to mitigate the environmental impacts. The Sustainability and Climate Change Department review and identify those risks and share with the related department of the Group to be able to evaluate the financial or other aspects of those risks. R&D department, Sales Department and Sustainability department are currently meeting on especially carbon pricing and low carbon strategies.
Reputation	Relevant, always included	The reputation of the Group directly affects the current operations and further investments. A high-quality risk management will be major tool to identify the major factor to be able to affect the reputation of the Group and it will be guideline to remove those factors before occurring. The Stakeholder Management has the highest importance to manage the Group reputation in all aspects. Unfortunately, the climate related issues were started to be perceived by the whole people and they started to react new investments which could add new pollutant sources to the nature. As Limak Cement Group, we are cooperating with professional consultancy firms in addition to our existing own strategies and studies to manage stakeholder processes of our investment ideally. The main purpose of the stakeholder engagement is the proper presentation of our sustainability and climate change strategies before getting reactions. These provide both financial and social benefits for the existing and further operations of the Group.
Acute physical	Relevant, always included	The acute physical risks could be defined as short term risks for our company. The unexpected natural events (floods, draughts, heavy rains, earthquakes, extreme hot weather etc.) are the major risk within that scope. They could cause interruptions for procurement operations of the imported process materials such as fuel, additives and so on. As Limak Cement Group, those issues are defined in risk management studies and the optimum precautions are determined and put in to operation.
Chronic physical	Relevant, always included	The chronic physical risks required detailed review to manage environmental, social and financial aspects of the existing and further investments. The cement factories are using significant amount of water and the water availability will be the one of major issues to be faced in near future so this could be one of the major chronic physical risk for our operation as well as whole humankind. A sustainable water supply or less water usage are our current strategies to get prepared for further issues. The Risk Management Department of the Group also works on detailed chronic physical risks according the current trends of the sector.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation	Carbon pricing mechanisms
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Primary potential financial impact

Increased indirect (operating) costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Even though Turkey have not confirmed yet, there will be carbon emission limitation within the scope INDCs (Intended Nationally Determined Contributions) of the Paris Climate Agreement and also, the Green Deal Agreement will determine carbon emission limitatations. The exceedence of those limitations will be regulated with a carbon pricing mechanism. Currently, there are two alternative carbon pricing mechanisms which are ETS (Emission Trading System) or Carbon Tax. European Countries are mostly using ETS system. According the State and Trends of Carbon Pricing document of the World Bank, despite on going developments, most carbon prices are low, with almost half of the covered emissions priced at less than US \$1 0/tCO2e but the High-Level Commission on Carbon Prices estimated that carbon prices of at least US\$40–80/tCO2 by 2020 and US\$50–100/tCO2 by 2030 are required to cost-effectively reduce emissions in line with the temperature goals of the Paris Agreement.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

118197769

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The total clinker production amount is 8583716 t CO2/year according to information gathered from Process Department. The CO2 density value of the Group was calculated 847 kg CO2/ t clinker. ETS cap for EU countries are accepted as 766 kg CO2 /t clinker as reference value. The difference between company data and cap value is around 81 kg CO2/t clinker. According to IHS Markit's Global Carbon Index, which is made up of prices from the California Compliance Allowance, RGGI, and European Allowance prices, the current weighted global price on carbon is equivalent to \$20.81 USD (shown in the chart below). The World Bank's data comes out with a similar price across its 61 jurisdictions at \$20.11 per tonne. By considering all these numbers, the approximate potential financial impact figure is calculated (1 \$ = 8.5 TL).

Cost of response to risk**Description of response and explanation of cost calculation****Comment**

The carbon pricing mechanism for the Turkey still in phase of development. The whole CO2 density and emission unit costs are taken from the current literature research. The exact number could be available following the conclusion of the meetings on those subjects.

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation	Other, please specify (Carbon Border Adjustment Mechanism (CBAM))
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Primary potential financial impact

Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Within the scope of European Green Deal, CBAM will be an obligation to be affected the importing studies of the companies. The application schedule of the CBAM is envisaged as two phases. During the transition period, which will start in 2023 and end in 2025, importers will not pay board tax but they will only apply the reporting requirements. Importers will pay the price for carbon in the second phase, which will start as of 2026. As another current topic, the countries that apply or are connected to the EU emissions trading system are exempt from CBAM. Since there is no current carbon pricing mechanism in Turkey, this exemption will not be valid for Turkey under the current circumstances.

According to the first scenario, if Turkey establishes ETS mechanism, the board tax will be calculated by multiplying the importing amount (ton) with price difference between Turkish ETS and EU ETS. As second scenario, if Turkey will not have a ETS mechanism, the board tax will be calculated by multiplying the importing amount (ton) with EU ETS prices.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

38760000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

According to the estimated numbers acquired from the study conducted by the and Turk Cimento to identify Carbon Border Adjustment Mechanism (CBAM), the responsible company will pay 9.5 € for the per tonnes of clinker (App. 1€ = 10.2 TL). According the information gathered from the related department of the Group, the approximate amount of imported cement to the Europe is 400.000 ton clinker/year. By considering all these numbers, potential financial impacts could be calculated.

Cost of response to risk**Description of response and explanation of cost calculation****Comment**

CBAM is an important source of risk for Turkey's exports. The fact that exporting powers such as China, Japan and South Korea, which are competitors of Turkey in the EU market after CBAM, accelerated the climate-compatible transformation, increased the urgency for Turkey. This risk can be turned into an opportunity with a transformation program that will cleanse the sectoral structure from carbon and pollution.

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Acute physical	Increased severity and frequency of extreme weather events such as cyclones and floods
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Primary potential financial impact

Increased indirect (operating) costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

The cement factories could be affected from the natural events such as cyclones, heavy rains, floods, draughts etc. The interruption of the raw material and fuel supply could happen due to such extreme natural events. This could cause operation stoppage which results with direct financial loss for the factory. For instance, there was heavy rain in Trakya Region last years and the floods coming from the quarries was caused stoppage in Tekirdağ Cement Plant since the most of the factory infrastructure was submerged and the raw material supply was interrupted.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

3500000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The approximate hourly cost of the factory was received from the process department and the financial loss due to this stoppage was calculated. The average stoppage period was considered as 5 days (App. 120 hours).The amount of total stoppage period was multiplied with the hourly cost and the potential impact figure is calculated.

Cost of response to risk**Description of response and explanation of cost calculation****Comment****C2.4****(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

Yes

C2.4a**(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.****Identifier**

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Other, please specify (Use of Alternative Fuel Sources)

Primary potential financial impact

Reduced indirect (operating) costs

Company-specific description

The use of alternative fuel sources such as RDF and biomass could provide an opportunity to decrease the CO2 emission and cost of fuel supply but it requires a continuous supplier to prevent any interruption in operation. The RDF and biomass manufacturing plants should be popularized in Turkey since the current number of the plants are not feasible for this type of integration. However, this system could be used as optional source for the fuel. As Limak Cement Group, we are using RDF as alternative fuel source one of our factories and it is planned to apply other factories in following years. Also, the current fuel sources are decreasing day by day and it will cause a

competitive environment in future so alternative raw material source could provide great opportunity in long term.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

3600000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The financial impact is calculated by using the unit price of the RDF in our current factory located in Tekirdağ province of the Turkey.

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation

The use of alternative fuels could provide both financial and environmental development opportunity for the Group since the current and further regulations are mostly focus on this type of industrial symbiosises to reduce the waste and emission amount. The cost of the currently used fuels are mostly higher than those alternative fuels.

Comment

The use of alternative fuel should be popularized and encouraged since it is one of the wise sustainable solution to mitigate the climate related risks without any loss of energy or source.

Identifier

Opp2

Where in the value chain does the opportunity occur?

Upstream

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Other, please specify (Use of Alternative Raw Materials)

Primary potential financial impact

Reduced indirect (operating) costs

Company-specific description

The alternative additive materials usage for less clinker usage to decrease CO2 emission could provide significant opportunity for the Group. The R&D department should follow the international developments on less carbon emitting clinker manufacturing methodologies and decrease in clinker amount for cement manufacturing. The most of the carbon emissions occur in clinker production phase so any mitigation strategy for that operation could provide significant benefit especially against further carbon pricing developments. Also, the current raw materials are decreasing day by day and it will cause a competitive environment in future so alternative raw material source could provide great opportunity in long term.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

6800000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation

The use of more sustainable materials during the production phase could provide long term solutions for the companies future strategies. The climate related risks and resource efficiency are inevitable concepts for future operations so creating alternatives and mitigation strategies will provide significant benefits for the lifetime of operations. Between 2017 and 2020, the total amount of alternative raw material usage is 214.273 tonnes and it provides 125.00 tonnes savings from natural raw material usage. This also provides 245.00 m3 saving from storage area. In 2020, the amount of raw material usage is calculated as 98.465 tonnes.

Comment

Identifier

Opp3

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of new technologies

Primary potential financial impact

Reduced indirect (operating) costs

Company-specific description

The cement sector has continuous energy demand to maintain its operations and the most of this demand was met by using the fossil fuels in global manner. This causes increase in carbon emission levels together with the increase in manufacturing capacity of the sector so the low carbon emission technologies are getting much more important to decrease the emitted carbon amount. Carbon Capture, Use and Storage (CCUS) is a technique for trapping carbon dioxide emitted from large point sources such as power plants, compressing it, and transporting it to a suitable storage site where it is injected into the ground. This technology has significant potential to help mitigate climate change both in Europe and internationally, particularly in countries with large reserves of fossil fuels and a fast-increasing energy demand. The amine washing process which is the most mature technology does not offer sufficient performance today to capture CO2 after combustion. Various technologies at different maturity and performance levels can be envisaged for the capture of CO2 (eg oxyfuel combustion, refrigerated ammonia technology, adsorptive processes, calcium cycling, etc.). Almost, all climate plans integrate CCUS into the equation, but R&D studies are still needed for these plans to be feasible. As Limak Cement Group, we are following the developments on the CCUS closely and planning to implement most feasible method to systems near future.

Time horizon

Long-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure**Cost to realize opportunity****Strategy to realize opportunity and explanation of cost calculation****Comment****C3. Business Strategy****C3.1****(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?**

Yes, and we have developed a low-carbon transition plan

C3.1a**(C3.1a) Is your organization's low-carbon transition plan a scheduled resolution item at Annual General Meetings (AGMs)?**

	Is your low-carbon transition plan a scheduled resolution item at AGMs?	Comment
Row 1	Yes	The current low-carbon transition activities and further strategies are discussed in AGMs together with the participation of Group Climate Change and Sustainability Leader. The potential activities are identified and scheduled together with the managers of other departments such as process, maintenance and R&D. The other climate related risks are also discussed and work plans are formed in AGMs following the review of the CEO. The financial, social and environmental aspects of the risks and opportunities are evaluated and action plans are prepared to be able to remove or mitigate risks before causing any devastating consequences.

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

Yes, qualitative and quantitative

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenarios and models applied	Details
Nationally determined contributions (NDCs)	As Limak Cement Gorup, we used our own data and other sector related data to be able to analyse existing and further risks and opportunities for our operations. Since the carbon emission is the major climate related risk especially for cement sector, Turkey government released Intended Nationally Determined Contributions Report to highlight climate actions, including climate related targets for greenhouse gas emission reductions, policies and measures governments aim to implement in response to climate change and as a contribution to achieve the global targets set out in the Paris Agreement even though the agreement was not signed yet. According to this report, there is a general 21% carbon emission reduction target by 2030 but the sectoral allocations were not defined. The carbon emission values are recorded in each factory of the Group and total number is presented in Sustainability Reports in each year. Regarding the carbon pricing mechanism, since there is no certain price per unit of CO2 emission, the estimated unit prices (around US \$10/tCO2e) in World Bank document were accepted for the scenario analysis.

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	Together with the increase in climate related risks, implementation of certain mitigation strategies become compulsory in global manner. The carbon pricing mechanism is major short term risk for the cement sector since it will cause extra burden for the cement companies in anyway but the proper design and implementation of this mechanism could provide great opportunity for the fight given against the climate related risks. The R&D studies should be accelerated to decrease the clinker use in cement production since most of the carbon emission occurs during the clinker production phase.
Supply chain and/or value chain	Yes	The supply chain department is also included in alternative fuel research studies due to the significant carbon emission of the fossil fuels. The alternative fuel has started to be used in Tekirdağ Factory of the Group in 2015 and the related projects are completed or ongoing for alternative fuel usage in other factories. The supply chain department required to develop new strategies to be able to procure alternative fuels with most suitable features with lowest price.
Investment in R&D	Yes	The R&D investments are required to be increased for alternative raw material and fuel researches. The less clinker more additive usage is the major R&D study conducted within the scope of mitigation of climate related risks. The Paris Agreement and European Green Deal promotes alternative fuel and raw material usage to be able to decrease emissions. R&D studies have big importance to implement those strategies without any loss in the physical and chemical features of the cement. Studies are conducted to evaluate the usability of volatile ash, bottom ash and synthetic gypsum from thermal power plants by cement producers through an effective quality management process in R&D activities. Two products of Limak Cement enabling the use of bottom ash as additive in the cement were certified with European Assessment Documentation (ETA) by European Organization For Technical Assessment (EOTA) in 2019 as a first in our country and in member states of the European Union. Activities and works with bottom ashes of thermal power plants at a close location for Kilis plant have been initiated and ETA certificate is aimed to be received for at least two products in the second half of year 2020.
Operations	Yes	The low carbon emission is required to be considered in all phases of the cement production to be able to mitigate the climate related risks. The replacement of the raw materials and fuel will cause some changes in process but it will be an acceptable change by considering the decrease in emissions.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Indirect costs Capital expenditures Capital allocation Acquisitions and divestments Access to capital	Rapid changes experienced in the last 2 years on economic, social and environmental domains as a result of the recent developments in the agenda of Turkey and the world have showed us that the sustainability dynamics have a structure prone to constant changes. Based on our leadership mission, we have revised our sustainability approach declared in order to act in passion and dedication in sustainability. Limak Group of Companies believes that a sustainable economic development is only feasible with an inclusive approach in case one has environmental and social awareness and on a healthy planet. Due to the increase in climate related risks in our era, together with the financial aspects, environmental aspects of the investments are also taken into consideration during the feasibility studies. The existing factories are redesigned or remediated to be able to emit less pollutants during the whole phases of operations. The alternative raw material and fuel sources are the major strategies focused on to be able to mitigate the current carbon emissions. Turkey is preparing to implement a carbon pricing mechanism in following years as requirements of Paris Climate Agreement and Green Deal and it will cause an obvious burden to the cement sector so the less carbon emission will alleviate this burden if it is properly implemented. The cost of the alternative fuels such as RDF and biomass is less compared to currently used fossil fuel so this could be considered as an opportunity also. The development and implementation of climate change and sustainability strategies provides reputation to the companies during their financial attempts such as grant, loan and credit applications, new project developments and so on.

C3.4a

(C3.4a) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Intensity target

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number

Int 1

Year target was set

2011

Target coverage

Business activity

Scope(s) (or Scope 3 category)

Scope 1

Intensity metric

Other, please specify ((Metric tons of CO2 per metric tons of clinker))

Base year

2008

Intensity figure in base year (metric tons CO2e per unit of activity)

868

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure

100

Target year

2023

Targeted reduction from base year (%)

3.91

Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]

% change anticipated in absolute Scope 1+2 emissions

5.36

% change anticipated in absolute Scope 3 emissions

0

Intensity figure in reporting year (metric tons CO2e per unit of activity)

847

% of target achieved [auto-calculated]

Target status in reporting year

Underway

Is this a science-based target?

No, and we do not anticipate setting one in the next 2 years

Target ambition

<Not Applicable>

Please explain (including target coverage)

Target reference number

Int 2

Year target was set

2008

Target coverage

Business activity

Scope(s) (or Scope 3 category)

Scope 2 (location-based)

Intensity metric

Other, please specify ((Metric tons of CO2 per metric tons of cement))

Base year

2008

Intensity figure in base year (metric tons CO2e per unit of activity)

60

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure

100

Target year

2023

Targeted reduction from base year (%)

33

Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]

% change anticipated in absolute Scope 1+2 emissions

5.36

% change anticipated in absolute Scope 3 emissions

0

Intensity figure in reporting year (metric tons CO2e per unit of activity)

43

% of target achieved [auto-calculated]

Target status in reporting year

Underway

Is this a science-based target?

No, and we do not anticipate setting one in the next 2 years

Target ambition

<Not Applicable>

Please explain (including target coverage)

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

Target(s) to increase low-carbon energy consumption or production

C4.2a

(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.

Target reference number

Low 1

Year target was set

2018

Target coverage

Business activity

Target type: absolute or intensity

Intensity

Target type: energy carrier

Other, please specify (Alternative Fuel)

Target type: activity

Consumption

Target type: energy source

Low-carbon energy source(s)

Metric (target numerator if reporting an intensity target)

Percentage

Target denominator (intensity targets only)

Other, please specify (ton RDF /year)

Base year

2018

Figure or percentage in base year

1482

Target year

2020

Figure or percentage in target year

21900

Figure or percentage in reporting year

21900

% of target achieved [auto-calculated]

Target status in reporting year

Achieved

Is this target part of an emissions target?

Yes

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain (including target coverage)

The alternative fuel usage operations were started in Trakya Cement Plant in 2018 with the available suppliers and usage amount was continuously increased to a certain level until 2020. The Group is also projected an alternative fuel usage system to Anka Cement Plant and the site activities will be started in following years. Together with this investment, the alternative fuel usage amount of the Group will reach much more higher levels and it will provide both financial and environmental opportunities surely.

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation		
To be implemented*		
Implementation commenced*		
Implemented*	13	109474
Not to be implemented		

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Energy efficiency in production processes	Other, please specify (Process Optimization, Energy Efficient Modernization of Factory Components, Alternative Fuel Usage Investments)
---	--

Estimated annual CO2e savings (metric tonnes CO2e)

109474

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period

Please select

Estimated lifetime of the initiative

Please select

Comment

Within the scope of efficiency development studies of Group, the modernization studies have been conducted in Sanliurfa, Ergani and Gaziantep Cement Plants from 2008 to 2011. The Ankara, Balikesir and Trakya factories were purchased from Italicement Group in 2011 and the capacity increase and modernization of the existing system were continued until 2015. The investments for the new technology equipment are maintained for the increase energy efficiency and decrease environmental impacts sourced from our operations up to 2019 in these plants. Anka Cement Plant (2019) and Kilis Cement Plant (2020) equipped with advanced manufacturing technologies put into operation. This new technology equipment provide less emission, less energy consumption and interrupted operation so less maintenance cost. In the light of global sustainability and climate change considerations, Trakya Cement Plant was equipped with alternative fuel usage system and it provides low carbon emission. The above estimated CO2e saving number represents the acquisitions from investments and modernization studies realized in within the body of whole Group from 2008 to 2020.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Dedicated budget for low-carbon product R&D	The major carbon emission occurs during the clinker production phase so carbon emission reduction could be achieved with the developments in clinker production process. Studies are conducted to evaluate the usability of volatile ash, bottom ash and synthetic gypsum from thermal power plants by cement producers through an effective quality management process in R&D activities. Two products of Limak Cement enabling the use of bottom ash as additive in the cement were certified with European Assessment Documentation (ETA) by European Organization For Technical Assessment (EOTA) in 2019 as a first in our country and in member states of the European Union. Activities and works with bottom ashes of thermal power plants at a close location for Kilis plant have been initiated and ETA certificate is aimed to be received for at least two products in the second half of year 2020.
Dedicated budget for other emissions reduction activities	In 2018, an Alternative Fuel Supply System was put into operation at the Trakya plant, reducing fossil fuel use in clinker production, thus restoring industrial-derived waste. In addition, the decrease in foreign exchange output due to fuel imports was recorded. In 2020, Limak Cement will continue to increase the amount of alternative fuel use by accelerating investments in alternative fuel systems (reducing fossil fuel use). In order to protect natural resources, the use of waste which may be an alternative raw material in clinker production continues effectively in all factories.
Dedicated budget for energy efficiency	In 2020, the plan for the establishment of WHR (Waste Heat Recovery) and RDF (alternative derived fuel) systems in Anka, Balikesir and Kilis factories will be financed by foreign lenders and feasibility studies are ongoing. WHR project contributes to the production of clean energy within the plant instead of energy purchased by the enterprise and further contributes to reducing the energy produced by fossil fuels outsourced and generated in power plants in the same amount. The carbon reduction of WHR with an installed capacity of 4.5 MW was calculated using the CO2 saving factor of the unit electricity in clean energy production as opposed to the fossil energy determined by UK Department of Environment Food and Rural Affairs (DEFRA). Accordingly, the annual carbon reduction contribution (YKAK) of the enterprise is calculated as 19.316, 88 t CO2 / y. It is assumed that 1 tree absorbs 12 kg of CO2 per year, and accordingly, CO2 savings achieved by 4.5 MW of WHR per year is equivalent to CO2 absorption of approximately 1.6 million trees. The amount of CO2 savings achieved reinforces steps towards greenhouse gas emission reduction and management of climate change risks. WHR systems reduce fossil fuel-derived energy consumption, contributes to the reduction of sectorial energy density, reduces energy costs and increased profitability, reduces the risk of rising energy prices and improves electricity supply reliability. Also, it stands out as creating opportunities for CO2 trade

C4.5

(C4.5) 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

C4.5a

(C4.5a) 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

Product

Description of product/Group of products

By the help of mineral additive content, a patented product named as Limak CEM PLUS + which reduces the carbon footprint has been obtained from the Turkish Patent Institute and ETA Document provided by EOTA for our cement product range, It is produced in our Balikesir, Kilis and Anka factories and used in high concrete class products. With the CEM Plus(+) product, the clinker usage rate is reduced by 5%. At Kilis Factory, the sales amount of TS EN 197-1:2012 CEM PLUS + 52.5 is 391.721 tonnes and the total cement sale amount of the factory is 1.049.739 tonnes. The percentage of the CEM PLUS + 52.5 sales amount in Kilis Factory is %37.3 and % 4.9 in whole Group.

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify (ETA Document provided by EOTA)

% revenue from low carbon product(s) in the reporting year

4.9

% of total portfolio value

<Not Applicable>

Asset classes/ product types

<Not Applicable>

Comment

Level of aggregation

Product

Description of product/Group of products

At Anka Factory, the sales amount of TS EN 197-1:2012 CEM PLUS + 42.5 is 661.729 tonnes and the total cement sale amount of the factory is 1.667.786 tonnes. The percentage of the CEM PLUS + 42.5 sales amount in Anka Factory is %39.37 and % 8.3 in whole Group.

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify (Approved by Turkish Patent Institute)

% revenue from low carbon product(s) in the reporting year

8.3

% of total portfolio value

<Not Applicable>

Asset classes/ product types

<Not Applicable>

Comment

Level of aggregation

Product

Description of product/Group of products

At Balikesir Factory, the sales amount of TS EN 197-1:2012 CEM PLUS + 42.5 is 159.944 tonnes and the total cement sale amount of the factory is 747.927 tonnes. The percentage of the CEM PLUS + 42.5 sales amount in Balikesir Factory is %21.4and % 2 in whole Group.

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify (Approved by Turkish Patent Institute)

% revenue from low carbon product(s) in the reporting year

2

% of total portfolio value

<Not Applicable>

Asset classes/ product types

<Not Applicable>

Comment

C-CE4.9

(C-CE4.9) Disclose your organization's best available techniques as a percentage of Portland cement clinker production capacity.

	Total production capacity coverage (%)
4+ cyclone preheating	100
Pre-calcliner	73

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start

January 1 2008

Base year end

December 31 2008

Base year emissions (metric tons CO2e)

1938115

Comment

Total direct emissions for clinker and cement production, mainly limestone calcination and fuels combustion

Scope 2 (location-based)

Base year start

January 1 2008

Base year end

December 31 2008

Base year emissions (metric tons CO2e)

187196

Comment

Total indirect emissions coming from the power consumption. We are consuming power from an interconnected grid, Reference factor the Ministry of Energy and Natural Resources (Turkey)

Scope 2 (market-based)

Base year start

January 1 2008

Base year end

December 31 2008

Base year emissions (metric tons CO2e)

187196

Comment

The location-based result has been used as a proxy since a market-based figure cannot be calculated.

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

IPCC Guidelines for National Greenhouse Gas Inventories, 2006

ISO 14064-1

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

WBCSD: The Cement CO2 and Energy Protocol

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

7376574

Start date

January 1 2020

End date

December 31 2020

Comment

This value refers to the scope 1 emissions of our organization in 2020.

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)

5339004

Start date

January 1 2019

End date

December 31 2019

Comment

This value refers to the scope 1 emissions of our organization in 2019.

Past year 2

Gross global Scope 1 emissions (metric tons CO2e)

6502164

Start date

January 1 2018

End date

December 31 2018

Comment

This value refers to the scope 1 emissions of our organization in 2018.

Past year 3

Gross global Scope 1 emissions (metric tons CO2e)

6582735

Start date

January 1 2017

End date

December 31 2017

Comment

This value refers to the scope 1 emissions of our organization in 2017.

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We have no operations where we are able to access electricity supplier emission factors or residual emissions factors and are unable to report a Scope 2, market-based figure

Comment

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based

441436

Scope 2, market-based (if applicable)

<Not Applicable>

Start date

January 1 2020

End date

December 31 2020

Comment

This value refers to the scope 2 emissions of our organization in 2020.

Past year 1

Scope 2, location-based

353495

Scope 2, market-based (if applicable)

<Not Applicable>

Start date

January 1 2019

End date

December 31 2019

Comment

This value refers to the scope 2 emissions of our organization in 2019.

Past year 2

Scope 2, location-based

439431

Scope 2, market-based (if applicable)

<Not Applicable>

Start date

January 1 2018

End date

December 31 2018

Comment

This value refers to the scope 2 emissions of our organization in 2018.

Past year 3

Scope 2, location-based

454289

Scope 2, market-based (if applicable)

<Not Applicable>

Start date

January 1 2017

End date

December 31 2017

Comment

This value refers to the scope 2 emissions of our organization in 2017.

C6.4

(C6.4) Are there 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?

No

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Within the scope of ISO 14064, these emission values are planned to be included in 2022 reports.

Capital goods

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Within the scope of ISO 14064, these emission values are planned to be included in 2022 reports.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Within the scope of ISO 14064, these emission values are planned to be included in 2022 reports.

Upstream transportation and distribution

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Within the scope of ISO 14064, these emission values are planned to be included in 2022 reports.

Waste generated in operations

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Within the scope of ISO 14064, these emission values are planned to be included in 2022 reports.

Business travel**Evaluation status**

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Within the scope of ISO 14064, these emission values are planned to be included in 2022 reports.

Employee commuting**Evaluation status**

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Within the scope of ISO 14064, these emission values are planned to be included in 2022 reports.

Upstream leased assets**Evaluation status**

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Within the scope of ISO 14064, these emission values are planned to be included in 2022 reports.

Downstream transportation and distribution**Evaluation status**

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Within the scope of ISO 14064, these emission values are planned to be included in 2022 reports.

Processing of sold products**Evaluation status**

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Within the scope of ISO 14064, these emission values are planned to be included in 2022 reports.

Use of sold products

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Within the scope of ISO 14064, these emission values are planned to be included in 2022 reports.

End of life treatment of sold products

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Within the scope of ISO 14064, these emission values are planned to be included in 2022 reports.

Downstream leased assets

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Within the scope of ISO 14064, these emission values are planned to be included in 2022 reports.

Franchises

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Within the scope of ISO 14064, these emission values are planned to be included in 2022 reports.

Investments

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Within the scope of ISO 14064, these emission values are planned to be included in 2022 reports.

Other (upstream)

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Within the scope of ISO 14064, these emission values are planned to be included in 2022 reports.

Other (downstream)

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Within the scope of ISO 14064, these emission values are planned to be included in 2022 reports.

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

No

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.00382

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

7818000

Metric denominator

unit total revenue

Metric denominator: Unit total

2042172689

Scope 2 figure used

Location-based

% change from previous year

Direction of change

<Not Applicable>

Reason for change

C-CE6.11

(C-CE6.11) State your organization's Scope 1 and Scope 2 emissions intensities related to cement production activities.

	Gross Scope 1 emissions intensity, metric tons CO2e per metric ton	Net Scope 1 emissions intensity, metric tons CO2e per metric ton	Scope 2, location-based emissions intensity, metric tons CO2e per metric ton
Clinker		0.847	0.031
Cement equivalent		0.697	0.043
Cementitious products		0.697	0.043
Low-CO2 materials			

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

No

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
Turkey	7376574

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By facility

C7.3b

(C7.3b) Break down your total gross global Scope 1 emissions by business facility.

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Ergani Cement Plant	476141	38.28	39.74
Kurtalan Cement Plant	534053	37.96	41.71
Kilis Cement Plant	1523982	36.8	37.02
Anka Cement Plant	1191604	39.6	32.42
Balikesir Cement Plant	856599	39.62	27.88
Trakya Cement Plant	1558210	41.63	27.5
Sanliurfa Cement Plant	1235985	37.28	38.73

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions , metric tons CO2e	Comment
Cement production activities		6907913	
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Electric utility activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
Turkey	416529	0	779974	0
Africa	24907	0	46555	0

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By facility

C7.6b

(C7.6b) Break down your total gross global Scope 2 emissions by business facility.

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Ergani Cement Plant	33737	
Kurtalan Cement Plant	37896	
Kilis Cement Plant	70575	
Anka Cement Plant	66157	
Balikesir Cement Plant	43464	
Trakya Cement Plant	91628	
Sanliurfa Cement Plant	55831	
Bitlis Cement Plant	7211	
Derik Cement Plant	6209	
Mozambique Cement Plant	12873	
Ivory Coast Cement Plant	12035	

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Cement production activities	441436		
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Increased

C7.9a

(C7.9a) 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.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption		<Not Applicable>		No change.
Other emissions reduction activities		<Not Applicable>		No change.
Divestment		<Not Applicable>		No change.
Acquisitions		<Not Applicable>		No change.
Mergers		<Not Applicable>		No change.
Change in output	1242260	Increased	18.57	Increase of cement production compared to 2019 with 1677 Kt
Change in methodology	85975	Increased	1.12	Increase of clinker amount in the cement with 1 % compared to 201 Increase of direct emissions with 2 kg/t clinker
Change in boundary		<Not Applicable>		No change.
Change in physical operating conditions		<Not Applicable>		No change.
Unidentified		<Not Applicable>		No change.
Other		<Not Applicable>		No change.

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 40% but less than or equal to 45%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	0	5753186.26	5753186.26
Consumption of purchased or acquired electricity	<Not Applicable>			
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>		<Not Applicable>	
Total energy consumption	<Not Applicable>			

C-CE8.2a

(C-CE8.2a) Report your organization's energy consumption totals (excluding feedstocks) for cement production activities in MWh.

	Heating value	Total MWh
Consumption of fuel (excluding feedstocks)	LHV (lower heating value)	5753186.26
Consumption of purchased or acquired electricity	<Not Applicable>	826529.68
Consumption of other purchased or acquired energy (heat, steam and/or cooling)	<Not Applicable>	<Not Applicable>
Total energy consumption	<Not Applicable>	6579715.95

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	No
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Fuels (excluding feedstocks)

Petroleum Coke

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

2401963

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

<Not Applicable>

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

95.31

Unit

kg CO2 per GJ

Emissions factor source

CO2 emission calculation reports of our plants.

Comment

Fuels (excluding feedstocks)

Other, please specify (Local Lignite)

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

38616

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

<Not Applicable>

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

95.34

Unit

kg CO2 per GJ

Emissions factor source

CO2 emission calculation reports of our plants.

Comment

Fuels (excluding feedstocks)

Other, please specify (Imported Lignite)

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

3254233

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

<Not Applicable>

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

95.26

Unit

kg CO2 per GJ

Emissions factor source

CO2 emission calculation reports of our plants.

Comment

Fuels (excluding feedstocks)

Fuel Oil Number 1

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

6834

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

<Not Applicable>

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

76.99

Unit

kg CO2 per GJ

Emissions factor source

CO2 emission calculation reports of our plants.

Comment

Fuels (excluding feedstocks)

Natural Gas

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization1348

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

<Not Applicable>

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

64.2

Unit

kg CO2 per GJ

Emissions factor source

CO2 emission calculation reports of our plants.

Comment

Fuels (excluding feedstocks)

Other, please specify (RDF)

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

49342

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

<Not Applicable>

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

73.3

Unit

kg CO2 per GJ

Emissions factor source

CO2 emission calculation reports of our plants.

Comment

C-CE8.2c

(C-CE8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel for cement production activities.

Fuels (excluding feedstocks)

Petroleum Coke

Heating value

LHV

Total MWh fuel consumed for cement production activities

2401963

MWh fuel consumed at the kiln

2401963

MWh fuel consumed for the generation of heat that is not used in the kiln

0

MWh fuel consumed for the self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Fuels (excluding feedstocks)

Other, please specify (Local Lignite)

Heating value

LHV

Total MWh fuel consumed for cement production activities

38616

MWh fuel consumed at the kiln

38616

MWh fuel consumed for the generation of heat that is not used in the kiln

MWh fuel consumed for the self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Fuels (excluding feedstocks)

Other, please specify (Imported Lignite)

Heating value

LHV

Total MWh fuel consumed for cement production activities

3254233

MWh fuel consumed at the kiln

3254233

MWh fuel consumed for the generation of heat that is not used in the kiln

MWh fuel consumed for the self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Fuels (excluding feedstocks)

Fuel Oil Number 1

Heating value

LHV

Total MWh fuel consumed for cement production activities

6834

MWh fuel consumed at the kiln

6834

MWh fuel consumed for the generation of heat that is not used in the kiln

MWh fuel consumed for the self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Fuels (excluding feedstocks)

Other, please specify (RDF)

Heating value

LHV

Total MWh fuel consumed for cement production activities

49342

MWh fuel consumed at the kiln

49342

MWh fuel consumed for the generation of heat that is not used in the kiln

MWh fuel consumed for the self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity				
Heat	5753186.26	5753186.26		
Steam				
Cooling				

C-CE8.2d

(C-CE8.2d) Provide details on the electricity and heat your organization has generated and consumed for cement production activities.

	Total gross generation (MWh) inside the cement sector boundary	Generation that is consumed (MWh) inside the cement sector boundary
Electricity		
Heat	5753186.26	5753186.26
Steam		

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

Description

Waste

Metric value

21900

Metric numerator

tonnes RDF /year

Metric denominator (intensity metric only)

% change from previous year

999

Direction of change

Increased

Please explain

In 2018, an Alternative Fuel Supply System was put into operation at the Trakya plant, reducing fossil fuel use in clinker production, thus restoring industrial-derived waste. In addition, the decrease in foreign exchange output due to fuel imports was recorded. In 2019, the amount of RDF usage is 1632 tonnes and it was 21.900 in 2020. It means the percentage of change from the previous year is around 1242.

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

Investment in low-carbon R&D	Comment
Row 1 Yes	<p>Our focus is on activities such as reducing the carbon footprint of products with the awareness of "Responsible Production - Consumption", one of the Sustainability Development Goals, making products with low cement clinker ratio, raising awareness in optimization studies of mineral-added cement in special and high-class ready-mixed concrete projects, and making environmental product declarations. With zero waste awareness, it is among our goals to increase the use of alternative raw materials and alternative waste throughout the Group.</p> <p>In the Cement Central Laboratory, which is independent from the laboratories in our factories and facilities and established to carry out R&D studies, optimization of alternative products, waste analysis, special experiments such as cookability are conducted. CO2 reduction studies based on the use of alternative raw materials are carried out in order to be included in the low carbon roadmap.</p> <p>Limak Cement Group has 3 Ready-Mixed Concrete Laboratories in Ankara-Güvercinlik, İstanbul-Yenibosna and Şanlıurfa with TS EN ISO / IEC 17025 Accreditation certificate from TÜRKAK. Together with the routine product controls of our cements, these laboratories, which dominate the geography of Turkey, provide services for the workability of fresh concrete, control of setting times, monitoring of the strength of cement by affecting the hardened concrete properties, and conducting ready-mixed concrete tests for project-based special requirements, as well as the routine product controls of our products.</p> <p>Additionally, Mozambique Limak Cimentos SA has a R&D laboratory to provide compliance of their products with the local standards and requirements of Laboratorio De Engenharia de Moçambique. Also, the factory received the country's first local product certificate in 2018, has the "Made in Mozambique" certificate, one of the country's prestigious quality indicators. As an extension of the continued commercial activities, the plant has been appointed to the management of the Mozambique Chamber of industry in 2020. Limak Cimentos SA, which was deemed worthy of the "Best Industrial Investment in Mozambique Award", organized afforestation and social activities on June 5th, World Environment Day.</p> <p>Limak Africa SA also has a R&D laboratory to provide compliance of their products with the local standards and requirements.</p>

(C-CE9.6a) Provide details of your organization's low-carbon investments for cement production activities over the last three years.

Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (optional)	Comment
Low clinker cement	Full/commercial-scale demonstration	≤20%		Thanks to its mineral additive content, a patented product named as CEM PLUS+ has been obtained from the Turkish Patent Institute for our cement product that reduces its carbon footprint. It is produced in our Balıkesir, Ankara and Kilis factories and is used in high concrete class products. With the CEM Plus(+) product, the clinker usage rate is reduced by 5%.
Alternative low-CO2 cements/binders	Full/commercial-scale demonstration	≤20%		Studies are conducted to evaluate the usability of volatile ash, bottom ash and synthetic gypsum from thermal power plants by cement producers through an effective quality management process in R&D activities. Two products of Limak Cement enabling the use of bottom ash as additive in the cement were certified with European Assessment Documentation (ETA) by European Organization For Technical Assessment (EOTA) in 2019 as a first in our country and in member states of the European Union. Activities and works with bottom ashes of thermal power plants at a close location for Kilis plant have been initiated and ETA certificate is aimed to be received for at least two products in the second half of year 2020.
Alternative low-CO2 cements/binders	Basic academic/theoretical research	0%		Limak Cement Anka Branch from the building materials sector was selected for the Preliminary Evaluation Support Project of the Turkish Circular Economy Platform, implemented by the Sustainable Development Association (SKD), of which we are a member, in cooperation with the EBRD. With the project, it is aimed to raise awareness about the circular economy and to determine the priority areas of opportunity related to the circular economy by considering the processes, input outputs and value chains of the companies, primarily by looking at material exchanges (industrial symbiosis).
Carbon capture, utilization and storage (CCUS)	Basic academic/theoretical research	0%		<p>Limak Çimento supports the "Low-Carbon Pathways for Industrial CO2 Utilization, Transport, and Storage (LowCarbonPath)" project application under the coordination of the Delft University of Technology in response to the European Commissions' H2020 call "Low carbon industrial production using CCUS".</p> <p>Since the official announcement of the fully adherence on the Sustainability Development by Limak Group, Limak Çimento Sanayi ve Ticaret A.Ş. build its priorities and strategies for sustainability on United Nations Sustainable Development Goals. In this respect, Limak Çimento Sanayi ve Ticaret A.Ş. aims to contribute to the global response to the threat of climate change (SDG13) by being a responsible consumer and producer with an "ecological" economic growth (SDG12) with a strong global partnerships and cooperation (SDG17) under innovation and technological progress for both economic and environmental challenges (SDG9). With the LowCarbonPath Project, Limak Çimento ve Sanayi Ticaret A.Ş. will focuses on how to manage the industrial output of its production under an innovative project enabling us to handle efficiently and economically the technologies related to the elimination of its output.</p> <p>As Low Carbon Path aims to deploy CO2 capture and utilization on Cement Sector, as well as develop a feasible study which can be used to create infrastructure for the transport of this CO2 by pipeline from Limak Anka Cement Plant in Ankara. Limak Cement Group would like to fully support the Low Carbon Path application by taking an active role on the External Advisory Committee of the project by overseeing progress, providing advice regarding the CCUS cluster development and operation, providing data regarding CO2 emissions from CO2-intensive processes taking place in the cement plant and facilitating dialogue between the various stakeholders involved in order to maximize the project's impact.</p> <p>Limak Cement Group will not be only an important stakeholder as operator of essential CO2 transport infrastructure, but also it is expected that the knowledge built up in this project will inform and enable the ongoing CCUS initiatives in Turkey, and more broadly to the eastern European region.</p>
Alternative low-CO2 cements/binders	Basic academic/theoretical research	0%		<p>As Limak Cement Group, research studies about the usage of alternative raw materials from the waste and/or by-products of other energy intensive sectors are carried out in all factories. Within the scope of these studies, industrial scale cement production trials have been conducted with the waste of the plastics industry, electric arc furnace slags from the iron and steel industry, sewage sludges of Organized Industrial Zones, waste of marble sector, construction & demolition waste, bottom ash from thermal power plants, and petroleum drilling waste. In this context, utilization of alternative raw materials that give appropriate results is continued, and when appropriate conditions are provided, these products are certified or patented.</p> <p>With the aim of the zero waste approach and carbon emissions reduction, joint cooperation are made with regional Development Agencies to find alternatives for reducing the burnability temperature.</p> <p>Within the short-term plans, it is planned to be an industrial partner in the project consortiums that will take part in the calls of Cluster 5 Climate, Energy and Mobility opened within the scope of Horizon Europe.</p>

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	No third-party verification or assurance
Scope 3	No emissions data provided

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Ergani_Cement_Plant_Ver_Rep_2020.pdf
Trakya_Cement_Plant_Ver_Rep_2020.pdf
Balikesir_Cement_Plant_Ver_Rep_2020.pdf
Kurtalan_Cement_Plant_Ver_Rep_2020.pdf
Urfa_Cement_Plant_Ver_Rep_2020.pdf
Anka_Cement_Plant_Ver_Rep_2020.pdf
Kilis_Cement_Plant_Ver_Rep_2020.pdf

Page/ section reference

All these data were also used to present annual performance of company in Sustainability Report. Both National and International guidelines, protocols (IPCC Guidelines for National Greenhouse Gas Inventories, 2006, ISO 14064-3, The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition), WBCSD: The Cement CO2and Energy Protocol) were followed to assure and regulate the shared data.

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

No, we do not verify any other climate-related information reported in our CDP disclosure

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

No, but we anticipate being regulated in the next three years

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

Although there is no valid regulation regarding the carbon pricing in Turkey, we are recording our carbon emission values since 2008. The Paris Climate Agreement and Green Deal Adjustment are the main sources for the determination of carbon pricing mechanism in Turkey. There are two major potential carbon pricing methods which are carbon tax or ETS mechanism for the further strategies of Turkey. Corporate Sustainability and Climate Change department of the Group continuously pursues the current affairs closely in global scale and works on development strategies to achieve low carbon emission, carbon capture, alternative fuel and raw material usage targets since these type of developments could significantly decrease the future carbon costs of the Group.

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

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

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes, our customers

Yes, other partners in the value chain

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Engagement & incentivization (changing supplier behavior)

Details of engagement

Run an engagement campaign to educate suppliers about climate change

% of suppliers by number

% total procurement spend (direct and indirect)

% of supplier-related Scope 3 emissions as reported in C6.5

Rationale for the coverage of your engagement

As given in 2018-2019 Limak Group Sustainability Report, one of the major sustainability targets is creating sustainability consciousness to our whole suppliers.

Impact of engagement, including measures of success

Comment

The percentage of suppliers by number and total procurement spend are not being followed systematically yet but it will be one of our further target to be able to observe the engagement of our suppliers numerically.

Type of engagement

Engagement & incentivization (changing supplier behavior)

Details of engagement

Other, please specify (Supply Chain Management Including Environmental Considerations)

% of suppliers by number

% total procurement spend (direct and indirect)

% of supplier-related Scope 3 emissions as reported in C6.5

Rationale for the coverage of your engagement

In the process of Supplier Selection and Evaluation carried out as part of the Purchasing Procedure, the criteria such as quality, performance, references, certificates and economic criteria are taken into consideration. The approved supplier is added to the list of approved suppliers.

The firms which would take place in the List of Approved Suppliers for the first time in their areas of activity need to have sufficient bench capacity, machine park and organization, expertise on their subject matters and have at least 2 years of experience, indicate at least 2 positive references in the similar or same sector in the works that they have undertaken, and have at least one of the necessary quality certifications for the area of activity (TSE, ISO, OHSAS, CE and the like).

In the evaluation of the suppliers, the scores given against the criteria are added up. Scoring for the partially achieved items is made according to the percentage of achievement. In order to continue to work with the firms, the firm needs to get at least 50 points out of 100 in the evaluation. If none of the firms is able to pass 50 points out of 100 in the same area of business, the businesses are made with the firm which scored the highest point.

Together with the above mentioned items, the sustainability and climate change strategies of the current and potential suppliers became essential criteria since there are significant increase in climate related risks in all around the world. The supplier which a proper environmental management system such as ISO 14001 and mitigation strategies to decrease its emissions will have advantages during the scoring period of the suppliers.

For instance, there is internal transportation companies in all factories to carry the raw materials from quarries to plants. During the selection of supplier for internal transportation, the maintenance and age conditions of vehicles play significant role since the new models and well cared vehicle will cause low carbon emission and less natural source consumptions.

Impact of engagement, including measures of success

Comment

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement

Collaboration & innovation

Details of engagement

Run a campaign to encourage innovation to reduce climate change impacts

% of customers by number

16

% of customer - related Scope 3 emissions as reported in C6.5

Portfolio coverage (total or outstanding)

<Not Applicable>

Please explain the rationale for selecting this group of customers and scope of engagement

The Group R&D department conducts studies on cement manufacturing techniques with low carbon emission. The CEM PLUS+ which is new developed cement type including more additive and less clinker put on the market to collaborate with the customers to mitigate climate related risk by preferring more environmental friendly products. This is one of our main strategy to create and improve sustainability consciousness of our customers and new markets while maintaining our financial development in worldwide.

Impact of engagement, including measures of success

C12.1d

(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.

1- H2020 : LC-SC3-NZE-5-2020: Low carbon industrial production using CCUS (Tupras)

Tüpraş has released an announcement on its participation to a consortium for the project application within the scope of LC-SC3-NZE-5-2020: Low carbon industrial production using CCUS. In the project, it is aimed to combine the carbon dioxide captured from a gas stream with the hydrogen to be produced from a renewable source and then convert it into valuable chemicals by thermocatalytic method. Tüpraş is planning to take part in various work packages, especially the design, installation and operation of the carbon dioxide capture and conversion demo unit, which is aimed to be established in the its Kırıkkale Refinery site.

By 2020, the CCUS project calls target research into possible scenarios that will complete a full circular carbon chain, including carbon capture and conversion, as well as carbon storage and different uses. In this project, it is planned to create a business plan within the scope of creating a communication network in which organizations from the industry will also participate, transporting the carbon dioxide, steel, paper, etc., which are located around Kırıkkale Refinery and emit CO₂e captured from the organizations in this network through pipelines and storing it in an appropriate region. Since the mentioned works will be scenario-based, no actual work, installation or construction will be carried out and will not impose a financial obligation or a workload on the organizations participating in the network.

Potential project partners are expected to contribute to the technology to be developed in the project by sharing their technical competencies and opinions in the advisory committee and sharing some information such as approximate carbon dioxide emission information with the consortium members.

Limak Cement Group supported the Tüpraş with letter of support to strengthen the project applications and play a role in their positive evaluation and planned to be a project partner in case of application of the consortium is accepted.

2- Industrial Symbiosis Project (ETI Mining Company - South Marmara Development Agency)

The scope of the project could be defined as use of boron intermediate products and wastes generated as end product of Operations Directorates of the General Directorate of ETI Mining in cement production at Limak Balıkesir Cement Factory, the preparation of a preliminary feasibility report for this industrial symbiosis cooperation and the development of projects and applications for the calls to be made within the scope of the Horizon European Framework Program in order to contribute to the realization of the possibility of symbiosis and the introduction of the new product to the market.

The protocol for the dissemination of industrial symbiosis practices in the TR22 Region (Balıkesir-Çanakkale) through the use of boron intermediates and wastes in the cement sector was signed by the project partners and the project development studies are still proceeding.

3 -Pre-Assessment Support Project of Turkish Circular Economy Platform (BCSD Turkey - EBRD)

Limak Anka Cement Plant from building materials industry, is elected to Pre-Assessment Support Project of Turkish Circular Economy Platform, launched in collaboration between EBRD and Sustainable Development Society (SDS). Project aims raising awareness on the circular economy and identifying the priority opportunity areas relating to circular economy notably looking at the material exchanges (industrial symbiosis) by considering the processes, inputs-outputs and value chains of the companies.

At the end of project, the academic expert on cement sector from Afyon Kocatepe University Civil Engineering Department has presented potential alternative raw material sources (marble residuals, water treatment sludge, moulding sand, construction waste, fluoride enrichment plant wastes, diatomite wastes etc.) and available suppliers at the near region of the Anka Cement Plant with a final report.

4- Turkish Material Market (TMM) Project (BCSD Turkey - EBRD)

Limak Cement Group participated in the establishment studies on Turkey Material Market system together EBRD and BCSD Turkey. BCSD Turkey is the local network and partner of World Business Council for Sustainable Development (WBCSD) in Turkey, and it is in a strong cooperation with its parent organization. By joining the Circular Economy Platform community of Turkey, you will see the main actors (designers, entrepreneurs, industry experts, manufacturers, investors, recyclers, etc.) as well as sectoral associations and public institutions and it makes it easier for you to cooperate in line with the purpose. Limak Cement carried out 10 13 14 EWC coded waste transfer from Polisan company to use in Balıkesir Cement Plant as alternative raw material by using TMM platform.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

Direct engagement with policy makers

Other

C12.3a

(C12.3a) 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 with major exceptions	Limak Cement is one of the contributors in the carbon reporting preparations of policy makers. The carbon emission values are recorded and evaluated since 2008 in our factories. The low carbon emission technologies and other carbon mitigations are pursued in global manner. During the meetings with the policy makers, the conducted investigations and improvements are presented to provide an additional perspective for the establishment of most comprehensive and useful carbon reporting system.	The current legislative studies are supported with company data and the developing remarks as result reviewing current global applications are presented to the Ministry. The negotiations with the Turkish Cement Manufacturers Association (TCMA) for the legislative studies of policy makers create more feasible application within that scope.
Cap and trade	Support	There are significant development studies on carbon trade and carbon pricing in all around the world. Due to the increasing burden of the carbon on our planet, the most of the countries and companies try to contribute to studies of both national and international policy makers. The provisions of the Green Deal Adjustment and Paris Climate Agreement are the main source to estimate approximate monetary amount of the further executions.	The World Bank funds the PMR (Carbon Market Readiness Partnership Program) Project in Turkey. This project could provide a basis for carbon tax or ETS mechanism.
Energy efficiency	Support	The Ministry of Environment and Urbanization conducts Determination of the Compliance Situation and the Requirements of the Cement Manufacturing Facilities Subjected to Intergrated Environmental Permit (IEP) Project. National Guideline on Current Best Available Techniques (BAT) for Cement Sector has been prepared within the scope of this project. Limak Cement Group support the Ministry during the preparation period of this Guideline by providing requested process data, factory visits and technical knowledge sharing on manufacturing processes.	Together with the sharing of current site practices, theoretical content of the mentioned guidelines and regulations is aimed to be more realistic and feasible for the site practices.

C12.3e

(C12.3e) Provide details of the other engagement activities that you undertake.

In 2014, we have signed the United Nations Global Compact, one of the most substantial steps taken by the private sector towards the sustainable development, with the vision of "sustainable and comprehensive global economy" and suggesting universal principles to establish a mutual development culture in the business world in a constant competition as Limak Group of Companies. Since the day of our signatory, we have supported and consolidated 10 principles of the Global Compact in our entire group.

In the year of 2015, we have taken the first concrete step of our universal sustainability practices by signing the Women's Empowerment Principles, created in cooperation with the UN Global Compact and the UN Gender Equality and Women's Empowerment Unit (UN Women), in order to empower women in society, business life and economic life as Limak Group of Companies.

C12.3f

(C12.3f) 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?

The overall climate change strategies of our Group is always determined and implemented in global manner due to the lack of national regulations and guidelines on that subject. We are the member of Turkish Cement Manufacturers Association (TCMA) representing Turkish cement sector in European Cement Association (CEMBUREAU) since 1972, in European Concrete Paving Association (EUPAVE) since 2009 and in Turkish Construction Products Producers Federation (YÜF) since 2005. These memberships provide us to keep updated ourself about sectoral issues, chance of having word on further strategy development studies, new developed technologies and ongoing studies etc.

Limak Africa SA is member of The Association of Cement Producers of Cote d'Ivoire (APCCI) to be able to have a word on the further strategical developments regarding the sustainability and climate change issues such as carbon tax, climate related risks, mitigation studies for the emissions etc.

Limak Cimento SA became the member of Mozambique Chamber of industry in 2020. This will provide the envision chance for the further environmental risks and opportunities.

C12.4

(C12.4) 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

In voluntary sustainability report

Status

Underway – previous year attached

Attach the document

Limak_Sustainability_Report_2018_2019.pdf

Page/Section reference

From Page 62 to 79, the all sustainability strategies and related emission datas of Limak Cement Group are shared.

Content elements

- Governance
- Risks & opportunities
- Emissions figures
- Emission targets

Comment

Limak releases one Sustainability Report for all group of companies every two years. These companies share their data and strategies with Limak corporate office and they integrated them to Sustainability Report. In Limak Group of Companies, monitoring all sustainability activities and performance, determining the performance indicators required to monitor this performance, performance and practices within the scope of sustainability priorities . The sustainability management, which we call "Limak Sustainability Leadership", consists of the "Sustainability Governance Platform" with representatives from all our companies under the leadership of Chairperson and the related target committees and support office. Sustainability Governance Platform will provide instantenous availability to collected sustainability data from whole group of companies.

C15. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Chief Executive Officer	Chief Executive Officer (CEO)

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission
I am submitting my response	Investors	Public

Please confirm below

I have read and accept the applicable Terms