Welcome to your CDP Climate Change Questionnaire 2023

C0. Introduction

C0.1

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

Akcansa, a JV of Sabancı Holding and Heidelberg Materials, is a leading Turkish Cement Manufacturer. Operating in the Marmara, Aegean & Black Sea regions, Akçansa produces cement and clinker in its three integrated cement production facilities located in Istanbul-Büyükçekmece, Çanakkale, and Samsun-Ladik. Company also has 2 ports and three cement terminals located in Istanbul-Ambarlı, İzmir-Aliağa and Yalova. Additionally, company has ready-mixed concrete operations under Betonsa brand at 26 facilities and aggregates operations under Agregasa brand in 2 facilities. Akçansa aims to be “the highest quality in production and service” in order to meet the demands of both its domestic and international customers and to compete beyond the price. Akçansa, meets 7% of Türkiye's cement need as well as 11% of Türkiye's total cement and clinker export with its products complying to the global quality standards, its eco-friendly identity awarded by the Istanbul Chamber of Industry, its innovative sustainable products, its outstanding service understanding, and its plants equipped with high technology. Akçansa’s vision statement “Sustainable growth beyond all limits” reflects Company’s Business Strategy that is formed by accepting sustainability as an integral part of its business model and one of its core enablers. The sustainability journey dates back to 2009 when Sustainability Committee was established, and 2020 Sustainability Ambitions were set. The sustainability vision is maintained by the Company’s mission as well which is “to be a leading building materials company” enhancing the quality of life of the society by means of our culture committed to environmental, legal and ethical principles. Akçansa’s climate change strategy mainly focuses on reduction of CO2 emissions through maximizing alternative fuels and biomass, decreasing rate of clinker in cement and concrete, increasing energy efficiency and renewable energy use. Akçansa adopts a sustainability management approach as the main element of its corporate vision, covering all business processes from raw material production to after-sales services to end-users. Akçansa is participatory of the UN Global Compact, UN Women’s Empowerment Principles, CDP Climate Change/Water programs and a member of WBCSD Türkiye.

Akçansa set 2030 sustainability targets in 2020. In 2021, Sustainability Department was established. In the new sustainability management structure, the sustainability strategy and performance are embraced at the level of the Board of Directors (BoD). The BoD defines, approves and reviews the sustainability vision and strategy, policies, risks and opportunities of

the company in line with the sustainability priorities. All activities related to sustainability are overseen by the Corporate Governance Committee (CGC) with the authorization of the BoD. Sustainability Committee (SC) takes the key position to set targets and to develop projects. SC is chaired by Deputy General Managers (DGM) of Operations and Human Resources Functions who directly report to General Manager (GM). Committee Members are heads of Akçansa's 6 sustainability pillars. Working Groups (WGs), reporting to SC, develop and implement projects to reach sustainability targets. SC reports to Sustainability Steering Committee (SSC) which consists of Akçansa Executive Committee Members (GM and DGMs) and a dedicated Board Member who is also a member of CGC. SSC's main mission is to approve and follow up sustainability targets & projects. SSC reports to BoD. In BoD, Chair represents Sabancı Holding and Vice President represents Heidelberg Materials. Akçansa GM shares key sustainability KPIs and relevant ongoing projects to BoD regularly. SSC, CGC and BoD directly own the whole process of setting up of sustainability strategy, target follow up and approval of investments. The climate targets (mitigation and adaptation) are defined by DGM-Operations together with Plant Managers who are direct reports of DGM-Operations and Sustainability Manager (SM) reporting to GM. SM is also responsible from coordination of all corporate sustainability and climate activities, internal and external communication of ESG issues. Environmental Executive (EE) who is also direct report to DGM-Operations plays a key role in implementation of climate actions. Environmental engineers at production plants are direct reports to EE and responsible of 14001 EMS management, compliance to regulations, CO2 emissions follow-up/calculations/reporting. Targets are extended to relevant employee by annual personal performance targets. Also, climate-related targets are among company targets. CO2 emissions (total of 3 facilities) are reported annually to Ministry of Environment, Urbanization and Climate change as well as Heidelberg Materials. CO2 calculations are based on WBCSD Cement Sustainability Initiative Cement CO2 and Energy Protocol, Version 3.1 CO2 Emissions and Energy Inventory.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.

Reporting year

Start date

January 1, 2022

End date

December 31, 2022

Indicate if you are providing emissions data for past reporting years

Yes

Select the number of past reporting years you will be providing Scope 1 emissions data for

3 years

Select the number of past reporting years you will be providing Scope 2 emissions data for

3 years

Select the number of past reporting years you will be providing Scope 3 emissions data for

Not providing past emissions data for Scope 3

C0.3

(C0.3) Select the countries/areas in which you operate.

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
Aggregates production
Concrete production

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, a Ticker symbol	AKCNS

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 or committee	Responsibilities for climate-related issues
Board Chair	Board of Directors are the highest-level individuals with direct responsibility for all sustainability and climate-related issues such as but not limited to climate strategy, mitigation actions, policies, risks and opportunities. Board Chair is representing Sabancı Holding as President of Building Materials Business Unit. He is informed by Akçansa CEO (General Manager) on behalf of the Sustainability Steering Committee in every Akçansa Board Meeting. Chair's responsibility is to define sustainability vision, strategy, risks and opportunities, approving policies, targets and frameworks. Akçansa's sustainability strategy and the most recent Akçansa 2030 Sustainability Targets including the climate-related targets were approved by the Chair and all other Board Members as well as the sustainability governance structure. Akçansa's 2030 target is to reduce specific net CO2 emissions to 649 kg per ton of cementitious material. In March 2023, Akçansa committed to Scienced Based Targets Initiative to set more ambitious targets in line with the Paris Agreement with the approval of the Board. Board Chair is also informed by Sustainability Manager to review and oversee the sustainability progress and climate related actions via monthly meetings or more often if needed.
Other, please specify Vice Chair	Board of Directors are the highest-level individuals with direct responsibility for all sustainability and climate-related issues such as but not limited to climate strategy, mitigation actions, policies, risks and opportunities. Vice President is representing Heidelberg Materials as Vorstand Member responsible from Africa & East Mediterranean region. He is informed regularly by Akçansa CEO on behalf of the Sustainability Steering Committee in Akçansa Board Meetings. His responsibility is to define sustainability vision, strategy, risks and opportunities, approving policies, targets and frameworks. Akçansa's sustainability strategy and the most recent Akçansa 2030 Sustainability Targets including the climate-related targets were approved by the Vice Chair as well as the sustainability governance structure. Akçansa's 2030 target is to reduce specific net CO2 emissions to 649 kg per ton of cementitious material. In March 2023, Akçansa committed to Scienced Based Targets Initiative to set more ambitious targets in line with the Paris Agreement

	with the approval of the Board. He is also informed by Sustainability Manager to review and oversee the sustainability progress and climate related actions monthly or more often if needed.
Director on board	Board of Directors are the highest-level individuals with direct responsibility of all sustainability and climate-related issues such as but not limited to climate strategy, mitigation actions, policies, risks and opportunities. Board Members other than the Chair and Vice President have the responsibility to oversee the sustainability related operations in addition to discuss, propose, monitor and inspect sustainability vision and strategy. Akçansa's sustainability strategy and the most recent Akçansa 2030 Sustainability Targets including the climate-related targets were approved by the Directors on the Board as well as the sustainability governance structure. Akçansa's 2030 target is to reduce specific net CO2 emissions to 649 kg per ton of cementitious material. In March 2023, Akçansa committed to Scienced Based Targets Initiative to set more ambitious targets in line with the Paris Agreement with the approval of the Board. One of the Board members is the Chair of Early Risk Identification Committee which evaluates climate-related risks and opportunities as well. Moreover, another Board Member is Chair of Corporate Governance Committee that has the responsibility to track the progress on sustainability targets, climate-related operations, implementation of climate and sustainability related projects throughout the value chain. He is informed by Sustainability Manager to review the sustainability progress and climate related actions quarterly via Corporate Governance Committee meetings or more often if needed. He is also a member of Sustainability Steering Committee. All sustainability and climate related responsibilities were defined in committee charters which are publicly published via website and via Annual Reports.
Board-level committee	Corporate Governance Committee (CGC) is authorized by the Board of Directors. It oversees the work of the Sustainability Steering Committee, which operates in line with the sustainability strategy. CGC is following the progress in the priority sustainability issues, material topics, risks and opportunities determined and approved by the Board of Directors, and policies established and approved accordingly. CGC Evaluates the Sustainability Steering Committee's recommendations for environmental, social and governance (ESG) practices and makes remedial recommendations to the Board of Directors on ESG issues. CGC monitors the company's compliance with sustainability principles. CGC also reviews sustainability targets and follows up the progress closely at each committee meeting. The progress on sustainability ratings and indexes are monitored by CGC and presented to the BoD. One of the independent Board Members is Head of Corporate Governance Committee and also a member of and Sustainability Steering Committee. Another member of CGC is also head of Early Deretmination of Risk Committee of the Board and reviews all ESG risks management process including climate related risks and recommends for the better management of related issues. Sustainability Manager participates to each CGC committee meeting (minimum 4 times a year) and presents the progress on material sustainability and climate topics.

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	Please explain
Scheduled – all meetings	Reviewing and guiding annual budgets Overseeing major capital expenditures Overseeing acquisitions, mergers, and divestitures Reviewing innovation/R&D priorities Reviewing and guiding strategy Overseeing and guiding the development of a transition plan Monitoring the implementation of a transition plan Overseeing and guiding scenario analysis Overseeing the setting of corporate targets Monitoring progress towards corporate targets Overseeing and guiding public policy engagement Overseeing value chain engagement Reviewing and guiding the risk management process	Cement industry currently represents about 7-9% of CO2 emissions globally and needs to take actions to reduce it for a low carbon future. Besides, climate-related risks become a more critical issue worldwide. From that perspective, Akçansa Board takes the highest responsibility to define sustainability vision, strategy, policies, frameworks, sustainability related risks and opportunities in the company's transition to low carbon future. The Board has reviewed and approved the Sustainability Strategy and 2030 Sustainability Targets that includes the CO2 reduction and other environmental sustainability targets. For cement business, use of any sort of available alternative fuels with high biomass content instead of fossil fuels is the main potential to mitigate the impact on climate change. Additionally, climate-friendly and low CO2 product portfolio is another lever for an effective transition to a low carbon economy. These have been clearly defined by the Board in company sustainability strategy. In Board meetings, CO2 reduction is followed up and evaluated under operational performance of Plants including substitution rate of alternative fuels in fuel mix, clinker in product mix, energy efficiency and renewable energy KPI's. From this perspective, the Board has the responsibility to review and approve annual budgets and investment plans. One of the Board members is the Chair of Early Risk Identification Committee which handles climate-related risks as well. The Early Risk Identification Committee review and guide sustainability & risk management policies. Committee meets 6 times a year and reviews risks and opportunities, including those related to climate change and the Board is informed periodically about the assessments. Another Board Member is the Chair of Corporate Governance Committee. Corporate Governance Committee is responsible for monitoring the company's compliance

		with sustainability principles. Corporate Governance Committee meets 4 times a year and reviews sustainability updates, progress on KPI's and implementation of sustainability related projects. More broadly, the Board is also periodically informed by the Sustainability Steering Committee on setting and/or evaluating the progress against set sustainability targets which include KPIs on measuring climate-related performance. The Board also sets performance objectives for company scorecard, top managers, and Managing Board members themselves within the context of climate-related targets.

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1	No, but we plan to address this within the next two years	Important but not an immediate priority	A competency assessment study has not yet been conducted for board members, but the board chair, vice chair and corporate governance committee chairman have long-term industry experience in sustainability and climate-related issues. It is planned to conduct a skill matrix study within two years, in which the experiences in the direction of climate-related policy and strategy management are evaluated.

C1.2

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

Position or committee

Chief Executive Officer (CEO)

Climate-related responsibilities of this position

Managing annual budgets for climate mitigation activities

Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)

Managing climate-related acquisitions, mergers, and divestitures
Providing climate-related employee incentives
Implementing a climate transition plan
Integrating climate-related issues into the strategy
Setting climate-related corporate targets
Monitoring progress against climate-related corporate targets
Managing value chain engagement on climate-related issues
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities

Reporting line

Reports to the board directly

Frequency of reporting to the board on climate-related issues via this reporting line

More frequently than quarterly

Please explain

Chief Executive Officer is directly responsible from all climate-related initiatives within the company. CEO integrates the climate-related issues into main strategy of the company. Management of mitigation projects, R&D projects, and low-carbon product development processes that are required to be implemented within the scope of climate-related action plans are under the responsibility of the CEO. CEO manages the approval processes of the resources and budget required for these initiatives. Sets and approves climate-related targets in line with the company strategy. Monitors and manages progress on the climate related targets through various monitoring mechanisms and reporting processes established within the company. Responsible for the assessment and management of climate-related risks and opportunities during corporate risk assessment and risk management processes. Monitors and directs the implementation of the climate transition plan, takes the necessary decisions. CEO also have the responsibility for employee engagement and value chain engagement on climate change and related activities. Encourages the dissemination of the objectives and targets to the employee level and has an important role on guidance. Board is informed by CEO on climate related KPI's such as CO2 emissions, alternative fuel usage, clinker usage, energy KPI's and other related KPI's which are also included in Sustainability 2030 Roadmap, during Board Meetings as well as CAPEX requirements.

Position or committee

Chief Financial Officer (CFO)

Climate-related responsibilities of this position

Managing annual budgets for climate mitigation activities

Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)

Coverage of responsibilities

Reporting line

CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

Quarterly

Please explain

The CFO is responsible for the budget management of the activities to be carried out for the reduction of climate change and carbon emissions, and processes such as product development, production and investment. At the same time, the CFO, who is the secretariat of the corporate governance committee, monitors the efforts to declare climate-related risks and opportunities in line with TCFD recommendations. Informing investors on climate-related issues is also the CFO's responsibility.

Position or committee

Chief Operating Officer (COO)

Climate-related responsibilities of this position

Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)
Implementing a climate transition plan
Monitoring progress against climate-related corporate targets

Coverage of responsibilities

Reporting line

CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

More frequently than quarterly

Please explain

COO (Deputy General Manager - Operations) is the chair of Sustainability Committee and a member of Sustainability Steering Committee, thus via these committees, reviews and assesses the climate related risks and opportunities as well as the other sustainability related issues. COO plans the necessary investments related with CO2 reduction. The action plans for climate transition is followed by COO. Chief Operating Officer (COO) (Deputy GM for Operations) has the responsibility of chairing the

Sustainability Committee and is a member of Sustainability Steering Committee. 3 Plant Managers, R&D Manager, Process Improvement Manager and Environmental Executive who implements the necessary climate-related initiatives in the field directly report to him. COO determines the climate related targets (such as alternative fuel rate, clinker usage, renewable energy and energy efficiency KPIs) together with Plant Managers that are direct reports and Sustainability Manager and implements necessary action plans after top managements approval. COO monitors the climate related operational targets with its team and also at related committees.

Position or committee

Other committee, please specify

Sustainability Steering Committee

Climate-related responsibilities of this position

Developing a climate transition plan
Implementing a climate transition plan
Monitoring progress against climate-related corporate targets
Managing value chain engagement on climate-related issues

Coverage of responsibilities

Reporting line

CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

Quarterly

Please explain

Sustainability Steering Committee (SSC) consists of Akçansa Executive Committee Members (CEO and other C-Suite Officers (Deputy GMs responsible for sales, supply chain, human resources, finance etc.) and a Board Member who is also the President of Corporate Governance Committee. CEO is the chair of the committee. Its main mission is to approve and follow up sustainability and climate targets & climate change related projects, plans, performance and roadmaps. SSC meets four times a year.

Position or committee

Sustainability committee

Climate-related responsibilities of this position

Implementing a climate transition plan
Monitoring progress against climate-related corporate targets

Coverage of responsibilities

Reporting line

Operations - COO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

More frequently than quarterly

Please explain

Sustainability Committee (SC) takes the key position to achieve corporate targets as well as to develop and implement projects. Being chaired by Deputy General Managers (DGM) of Operations and Human Resources Functions at the same time who directly report to General Manager (GM). SC is composed of relevant corporate managerial and executive positions. Committee Members establish Working Groups (WGs) to develop and implement projects to reach which would contribute to reach sustainability targets. SC follows the progress on climate targets and takes actions for better and improved performance. SC meets at least 6 times a year and reports to SSC.

Position or committee

Environment/ Sustainability manager

Climate-related responsibilities of this position

Developing a climate transition plan
Integrating climate-related issues into the strategy
Conducting climate-related scenario analysis
Monitoring progress against climate-related corporate targets
Managing public policy engagement that may impact the climate
Managing value chain engagement on climate-related issues
Assessing climate-related risks and opportunities
Other, please specify
Coordination of climate related activities

Coverage of responsibilities

Reporting line

CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

More frequently than quarterly

Please explain

Sustainability Manager who is a direct report of CEO is responsible of setting the climate change related targets (such as alternative fuel rate and energy efficiency KPIs) together with CEO, Deputy GM-Operations (COO), CFO, CPO and Plant Managers.

Sustainability Manager assesses the climate related risks with Risk Manager and determines mitigation actions with other managers and C-level executives. Sustainability Manager is responsible for offering solutions to climate related issues and suggests mitigation actions in line with the scenario analysis results conducted by him/her. Product development and climate related innovation projects developed by R&D Manager and other managers are also followed by Sustainability Manager. She/he directly reports to CEO and participates to Board Committee meetings. Board Chair and Vice President are also informed by Sustainability Manager monthly or more often if needed.

Position or committee

Risk manager

Climate-related responsibilities of this position

Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities

Reporting line

CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

More frequently than quarterly

Please explain

Risk Manager who is a direct report of CEO, assesses and manages climate-related risks and opportunities and reports to Early Determination of Risks Committee 6 times a year. She/he assesses and follows climate related risks together with Sustainability Manager. She/ he reports climate related risks to Sabancı Holding and Early Risk Identification Committee and Heidelberg Materials regularly. Assessments of Risk Manager, climate related risks and opportunities are followed by Early Determination of Risk Committee as well as Corporate Governance Committee.

Position or committee

Facility manager

Climate-related responsibilities of this position

Implementing a climate transition plan
Monitoring progress against climate-related corporate targets

Coverage of responsibilities

Reporting line

Operations - COO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

More frequently than quarterly

Please explain

Plant Managers are responsible of implementing initiatives determined by top management to reach the climate change related targets (such as alternative fuel rate, clinker reduction and energy efficiency KPIs) together with Deputy GM-Operations. They also suggest projects to increase efficiency and reduce CO2. They monitor these KPIs regularly and reports to COO.

Position or committee

Procurement manager

Climate-related responsibilities of this position

Implementing a climate transition plan
Monitoring progress against climate-related corporate targets
Managing value chain engagement on climate-related issues

Coverage of responsibilities

Reporting line

Other, please specify

Chief Purchasing and Logistics Officer

Frequency of reporting to the board on climate-related issues via this reporting line

More frequently than quarterly

Please explain

Procurement managers are responsible for the effective supply of alternative fuels and raw materials needed within the scope of climate change transition plan. They also act in accordance with the company's Sustainable Purchasing Policy within the scope of the management of climate impacts throughout the value chain. Specifically, Energy Purchasing Manager and his team are responsible of sourcing alternative fuels to plants, also have annual performance targets on alternative fuel supply rate and cost. Energy Purchasing Manager has a key role in mitigation of CO2 emissions via alternative fuel usage. He is responsible for finding new alternative fuel sources with high biomass content and from that perspective he manages CO2 related risks and opportunities.

Position or committee

Other, please specify

Environmental Executive

Climate-related responsibilities of this position

Providing climate-related employee incentives

Monitoring progress against climate-related corporate targets

Coverage of responsibilities

Reporting line

Operations - COO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

More frequently than quarterly

Please explain

Environmental Executive has a key role in monitoring, verification and reporting of CO2 emissions. She/he is mainly responsible for environmental compliance issues according to regulations and management of ISO 14001 Environmental Management System. He is also supporting alternative fuel and raw materials usage at plant level. From all that perspective she/he has a responsibility to manage environmental related risks and opportunities together with Risk Manager and Sustainability Manager. She/he is supported by his direct reports (Environmental Management Team: environmental engineers at plants responsible of ISO 14001 EMS management, compliance to regulations, CO2 emissions follow-up/calculations/reporting)

Position or committee

Other, please specify

Performance, Planning and Control Manager

Climate-related responsibilities of this position

Monitoring progress against climate-related corporate targets

Other, please specify

Data Control and Consolidation

Coverage of responsibilities

Reporting line

Operations - COO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

Quarterly

Please explain

Performance, Planning and Control Manager has responsibility in consolidation of climate related operational data and KPI's. He/she is mainly responsible for controlling the data flows from the cement production plants and consolidation of the performance parameters. He is continuously reporting the related KPI's to executive level.

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	There is management by performance targets process in place at Akcansa. Each individual has its own targets which are set in the Q1 after approval of Deputy GMs (DGMs) and GM. Targets are reviewed at the end of Q2 for feedback and Q4 for final assessment. Targets are set from top to bottom that means company scorecard and GM targets are set first, then DGM targets are set and finally the rest come. Performance targets of all levels include various sustainability KPIs ranging from CO2 emissions, alternative fuel usage, biomass content of alternative fuels, raw material utilization, contribution of digitalization in increasing environmental performance, energy management, use of renewable sources, improvement of emissions management, resource efficiency etc. Based on performance score -if an employee reaches its own target plus company reaches its economic targets- then employee receives monetary incentives. CO2 reduction is also included in company scorecard and valid for all employees.

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

Board/Executive board

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Achievement of climate transition plan KPI
Progress towards a climate-related target
Achievement of a climate-related target
Implementation of an emissions reduction initiative
Reduction in absolute emissions
Reduction in emissions intensity
Energy efficiency improvement
Increased investment in low-carbon R&D
Increased share of revenue from low-carbon products or services in product or service portfolio

Incentive plan(s) this incentive is linked to

Short-Term Incentive Plan

Further details of incentive(s)

The Board is entitled to receive a bonus at the end of the year within the scope of scope 1 and 2 emission reduction targets, realization of decarbonization projects, alternative fuel targets and reduction of clinker use included in the company scorecard. Targets are determined according to the annual reduction targets in the transition plan. The minimum and maximum ranges of these targets are defined, and the bonus amount is determined according to the realization range of the target.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

With this incentive, the Board contributes to the achievement of the climate targets included in the company scorecard and to lead the entire management team in this regard. In this context, Board closely monitors all progress and keeps the issue up to date on the agenda.

Entitled to incentive

Corporate executive team

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Achievement of climate transition plan KPI
Progress towards a climate-related target
Achievement of a climate-related target
Implementation of an emissions reduction initiative
Reduction in absolute emissions
Reduction in emissions intensity

Energy efficiency improvement
Increased share of renewable energy in total energy consumption
Increased investment in low-carbon R&D
Increased share of revenue from low-carbon products or services in product or service portfolio
Increased engagement with suppliers on climate-related issues
Increased engagement with customers on climate-related issues

Incentive plan(s) this incentive is linked to

Short-Term Incentive Plan

Further details of incentive(s)

Executive team is entitled to receive a bonus at the end of the year within the scope of scope 1 and 2 emission reduction targets, realization of decarbonization projects, alternative fuel targets and reduction of clinker use included in the company scorecard. Other than the company targets, each executive has their own climate related targets in their individual scorecards. Targets are determined according to the annual reduction targets in the transition plan. The minimum and maximum ranges of these targets are defined, and the bonus amount is determined according to the realization range of the target.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

With this incentive, the company's management team directs their teams to achieve the relevant climate targets defined in the company scorecard and personal targets and encourages them to take action.

Entitled to incentive

Chief Executive Officer (CEO)

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Board approval of climate transition plan
Achievement of climate transition plan KPI
Progress towards a climate-related target
Achievement of a climate-related target
Implementation of an emissions reduction initiative
Reduction in absolute emissions
Reduction in emissions intensity
Energy efficiency improvement
Increased share of renewable energy in total energy consumption

Increased investment in low-carbon R&D
Increased share of revenue from low-carbon products or services in product or service portfolio
Increased engagement with suppliers on climate-related issues
Increased engagement with customers on climate-related issues
Implementation of employee awareness campaign or training program on climate-related issues

Incentive plan(s) this incentive is linked to

Short-Term Incentive Plan

Further details of incentive(s)

CEO is entitled to receive bonus within the scope of targets on emission reduction, reaching other climate-related targets and progress towards long-term targets, and realizing various projects in the company scorecard. Scope 1 and 2 emission reduction targets, realization of decarbonization projects, alternative fuel targets and reduction of clinker use included in the company scorecard. Targets are determined according to the annual reduction targets in the transition plan. The minimum and maximum ranges of these targets are defined, and the bonus amount is determined according to the realization range of the target.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

CEO sets climate-related targets for direct reports together with company targets, thus paving the way for achieving climate targets.

Entitled to incentive

Chief Operating Officer (COO)

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Achievement of climate transition plan KPI
Progress towards a climate-related target
Achievement of a climate-related target
Implementation of an emissions reduction initiative
Reduction in absolute emissions
Reduction in emissions intensity
Energy efficiency improvement
Reduction in total energy consumption
Increased investment in low-carbon R&D

Incentive plan(s) this incentive is linked to

Short-Term Incentive Plan

Further details of incentive(s)

The COO receives a bonus when the scope 1 and 2 emission reduction targets, alternative fuel targets, process and energy efficiency and other climate-related targets, which are within the scope of the company targets, are met. In addition, each production facility has targets such as emission reduction, process optimization, increasing the use of alternative fuels instead of fossil fuels, production of low clinker products, and the progress and success in these targets also affect the bonus. Targets are determined according to the annual reduction targets in the transition plan. The minimum and maximum ranges of these targets are defined, and the bonus amount is determined according to the realization range of the target.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

In this context, the COO integrates the relevant climate targets into the targets of plant managers and other direct reports and enables them to develop low carbon production practices by making decisions accordingly.

Entitled to incentive

Chief Procurement Officer (CPO)

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Achievement of climate transition plan KPI
Progress towards a climate-related target
Achievement of a climate-related target
Implementation of an emissions reduction initiative
Reduction in absolute emissions
Reduction in emissions intensity
Increased share of renewable energy in total energy consumption
Increased engagement with suppliers on climate-related issues
Increased supplier compliance with a climate-related requirement
Increased value chain visibility (traceability, mapping, transparency)

Incentive plan(s) this incentive is linked to

Short-Term Incentive Plan

Further details of incentive(s)

CPO receives a bonus when the scope 1 and 2 emission reduction targets, alternative fuel targets, and other climate-related targets, which are within the scope of the company targets, are met. Additionally alternative fuel and raw material rates which has

direct influence on decarbonization of the process is included in CPO's targets that have direct influence on the bonus. Targets are determined according to the annual reduction targets in the transition plan. The minimum and maximum ranges of these targets are defined, and the bonus amount is determined according to the realization range of the target. Moreover, with supplier sustainability due diligence and audits, compliance and engagement of supply chain is also included in CPO's performance.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

This enables the acquisition to lead the focus on alternative fuel and renewable energy supply rather than lower carbon raw materials and fossil fuels. Also enables more transparent and aligned supply chain during the transition process.

Entitled to incentive

Facilities manager

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Achievement of a climate-related target
Implementation of an emissions reduction initiative
Reduction in absolute emissions
Reduction in emissions intensity
Reduction in total energy consumption

Incentive plan(s) this incentive is linked to

Short-Term Incentive Plan

Further details of incentive(s)

Beyond company scorecard that includes emission reduction, alternative fuel and low-co2 product targets, each plant manager has their own reduction targets and implementation targets. By achieving and progressing on those targets, they get bonus. Targets are determined according to the annual reduction targets in the transition plan. The minimum and maximum ranges of these targets are defined, and the bonus amount is determined according to the realization range of the target.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

The fact that each plant manager has separate climate targets for their own facilities is a driving force in the realization of initiatives that can be implemented in factories. In this way, all factory employees make an effort to reach the targets set for the climate.

Entitled to incentive

Environment/Sustainability manager

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Achievement of climate transition plan KPI
Progress towards a climate-related target
Achievement of a climate-related target
Reduction in absolute emissions
Reduction in emissions intensity

Incentive plan(s) this incentive is linked to

Short-Term Incentive Plan

Further details of incentive(s)

Sustainability manager is directly responsible for the implementation of sustainability roadmap and actions which includes climate related targets. Also, personal targets of the sustainability manager include emission reduction performance, implementation of climate transition plan together with operational sustainability targets. Each target has minimum and maximum achievement levels and as the fiscal year ends, according to the performance range, the final bonus amount is calculated for the individual.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

With the sustainability manager having separate goals, both her team and the work groups she is responsible for coordinating use the initiative to achieve the goal, thus accelerating the progress of the targets.

Entitled to incentive

Other, please specify
Risk Manager

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Implementation of an emissions reduction initiative

Incentive plan(s) this incentive is linked to

Short-Term Incentive Plan

Further details of incentive(s)

Risk Manager is directly responsible from climate risk management together with Sustainability Manager. The Risk Manager, who receives performance evaluations based on risk mitigation metrics, receives a performance-based bonus at the end of the year as part of the implementation of the actions.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

Having risk reduction metrics in their targets ensures that the relevant teams are guided by the Risk Manager on the implementation of the actions regarding these metrics. In this way, the management of climate risks is spread across the company's base.

Entitled to incentive

Procurement manager

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Achievement of climate transition plan KPI
Achievement of a climate-related target
Increased share of renewable energy in total energy consumption

Incentive plan(s) this incentive is linked to

Short-Term Incentive Plan

Further details of incentive(s)

Procurement Manager plays an important role to increase the ratio of alternative fuels, which is the initiative that has one of the largest impacts on emission reduction. In this way, the supply of the relevant alternative fuel is directly related to its performance and if this target is achieved, it receives a performance-based bonus. Also renewable energy procurement is directly included in Procurement Manager's own targets.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

Procurement Manager, who aims to obtain these alternative fuels from relevant and sustainable suppliers in the usage of the targeted amount of alternative fuel, takes initiatives to achieve this goal. This serves directly on emission reductions. Also, Procurement Managers puts into effort to supply renewable electricity which is directly has an impact on scope 2 emission reductions.

Entitled to incentive

Other, please specify

Environmental Executive

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Achievement of climate transition plan KPI
Progress towards a climate-related target
Achievement of a climate-related target
Implementation of an emissions reduction initiative
Reduction in absolute emissions
Reduction in emissions intensity

Incentive plan(s) this incentive is linked to

Short-Term Incentive Plan

Further details of incentive(s)

Environmental Executive has climate related targets in his own performance targets as well as the Environmental Management Unit together with other employees. Each target has minimum and maximum achievement levels and as the fiscal year ends, according to the performance range, the final bonus amount is calculated for the individual.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

The Environmental Manager directs his team in order to achieve the performance in the target card and closely monitors the practices in the field, thus contributing to the continuity of progress in climate-related issues.

Entitled to incentive

Other C-Suite Officer

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Increased share of revenue from low-carbon products or services in product or service portfolio
Increased engagement with customers on climate-related issues

Incentive plan(s) this incentive is linked to

Short-Term Incentive Plan

Further details of incentive(s)

Sales Assistant General Manager and direct reports have individual performance targets on the sale of low carbon products. With the achievement of these targets, they are entitled to a performance bonus.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

Accelerates the efforts to accept low-carbon products by customers. In this way, as the sales and demand rates of lower carbon products increase, more of these products can be produced in the production areas, thus reducing emissions directly.

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	0	5	In Akçansa, short term Strategic Plan covers a 5-year lifespan and is revisited frequently and updated if needed.
Medium-term	5	10	Akçansa's mid-term definition covers 5 to 10 years and the Company Mid-term Action Plan is determined in and monitored against the 5 year Master Plans.
Long-term	10	30	Akçansa considers beyond 10 years is a long-term period. The vision for long term is guided with a 10-year Master Plan. In addition to this, while addressing its climate change actions, Akçansa considers 2030 and 2050 as key milestone years & sets targets accordingly. Moreover, both our shareholders Sabancı Holding and Heidelberg Materials also sets climate-related targets for 2050. In line with the International Energy Agency Low-carbon Technology Road Transition for the Cement Industry, GCCA and CEMBUREU roadmaps, our long-term perspective extends to 2050 both to monitor global and sectoral long-term risks and to explore innovative technology opportunities.

C2.1b

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

Akçansa manages its risks in line with both Sabancı Holding and Heidelberg Materials risk management procedures/ guidelines and evaluates corporate level as well as asset level risks under multiple categories, namely, financial, operational, system/process, customer, supplier, employee, reputational and compliance risks. Substantive financial and strategic impacts, which are risks that are scored/classified as critical risks, are defined as effects that pose a risk to undermine the entire business. Corporate level substantive risks are defined.
Quantitatively as risks above USD 500,000; TRY 8,275,000 (Indicative Average Exchange Rate announced on 12/31/2022 by the Central Bank of Türkiye as 16.55 USD/TRY) on an annual basis.
Qualitatively as risks that are a threat to our core business model and business continuity which are evaluated considering risk categories and calculated by Risk Assessment Methodology.

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

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

Risk Management at Akçansa is an integrated and multi-disciplinary process. Defining and monitoring all possible risks that our company may face forms the basis of risk management. Risk analysis and measurement processes are carried out with systematic methods to understand the nature and level of risk. Risks, likelihoods and impacts are analyzed and scored within a holistic manner using risk assessment tools developed by Corporate Risk Management unit. The levels of the measured risks are determined with according to the criteria determined within the scope of the Enterprise

Risk Management process, and the risks are ranked according to their materiality. In the management of risks, decisions are made on “Avoiding Risk”, “Mitigating the Likelihood of Risk”, “Mitigating the Effects of Risk”, “Transferring and Sharing Risks” and “Accepting Risk” according to the nature of the risk and Akçansa's strategic goals. In order to manage company risks; determination of which strategy will be implemented is carried out by taking into account the cost and benefit factors. Akçansa Risk Map and company critical risks that emerge as a result of the analyzes and evaluations are regularly reviewed and reported to the Early Detection of Risk Committee that is established in accordance with Article 378 of the Turkish Commercial Code No. 6102 every two months. Implementation plans are prepared and followed every year in line with the risk management strategy, integrated with the budget processes. Actions decided to mitigate the “effect and/or likelihood” of the related risk are followed regularly and risk management is aimed by bringing the risk to a level that meets the acceptance criteria.

The company and its managers have classified possible risks according to defined risk categories. The enterprise risk management approach comprehensively addresses environmental, social, operational, strategic, financial, compliance and governance risks throughout all direct and indirect operations, including upstream and downstream supply chain and logistics processes. Within the scope of this approach, environmental, social, economic, governance and climate risks are combined under the category of “ESG Risks” and evaluated holistically and preventive processes are developed. "Climate Risks" is also a subcategory of "ESG Risks". The Board of Directors is the highest-level governance body directly responsible for all risks and opportunities.

Akçansa defines, continuously evaluates and manages its climate-related risks within the framework of corporate risk management practices. Corporate Risk Management unit informs the Early Detection of Risk Committee on risks and measures taken with regular reports. The Committee regularly informs and advises the Board of Directors on early detection of risks that may affect our Company, calculating their impact and probability, proactive management of these risks, taking effective measures and implementing them. The physical risks that may arise from the transition due to climate change and the impacts due to climate change, especially the risks of compliance with current and upcoming legislation, are reported to Sabancı Holding quarterly by the Risk Manager through the “Compliance Risks Report”, and the consolidated risk monitoring inventory is updated. This procedure is directly linked to the Sabancı Holding Risk Management Procedure and Heidelberg Materials Risk Management System Guide. Environmental risks arising from activities in the facilities are managed with ISO 14001:2015 Environmental Management System standards. Each department (Operations, Environment, Finance, Legal, Sales, etc.) defines and evaluates its risks using risk matrices according to determined thresholds and is then controlled by Environmental Engineers and Plant Managers together with Risk Manager. Climate-related risks, including transition and physical risks, are assessed by the Sustainability Manager and Risk Manager by evaluating likelihood, magnitude and possible impacts and reviewed before each Board meeting. Action/mitigation plans are evaluated by the Sustainability Steering Committee and presented to the Board of Directors through

committees. TCFD recommendations are taken into account in the identification, evaluation and management of climate-related risks and opportunities. Each plant has master plans developed for 3-5-10 year periods. These plans are reviewed at least twice a year. Defined ESG risks has a unique action plan that is monitored by Sustainability Committee at the end of each quarter. These studies are contributed by the Operations Team members, including the Plant Managers and the Plant Executive Team, and Sustainability, Environment, Raw Materials, Maintenance, Project, R&D Managers under the leadership of the Deputy General Manager of Operations (COO) and the General Manager (CEO). The Master Plan and ESG Action Plans are very critical and key components of this assessment. Current situation, forecasts/expectations for the future (including legislative changes) and technical needs are evaluated in Master Plans. Here, the impact of climate-related issues such as emerging regulations, carbon pricing mechanisms, acute or chronic extreme weather conditions on finance and facility operating strategies is discussed. The current Master Plan covers the period 2023-2033 and ESG Action plan covers 2023-2030 period.

As part of the physical risks, Akçansa considers the main material risk related to climate as acute extreme weather events (flood or heavy hail etc.). Damages may occur in production plants, quarries or ports that may stop production for more than one day. In order to manage such physical risks in accordance with the risk management procedure at the company level, Akçansa; insuring all its facilities against a wide range of influences, including extreme weather events; it takes measures such as having a certain level of raw material and fuel stock in order to plan and implement the necessary infrastructure investments, and to prevent production disruption due to the supply chain due to events related to the physical climate.

One of the top substantive risks of Akçansa, operating in the cement sector, within the scope of the important climate-related transition risks, is greenhouse gas emissions (referred to as CO2 emissions or carbon). Recent developments in establishing a carbon pricing system/mechanism through regulations that emerged at both national and international levels will result in significant direct/indirect cost increases for Akçansa. Therefore, it is considered as an important climate-related transition risk. In order to manage this risk, Akçansa has developed a reduction plan that includes a series of measures to reduce CO2 emissions such as increasing the use of alternative fuels and biomass instead of fossil fuels, energy efficiency projects, process optimization projects and increasing the rate of renewable energy.

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	Akçansa always valuates all regulatory risks relevant as part of its risk assessment process, including regulations regarding climate-related related issues. Currently, only direct climate-related regulation in force in Türkiye is "the Monitoring Reporting Verification of GHG emissions" which has been in force since 2015. Based on this regulation, we calculate, obtain verification and report our CO2 emissions to the Ministry of Environment and Urbanization and Climate Change on an annual basis. The report also includes the areas of improvement. This regulation bears no financial sanction at the moment other than non-compliance fine that may result from not disclosing CO2 emissions within the defined deadline. The current regulations are followed closely by the Environmental Management Unit and Legal Counsel with the support of Sustainability Department.
Emerging regulation	Relevant, always included	Similar to the current regulations, Akçansa considers all (including emerging) regulatory risks as relevant and always assesses these potential risks as part of its company-wide risk assessment process. In October 2021, the General Assembly of the Turkish Grand National Assembly (TBMM) ratified the law proposal for the ratification of the Climate Agreement signed in Paris in 2015. Ministry of Environment, Urbanization and Climate Change completed PMR Project (Partnership for Market Readiness), with the funding of World Bank. As a result of an advanced stage simulation under PMR project it is likely that an emission trading scheme (ETS) will be implemented. Following the PMR project, World Bank Partnership for Market Implementation (PMI) project has started. The development objective of the PMI is to facilitate the direct implementation of carbon pricing policies and instruments in Türkiye through technical assistance and capacity building. With the ratification of the Paris Agreement towards the end of 2021 and the announcement of Türkiye's goal of being net zero by 2053, regulatory efforts gained momentum. Türkiye also prepared its own Green Deal Action Plan which has specific actions to establish national carbon pricing mechanisms. Simultaneously, the country's first large-scale and multi-stakeholder meeting, Climate Council was held in the first months of 2022. Additionally, during COP-27 Türkiye announced its first NDC targets. According to the outputs and decisions of the Climate Council and in line with the Green Deal Action plan and the NDC, Ministry of Environment, Urbanization and Climate Change drafted a Climate Law that also includes the basis of carbon pricing mechanisms and national emission trading system. This means potential carbon limitation, quotation and pricing can potentially result in a significant cost increase for companies operating in high emission intensity sectors such as Akçansa. We assess the risks associated with carbon pricing plans in Türkiye and around the world (such as Carbon Border Adjustment Mechanism of EU) and manage these risks with comprehensive allocation and forecasting models managed by the Strategy and

		Finance executives, Sustainability Manager, Risk Manager, responsible Board Members and other relevant departments. To assess and manage emerging regulation risks, we monitor developments worldwide and work closely with relevant industry associations, stakeholders and policy makers on emerging regulations.
Technology	Relevant, always included	Since Akçansa is a technology driven company, risks arising from adopting the optimum & potential low-carbon technologies is always relevant for the company. Technology risks are defined by Digitalization & Industry 4.0. Manager, together with R&D and Technology Manager. Climate-related technology risks are reviewed by the Sustainability Manager and Corporate Risk Manager. A likely risk from technology could be that plants may not operate without carbon mitigation projects. Our carbon mitigation strategy takes such risk into consideration in a way to maximize alternative fuel rate in fuel mix. On the other hand, technological improvements bring opportunities to cement business to combat climate change. Machine learning, Internet of Things, various sensor technologies are available today to control process systems and improve efficiency. In order to manage technology related risks, we use full automation systems in our plants to provide the best process conditions so that maximum use of alternative fuels is enabled. We aim to free the production processes from human error with the dissemination of autonomous production systems, and in this way, we reach more efficient processes. In this direction, we aim to reduce the use of fossil fuels with better combustion conditions. We also follow new product technologies closely and produce projects for the use of new technologies in both cement and concrete in our product mix. This is surely needed for low carbon future. Similarly, new sensor systems are used at various stages in the process bringing about energy efficiencies. Very huge fans, motors are followed-up and more precisely controlled thanks to technological improvements. Technology related climate risks may arise from adaptation to new technologies required for the decarbonization of the cement industry and cost increase with investments made for the development of technologies. Carbon capture, storage and utilization is underway in the sector. We continue our CCUS research. We closely follow up the progress with experts at our shareholder Heidelberg Materials. Akçansa also develops projects with different focus groups on the development of various CCUS and other decarbonization technologies, evaluates potential collaborations and possible investments, with the support of Sabancı Holding and Heidelberg Materials. On the other hand, consultant support was taken in 2022 and technology assessments were completed including risk levels for mid-long term.
Legal	Relevant, always included	Akçansa deems all legal risks as relevant including climate-related potential litigation risks. In order to have a social license to operate and comply with all regulatory requirements, potential climate-related legal

		risks are closely monitored and assessed by the Operations and Legal departments with the support of Sustainability Department and Environmental Management Unit. It is regularly evaluated and quarterly reported to Sabancı Holding via Compliance Risk Report by Risk Manager and Legal Adviser. As the awareness on climate change and its potential impacts increases, number of exemplary litigation cases have started to rise on an international level. There has been no climate-related litigation case for Akçansa, and we take every possible precautionary action to prevent such cases in the future too. For example, due to the changing environmental and climate policies, it is considered as a risk that the problems that may occur in obtaining/renewing the operating licenses of the raw material mining areas cause production stops and thus cost increases. In response to this, regular research, detection and commissioning of alternative raw material fields is included in our action plan as an action. On the other hand, carbon tax, one of the carbon pricing methods beyond upcoming emission trading scheme (ETS), is also one of the issues that come to the fore within the scope of developing climate studies. Although it is not intended to be implemented in our sector, which will be included in the emission trading system, it may be a risk for other sectors and may have an indirect impact on our operational costs (e.g. cost increase in supply chain). In this context, we follow the developments closely to manage these risks.
Market	Relevant, always included	All types of market risks are always deemed relevant and included in our risk assessment process. Recently, customer behaviors are changing very rapidly and their awareness on climate change also increases. That, indeed, brings for us the need to take various proactive measures in order to meet with increasing/changing customer/market requirements to effectively manage this risk. Strategy and Marketing & Sales department as well as R&D and Technology Department play a crucial role in the management of market risk. Today what we see in the market is that demand for low-carbon cement has been increasing and accordingly rate of green building projects in the market is rising. Hence research on new product type becomes important. Akçansa R&D department continuously works on projects for high quality low carbon cement/cementitious products. We perform projects for alternative building materials with considerably less carbon emissions with academicians at universities. A target has been set to increase the sales of low-emission building materials in our current product portfolio, and it has also been addressed within the scope of 2030 sustainability targets. A product switching plan was developed to ensure that low-carbon products are included more in the product portfolio. In 2022 we have launched our new sustainable and low CO2 product brands. Under Green Formulation brand we have cement product groups namely Green for Cement and concrete product groups namely Green

		for Concrete. The products featured here are sustainable and low-carbon products. For example, the cement product family includes blended cements as Actioncem, Duocem and Solidcem, and the concrete product family includes our low-carbon products, A+Beton, Solidmix, Hidromix, Performix, 100+Beton and EcoCrete which is our joint product with Heidelberg Materials. Transparent sales and market development activities related to sustainable products in our portfolio are ongoing to increase market awareness. CSC certification system given by Concrete Sustainability Council (CSC) designed to provide the required transparency through a certification system consists of an operational manual and assessment criteria with guidance on their application. certification process is applicable to all sizes of cement and concrete companies, currently comprising three levels: bronze, silver and gold. Our Çanakkale and Ladik cement plants and Gebze and Kemerburgaz concrete plants have gold level valid CSC certificates.
Reputation	Relevant, always included	Reputation is a critical risk and needs special management in cement business which is, due to its consumption of natural raw materials, fossil fuels and resulting carbon emissions, unfortunately has some disadvantages from external stakeholders' perspective. Therefore, reputational climate-related risks are always deemed relevant as part of our risk assessment. This topic has become more critical after Paris Agreement which brought the emissions issue more open insight to public. Akçansa manages this risk via the coordination of Sustainability Manager, Environmental Executive, Plant Managers, Operations department and Corporate Communications Manager. We use alternative fuels consisting of wastes which would otherwise have been dumped or disposed. These alternative sources are replacing conventional fossil fuel that have significantly higher impact on CO2 emissions. We use industrial and municipal wastes, tires that completed their useful life. By using the waste as an alternative fuel source, we are a solution partner to local authorities in terms of waste management. Additionally, we optimize/reduce our CO2 emissions with the highest technology measurement devices as well as autonomous production projects. We are continuously organizing "Neighborhood Councils" at each plant with the participation of community, authority representatives and other stakeholders. The goal is to explain the state of the plants, new projects, investments, CSR activities etc. to establish an open and transparent communication with them and, to understand our stakeholders by listening to their complaints, wishes, opinions and suggestions. That is a very effective way of communication that helps a lot managing reputation. We also do use social media to explain our climate-related/carbon mitigation R&D projects (low CO2 cement, alternative cementitious products). Sustainability, Investor Relations and Corporate Communications teams conduct a regular communication, monitoring and interaction process with relevant

		stakeholders to assess and mitigate reputational risks. Our climate strategies and performance are also included our investor presentations. In 2022, to increase transparency and establish a better communication with stakeholders, we have published our first integrated annual report. Stakeholder opinions are constantly taken. Again in 2022, the materiality analysis study was renewed by conducting surveys, focus group studies and interviews with key stakeholders.
Acute physical	Relevant, always included	We consider acute physical climate-related risks very much likely to happen in short-medium term and they could have a serious impact on our production plants and result in additional cost and potential physical damages. Therefore, this risk type is deemed relevant and is always included in our risk assessment. Türkiye, unfortunately like every single part of the world, faces increasing acute physical risks at country level, such as unpredictable/extreme rainfalls, wildfires, draughts, floods etc. These risks are evaluated by Sustainability Manager with support of our Risk Manager and Operations on a regional basis and reported to Sabancı Holding and Akçansa Board of Directors. An example of an acute physical risk would be lack of water from wells (happened in Ladik plant in 2015), flooding at our plant because of a very heavy rainfall and/or snowfall (heavy rainfall happened in Büyükçekmece Plant in 2014 and 2016, heavy snowfall happened in Büyükçekmece Plant in 2022) which caused disruption in production and damage to the plant assets. Additionally, we purchase coal/petrocoke from other countries, export cement/clinker to various countries by shipment and in case of a storm the shipments/supplies would be disrupted and may lead to potential disruption of operation. Such conditions also effect local supplies and sales. In order to manage the impact of these sorts of risks, Akçansa obtains insurance all its facilities against various risks including extreme weather events related risks. Beyond, alternative and local suppliers are continuously evaluated in order to protect the production from the effects of climate change and the disruptions that may occur in raw material and fuel logistics. Stocks are retained to be used in emergencies to ensure the continuity of raw materials, and production might continue without any interruptions. Additionally, to increase resilience to extreme weather events, capex plans related with infrastructure and reinforcement is continuously done. For example, the reinforcement project at the port jetty was planned and started to be implemented in the port of Çanakkale Plant.
Chronic physical	Relevant, always included	Akçansa takes climate-related chronic physical risks very seriously since these can have a long-term impact on its business. Therefore, this category is deemed relevant and is always included in our risk assessment. This risk is assessed and managed by Sustainability Manager, with support of Operations and Risk Manager and reported to Sabancı Holding and Akçansa Board of Directors. An example for a

		chronic climate physical risk can be the expected rise in sea levels. Akçansa's Çanakkale Plant, being the biggest production plant amongst the 3, is located by the sea. Therefore, a rise in sea level may result in temporary production disruption over the mid-long term or a relocation need for the plant over the long-term. Our facilities located in the Marmara, Aegean and Blacksea regions are located in areas under water stress. We consider the negative impact of production processes in line with water stress and reduction in water resources as a climate-related chronic risk. We aim to manage risk with measures such as reducing the use of water in production, identifying and preventing loss and leakage, and keeping water use under control with digital monitoring processes. Beyond water stress, destruction of marine ecosystem as a result of climate change as well as pollution may also pose another risk. Disruptions in the logistics processes may occur due to the impact on both the supply chain and sales in port operations as a result. In 2021, the mucilage problem occurred as a result of the ecosystem being affected due to climate change and pollution in the Marmara Sea. Due to the fact that we operate in the region, risks have arisen in terms of logistics and additional inspections have been required. There are ongoing rehabilitation works based on additional measurements made about wastewater discharges to minimize impacts on marine ecosystem.

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

Primary potential financial impact

Increased indirect (operating) costs

Company-specific description

After Türkiye's ratification of the Paris Agreement and the announcement of Türkiye's goal of being net zero by 2053 efforts to elaborate climate regulations gained momentum. Türkiye announced her first Nationally Determined Contribution (NDC). Green Deal Action Plan of Türkiye that includes actions related with establishment of a national Emission Trading System also announced. On the other hand, Ministry of Environment, Urbanization and Climate Change drafted a climate law that includes basis of national Emission Trading Scheme and other carbon pricing mechanisms. Simultaneously, the country's first large-scale and multi-stakeholder meeting, the Climate Council was held in the first months of 2022 in Konya province. The Turkish Ministry of Environment, Urbanization and Climate Change conducted a project called the Market Readiness Partnership (PMR) to evaluate which market-based carbon pricing system would be best for Türkiye. To date, ETS (emissions trading scheme) is the pricing mechanism most likely to be adopted under this project. Following the PMR project, the World Bank Partnership for Market Implementation (PMI) project started to facilitate the direct implementation of carbon pricing policies and instruments. Free allowances are expected as stated by the authorities, but the price level for carbon has yet to be defined. It is almost certain that a carbon pricing process will begin, which will bring additional operational costs to Akçansa in the short term due to the CO2 emissions originating from 3 cement production facilities. There will be a necessity for additional CO2 reduction investments causing a significant increase in costs. However, costs can also be significantly impacted by the carbon prices to be paid for emissions if plants fail to meet the given targets. There may also be a risk that the cost increase will be reflected in the product prices, and this may create a competitive disadvantage. This risk was evaluated under ESG-Climate risks within the scope of our corporate risk management processes, and as a result of the impact-probability assessment, it was determined as one of the highest inherent risks. In order to manage this possible broad risk, Akçansa has determined emission reduction targets and started to implement necessary action plans for this. The magnitude of this risk will mainly depend on the cap, market price of carbon allowances, allocation method and the volume of free allowances and our cement production volume.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

0

Potential financial impact figure – maximum (currency)

1,414,920,271.6

Explanation of financial impact figure

We use various scenarios to estimate or analyze the financial impact of the cap and trading systems. It's important to note that the price prediction above is only the result of one of the scenarios we reviewed. Please note that this calculation should not be considered as a precise estimate of future cost increases, but rather as a theoretical figure emphasizing the risk that may occur in the future, taking into account carbon pricing mechanisms. The above calculation does not take into account initiatives and other important variables that will have significant impacts on carbon, such as mitigation measures, and should be treated as such.

The fact that a carbon pricing mechanism has not yet been formally established in Türkiye makes impact analysis difficult, but it is anticipated that the infrastructure of the system to be established will be largely similar to the EU ETS and Türkiye will provide free allowances in the first phases of the ETS according to several stakeholder meetings.

It is anticipated that Türkiye may similarly use benchmark values likewise EU. Benchmark value for EU countries between 2021-2025 is 693 kg CO2e/ton clinker. It is also among the opinions that the country can use its own benchmark value in the first transition phase to the ETS. Moreover, Turkish Cement Manufacturers' Association (Türkçimento) conducted an analysis for sectoral benchmark values in Türkiye. With the projects implemented by Akçansa to reduce CO2 emissions, it was anticipated that Akçansa's emission value would be lower than the benchmark value to be determined for Türkiye, and the minimum impact was evaluated as 0 for the best-case scenario. EU ETS benchmark values are taken into account for worst case scenario.

Year 2022 total clinker production at our 3 plants (Büyükçekmece, Çanakkale and Ladik) is 6,564,315 tons. The excess absolute CO2 emission is 971,519 tons of CO2 which might undergo for a carbon cost to Company. In calculation, the average EU ETS unit price was accepted as reference which was realized as 88 EUR/tonCO2e in 2022 (https://tradingeconomics.com/)
2022 average EUR/TRY exchange rate was taken as 16.55 from the Central Bank of Türkiye.
The maximum financial impact was calculated as (971,519 tonCO2) x 88 (EUR/tonCO2) x 16.55 (TRY/EUR) = 1,414,920,271.60 TRY

Cost of response to risk

131,302,000

Description of response and explanation of cost calculation

In order to manage this risk Akçansa implements a wide range of initiatives. In line with the SBTi commitment submitted in the first quarter of 2023, Akçansa evaluates initiatives such as energy efficiency, kiln process improvement, alternative fuel and raw material substitution for each plant, and develops a special roadmap in line with SBTi and plans CO2 reduction investments.

Cost of response for 2022:
a) we continuously conduct R&D studies to lower the CO2 content of our product and develop low-carbon products (2022 total budget: approximately 12,804,000 TRY),

b) we implement emission reduction initiatives for increasing alternative fuel consumption with lower CO2 emission, equipment replacement and maintenance to enable energy consumption reduction and process efficiency projects for more effective combustion conditions during the process and other process optimization studies (2022 total CO2 Scope 1 emissions related CAPEX was approximately 118,498,000 TRY)

Total cost of response for 2022 period: (12,804,000 TRY) + (118,498,000 TRY) = (131,302,000 TRY)

It is important to underline that the figure calculated here is for 2022 only. There are many additional projects and investments within the "CO2 Roadmap". Akçansa is preparing for future carbon pricing mechanisms with CO2 reduction investments and projects.

Comment

More information available in our Integrated Annual Report on page 32.

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical
Flood (coastal, fluvial, pluvial, groundwater)

Primary potential financial impact

Decreased revenues due to reduced production capacity

Company-specific description

Acute Physical climate-related events have already increased in frequency and severity in regions Akçansa operates. The incapability of plants to continue their operations if the operations are interrupted or stopped due to events such as excessive precipitation that results in flooding is deemed to be an acute physical climate-related risk for Akçansa's operating regions. Climate projections indicate these acute extreme weather

events will considerably increase in frequency as well as severity. Quantitative risk assessments using several tools were also supporting that the frequency and impacts of these events will increase for medium and long term. A quantitative risk assessment was conducted in 2022 using the Munich Re Location Risk Intelligence tool. According to the Risk Intelligence Portfolio Report, as a result of the analyzes made according to the RCP 2.6, 4.5 and 8.5 scenarios and different time horizons, 25% of the facilities are under medium-high level risk in the long term. The main risks arising from these events for Akçansa covers all facilities from production plant, terminals/ports, ready-mixed concrete and aggregates facilities and may result in temporary-long term production/operation disruption, potential physical damage to facilities and physical assets. In such a case, Akçansa may be faced with a potential revenue loss due to disruption to production and resulting in lower production output.

Time horizon

Long-term

Likelihood

More likely than not

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)

8,898,660.45

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

We have conducted location-based climate risk assessment including flood risks including river flood, flash flood and storm surge risks and other floods resulting from extreme precipitation and other extreme climate events. Regarding the location risk intelligence report which was the output of the analyzes made according to the RCP 2.6, 4.5 and 8.5 scenarios and different time horizons within the Munich Re Location Risk Intelligence tool, we have assessed the highest risk locations during cost estimation. While estimating the potential financial impact related to this risk, we assessed the costs involving duration it took to bring the plant back to pre-incident production levels, along with the loss of production. As a result of our calculations, we have reached a figure close to and 0.1% of our 2022 revenue and in our estimations, we based on 0.1% revenue loss. Our 2022 total revenue was 8,898,660,453 TRY.

Cost of response to risk

15,507,410,406

Description of response and explanation of cost calculation

Under the leadership of Enterprise Risk Management, a process was initiated for the establishment of the Business Continuity Management System in 2022. In this context, business continuity policy and procedures are prepared and emergency support, crisis management and business recovery details are worked on. By having a Business Continuity process, Akçansa will be able to reduce the recovery time after an event, minimize the potential impact of this event, maintain communication with stakeholders on a positive basis, predict possible outcomes more accurately, and therefore design processes for preparing for these outcomes.

As part of our efforts to manage acute floods, the primary action we implement is to obtain insurance for all our facilities. Insurance amount for cash, stocks and tangible assets included in the assets is 15,507,410,406 TRY.

Akçansa also defined emergency response and adaptation plans for facilities with high-risk potential regarding acute extreme weather conditions.

Additionally, to increase resilience, reinforcement project at the port jetty was planned to increase resilience in Çanakkale plant in 2022.

Comment

Insurance amount on assets is disclosed in Integrated Annual Report, page 138.

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Chronic physical
Sea level rise

Primary potential financial impact

Increased indirect (operating) costs

Company-specific description

As per the climate projections, there is an expected sea level rise resulting due to climate change. According to Nasa’s earth observatory projections, depending on the measures taken (from net zero pathway to high emission Business as Usual pathway) the sea levels are projected to rise from 1 to 4 meters. As Akçansa’s Çanakkale (CNK) plant is located by the sea, also Büyükçekmece Plant is located near the sea and Büyükçekmece lagoon, and ports/terminals are directly in the risky areas this projected sea level rise can cause temporary or potentially long-term disruption or need to relocate the plants. Even though this is a long-term projection, it can still pose a risk to temporary production/operation disruption at the plants due to significant physical

damage. Risk assessments were done using Munich Re Location Risk Intelligence tool. Within the tool, hazard zones derived from IPCC sea-level rise data and high-resolution elevation data for respective projection year and RCP scenario. Model is based on storm surge events with 100 years return period. According to the risk intelligence report, we have assessed the medium and high-risk locations during cost estimation.

Time horizon

Long-term

Likelihood

More likely than not

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)

38,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

While estimating the potential financial impact associated with this risk, we included the cost related to damages to the production line which also leads to the stoppage of the operations potentially for a time period. The figure represents the potential cost of damage plus loss of revenue with regards to this risk. Since the breakdown of this financial figure is confidential, we cannot disclose.

Cost of response to risk

15,507,410,406

Description of response and explanation of cost calculation

The management of these risks is integrated into our corporate risk management processes. The cost of response to this risk mainly consists of insurance (premium) cost to remedy such physical damage to plants and related indirect losses. As part of our efforts to manage acute floods, the primary action we implement is to obtain insurance for all our facilities. Since the facility specific insurance cost is considered as confidential, we disclose our total company-wide insurance (premium) cost. Insurance amount for cash, stocks and tangible assets included in the assets is 15,507,410,406 TRY.

Comment

Insurance amount on assets is disclosed in Integrated Annual Report, page 138.

Identifier
Risk 4

Where in the value chain does the risk driver occur?
Downstream

Risk type & Primary climate-related risk driver
Market
Changing customer behavior

Primary potential financial impact
Decreased revenues due to reduced demand for products and services

Company-specific description
In line with the increasing level of awareness and climate concerns, as well as developing regulations, the preferences of even B2B customers are changing and there is a tendency towards low-carbon products. In case the low carbon product demand cannot be met, a possible decrease in revenues is considered as a risk for Akçansa. An increase of awareness in both domestic market and overseas market was pushing the construction industry towards low-CO2 cement. In order to manage the risk Akçansa uses additives and started a product portfolio transition process towards blended cements to cut product CO2 emissions.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
Low

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
8,898,660.45

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure
The potential financial impact of this risk is reduced demand for our products which would result in decreasing revenues. A decrease of approximately 0.1% in net revenue is estimated. 2022 total revenue was 8,898,660,453 TRY.

Cost of response to risk

105,920,000

Description of response and explanation of cost calculation

There are sales development activities related to sustainable products in our portfolio as well as R&D studies focusing on production of low-carbon alternatives. R&D and innovation studies are ongoing, focusing on developing cement and concrete products with low clinker ratio. For production of low-CO2 cement in 2022 alternative raw material and fuel feeding system investments were completed as well as process improvement investments. Total CAPEX was 105,920,000.00 TRY in 2022.

Comment

Akçansa is focusing on low-carbon products and invests in new sustainable products to increase resilience against this risk.

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?

Upstream

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of lower-emission sources of energy

Primary potential financial impact

Reduced direct costs

Company-specific description

As a carbon intensive sector, cement companies, if they act proactively and reduce their emissions, they can benefit from reducing their indirect operating costs. Through the low carbon future, the promising potential ahead of cement industry is the use of alternative fuels, maximizing biomass (such as sewage sludge) in fuel mix to reduce CO2 emissions. Rate of alternative fuel usage in Turkish cement industry is around 8.0%

which needs to be increased. Akçansa’s realized alternative fuel substitution rate was 22% in 2022. Therefore, accelerating the alternative fuel substitution rate in fuel mix can create a competitive advantage as a result of reduced energy costs.

Time horizon

Medium-term

Likelihood

Virtually certain

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)

304,500,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

The financial impact was calculated using actual 2022 annual monetary savings resulted from the increased usage of alternative fuels instead of relatively expensive and high emission bearing conventional fuels such as petcoke and coal.

Cost to realize opportunity

24,825,000

Strategy to realize opportunity and explanation of cost calculation

Our strategy to realize this opportunity consists of CAPEX investment for increasing alternative fuel substitution rate in all cement plants. Total 2022 CAPEX of 24,825,000 TRY was planned to increase alternative fuel usage according to the CO2 reduction roadmap. This figure is given as the cost to realize this opportunity. We also consider that this opportunity will increase gradually in the future in terms of financial figures.

Comment

Akçansa's Büyükçekmece and Çanakkale plants are the only ones in Türkiye that have the Gold Level Responsible Use of Resources Certificate. In 2022, 631,817 tons of waste was used as alternative resource (Alternative fuel and alternative raw material totals) and have prevented from landfilling.

Identifier

Opp2

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Most of the cement sector related CO2 emissions arise from clinker production which is one of the main raw materials for cement. However, by using alternative raw materials and development of cementitious products (with lower clinker ratio) not only we can achieve low carbon product transition, but also provide value-added sustainable products to our customers. Therefore, dedicating a workforce and a budget for development and or expansion of low emission goods and services via R&D will enable Akçansa to sell more products and potentially to even wider markets with higher awareness regarding climate change and therefore demanding low carbon products. This opportunity will embark itself as increased revenues resulting from increased demand for Akçansa's low carbon products.

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)

88,986,604.53

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

This opportunity has a potential to have high financial impact over the long term. We have not yet conducted a detailed market research to quantify this impact and therefore while estimating the potential financial impact related to this opportunity, we based our calculations on the assumption of a 1% revenue increase due to increased demand to

our low carbon products. Our 2022 total revenue was 8,898,660,453 TRY.

Cost to realize opportunity

118,724,000

Strategy to realize opportunity and explanation of cost calculation

Strategy to realize this opportunity is implemented via continuous R&D studies. Cost associated with realizing this opportunity is the total low carbon & sustainable product related R&D budget realized in 2022 which was 12,804,000 TRY. There are sales development activities related to sustainable products in our portfolio as well as R&D studies focusing on production of low-carbon alternatives. R&D and innovation studies are ongoing, focusing on developing cement and concrete products with low clinker ratio. For production of low-CO2 cement in 2022 alternative raw material and fuel feeding system investments were completed as well as process improvement investments. Total CAPEX was 105,920,000 TRY in 2022. Cost of response for this risk therefore sums up to 118,724,000 TRY.

Comment

Identifier

Opp3

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Shift in consumer preferences

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Day by day, customers' awareness of the climate is increasing, and their demands are changing towards greener products. The number of green projects targeting green building certificates such as LEED and BREEAM is constantly increasing. In this direction, customers' demand for more sustainable products can provide a potential income increase for Akçansa, which has a green and environmentally friendly sustainable product portfolio and aims to further develop its product mix with new products in the medium term. Also, emerging regulations regarding the green construction will enable this opportunity for Akçansa in the near/medium-term.

Time horizon

Medium-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)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

The direct financial impact calculation that can be obtained with this opportunity has not been made yet, since sufficient and reliable data and estimations have not been obtained.

Cost to realize opportunity

0

Strategy to realize opportunity and explanation of cost calculation

Akçansa prepared Environmental Product self-declarations using GCCA's life cycle assessment and calculation tool for 22 concrete products, using its own internal resources. Additionally, 2 cement products have verified EPDs. In line with the demands of the customers, Akçansa shares the necessary information that customers need in green building investments in a solid way by transparently sharing the environmental impacts that the products cause throughout their life cycle. Since internal resources are used completely, there is no need for any investment or additional budget, so there is no additional cost in the realization of the opportunity.

Comment

Identifier

Opp4

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Use of recycling

Primary potential financial impact

Reduced direct costs

Company-specific description

In line with the use of wastes as alternative fuel and alternative raw materials, effective use of resources is ensured, and a contribution is made to the fight against climate change. With the transition to the circular economy, Akçansa will be able to obtain opportunities with more efficient use of resources in terms of cost efficiency.

Time horizon

Long-term

Likelihood

Virtually certain

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

26,860,833

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

With the use of alternative resources as raw materials, a cost saving of 26,860,833 TRY was achieved in 2022.

Cost to realize opportunity

34,755,000

Strategy to realize opportunity and explanation of cost calculation

In 2022 alternative raw material feeding system investments were completed in Çanakkale and Büyükçekmece plant to increase production volumes of low-CO2 blended cements that contains alternative raw materials. Total investment cost was 34.755.000 TRY which figure was presented as cost to realize the opportunity.

Comment

Akçansa's Büyükçekmece and Çanakkale plants are the only ones in Türkiye that have the Gold Level Responsible Use of Resources Certificate. In 2022, 631,817 tons of waste was used as alternative resource (Alternative fuel and alternative raw material totals) and have prevented from going to landfill.

C3. Business Strategy

C3.1

(C3.1) Does your organization's strategy include a climate transition plan that aligns with a 1.5°C world?

Row 1

Climate transition plan

Yes, we have a climate transition plan which aligns with a 1.5°C world

Publicly available climate transition plan

No

Mechanism by which feedback is collected from shareholders on your climate transition plan

We have a different feedback mechanism in place

Description of feedback mechanism

We prepared our climate transition plan in line with the 1.5 °C scenario and shared it with our Board of Directors. We made a commitment to the Science Based Targets initiative to move forward our 2030 climate targets more ambitious and align with the 1.5°C scenario, and accordingly, we analyzed all our operations and revealed our mitigation plan. In our transition plan, emission reduction investments to be realized in plants are determined. Our plan includes activities aimed at maximizing alternative fuel substitution instead of fossil fuels, retirement of inefficient equipment, increasing new product development studies and planning processes investments for the production of new products, use of renewable energy in all facilities, evaluation of CCUS technologies and partnerships with related institutions. In this direction, annual emission reduction targets have been determined, and each production facility has taken initiatives to achieve these targets. Within the scope of our transition plan, in addition to the long-term contracts of the purchasing departments, the sales departments work within the scope of spreading the applications for low carbon products in the market. Our transition plan includes absolute reduction and emission intensity reduction goals in line with 1.5°C. Although the SBTi validation process has not yet been completed, we have the ambition to reduce our absolute emissions by more than 20% by 2030 under this plan. Our Board of Directors, which also includes representatives of Heidelberg Materials and Sabancı Holding, closely monitors the development and progress of our transition plan. Progress is presented in the reports, which are carried out at least every 3 months and more frequently when necessary. We shared our commitment to SBTi with our shareholders, investors and all stakeholders through the public disclosure platform of Türkiye. We aim to publicly share our transition plan after SBTi validation and BoD approvals.

Frequency of feedback collection

More frequently than annually

Attach any relevant documents which detail your climate transition plan (optional)

AKC_Commitment_Letter_Signed.pdf

C3.2

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

	Use of climate-related scenario analysis to inform strategy
Row 1	Yes, qualitative and quantitative

C3.2a

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

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Transition scenarios IEA 2DS	Company-wide		Cement Low-carbon Technology Roadmap conducts scenario analyses against the reference technology scenario (RTS), or nationally determined contributions (NDCs) and the 2DS for the entire industry globally. 2DS acknowledges that transforming the energy sector is vital, but it is not the sole solution: the goal can only be achieved provided that CO2 and GHG emissions in nonenergy sectors are also reduced. Global GDP is assumed to more than triple between 2017 and 2060. Growth until 2030 in emerging markets is assumed. In line with the lower oil and gas prices in the 2DS, coal prices are also considered to be significantly lower due to the large shift away from coal. The global power sector can reach net-zero CO2 emissions by 2060 under the 2DS scenario with the use of renewables and carbon capture and storage technologies. Technologies that are not yet commercial play an important role in industrial process decarbonization, contributing to an 18% reduction in cumulative direct CO2 emissions in 2DS. In the 2DS electricity is accepted to be the largest final energy carrier, slightly ahead of oil. It is accepted that carbon pricing systems are applied. Different carbon price scenarios were assumed; EU ETS carbon price, 50% lower than EU ETS price and 20% lower than EU ETS price. All assumptions used in scenario

			analysis are in line with IEA's Energy Technology Perspectives 2017 report.
Physical climate scenarios RCP 2.6	Company-wide		"Representative Concentration Pathways (RCPs) are not new, fully integrated scenarios (i.e., they are not a complete package of socioeconomic, emissions and climate projections). They are consistent sets of projections of only the components of radiative forcing that are meant to serve as input for climate modeling, pattern scaling and atmospheric chemistry modeling," according to the RCP Database. Global climate models represent the planet as millions of grid boxes and then solve mathematical equations to calculate how energy is transferred between those boxes using the laws of thermodynamics. If done correctly, these models of how energy is cycled through all parts of the planet can be used to estimate dozens of environmental variables (winds, temperature, moisture, etc.). The models are tested by simulating historical conditions and then matching the results to our historical observational records. If the models can adequately recreate the past, they are then run forward in time to predict what may happen in the future. RCP 2.6 Scenario was used as the “Optimistic” scenario – substantial reduction of GHG during the century with wide range of new technologies and strategies successfully introduced. It is the moderate scenario leading to a warming at the end of the 21st century of probably less than 2°C relative to the pre-industrial period (1850–1900). For physical climate risks assessment, all facilities were assessed by their locations. Time horizon/projection years are 2030, 2050 and 2100. The projections are a hybrid composite of local high-resolution CORDEX models and global CMIP5 models. Data for the reference period is based on the well-established current Munich Re model data (for tropical cyclone, river flood) and on ERA5 ECMWF atmospheric reanalysis data (for heat stress, precipitation stress, fire weather stress). The reference period for the climatological parameters is 1986-2005, and 20-year periods are used for the projections for more robust trend estimates. According to RCP 2.6; as CO2 increases Earth gets warmer, but not uniformly, oceans warm slower than the continents and arctic. Projections are based on a high emissions scenario.

			Projections for temperature according to RCP 2.6 W/m2 show the level of radiative forcing by GHG emissions peaking by mid-century then returning to 2.6 W/m2 by 2100. A large-scale, global and differentiated greenhouse gas mitigation strategy and new technologies would need to be widely employed very soon.
Physical climate scenarios RCP 4.5	Company-wide		"Representative Concentration Pathways (RCPs) are not new, fully integrated scenarios (i.e., they are not a complete package of socioeconomic, emissions and climate projections). They are consistent sets of projections of only the components of radiative forcing that are meant to serve as input for climate modeling, pattern scaling and atmospheric chemistry modeling," according to the RCP Database. Global climate models represent the planet as millions of grid boxes and then solve mathematical equations to calculate how energy is transferred between those boxes using the laws of thermodynamics. If done correctly, these models of how energy is cycled through all parts of the planet can be used to estimate dozens of environmental variables (winds, temperature, moisture, etc.). The models are tested by simulating historical conditions and then matching the results to our historical observational records. If the models can adequately recreate the past, they are then run forward in time to predict what may happen in the future. RCP 4.5 Scenario was used as the “Stabilization” scenario – radiative forcing is stabilized before 2100 by employment of a range of technologies and strategies for GHG reduction. It is intermediate scenario leading to a warming at the end of the 21st century of more than 2°C relative to the pre-industrial period (1850–1900). For physical climate risks assessment, all facilities were assessed location wise. Time horizon/projection years are 2030, 2050 and 2100. The projections are a hybrid composite of local high-resolution CORDEX models and global CMIP5 models. Data for the reference period is based on the well-established current Munich Re model data (for tropical cyclone, river flood) and on ERA5 ECMWF atmospheric reanalysis data (for heat stress, precipitation stress, fire weather stress). The reference period for the climatological parameters is 1986-2005, and 20-year periods are used for the projections for

			more robust trend estimates. According to RCP 4.5, Earth gets warmer but doesn't warm uniformly, the oceans warm slower than the continents and arctic. Projections are based on a high emissions scenario. Projections for temperature according to RCP 4.5 show the level of radiative forcing by greenhouse gas emissions stabilizing at 4.5 W/m2 by 2100. Employment of a range of technologies and strategies for reducing greenhouse gas emissions are assumed in this scenario.
Physical climate scenarios RCP 8.5	Company-wide		"Representative Concentration Pathways (RCPs) are not new, fully integrated scenarios (i.e., they are not a complete package of socioeconomic, emissions and climate projections). They are consistent sets of projections of only the components of radiative forcing that are meant to serve as input for climate modeling, pattern scaling and atmospheric chemistry modeling," according to the RCP Database. Global climate models represent the planet as millions of grid boxes and then solve mathematical equations to calculate how energy is transferred between those boxes using the laws of thermodynamics. If done correctly, these models of how energy is cycled through all parts of the planet can be used to estimate dozens of environmental variables (winds, temperature, moisture, etc.). The models are tested by simulating historical conditions and then matching the results to our historical observational records. If the models can adequately recreate the past, they are then run forward in time to predict what may happen in the future. RCP 8.5 Scenario was used as the “Pessimistic” scenario – radiative forcing is growing beyond 2100 due to missing adaptation of technologies and strategies for GHG reduction. It is the most severe scenario leading to a warming at the end of the 21st century of probably more than 4°C relative to the pre-industrial period (1850–1900). For physical climate risks assessment, all facilities were assessed location wise. Time horizon/projection years are 2030, 2050 and 2100. The projections are a hybrid composite of local high-resolution CORDEX (Coordinated Regional Climate Downscaling Experiment, ~25–55 km horizontal resolution) models and global CMIP5 (Coupled Model Intercomparison Project Phase 5) models. Data for the

			reference period is based on the well-established current Munich Re model data (for tropical cyclone, river flood) and on ERA5 ECMWF atmospheric reanalysis data (for heat stress, precipitation stress, fire weather stress). The reference period for the climatological parameters is 1986-2005, and 20-year periods are used for the projections for more robust trend estimates. According to RCP 8.5 Scenario, Earth gets warmer, but doesn't warm uniformly, the oceans warm slower than the continents and arctic. Projections are based on a high emissions scenario. Projections for temperature according to RCP 8.5 W/m2 show extreme change. CO2 levels rise to 936ppm by 2100 making the global temperature rise by about 5-6°C by 2100.

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

What possible future developments need to be probed?
What variables are needed to support decision-making?
What forces and developments have the greatest ability to shape future performance?
What will be the impact of regulatory changes (Climate Law - Emission Trading Scheme)?
What will be the impact of physical risks? What will be the level of business interruption due to physical impacts?
What is the technology needs and their feasibility under different reduction scenarios?
What will be the impact on earnings, costs, revenues, and asset value?
How will capital allocation/investments be impacted?
What should be the timing and responses?
What will be the market conditions?

Results of the climate-related scenario analysis with respect to the focal questions

Transition Scenarios: We expect increased regulations and agreements to put more pressure on the cement industry to reduce CO2 emissions. We consider it essential to carry out scenario and impact analyzes in order to be prepared for new regulations, and to take emission reduction measures in this direction. In line with the emerging regulations on climate, the possible effects on the value chain have been analyzed. While performing impact analysis, we determined plant-based emission reduction levers, as switching to alternative fuels, improving energy efficiency, reduction of clinker

to cement ratio, using decarbonization technologies. New market conditions will support a growing demand for low-carbon products and solutions. We see there an opportunity to increase our market share in the range of sustainable products. In our business strategy, we recognize that additional investments are required under the 2DS scenario. We have developed our strategy aligned with lower CO2 emissions. We conducted financial impact analyzes for different regulatory scenarios to prepare for emerging regulations. In line with these analyzes, which are reviewed and approved by Board of Directors the emission reduction rate until 2030 has been determined and the investments to be made to reach this rate have been decided. In the focus of investments, there are items such as projects to increase alternative fuels, emission reduction projects, process optimization studies, product switching plan and sales plan for new and low-carbon products, R&D activities on both cement and concrete products, energy efficiency projects and determining the potential for developing CCUS technologies. The business strategy has been shaped for considering these investments and market. In terms of business objectives and strategy, this result has impact on our decision to set a CO2 reduction target. Akçansa, with all the initiatives determined, set a target to reduce net CO2 emissions (kg) per metric tons of cementitious product by 15.7% until 2030 from 2019 levels. With SBTi commitment, intensity target will be more ambitious.
Physical scenario analyses: Tropical cyclone, river flooding, precipitation and fire weather, heat stress, drought stress are key risks to focus on. According to the analyses, tropical cyclone is not considered a relevant risk for Türkiye. River flooding is considered medium risk for plants. Precipitation stress considered a medium risk and fire weather stress considered a medium to high risk for majority of operations risk in all scenarios. Heat stress considered a medium to high risk. Turkey is under water stress and our cement plants are in high water stress areas. Drought stress considered medium to high risk for majority of operations. Sea level rise not considered major risk for more than a quarter of all assets. Extreme precipitation and flooding impacting sites and supply chains in affected areas require further protective measures and mitigation plans.

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	Turkey is preparing itself for a carbon pricing mechanism in the short-term. This will bring industries for further needs to adapt themselves for a low carbon future. On the other hand, we expect increased demand for low-carbon goods and services in the future. We consider the time horizon

		covered to be medium-term for low carbon product demand in the market, which means until 2030. One opportunity for cement business is the transition to low clinker products or in other words, there is a risk in not doing so as 70% of carbon emissions result from production of clinker (60% from decarbonization of limestone and 40% from fuels). Carbon emissions are directly reduced when cement is produced using less clinker and more mineral additives. Additionally, the product portfolio will include more blended cement including less clinker and more mineral and secondary material additives like slag and fly ash from other industries. We target to decrease our clinker use in cement and concrete. We have defined clear targets in our 2030 Sustainability Targets mainly in the focus area of "Innovation" and in order to do so, our strategy is to focus on R&D of low carbon products. In this direction, we established our Product Switching Plan for cement and concrete products containing less clinker and more additives and planned our investments such as the necessary production line within this scope. With this plan, we have determined the medium-long term exit strategy from products that are not sustainable. We have defined our sustainable and low carbon product definitions for all new and existing cement products in our product switching plan by evaluating EU Taxonomy and other valid reference Taxonomies to define our sustainable product portfolio, including low carbon and sustainable products. We have defined our sustainable products and announced our sustainable product categories via Integrated Annual Report of 2022. Moreover, the most strategic decision made in the reporting year was to self-declare EPD (Environmental Product Declaration) for 22 concrete products and we became the first company in Türkiye to do so for ready mixed concrete products. In 2022, Betonsa (Ready-Mix Brand of Akçansa) started to produce EcoCrete® which is Heidelberg Materials' sustainable concrete brand offering up to 30% CO2 reduction per cubic meter of concrete compared with industry reference.
Supply chain and/or value chain	Yes	In line with our 2030 roadmap and the ambition to maximize our alternative fuel as well as alternative raw materials with the primary focus to reduce our CO2 emissions, we are dependent on the suppliers who provide these alternative sources, like end-of-life tires or dried sewage sludge. Anticipating that the demand for alternative fuels will increase in the medium-term time horizon, we take our

		strategic decisions in this area in the direction of securing our supply processes. Therefore, our strategy is to diversify our suppliers and procure these alternative sources in full (and in the future increased) capacity. We take a number of measures to do so. We have implemented and planned related investments to increase our alternative fuel usage in Çanakkale Plant. Our strategy is to make long-term agreements with key suppliers. It is also among our goals to carry out activities to increase the resilience of our suppliers against climate change. We have published our Sustainable Supply Chain Policy which outlines our due diligence and supplier sustainability evaluation process. With this policy, we aim to increase sustainability efforts throughout the value chain and eventually reaching reduced emissions. We have started supplier sustainability audits which also includes climate related assessments. Each supplier is obtaining an action plan to align their sustainability practices with our climate ambitions.
Investment in R&D	Yes	As part of our low carbon roadmap and 2030 sustainability targets, we aim to continuously reduce the clinker ratio in our products via cementitious products as well as value-added products with lower carbon footprint or with higher lifetime or enhanced performance parameters to enable lowering the emissions arising during use phase. In order to do so, our short to medium term strategic focus is to conduct continuous R&D projects with dedicated annual budgets to achieve our targets. Our special low-carbon products include cement and concrete products with high mineral additives and durability. In addition, new product development studies continue, and project studies continue for cement and concrete products with a lower clinker ratio through the use of construction demolition wastes or different mineral or chemical additives. In addition to the R&D projects we carry out to improve product diversity and develop low-carbon products, we also created an R&D roadmap for the development of new technologies and determined our projects that we plan to implement until 2030. All projects in R&D Roadmap are projects for the transition to a low carbon economy. Beyond that, project groups are formed to research and implement technologies such as CCUS, which stand out and develop for decarbonization with the support of Sabancı Holding since in the long term, sectoral approaches pointed out CCUS technologies will be essential for decarbonization of the industry. Feasibility studies of a proposed CCU model as an

		output of these studies have been completed under CIRCULATE project. On the other hand, production trials with calcined clay were carried out and performance studies were completed. With an external international consultant, within the scope of a decarbonization project, a "Technology Assessment" study was prepared considering organizational boundaries, technology readiness levels of the proposed technologies and material availabilities. With the outcomes of this study, we have reviewed our R&D roadmap.
Operations	Yes	One of the main climate-related risks arising from our operations is the resulting CO2 emissions. In line with our low carbon strategy in the medium term, covering 2020-2030 period, we target to use more alternative fuels and biomass in our fuel mix to substitute fossil fuels. We also aim to increase our energy efficiency and to decrease specific heat consumption at rotary kilns. All these measures taken in operations to decrease carbon emissions. Our strategy is to dedicate a budget for increased use of alternative fuels as well as investing in energy efficient measures. Our strategic approach influenced the business decision made to increase alternative fuel usage capacity at Büyükçekmece and Çanakkale plants in the reporting period. The investments made in operations, excluding replacement and maintenance investments, consists of emission reduction projects in line with the low carbon strategy. With these projects, it is aimed to decarbonize the production. In this context, emission reduction effects have been calculated for all investments to be made until 2030. An investment budget of approximately 25 million euros is planned until 2030, solely for the reduction of Scope 1 emissions. In 2022, kiln modernization project was completed in our Çanakkale plant resulting with increased efficiency and decreased specific heat consumption that brought along reduced CO2 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	From capital expenditure point of view, we need to be prepared for the low carbon future proactively. Hence, we invest from today to use more

	Direct costs Indirect costs Capital expenditures Capital allocation Access to capital Assets	alternative fuels and biomass in rotary kilns and dedicate a CAPEX budget accordingly as well as process modifications to use more additives for clinker reduction. Over the recent years we have invested for appropriate storing, handling, conveying and feeding systems for dried sewage sludge (DSS), waste oil, shredded tires (TDF) and refused drive fuels (RDF). Moreover, we are developing low carbon products, and this requires a series of investments in terms of R&D investments and investments in the production lines such as alternative raw material feeding and storage systems etc. We have CAPEX plans approved by the Board for new product developments in line with our product switching plan. Time horizon for CAPEX planning is short to medium, up to 2030. From revenues point of view, utilizing more alternative fuels and alternative raw materials lowers costs and therefore brings cost advantage to company, leading to increase in revenues. With the prediction that the low carbon product demand of the market will increase in the medium term, more income will be obtained by producing low carbon products. From direct costs point of view, utilizing more alternative fuels which substitute conventional fossil fuels like coal and petrocoke leads to a decrease in the direct costs. From capital allocation point of view, utilizing more alternative fuels rather than conventional fossil fuels like coal and petrocoke helps to maintain better capital allocation due to improvement in the cash flow. From indirect costs point of view, by using alternative fuels at lower costs in comparison to the conventional fossil fuels, we decrease our indirect operating costs. Additionally, upcoming carbon pricing mechanisms will increase indirect costs. By getting ready for those type of mechanisms and increasing resilience upon the impacts of these prices might result in decreased indirect cost impacts. From access to capital point of view, awareness in the climate-related risks and opportunities brings advantage to company in finding low interest rate capital and financial support from government or from alternative climate related funds for enabling such projects to drive carbon emission reduction. Climate-related risks have also impacted our financial planning: For example, evolving regulations and cap and trade plans such as the ETS will affect our financial planning regarding indirect costs in the short term. With an estimation and scenario model we estimated additional costs in the planned cap and trade plans up to 2030. These financial aspects are evaluated with 3-year company-wide strategic plan together with 5 and 10-year Master Plans to take

		necessary actions to manage the financial impacts arising from climate-related risks and opportunities. From assets point of view, all assets were analyzed against climate related risks. In addition to insurance processes for assets under high risk, we have also activated decision processes for improvement and reinforcement investments.

C3.5

(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition?

	Identification of spending/revenue that is aligned with your organization's climate transition	Indicate the level at which you identify the alignment of your spending/revenue with a sustainable finance taxonomy
Row 1	Yes, we identify alignment with both our climate transition plan and a sustainable finance taxonomy	At both the company and activity level

C3.5a

(C3.5a) Quantify the percentage share of your spending/revenue that is aligned with your organization's climate transition.

Financial Metric

CAPEX

Type of alignment being reported for this financial metric

Alignment with our climate transition plan

Taxonomy under which information is being reported

Objective under which alignment is being reported

Amount of selected financial metric that is aligned in the reporting year (unit currency as selected in C0.4)

118,415,250

Percentage share of selected financial metric aligned in the reporting year (%)

27

Percentage share of selected financial metric planned to align in 2025 (%)

23

Percentage share of selected financial metric planned to align in 2030 (%)

20

Describe the methodology used to identify spending/revenue that is aligned

The CAPEX budget for the investments within the scope of the transition plan has been determined. This budget estimate has been calculated over its ratio in the total CAPEX budget. In 2022, a total of 118,415,250 TRY is the budget allocated to investments within the scope of the transition plan. The ratio of this budget in the total CAPEX budget is 27%. The CAPEX budget for the transition plan up to 2025 is approximately 23% of the estimated 2025 total CAPEX budget included in the master plans. With a similar approach, the total CAPEX amount of the transition plan planned until 2030 again constitutes 20% of the total CAPEX budget estimated until 2030. Since majority of the CO2 reduction investments in the transition plan have been made in recent years, the ratio in the total budget is decreasing until 2030, but we are constantly following new emerging technologies, in this context, capex plans may change over the years.

Financial Metric

Revenue/Turnover

Type of alignment being reported for this financial metric

Alignment with our climate transition plan

Taxonomy under which information is being reported

Objective under which alignment is being reported

Amount of selected financial metric that is aligned in the reporting year (unit currency as selected in C0.4)

1,098,067,225

Percentage share of selected financial metric aligned in the reporting year (%)

17.2

Percentage share of selected financial metric planned to align in 2025 (%)

50

Percentage share of selected financial metric planned to align in 2030 (%)

100

Describe the methodology used to identify spending/revenue that is aligned

It is calculated as the ratio of the revenue obtained from the cement products sold within the scope of our sustainable product definitions to the total revenue of cement sales. In 2022, the sales revenue of sustainable cement products included in our transition plan was 1,098,067,225 TRY. This figure corresponds to 17.2% of the revenues from total

cement sales. Within the scope of the transition plan, it is aimed that sustainable cement products will reach 50% in total cement sales in 2025 and 100% in 2030.

Financial Metric

CAPEX

Type of alignment being reported for this financial metric

Alignment with a sustainable finance taxonomy

Taxonomy under which information is being reported

EU Taxonomy for Sustainable Activities

Objective under which alignment is being reported

Climate change mitigation

Amount of selected financial metric that is aligned in the reporting year (unit currency as selected in C0.4)

118,415,250

Percentage share of selected financial metric aligned in the reporting year (%)

22.81

Percentage share of selected financial metric planned to align in 2025 (%)

40

Percentage share of selected financial metric planned to align in 2030 (%)

40

Describe the methodology used to identify spending/revenue that is aligned

According to our company procedures, we are classifying our investments according to EU Taxonomy. Due to our internal categorization, the following investments are under EU Taxonomy aligned:

Climate mitigation: switching to the use of sustainably sourced renewable materials, increasing the use of environmentally safe carbon capture and utilization (CCU) and carbon capture and storage (CCS) technologies that deliver a net reduction in greenhouse gas emissions, reducing of clinker to cement ratio, increasing the use of alternative clinkers and binder, increasing fuel / process efficiency, renewable energy, energy efficiency, restoration of forests, producing clean and efficient fuels from renewable or carbon-neutral sources, reducing the CO2 emissions from transport

Climate adaptation: Installation / Upgrade of rainwater / drainage infrastructure, protective measures against flooding, protective measures against heat / cold such as shading, measures to increase water-efficiency, measures to protect against impacts of storms / cyclones, measures to protect against adverse effects of wastewater discharge, such as collection, treatment, and discharge, measures to improve water management and efficiency, such as water recycling / reuse.

In 2022 the Taxonomy aligned CAPEX for climate mitigation was approximately 22.81%. We are aiming that at least 40% of our CAPEX will be EU Taxonomy aligned in the future.

C3.5b

(C3.5b) Quantify the percentage share of your spending/revenue that was associated with eligible and aligned activities under the sustainable finance taxonomy in the reporting year.

Economic activity

Manufacture of cement

Taxonomy under which information is being reported

EU Taxonomy for Sustainable Activities

Taxonomy Alignment

Taxonomy-eligible but not aligned

Financial metric(s)

Turnover

Taxonomy-aligned turnover from this activity in the reporting year (unit currency as selected in C0.4)

Taxonomy-aligned turnover from this activity as % of total turnover in the reporting year

Taxonomy-aligned turnover from this activity that substantially contributed to climate change mitigation as a % of total turnover in the reporting year

Taxonomy-aligned turnover from this activity that substantially contributed to climate change adaptation as a % of total turnover in the reporting year

Taxonomy-eligible but not aligned turnover from this activity in the reporting year (unit currency as selected in C0.4)

6,932,997,927

Taxonomy-eligible but not aligned turnover from this activity as % of total turnover in the reporting year

78

Taxonomy-aligned CAPEX from this activity in the reporting year (unit currency as selected in C0.4)

Taxonomy-aligned CAPEX from this activity as % of total CAPEX in the reporting year

Taxonomy-aligned CAPEX from this activity that substantially contributed to climate change mitigation as a % of total CAPEX in the reporting year

Taxonomy-aligned CAPEX from this activity that substantially contributed to climate change adaptation as a % of total CAPEX in the reporting year

Taxonomy-eligible but not aligned CAPEX associated with this activity in the reporting year (unit currency as selected in C0.4)

Taxonomy-eligible but not aligned CAPEX associated with this activity as % of total CAPEX in the reporting year

Taxonomy-aligned OPEX from this activity in the reporting year (unit currency as selected in C0.4)

Taxonomy-aligned OPEX from this activity as % of total OPEX in the reporting year

Taxonomy-aligned OPEX from this activity that substantially contributed to climate change mitigation as a % of total OPEX in the reporting year

Taxonomy-aligned OPEX from this activity that substantially contributed to climate change adaptation as a % of total OPEX in the reporting year

Taxonomy-eligible but not aligned OPEX associated with this activity in the reporting year (unit currency as selected in C0.4)

Taxonomy-eligible but not aligned OPEX associated with this activity as % total OPEX in the reporting year

Type(s) of substantial contribution

Calculation methodology and supporting information

Manufacture of cement is taxonomy eligible but currently activity is not aligned with EU-Taxonomy Substantial Contribution (TSC) Criteria. Eligible but not aligned turnover from cement business line was proportioned to total company turnover including all business lines.

Technical screening criteria met

No

Details of technical screening criteria analysis

Currently, for most of our cement products, climate change mitigation and/or climate adaptation Substantial Contribution Criteria defined by the EU Taxonomy i.e. 0.469 tCO2e per ton of cement, is not met.

Do no significant harm requirements met

Yes

Details of do no significant harm analysis

All environmental impact assessments have been made within the scope of cement production and specific measures are taken to prevent pollution. In addition, emissions are reduced by taking important initiatives to mitigate the effects of climate change.

Minimum safeguards compliance requirements met

Yes

Details of minimum safeguards compliance analysis

All production processes and other business processes are in absolute compliance with OECD Guidelines for Multinational Enterprises, UN Guiding Principles on Business and Human Rights, ILO Core Labour Standards, International Bill of Human Rights.

C3.5c

(C3.5c) Provide any additional contextual and/or verification/assurance information relevant to your organization's taxonomy alignment.

Although EU taxonomy criteria are not yet fully met for climate mitigation, we aim to harmonize our products with taxonomy within the transition plan. We anticipate that our turnover rate, which is compatible with taxonomy, will reach 40% by 2030, especially by meeting the taxonomy requirements for our new type of cement products within the scope of our product transition plan. On the other hand, for our CAPEX items, we started our studies to implement a classification system compatible with taxonomy. After each CAPEX item is approved, its taxonomy class is determined and recorded. Guiding and informative documents have been prepared for the employees who reports this classification. Currently, taxonomy class is selected for each CAPEX item with these referrals in internal reporting purposes. The public reporting phase has not been started yet, but we are planning to be able to do taxonomy reporting for CAPEX in next year.

C4. Targets and performance

C4.1

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

Absolute target

Intensity target

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number

Abs 1

Is this a science-based target?

Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years

Target ambition

1.5°C aligned

Year target was set

2022

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Base year

2021

Base year Scope 1 emissions covered by target (metric tons CO2e)

5,764,763

Base year Scope 2 emissions covered by target (metric tons CO2e)

282,151

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)

Base year total Scope 3 emissions covered by target (metric tons CO2e)

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

6,046,914

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

99

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

100

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year

emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

99

Target year

2030

Targeted reduction from base year (%)

21.9

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

4,722,639.834

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

5,533,084

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

138,070

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

5,671,154

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]

28.374788971

Target status in reporting year

New

Please explain target coverage and identify any exclusions

Like most cement companies, Akçansa focuses predominantly on Scope 1 emission reductions and its limited Scope 2 emissions profile when compared to Scope 1. SBTi allows companies to exclude up to %5 of total Scope 1 + Scope 2 emissions. The target which will be submitted to SBTi for validation covers all operations of Akçansa for Scope 2. Target for Scope 1 emissions exclude aggregates, ports & terminals and HQ for Scope 1 which accounts for 99% of total Scope 1 emissions. Note that the remainder either can be included in the SBTi validation process or keep excluded. The targets are consistent with reductions required to keep global warming to 1.5°C in line with the latest science.

Plan for achieving target, and progress made to the end of the reporting year

Akçansa has adopted collectively constructed roadmaps that include all of the initiatives and measures for the transition to a low carbon economy. As outlined in our Annual Integrated Report and Investor Presentations, our strategy to combat climate change focuses on providing our customers products and solutions that are lower in carbon intensity, more reliable and durable, and more sustainable, while reducing our direct emissions. For this purpose, a product transition plan including the production and dissemination of products with reduced clinker content has been prepared and planned with intermediate yearly targets until 2030. In addition to this plan, it is planned to increase the ratio of alternative fuels in order to mitigate carbon emissions from operations. For this purpose, investments have been determined by analyzing impacts of each project and planned year on year. On the other hand, applications such as process and energy efficiency initiatives, modernization of assets, improvement projects, use of renewable energy and CCUS have been extensively analyzed and related investments have been also planned. There are also climate related R&D projects in the pipeline until 2030 and beyond.

In 2022, investments related with CO2 reduction and included in the transition plan were completed successfully that enables mitigation in CO2 emissions with a total budget of 118,415,250 TRY. Additionally renewable energy was purchased directly from electricity suppliers to decrease indirect emissions covered under Scope 2. We achieved to further increase the share of alternative fuels as well as efficiency increase of the kiln lines with big improvement projects. As a result of initiatives taken in 2022 according to the transition roadmap absolute Scope 1 emissions (gross) decreased by 4% and Scope 2 emissions decreased by 51%.

List the emissions reduction initiatives which contributed most to achieving this 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

Is this a science-based target?

No, but we anticipate setting one in the next two years

Target ambition

Year target was set

2020

Target coverage

Business activity

Scope(s)

Scope 1

Scope 2 accounting method

Scope 3 category(ies)

Intensity metric

Other, please specify

kilograms of net CO2 emissions per metric ton of cementitious product

Base year

2019

Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)

770

Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)

Intensity figure in base year for total Scope 3 (metric tons CO2e per unit of activity)

Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

770

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

100

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

% of total base year emissions in Scope 3, Category 1: Purchased goods and services covered by this Scope 3, Category 1: Purchased goods and services intensity figure

% of total base year emissions in Scope 3, Category 2: Capital goods covered by this Scope 3, Category 2: Capital goods intensity figure

% of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) covered by this Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) intensity figure

% of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution covered by this Scope 3, Category 4: Upstream transportation and distribution intensity figure

% of total base year emissions in Scope 3, Category 5: Waste generated in operations covered by this Scope 3, Category 5: Waste generated in operations intensity figure

% of total base year emissions in Scope 3, Category 6: Business travel covered by this Scope 3, Category 6: Business travel intensity figure

% of total base year emissions in Scope 3, Category 7: Employee commuting covered by this Scope 3, Category 7: Employee commuting intensity figure

% of total base year emissions in Scope 3, Category 8: Upstream leased assets covered by this Scope 3, Category 8: Upstream leased assets intensity figure

% of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution covered by this Scope 3, Category 9: Downstream transportation and distribution intensity figure

% of total base year emissions in Scope 3, Category 10: Processing of sold products covered by this Scope 3, Category 10: Processing of sold products intensity figure

% of total base year emissions in Scope 3, Category 11: Use of sold products covered by this Scope 3, Category 11: Use of sold products intensity figure

% of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products covered by this Scope 3, Category 12: End-of-life treatment of sold products intensity figure

% of total base year emissions in Scope 3, Category 13: Downstream leased assets covered by this Scope 3, Category 13: Downstream leased assets intensity figure

% of total base year emissions in Scope 3, Category 14: Franchises covered by this Scope 3, Category 14: Franchises intensity figure

% of total base year emissions in Scope 3, Category 15: Investments covered by this Scope 3, Category 15: Investments intensity figure

% of total base year emissions in Scope 3, Other (upstream) covered by this Scope 3, Other (upstream) intensity figure

% of total base year emissions in Scope 3, Other (downstream) covered by this Scope 3, Other (downstream) intensity figure

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this total Scope 3 intensity figure

% of total base year emissions in all selected Scopes covered by this intensity figure

100

Target year

2030

Targeted reduction from base year (%)

15.71

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

649.033

% change anticipated in absolute Scope 1+2 emissions

4

% change anticipated in absolute Scope 3 emissions

0

Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)

724

Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)

Intensity figure in reporting year for total Scope 3 (metric tons CO2e per unit of activity)

Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

724

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]

38.0268998983

Target status in reporting year

Underway

Please explain target coverage and identify any exclusions

This intensity target is covering only scope 1 net CO2 emissions during the clinker production process and calculations are done in accordance with Global Cement and Concrete Association guidelines. Other business activities, business lines and facilities are excluded. In 2020, 2030 targets were publicly announced as net kg of CO2 per metric tons of cementitious product. 2030 Ambition was to reduce net kg CO2 emitted per ton of cementitious product by approx. 15.7% and to reach 649 kg CO2/cementitious. These net emissions are excluding all emissions coming from alternative fuels. This year we have committed to SBTi to set a 1.5 degree aligned target. In the emission reporting of the cement sector, net emissions are reported per cementitious product according to the GCCA guidelines and monitored as a performance indicator. However, initiatives such as SBTi do not endorse targets based on net emissions. In this context, we will continue to follow our net emission target per cementitious product, but we also give our gross absolute emissions and gross intensity targets. After completing our SBTi validation process within the scope of the target described above, it may be possible that the target for the coming years will be more ambitious.

Plan for achieving target, and progress made to the end of the reporting year

As a part of 2030 Sustainability Targets, we aim to reduce specific net CO2 emissions to 649 kg per metric tons of cementitious material. In order to achieve this target, actions were completed during the reporting year according to our CO2 Roadmap. CO2 Roadmap which is the main guidance of our transition plan includes investment plans, production figures, alternative fuel usage, product switching and clinker usage ratio. Alternative fuel usage rates were increased with the investments made in the reporting period. We are moving towards achieving our goal. The progress of the target is closely followed by the Board of Directors. With the SBTi commitment this year, our roadmap and plans were revisited for the upcoming period.

List the emissions reduction initiatives which contributed most to achieving this target

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

Other climate-related target(s)

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

2020

Target coverage

Business activity

Target type: energy carrier

Heat

Target type: activity

Consumption

Target type: energy source

Low-carbon energy source(s)

Base year

2019

Consumption or production of selected energy carrier in base year (MWh)

962,642

% share of low-carbon or renewable energy in base year

14.1

Target year

2030

% share of low-carbon or renewable energy in target year

35

% share of low-carbon or renewable energy in reporting year

22

% of target achieved relative to base year [auto-calculated]

37.7990430622

Target status in reporting year

Underway

Is this target part of an emissions target?

Yes, Abs 1 and Int 1. In the cement industry, thermal energy is obtained by burning of the fuels and clinker production is carried out with this energy. In this process, the use of alternative fuels instead of fossil fuels is one of the most important initiatives for emission reduction. Energy (heat) generation from alternative fuel substitution plays a critical role in decarbonization pathways and is one of the main levers in process related CO2 emission reductions. Akçansa's transition plans and CO2 Roadmaps include alternative fuel substitution targets to achieve CO2 emission reduction targets.

Is this target part of an overarching initiative?

No, it’s not part of an overarching initiative

Please explain target coverage and identify any exclusions

This target is set for all cement plants. Each kiln at the plants has individual alternative fuel substitution rate target. Alternative fuel targets of each kiln are consolidated and cumulative targets are determined for Akçansa.

Plan for achieving target, and progress made to the end of the reporting year

We launched our Alternative Fuel Feeding System project in our Büyükçekmece and Ladik Plants in 2019 and Çanakkale Plant in 2021, which brought remarkable achievements. This project allows us to feed alternative fuels from more efficient feeding points to the kiln system at Büyükçekmece plant and this increased our rate of alternative fuel substitution up to 18.6% on the 1st line. We completed feeding system modification and process checks at our Ladik Plant and increased our rate of alternative fuel substitution from 3% to 31%. We improved combustion efficiency and transferred feeding systems into the calciners, increasing our alternative fuel use up to 21% in the 1st line at our Çanakkale Plant. Overall for Akçansa Alternative Fuel Substitution Rate increased from 19.1 to 22%.

List the actions which contributed most to achieving this target

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Target reference number

Low 2

Year target was set

2019

Target coverage

Site/facility

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Low-carbon energy source(s)

Base year

2019

Consumption or production of selected energy carrier in base year (MWh)

93,429

% share of low-carbon or renewable energy in base year

13

Target year

2030

% share of low-carbon or renewable energy in target year

22

% share of low-carbon or renewable energy in reporting year

59

% of target achieved relative to base year [auto-calculated]

511.1111111111

Target status in reporting year

Achieved

Is this target part of an emissions target?

Yes, Abs 1. This target is for reduction in Scope 2 emissions. We are planning to set a new renewable energy purchasing target within SBTi and Scope 2 reduction target as well. Our renewable energy target will also be aligned with 1.5-degree scenario and will be at least 80% renewable energy purchasing.

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain target coverage and identify any exclusions

Target covers all production facilities as well as other sites such as headquarters and offices.

Plan for achieving target, and progress made to the end of the reporting year

List the actions which contributed most to achieving this target

The energy generated by the 15 MW Waste Heat Energy Production Facility installed in our Çanakkale Plant and the 2.5 MW Wind Turbine located in our seaside facility covered 16% of the total electricity consumption of our plant. In 2022, we received the I-REC International Renewable Energy Certificate and National Renewable Energy Guarantees of Origin Certificate (YEK-G) for 366,000 MWh of our energy consumption and an increased ratio of renewable energy and low carbon energy use up to 59%.

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number

Oth 1

Year target was set

2019

Target coverage

Business activity

Target type: absolute or intensity

Intensity

Target type: category & Metric (target numerator if reporting an intensity target)

Other, please specify

Other, please specify

Biomass rate in fuel mix, %

Target denominator (intensity targets only)

Other, please specify

kcal

Base year

2019

Figure or percentage in base year

5.6

Target year

2030

Figure or percentage in target year

12

Figure or percentage in reporting year

9.1

% of target achieved relative to base year [auto-calculated]

54.6875

Target status in reporting year

Underway

Is this target part of an emissions target?

Yes, Abs 1 and Int 1. To decrease emissions further biomass content of alternative fuels, get important. Thus, targeting high biomass content alternative fuel usage is important for further reduction of emissions.

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain target coverage and identify any exclusions

This target is set for all cement plants. Each kiln at the plants has individual alternative fuel substitution rate target. To decrease emissions further biomass content of alternative fuels, get important. Thus, targeting high biomass content alternative fuel usage is important for further reduction of emissions.

Plan for achieving target, and progress made to the end of the reporting year

Various collaborations were developed by the purchasing department and waste-derived fuel suppliers. Alternative sources were supplied to the plants. With initiatives taken in the reporting year, biomass content of alternative fuels increased from 6.7% to 9.1%.

List the actions which contributed most to achieving this target

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Target reference number

Oth 2

Year target was set

2019

Target coverage

Business division

Target type: absolute or intensity

Intensity

Target type: category & Metric (target numerator if reporting an intensity target)

Other, please specify

Other, please specify

Low-CO2 product sales in domestic sales, %

Target denominator (intensity targets only)

Other, please specify

Total annual domestic cement sales (denominator to calculate the percentage)

Base year

2020

Figure or percentage in base year

26.1

Target year

2030

Figure or percentage in target year

100

Figure or percentage in reporting year

27.9

% of target achieved relative to base year [auto-calculated]

2.4357239513

Target status in reporting year

Underway

Is this target part of an emissions target?

Yes, Int 1. Increasing low-CO2, low clinker cement sales portion in total sales decreases scope 1 emissions intensity.

Is this target part of an overarching initiative?

No, it’s not part of an overarching initiative

Please explain target coverage and identify any exclusions

Target covers all production plants and all domestic cement sales.

Plan for achieving target, and progress made to the end of the reporting year

Within our transition plan, we have a product switching plan that includes targets for increasing the sales volume of low-CO2 products with lower clinker ratio. Yearly sales volumes are determined in line with the transition plan. For production of low-CO2 cement products, new feeding systems were installed in Büyükçekmece and Çanakkale plants. Total investment amount was 34,755,000 TRY in the reporting period for those installations.

List the actions which contributed most to achieving this target

Target reference number

Oth 3

Year target was set

2021

Target coverage

Company-wide

Target type: absolute or intensity

Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Engagement with suppliers

Other, please specify

Percentage of suppliers committed to Sustainabe Supply Chain Policy

Target denominator (intensity targets only)

Base year

2021

Figure or percentage in base year

0

Target year

2022

Figure or percentage in target year

100

Figure or percentage in reporting year

100

% of target achieved relative to base year [auto-calculated]

100

Target status in reporting year

New

Is this target part of an emissions target?

No

Is this target part of an overarching initiative?

No, it’s not part of an overarching initiative

Please explain target coverage and identify any exclusions

Target is valid for all suppliers in the supply chain. In 2021 Sustainable Supply Chain Policy was drafted and target was set for the suppliers to commit for the compliance to that policy. In 2022 Sustainable Supply Chain Policy was approved by Board of Directors and commitments were taken from each approved supplier.

Plan for achieving target, and progress made to the end of the reporting year

Sustainability is increasingly integrated into our procurement processes. All suppliers were informed about our Sustainable Supply Chain Policy and compliance commitments were received. We have defined sustainability criteria in our supplier selection and ongoing evaluation processes. Within the scope of our Sustainable Supply Chain Policy for our suppliers, we have defined and started to implement our sustainability audit processes. At the end of the audit processes, we make sustainability scores for suppliers and develop action plans for suppliers based on performance.

List the actions which contributed most to achieving this target

Target reference number

Oth 4

Year target was set

2019

Target coverage

Business division

Target type: absolute or intensity

Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Resource consumption or efficiency

Other, please specify

Clinker in domestic cement sales, %

Target denominator (intensity targets only)

Base year

2019

Figure or percentage in base year

87.3

Target year

2030

Figure or percentage in target year

72

Figure or percentage in reporting year

86

% of target achieved relative to base year [auto-calculated]

8.4967320261

Target status in reporting year

Underway

Is this target part of an emissions target?

Yes, Abs 1 and Int 1. Main emission source in cement production is clinker production. Decreasing clinker ratio directly has an impact on emission reductions since clinker amount will be decreased and total emissions will also be decreased. By decreasing the amount of clinker used in cement products, total emissions caused by clinker production decreases.

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain target coverage and identify any exclusions

Target covers all cement plants and domestic cement sales.

Plan for achieving target, and progress made to the end of the reporting year

Within our transition plan, we have a product switching plan that includes targets for increasing the sales volume of low-CO2 products with lower clinker ratio. Yearly sales volumes are determined in line with the transition plan. Also, yearly clinker incorporation ratios were determined in a decreasing trend. According to that plan, each plant has their own clinker incorporation ratio targets. This target is closely followed up by top management by separate committees and also included in company scorecard. In 2022 additive feeding system installations were completed to decrease clinker ratio in cement products and production of lower clinker cements (blended cements) were started. Total investment amount was 34,755,000 TRY in the reporting period for those installations.

List the actions which contributed most to achieving this target

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	1	20,000

To be implemented*	16	240,453
Implementation commenced*	0	0
Implemented*	11	255,124
Not to be implemented	1	3,709

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
Automation

Estimated annual CO2e savings (metric tonnes CO2e)

1,421

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

584,907

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

1,241,250

Payback period

1-3 years

Estimated lifetime of the initiative

6-10 years

Comment

With this project, autonomous production in raw-mill 2 in Büyükçekmece plant was enabled. Total saving of 1.50 kWh/ton cement was achieved that leads to 1,421 tons of CO2 emission saving.

Initiative category & Initiative type

Energy efficiency in production processes
Automation

Estimated annual CO2e savings (metric tonnes CO2e)

3,902

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

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

3,249,009

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

2,151,500

Payback period

<1 year

Estimated lifetime of the initiative

6-10 years

Comment

Project enabled autonomous production in Büyükçekmece production lines, reduced fuel consumption and improved clinker quality. Heat consumption of the kiln was decreased. Specific heat consumption of the kiln was decreased by 6.00 kcal/kg clinker ending up with 3,902 tons CO2 saving.

Initiative category & Initiative type

Waste reduction and material circularity

Product/component/material recycling

Estimated annual CO2e savings (metric tonnes CO2e)

175

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

2,671,075

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

6,620,000

Payback period

1-3 years

Estimated lifetime of the initiative

11-15 years

Comment

The installation of stocking and dosing systems for fly ash to be used in cement production has been completed in our Çanakkale and Büyükçekmece plants. The system has been commissioned in the Çanakkale plant and is in the testing phase in the Büyükçekmece plant. Since the launch of the project approximately 47 ktons of clinker was saved in our Büyükçekmece plant. Estimated clinker reduction will be 1.5%. Emissions per product, on the other hand, have been reduced by approximately 55 kg CO2/ton cement compared to existing products.

Initiative category & Initiative type

Waste reduction and material circularity
Product/component/material recycling

Estimated annual CO2e savings (metric tonnes CO2e)

50

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

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

4,750,936

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

30,249,448

Payback period

4-10 years

Estimated lifetime of the initiative

11-15 years

Comment

The installation of stocking and dosing systems for fly ash to be used in cement production has been completed in our Çanakkale and Büyükçekmece plants. The system has been commissioned in the Çanakkale plant and is in the testing phase in the Büyükçekmece plant. Since the launch of the project approximately 70 ktons of clinker was saved in our Çanakkale plant. Estimated clinker reduction will be 0.4%. Emissions per product, on the other hand, have been reduced by approximately 55 kg CO2/ton cement compared to existing products.

Initiative category & Initiative type

Energy efficiency in production processes
Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

39,831

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1
Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

15,661,675

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

46,340,000

Payback period

4-10 years

Estimated lifetime of the initiative

16-20 years

Comment

With the implementation of Line 1 modernization project in Çanakkale plant, alternative fuel substitution capacity increased with better process performance and reduced specific heat. The project enabled increased alternative fuel substitution rate with better burning conditions in preheater tower and better process conditions with lower specific kiln calories and increased refractory lifetime. Consequently, with this process improvement project less fossil fuel is required and kiln energy consumption is efficiently reduced, thus reducing CO2 emissions significantly.

Initiative category & Initiative type

Energy efficiency in production processes
Automation

Estimated annual CO2e savings (metric tonnes CO2e)

1,821

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

1,507,123

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

1,655,000

Payback period

1-3 years

Estimated lifetime of the initiative

6-10 years

Comment

Project enabled autonomous production in Çanakkale cement production lines, reduced electricity consumption and improved grinding operation quality ending up with CO2 savings.

Initiative category & Initiative type

Energy efficiency in production processes
Fuel switch

Estimated annual CO2e savings (metric tonnes CO2e)

32,273

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

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

22,579,307

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

11,585,000

Payback period

1-3 years

Estimated lifetime of the initiative

16-20 years

Comment

New alternative fuel feeding system was installed in Çanakkale plant. With this installation alternative fuels substitution rate was drastically increased letting the production lines to reduce CO2 emissions as well.

Initiative category & Initiative type

Energy efficiency in production processes

Fuel switch

Estimated annual CO2e savings (metric tonnes CO2e)

10,416

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

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

4,650,558

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

13,240,000

Payback period

1-3 years

Estimated lifetime of the initiative

16-20 years

Comment

Alternative fuel preparation facility installation was completed in Çanakkale plant. Implementation of this project enabled the plant to keep its alternative fuel substitution rates stable and to be more flexible in the supply market. Increasing the alternative fuels burning rate let the plant to reduce CO2 emissions as well.

Initiative category & Initiative type

Energy efficiency in production processes

Automation

Estimated annual CO2e savings (metric tonnes CO2e)

1,554

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Scope 2 (location-based)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

2,000,746

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

1,655,000

Payback period

1-3 years

Estimated lifetime of the initiative

6-10 years

Comment

Project enabled autonomous production in Ladik plant, reduced fuel and electricity consumption and improved clinker quality. Specific heat consumption of the kiln was decreased ending up with CO2 savings.

Initiative category & Initiative type

Energy efficiency in production processes
Automation

Estimated annual CO2e savings (metric tonnes CO2e)

79

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

348,000

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

2,482,500

Payback period

1-3 years

Estimated lifetime of the initiative

16-20 years

Comment

With the automation project energy efficiency in packaging facilities were increased in Ladik plant.

Initiative category & Initiative type

Low-carbon energy consumption

Geothermal

Estimated annual CO2e savings (metric tonnes CO2e)

163,602

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

0

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

3,310,000

Payback period

No payback

Estimated lifetime of the initiative

<1 year

Comment

This initiative is directly renewable electricity purchasing from the electricity producer. I-REC International Renewable Energy Certificate and National Renewable Energy Guarantees of Origin Certificate (YEK-G) were purchased from the electricity producer for the portion of renewable electricity. The source of the electricity was geothermal as indicated in the certificates.

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	As a solution to reduce CO2 emissions, it is critical to develop low-carbon products that contain more minerals or secondary additives (such as blast furnace slag or fly ash) that create less clinker in cement. Therefore, our R&D studies continue for both sustainable products and alternative cementitious products. We continue to work in synergy and coordination with Sabancı University to develop alternative low-carbon cementitious products. We produce alternative sources and raw materials on a pilot scale in our production lines and carry out benchmarking studies. On the other hand, we develop ideas and projects on specific issues by forming interdisciplinary working groups for the implementation of new technologies. We conducted

	trial studies such as the use of calcined clay in 2022. Our R&D budget is directly dedicated to low carbon product & production technologies.
Employee engagement	Operational excellence is very much critical in reaching operational targets of a company. To mitigate CO2 emissions, increasing alternative fuel and biomass rate and increase energy efficiency are two critical issues. These targets are achieved with the engagement of employee since it is very critical to monitor the process conditions closely, to implement maintenance plan on-time and to access to the necessary alternative fuel types. Alternative fuels and biomass input to the rotary kiln change the process parameters which needs special care and actions in case of feeding and/or quality fluctuations. Therefore, it is a key issue to train employee and increase their awareness to mitigate CO2, assign them technical KPIs and give award when targets are achieved. Technical trainings on decarbonization were started during the reporting year. Additionally, a decarbonization project has been completed company-wide where several awareness raising sessions were completed.
Dedicated budget for other emissions reduction activities	Implementing ISO standards is another method we use. Akçansa plants takes benefit of having both ISO 14001 Environmental Management Standard and ISO 50001 Energy Management Standard. The former includes monitoring, controlling and calculating CO2 emissions taking measures to mitigate it through alternative fuels and biomass. The letter, on the other hand, includes monitoring, controlling energy consumptions, energy base lines, critical energy consuming units etc. It requires regular check, taking required measures etc. So implementing and effective management of standards are very much supportive to mitigate CO2 emissions. Additionally energy audits are carried out and the necessary improvement and efficiency projects are determined as the final output and implemented.
Internal price on carbon	Starting from 2022, internal carbon pricing is used for investment feasibility studies. We use internal carbon price during financial feasibility studies of investment decisions to drive investments in low carbon technologies and low carbon products. For this, different scenarios over the average carbon price in the EU ETS and prices determined by the guidance of external consultants are used.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

Level of aggregation

Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon

The EU Taxonomy for environmentally sustainable economic activities

Type of product(s) or service(s)

Cement and concrete

Other, please specify

Cement

Description of product(s) or service(s)

Under our Green Formulation brand, we have classified our cement products also considering the EU taxonomy and other taxonomies i.e. GCCA Transition Pathway for Cement. It was defined that if the cement product has a clinker ratio between 50%-65% which is much lower than the conventional Portland Cement, it is classified as "low-carbon product". Beyond, if the cement product has a clinker ratio between 65%-80%, it is classified as "climate-friendly product". Finally, if the cement product has a clinker ratio between 80%-95% and also have additional sustainable benefits, it is classified as "environmentally friendly product". The rest are classified as "conventional products".

Our "low-carbon product" ACTIONCEM (CEM IV/B (P) 32.5 N–LH/SR; CEM II/B-LL 32.5 N; CEM II/B-M (P-LL) 32.5 N); Contains 35-50% mineral additives. It contributes to the reduction of greenhouse gas emissions with its low clinker ratio and low carbon footprint.

Our "climate-friendly product" SOLIDCEM (CEM IV/A-P 42.5 N-SR) contains 21-35% mineral additive. It is climate and environment friendly as it causes 15% less greenhouse gas emissions in its production.

DUOCEM (CEM II/A type products) is classified as "environmentally friendly product" and has a carbon footprint of 10% less than Portland cement, thanks to its mineral additive content of up to 20%. With this feature, DUOCEM is both a building-friendly product and an environmentally friendly cement that supports greenhouse gas reduction.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Yes

Methodology used to calculate avoided emissions

Other, please specify

GHG Protocol, WBCSD (GCCA) Cement Sustainability Initiative, Cement CO2 and Energy Protocol, Version 3.1

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Cradle-to-gate

Functional unit used

per ton of cement

Reference product/service or baseline scenario used

Ordinary Portland Cement (CEM I)

Life cycle stage(s) covered for the reference product/service or baseline scenario

Cradle-to-gate

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

0.156

Explain your calculation of avoided emissions, including any assumptions

Global Cement and Concrete Association (GCCA) industry average emissions are considered for the baseline year of 2019/2020. A standard Portland cement as a reference product has a clinker content of 95%. Our sustainable & blended cement products' clinker content varies between 50%-80%. Considering sales volumes of the sustainable products, average clinker content of these product group is 75%. Taking 780 kg CO2/ton of clinker as reference, a typical Portland cement contains ~741 kg CO2/ton of cement. The blended cement group thus has 585 kg CO2/ton of cement. Total avoided emissions per ton of sustainable products sold is calculated as 741 - 585 = 156 kg CO2/ton of cement.

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

12.4

Level of aggregation

Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon

The EU Taxonomy for environmentally sustainable economic activities

Type of product(s) or service(s)

Cement and concrete

Other, please specify

Concrete

Description of product(s) or service(s)

Under our Green Formulation brand, we have classified our concrete products also considering the EU taxonomy and other taxonomies i.e. GCCA, Green Business Council for Concrete etc.

Our Green Concrete product "Yeşilşap" has up to 35% lower CO2 footprint thanks to the special mineral-added cements used in its production. By air entraining 25 percent by

volume, it becomes 25 percent lighter than traditional screeds and contributes to thermal insulation in buildings. Its insulation feature supports energy efficiency in its use in buildings. Yeşilşap, which has a positive contribution to earthquake risk with its low unit weight, also helps to reduce labor costs in construction site applications.

Another green concrete product A+BETON is the most suitable solution for Green Buildings, reducing carbon emissions by producing up to 70% Ground Blast Furnace Slag (GBFS) substitution instead of cement. It is the ideal concrete solution for durable, efficient and sustainable structures that are resistant to environmental effects.

In 2022, we have started the production of e EcoCrete®, that offer up to 66% CO2 reduction per m3 of concrete in comparison with the industry reference.

Next-generation fiber-reinforced concrete Performix reduces eliminates the use of mesh reinforcement, and the amount of steel used is reduced. Therefore, Performix is an eco-friendly product that causes less carbon emission and is a sustainable product with all of its other features.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

No

Methodology used to calculate avoided emissions

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Functional unit used

Reference product/service or baseline scenario used

Life cycle stage(s) covered for the reference product/service or baseline scenario

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

Explain your calculation of avoided emissions, including any assumptions

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

4.4

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-calciner	65

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?

No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?

No

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	Yes, a change in methodology Yes, a change in boundary	In 2022, more accurate activity data were collected for Scope 3 calculations both in cement and ready mixed business lines. For Category 10: Processing of sold products", ready mixed concrete business line was included for the first time voluntarily. For Scope 1 and Scope 2 there is no change neither in methodology nor boundary. For Scope 2 emissions, market-based approach was also adopted in addition to location-based calculations.

C5.1c

(C5.1c) Have your organization's base year emissions and past years' emissions been recalculated as a result of any changes or errors reported in C5.1a and/or C5.1b?

	Base year recalculation	Base year emissions recalculation policy, including significance threshold	Past years' recalculation
Row 1	No, because the impact does not meet our significance threshold	According to the recalculation criteria set in the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard no recalculation was done, since base years are different, approximately whole category was included and cumulative effect of including ready mixed concrete business line deemed not significant. Additionally, since calculation of emissions from ready mixed concrete business line is left optional for "Scope 3 - Category 10: Processing of sold products" according to Cement Sector Scope 3 GHG Accounting and Reporting Guidance issued by the WBCSD Cement Sustainability Initiative (GCCA), base year emissions were not recalculated.	No

C5.2

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

Scope 1

Base year start

January 1, 2010

Base year end

December 31, 2010

Base year emissions (metric tons CO2e)

5,872,720

Comment

Emissions from our clinker and cement production. Major sources are calcination of limestone and combustion of fuels for energy generation in the rotary kilns. In 2021, scope 1 emissions from all locations, business lines and facilities were included in the boundary but when the calculation made with the new boundary the difference corresponds to a figure of 0.2%, which deemed to be non-material. Thus, base year emissions were not recalculated. Yet the data for base year is not present.

Scope 2 (location-based)

Base year start

January 1, 2010

Base year end

December 31, 2010

Base year emissions (metric tons CO2e)

338,163

Comment

We consume electricity from the interconnected grid. Scope-2 emissions were calculated from our clinker and cement production. In 2021, scope 2 emissions from all locations, business lines and facilities were included in the boundary but when the calculation made with the new boundary the difference corresponds to a figure of 0.2%, which deemed to be non-material. For calculation of location-based scope 2 emissions, grid emission factor published by International Energy Agency was used for the relevant year.

Scope 2 (market-based)

Base year start

January 1, 2010

Base year end

December 31, 2010

Base year emissions (metric tons CO2e)

338,163

Comment

Akçansa consumes electricity from interconnected grid. In 2010, there was no available market instruments in Türkiye. Thus location-based and market-based Scope 2 emission figures were the same.

Scope 3 category 1: Purchased goods and services

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

261,919

Comment

Cradle to gate emissions from purchased goods used in cement, aggregates and ready mix concrete production. Emissions includes raw materials (limestone, gypsum etc.), additives, purchased cement and purchased aggregates. Equipment and machinery was excluded since they are not material for this category. Quantities were extracted from online reporting systems. Emission factors used are from Ecoinvent LCA Databse

(IPCC 2013: Climate Change GWP 100a).

Scope 3 category 2: Capital goods

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

0

Comment

Capital goods is not one of the material categories for cement industry as mentioned in Cement Sector Scope 3 GHG Accounting and Reporting Guidance issued by the WBCSD Cement Sustainability Initiative (GCCA). Thus, Akçansa does not report on "capital goods" category.

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

195,310

Comment

Includes well to tank emissions of fuels used at cement plants (kiln and non kiln fuels) and for aggregates and ready-mix concrete production and fuels purchased for transportation purposes.

Scope 3 category 4: Upstream transportation and distribution

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

49,569

Comment

Includes road and sea transportation of raw materials, additives admixtures for cement, aggregates and ready-mixed concrete business lines.

Scope 3 category 5: Waste generated in operations

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

0

Comment

Waste generated in operations is insignificant, as confirmed in the Cement Sector Scope 3 GHG Accounting and Reporting Guidance issued by the WBCSD Cement Sustainability Initiative (GCCA). Thus, Akçansa does not report on "waste generated in operations" category.

Scope 3 category 6: Business travel

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

931.8

Comment

Domestic & International Flights & Car Rentals during business travels are included in business travel category.

Scope 3 category 7: Employee commuting

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

1,887.5

Comment

Emissions caused by employee shuttle service and leased company cars are included in this category of Scope 3 emissions.

Scope 3 category 8: Upstream leased assets

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

0

Comment

Akçansa doesn't have upstream leased assets thus does not report for this category of Scope 3 emissions.

Scope 3 category 9: Downstream transportation and distribution

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

18,483

Comment

Refers to downstream transportation and distribution. Data includes road transportation of aggregates sales, road transportation of cement sales, water (sea) transportation of cement sales, road transportation of concrete sales.

Scope 3 category 10: Processing of sold products

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

41,196

Comment

Emissions of processing clinker sold.

Scope 3 category 11: Use of sold products

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

0

Comment

According to the Cement Sector Scope 3 GHG Accounting and Reporting Guidance issued by the WBCSD Cement Sustainability Initiative (now GCCA), this category is not relevant to the cement sector thus Akçansa does not report on this category.

Scope 3 category 12: End of life treatment of sold products

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

0

Comment

According to the Cement Sector Scope 3 GHG Accounting and Reporting Guidance issued by the WBCSD Cement Sustainability Initiative (now GCCA), this category is not relevant to the cement sector thus Akçansa does not report on this category.

Scope 3 category 13: Downstream leased assets

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

0

Comment

Akçansa does have downstream leased assets thus does not report on this category.

Scope 3 category 14: Franchises

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

0

Comment

Akçansa does not have any franchises thus does not report on this category.

Scope 3 category 15: Investments

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

0

Comment

Akçansa does not report on this category.

Scope 3: Other (upstream)

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

0

Comment

Akçansa does not report on this category.

Scope 3: Other (downstream)

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

0

Comment

Akçansa does not report on this category.

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

Defra Environmental Reporting Guidelines: Including streamlined energy and carbon reporting guidance, 2019
IEA CO2 Emissions from Fuel Combustion
IPCC Guidelines for National Greenhouse Gas Inventories, 2006
ISO 14064-1

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
The Greenhouse Gas Protocol: Scope 2 Guidance
The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Standard
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)
5,533,084

Start date
January 1, 2022

End date
December 31, 2022

Comment
2022 total gross emissions (ton CO2e) from Büyükçekmece, Çanakkale and Ladik cement production plants, 26 ready-mixed concrete plants. Scope 1 emissions are verified via 3rd party verification body and given in the limited assurance report given in our 2022 Integrated Annual Report pages between 175-184 (Link to integrated annual report: http://www.akcansa.com.tr/en/docs/Akcansa2022AnnualReport.pdf)

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)
5,764,763

Start date
January 1, 2021

End date
December 31, 2021

Comment
Represents 2021 total gross emissions (ton CO2e) from Büyükçekmece, Çanakkale and Ladik cement production plants and 26 ready-mixed concrete plants. Scope 1 emissions were verified via 3rd party verification body and disclosed in the 2021 limited assurance report as well as CDP.

Past year 2

Gross global Scope 1 emissions (metric tons CO2e)

5,680,999

Start date

January 1, 2020

End date

December 31, 2020

Comment

2020 total gross emissions (ton CO2e) from Büyükçekmece, Çanakkale and Ladik cement production plants.

Past year 3

Gross global Scope 1 emissions (metric tons CO2e)

5,688,036.51

Start date

January 1, 2019

End date

December 31, 2019

Comment

2019 total gross emissions (ton CO2e) from Büyükçekmece, Çanakkale and Ladik cement production plants.

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 are reporting a Scope 2, market-based figure

Comment

Akçansa consumes electricity from interconnected grid and also purchases electricity from different producers.

C6.3

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

Reporting year

Scope 2, location-based

301,672

Scope 2, market-based (if applicable)

138,070

Start date

January 1, 2022

End date

December 31, 2022

Comment

Scope 2 emission figure includes cement business line (3 production plants), readymixed concrete business line, aggregates business line, ports-terminals and headquarters. Electricity Production and Electricity Consumption Point Emission Factors for Türkiye were published by the Ministry of Energy and Natural Resources and this factor was used both in the calculations. 366,000 MWh of electricity that Akçansa purchased was certified by I-REC International Renewable Energy Certificate and National Renewable Energy Guarantees of Origin Certificate (YEK-G) for Scope 2 emission reductions in 2022. Market Based Scope 2 emissions are verified via 3rd party verification body and given in the limited assurance report given in our 2022 Integrated Annual Report pages between 175-184. (Link to integrated annual report: http://www.akcansa.com.tr/en/docs/Akcansa2022AnnualReport.pdf).

Past year 1

Scope 2, location-based

282,151

Scope 2, market-based (if applicable)

282,151

Start date

January 1, 2021

End date

December 31, 2021

Comment

Scope 2 emission figure includes cement business line (3 production plants), ready mixed concrete business line, aggregates business line, ports-terminals and headquarters. Scope 2 emissions are verified via 3rd party verification body and given in the limited assurance report. In 2021 there was no market differentiation thus the market-based emissions were the same as location-based emissions.

Past year 2

Scope 2, location-based

262,191

Scope 2, market-based (if applicable)

262,191

Start date

January 1, 2020

End date

December 31, 2020

Comment

2020 Total tCO2 as Scope 2, including all operations; Cement, Aggregate, Ready-Mix, Ports-Terminals and Headquarters. In 2020 there was no market differentiation thus the market-based emissions were the same as location-based emissions.

Past year 3

Scope 2, location-based

313,281

Scope 2, market-based (if applicable)

313,281

Start date

January 1, 2019

End date

December 31, 2019

Comment

This figure includes all operations in Akcansa i.e., consumption in cement, concrete and aggregates production, consumption in Head Office, consumption in ports and terminals. In 2019 there was no market differentiation thus the market-based emissions were the same as location-based emissions.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 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, calculated

Emissions in reporting year (metric tons CO2e)

525,883

Emissions calculation methodology

Supplier-specific method

Hybrid method

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

100

Please explain

Cradle to gate emissions from purchased goods used in cement, aggregates and ready mix concrete production. Emissions includes raw materials (limestone, sand, clay, gypsum etc.), additives, admixtures, purchased cement and purchased aggregates. Equipment and machinery were excluded since they are not material for this category. Quantities were extracted from online reporting systems used by company business units. Emission factors used are from Ecoinvent v2.2, Ecoinvent LCA Databse (IPCC 2013 Climate Change GWP 100a), GCCA_EPD-Tool_LCA-Database-v3.2_2022-11-21, 2022 DEFRA conversion factors and EPDs of products disclosed by suppliers where applicable. For cement business line total emissions from this category accounts for 261,919 tons of CO2e. For all business lines the figure is calculated as 525,883 tons of CO2e.

Capital goods

Evaluation status

Not relevant, explanation provided

Please explain

Capital goods is not one of the material categories for cement industry as mentioned in Cement Sector Scope 3 GHG Accounting and Reporting Guidance issued by the WBCSD Cement Sustainability Initiative (now GCCA). Thus "capital goods" category is not calculated.

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

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

276,203

Emissions calculation methodology

Supplier-specific method

Hybrid method

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

100

Please explain

Emissions from fuel-and-energy-related activities (not included in Scope 1 or 2) are calculated. Figure includes well to tank emissions of fuels used at cement plants (kiln and non-kiln fuels) and for aggregates and ready-mix concrete production and fuels purchased for transportation purposes. Consumption amounts of fuels were extracted from internal reports. 2022 DEFRA GHG Conversion Factors were used for calculations. Electricity distribution losses also included.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

73,802

Emissions calculation methodology

Supplier-specific method
Hybrid method
Spend-based method
Fuel-based method
Distance-based method

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

100

Please explain

Includes road and sea transportation of raw materials, additives admixtures for cement, aggregates and ready-mixed concrete business lines including inbound-outbound logistics. Fuel based method was used where the data is available. Otherwise, distance-based method was used. 2022 DEFRA GHG Conversion Factors were used for calculations. For road transports, Heavy Goods Vehicle (Average HGV) emission factors were used. For sea transport, Cargo ship - Bulk carrier (60,000–99,999 dwt) emission figures were used. For inbound road transport, spend based method was adopted using EPA supply chain GHG emission factors. For cement business line total emissions from this category accounts for 52,753 tons of CO2e. For all business lines the figure is calculated as 73,802 tons of CO2e.

Waste generated in operations

Evaluation status

Not relevant, explanation provided

Please explain

Waste generated in operations is insignificant, as confirmed in the Cement Sector Scope 3 GHG Accounting and Reporting Guidance issued by the WBCSD Cement Sustainability Initiative (GCCA). In our cement kilns, we recover the waste from all the operations and furthermore use waste from other industries as an alternative resource such as fuel or raw material.

Business travel

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

115.43

Emissions calculation methodology

Distance-based method

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

100

Please explain

Domestic & International Flights during business travels are included in business travel category. Mobile Combustion GHG Emissions Calculation Tool Version 2.6 of the GHG Protocol was used. The activity data is provided from our service provider. Emissions from business travel are verified via 3rd party verification body and given in the limited assurance report under scope 3 emissions given in our 2022 Integrated Annual Report pages between 175-184. (Link to integrated annual report: http://www.akcansa.com.tr/en/docs/Akcansa2022AnnualReport.pdf)

Employee commuting

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

2,174.23

Emissions calculation methodology

Hybrid method
Fuel-based method
Distance-based method

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

100

Please explain

Emissions caused by employee shuttle service and leased company cars are included in this category of Scope 3 emissions. 2022 DEFRA GHG Conversion Factors were

used both for fuel and distance-based methods. Emissions from employee commuting are verified via 3rd party verification body and given in the limited assurance report under scope 3 emissions given in our 2022 Integrated Annual Report pages between 175-184. (Link to integrated annual report: http://www.akcansa.com.tr/en/docs/Akcansa2022AnnualReport.pdf)

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

We don't have upstream leased assets.

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

150,320

Emissions calculation methodology

Hybrid method
Fuel-based method
Distance-based method

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

100

Please explain

Refers to downstream transportation and distribution. This data includes road transportation of aggregates sales, road transportation of cement sales, water (sea) transportation of cement sales, road transportation of concrete sales. For road transports, Heavy Goods Vehicle (Average HGV) emission factors were used. For sea transport, Cargo ship - Bulk carrier (60,000–99,999 dwt) emission figures were used. For cement business line total emissions from this category accounts for 136,576 tons of CO2e. For all business lines the figure is calculated as 150,320 tons of CO2e.

Processing of sold products

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

428,549

Emissions calculation methodology

Hybrid method

Average data method
Average product method

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

100

Please explain

Emissions of processing clinker is calculated from total emissions from electricity consumption + total emissions of other services (transportation, packaging, etc.). Emission Factor of processing clinker (kgCO2/ton of clinker) is calculated as (EF of Electricity (kgCO2/ton of cement) + EF of other services (kgCO2/ton of cement)) ÷ Ton of Clinker needed per Ton of cement). Emissions of processing cement is calculated as stated in GHG Protocol Guidelines. Emissions of processing concrete is calculated using material use emission factors from DEFRA GHG Conversion Factors 2022. For cement business line total emissions from this category accounts for 74,588 tons of CO2e. For all business lines the figure is calculated as 428,549 tons of CO2e.

Use of sold products

Evaluation status

Not relevant, explanation provided

Please explain

According to the Cement Sector Scope 3 GHG Accounting and Reporting Guidance issued by the WBCSD Cement Sustainability Initiative (now GCCA), this category is not relevant to the cement sector.

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Please explain

According to the Cement Sector Scope 3 GHG Accounting and Reporting Guidance issued by the WBCSD Cement Sustainability Initiative (now GCCA), this category is not relevant to the cement sector.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

Akçansa has no downstream leased assets.

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

Akçansa does not have any franchises.

Investments

Evaluation status

Not relevant, explanation provided

Please explain

No additional significant investments made during the reporting period to be evaluated under Scope 3.

Other (upstream)

Evaluation status

Not relevant, explanation provided

Please explain

No other upstream Scope 3 emissions sources identified within the boundary.

Other (downstream)

Evaluation status

Not relevant, explanation provided

Please explain

No other downstream Scope 3 emissions sources identified within the boundary.

C6.7

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

Yes

C6.7a

(C6.7a) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO2.

	CO2 emissions from biogenic carbon (metric tons CO2)	Comment
Row 1	198,308	Total CO2 emissions from biomass content of alternative fuels used in clinker production processes. Büyükçekmece Plant: 92,694 metric tons of CO2 emissions Çanakkale Plant: 92,816 metric tons of CO2 emissions Ladik Plant: 12,798 metric tons of CO2 emissions Total: 198,308 metric tons of CO2 emissions

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

0.0006373

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

5,671,154

Metric denominator

unit total revenue

Metric denominator: Unit total

8,898,660,453

Scope 2 figure used

Market-based

% change from previous year

69.7

Direction of change

Decreased

Reason(s) for change

Change in renewable energy consumption
Other emissions reduction activities
Change in output
Change in revenue
Change in methodology

Please explain

Change in renewable energy consumption: Our own waste heat recovery system produced lower electricity in 2022 when compared with last year due to longer overhaul period regarding the modernization project in the plant. On the other hand, renewable electricity was purchased from the suppliers which was assured by I-REC International Renewable Energy Certificate and National Renewable Energy Guarantees of Origin Certificate (YEK-G) certifications. Use of renewable energy enables 51% emission reduction in market-based Scope 2.

Change in output: In 2022, clinker production is 2% lower than previous year but total cement production is 15% higher than the previous year.

Other emission reduction activities: In 2021 Scope 1, 2 and 3 emissions figures were totaled 6,614,892. Decrease in Scope 1 emissions is 4% and Scope 2 emissions is 51% in 2022 when compared with the previous year. The decrease in the emissions achieved by initiatives taken during the reporting year such as alternative fuel projects, process improvement projects, digitalization projects, renewable energy purchasing and energy efficiency projects. During emission calculations, emission factors (EF) are calculated periodically according to laboratory results instead of using constant values from IPCC guidance. Depending on the quality of fuels and alternative fuels (including biomass content), raw materials, fluctuations occur in EF's and its directly affecting the final CO2 value. Scope 3 emissions increased. The increase in Scope 3 is due to the calculations made by reaching more accurate and reliable data, up-to-date emission factors and the inclusion of the ready mixed concrete business line for "Category 10: Processing of sold products" emissions.

Change in revenue: Intensity figure indicates 0.81 kg CO2 emission per TRY revenue. In 2021, this figure was 2.1 kg CO2/TRY revenue. Total revenue in 2020 was 2,871,403,785 TRY. In 2022 Revenue increased by 210% and totaled 8,898,660,453 at the end of year. Revenue increased in 2021 with the increase in sales and the additional exchange rate effect which results with a decrease in the final intensity figure.

Change in methodology: For Scope 2 emissions, market-based approach was adopted. Figure Scope 1 +2 totals includes market-based emissions. The comparison also made by recalculating past year Scope-2 emissions according to market-based approach.

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	0.841	0.802	0.021
Cement equivalent	0.751	0.716	0.0204
Cementitious products	0.759	0.724	0.0189
Low-CO2 materials	0	0	0

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/area/region.

Country/area/region	Scope 1 emissions (metric tons CO2e)
Turkey [1]	5,533,084

[1] Scope 1 Emissions include emissions from Büyükçekmece, Çanakkale and Ladik cement plants and emissions from ready-mixed plants.

C7.3

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

By facility

By activity

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
Büyükçekmece Plant	1,637,811	41.0118	28.3327
Çanakkale Plant	3,461,523	39.5156	26.1439
Ladik Plant	422,932	40.5607	35.5306
Ready Mixed Concrete Plants (Including 26 Ready-Mix Concrete Plants - management office coordinates were given as reference)	10,818	40.9842	29.0995

C7.3c

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

Activity	Scope 1 emissions (metric tons CO2e)

Cement Production (Including 3 cement production plants located in İstanbul-Büyükçekmece, Çanakkale and Samsun-Ladik)	5,522,266
Ready-Mixed Concrete Production	10,818

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	5,522,266	5,266,147	Gross Scope 1 CO2 emissions by facilities: Büyükçekmece: 1,637,811 metric tons of CO2 Canakkale: 3,461,523 metric tons of CO2 Ladik: 422,932 metric tons of CO2 Net Scope 1 CO2 emissions by facilities: Büyükçekmece: 1,594,873 metric tons of CO2 Canakkale: 3,283,174 metric tons of CO2 Ladik: 388,100 metric tons of CO2

C7.5

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

Country/area/region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Turkey [1]	301,672	138,070

[1] Electricity Production and Electricity Consumption Point Emission Factors were published by the Ministry of Energy and Natural Resources and this factor was used in the calculations. Emission factors for renewable sources taken zero.

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)
Büyükçekmece Plant	108,893	27,092
Çanakkale Plant	158,201	76,400
Ladik Plant	29,792	29,792
Ready-mixed concrete plants	2,224	2,224
Terminals/Ports	1,778	1,778
Head-office	31	31
Aggregates	753	753

C7.7

(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

Not relevant as we do not have any subsidiaries

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	296,886	133,284	Çanakkale Plant has it own WHR and Wind Turbine for own consumption. Additionally certified (I-REC and YEK-G) renewable energy generated from geothermal power plants were purchased from plants located in Aegean region which is the same region of

			Çanakkale and close to Büyükçekmece plants. In the market-based approach, portion of those renewable energy attributed to Çanakkale plant, and the other half matched with Büyükçekmece plant.

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?

Decreased

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 in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	159,355	Decreased	2.64	In the previous year, renewable electricity consumption was 86,955 MWh. Even though the self-generation of renewable electricity decreased in the reporting year due to longer overhaul periods, total renewable electricity consumption was increased to 443,454 MWh with the renewable electricity purchasing that was certified with RECs and/or guarantees of origin. Total emission saving from renewable electricity purchasing was 163,602 tCO2e but due to decrease in self-generation, total savings from renewable electricity consumption were not same as this figure. The total increase in renewable electricity consumption was 356,499 MWh. The increase in the renewable electricity consumption was used to calculate total emission change by multiplying with national grid electricity emission factor of 0.447 tCO2e/MWh which was announced by the Ministry of Energy and Natural Resources. Combined

				Scope 1 + 2 emissions was 6,046,914 metric tons of CO2 in 2021 (previous reporting year). Change in emissions due to higher renewable electricity consumption represents 2.64% of total Scope 1 and Scope 2 emissions of the previous reporting year.
Other emissions reduction activities	91,522	Decreased	1.514	With the investments and initiatives to increase alternative fuel in 2022, substitution rate was increased from 19.1% to 22%. Additionally, with process optimization and modernization investments completed, specific heat consumption values of the kilns decreased and that enabled additional emission savings. Moreover, with the automation initiatives, process optimization was achieved, and additional emission savings obtained. From 10 emission reduction initiatives (excluding renewable initiatives), total emission savings were 91,522 tCO2. This figure represents 1.514% of total Scope 1 and Scope 2 figure which was 6,046,914 metric tons of CO2 in the previous reporting year.
Divestment	0	No change	0	No divestment within the boundary during the reporting year.
Acquisitions	0	No change	0	No acquisitions within the boundary during the reporting year.
Mergers	0	No change	0	No mergers within the boundary during the reporting year.
Change in output	72,148	Decreased	1.193	In the reporting period clinker production declined 133,920 tons (from 6,698,230 tons in 2021 to 6,564,310 tons in 2022). Whereas cement production increased by 857,535 tons (from 5,899,801 tons in 2021 to 6,757,336 tons in 2022). Clinker production decrease correspond to 112,627 tons of CO2 decrease since Specific Gross Emission is 0.841 tCO2/ton clinker. Cement production

				increase correspond to 40,478 tons of CO2 increase. The increase in CO2 caused by cement production increase is calculated by using the total cement production increase data as additional energy consumption (90,555.70 MWh, calculated by specific energy consumption of cement production - grinding) for cement production. Total change in clinker production and cement production resulted as a decrease of 72,148 tons of CO2 that represents 1.193% of total Scope 1 and Scope 2 emissions figure of 2021. Combined Scope 1 + 2 emissions was amount to 6,046,914 metric tons of CO2 in 2021 (previous reporting year).
Change in methodology	0	No change	0	No change in the methodology during the reporting year for Scope 1 and Scope 2.
Change in boundary	0	No change	0	No change in the boundary used for Scope 1 and Scope 2 calculations in the reporting year.
Change in physical operating conditions	0		0	No change in the physical operating conditions in the reporting year.
Unidentified	0	No change	0	N/A
Other	52,568	Decreased	0.869	Change in emission factors: Every year, in compliance with Turkish Monitoring, Reporting and Verification system of GHG emissions, the weighted average of annual emission factors which are calculated from laboratory results of fuel/alternative fuels are used for annual Scope 1 calculations. This brings a certain change in total emissions on a yearly basis. So that, the emission variations may occur by this update in the emission factors. Comparing the 2021, steam coal type (high quality) of fuel used has 4.7% less emission factor in comparison.

				Lignite species can also have variations depending on the quarry source. In 2022 Lignite has 2.7% less emission factor comparing the last year 2021. Since petrocoke types are pretty close in terms of quality no certain changes are expected. But still 0.2% decrease recorded comparing 2021 data. Change in biomass content of alternative fuels utilized in 2022: Due to increased content of alternative fuels additional emission reductions took place.

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?

Market-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)	617,701	5,974,850	6,592,551
Consumption of purchased or acquired electricity		366,000	308,882	674,882
Consumption of self-generated non-fuel renewable energy		77,454		77,454
Total energy consumption		1,061,155	6,283,733	7,344,888

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)	6,551,997
Consumption of purchased or acquired electricity		664,173
Total energy consumption		7,216,170

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.

Sustainable biomass

Heating value

LHV

Total fuel MWh consumed by the organization

0

Comment

Energy is not yet obtained from sustainable biomass.

Other biomass

Heating value

LHV

Total fuel MWh consumed by the organization

617,701

Comment

Includes domestic dried sewage sludge (100% biomass), wood derived fuels (100% biomass), agricultural waste (100% biomass), waste tires (TDF) (27% biomass), other refused derived fuel species (RDF etc.) that includes variable biomass content.

Other renewable fuels (e.g. renewable hydrogen)

Heating value

LHV

Total fuel MWh consumed by the organization

0

Comment

Energy is not yet obtained from other renewable fuels.

Coal

Heating value

LHV

Total fuel MWh consumed by the organization

1,768,903

Comment

Includes imported steam-coal, local anthracite coal, lignite consumption.

Oil

Heating value

LHV

Total fuel MWh consumed by the organization

48,332

Comment

Includes heavy fuel oil consumption.

Gas

Heating value

LHV

Total fuel MWh consumed by the organization

5,278

Comment

Includes natural gas consumption.

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value

LHV

Total fuel MWh consumed by the organization

4,152,337

Comment

Includes petroleum coke consumption, waste oil, waste tires (excluding biomass content), refused derived fuel species (RDF) (excluding biomass content), mixed industrial waste (excluding biomass content) as alternative fuel sources.

Total fuel

Heating value

LHV

Total fuel MWh consumed by the organization

6,592,551

Comment

Total fuel consumption including biomass, alternative fuels, fuel oil, natural gas, coal and petro-coke.

C-CE8.2c

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

Sustainable biomass

Heating value

LHV

Total MWh fuel consumed for cement production activities

0

MWh fuel consumed at the kiln

0

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

0

Comment

Energy is not yet obtained from sustainable biomass.

Other biomass

Heating value

LHV

Total MWh fuel consumed for cement production activities

617,701

MWh fuel consumed at the kiln

617,701

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

0

Comment

Includes domestic dried sewage sludge (100% biomass), wood derived fuels (100% biomass), agricultural waste (100% biomass), waste tires (TDF) (27% biomass), , other refused derived fuel species (RDF etc.) that includes variable biomass content.

Other renewable fuels (e.g. renewable hydrogen)

Heating value

LHV

Total MWh fuel consumed for cement production activities

0

MWh fuel consumed at the kiln

0

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

0

Comment

Energy is not yet obtained from other renewable fuels.

Coal

Heating value

LHV

Total MWh fuel consumed for cement production activities

1,768,903

MWh fuel consumed at the kiln

1,768,903

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

0

Comment

Includes imported steam-coal, local anthracite coal, lignite consumption. Coal was used only in the kiln.

Oil

Heating value

LHV

Total MWh fuel consumed for cement production activities

7,778

MWh fuel consumed at the kiln

7,778

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

0

Comment

Includes heavy fuel oil consumption used in the kiln firing.

Gas

Heating value

LHV

Total MWh fuel consumed for cement production activities

5,278

MWh fuel consumed at the kiln

5,278

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

0

Comment

Includes natural gas consumption. Natural gas was only used in kiln for firing purposes.

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value

LHV

Total MWh fuel consumed for cement production activities

4,152,337

MWh fuel consumed at the kiln

4,152,337

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

0

Comment

Includes petroleum coke consumption, waste oil, waste tires (excluding biomass content), refused derived fuel (RDF) (excluding biomass content), mixed industrial waste (excluding biomass content) as alternative fuel sources. These fuels were only consumed at the kiln.

Total fuel

Heating value

LHV

Total MWh fuel consumed for cement production activities

6,551,997

MWh fuel consumed at the kiln

6,551,997

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

0

Comment

Fuels were only used in cement production activities and only for the kiln processes. Other fuel-related activities were not present. For heating purposes, only hot gases from the kiln system were used.

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	77,454	77,454	77,454	77,454
Heat	6,592,551	6,592,551	617,701	617,701
Steam	0	0	0	0
Cooling	0	0	0	0

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	77,454	77,454
Heat	6,551,997	6,551,997
Steam	0	0

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero or near-zero emission factor in the market-based Scope 2 figure reported in C6.3.

Country/area of low-carbon energy consumption

Turkey

Sourcing method

Unbundled procurement of energy attribute certificates (EACs)

Energy carrier

Electricity

Low-carbon technology type

Geothermal

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

145,929

Tracking instrument used

I-REC

Country/area of origin (generation) of the low-carbon energy or energy attribute

Turkey

Are you able to report the commissioning or re-powering year of the energy generation facility?

Yes

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

2019

Comment

Redemption of 145,929 I-REC certificates representing 145,929 MWh electricity generated from Mis 3 JES geothermal power plant commissioned in 2019, located in Turkey.

Country/area of low-carbon energy consumption

Turkey

Sourcing method

Unbundled procurement of energy attribute certificates (EACs)

Energy carrier

Electricity

Low-carbon technology type

Geothermal

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

37,071

Tracking instrument used

I-REC

Country/area of origin (generation) of the low-carbon energy or energy attribute

Turkey

Are you able to report the commissioning or re-powering year of the energy generation facility?

Yes

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

2018

Comment

Redemption of 37,071 I-REC certificates representing 37,071 MWh electricity generated from Mis 1 JES geothermal power plant commissioned in 2018, located in Turkey.

Country/area of low-carbon energy consumption

Turkey

Sourcing method

Unbundled procurement of energy attribute certificates (EACs)

Energy carrier

Electricity

Low-carbon technology type

Geothermal

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

183,000

Tracking instrument used

Other, please specify

National Renewable Energy Guarantees of Origin Certificate (YEK-G)

Country/area of origin (generation) of the low-carbon energy or energy attribute

Turkey

Are you able to report the commissioning or re-powering year of the energy generation facility?

Yes

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

2019

Comment

Cancellation of 183,000 YEK-G certificates representing 37,071 MWh electricity generated from Efeler geothermal power plant commissioned in 2019, located in Turkey.

C8.2g

(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.

Country/area
Turkey

Consumption of purchased electricity (MWh)
674,882

Consumption of self-generated electricity (MWh)
77,454

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]

752,336

C9. Additional metrics

C9.1

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

Description
Waste

Metric value
631,816.55

Metric numerator
Metric tons of waste utilized

Metric denominator (intensity metric only)
No intensity metric

% change from previous year
34

Direction of change

Increased

Please explain

Figure represents total amount of waste-derived sources in metric tons i.e. waste from other industries utilized as alternative fuel and alternative raw materials in our operations. In 2022, we utilized close to 23 million 631,817 tons of waste and non-recyclable by-products. Total amount of wastes substituted to the production increased by 34% compared with 2021 amount.

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	Our main R&D scope is low-carbon production and low-carbon products. During the reporting year total R&D budget was 12,804,000 TRY directly focused on decarbonizing the production and development of low-carbon products. Laboratory and pilot-scale studies were carried out for the production of new types of low-carbon and blended composite cements and low-carbon concrete products. Industrial-scale trials for the new type of cement products developed were first carried out in our own ready-mixed concrete facilities (Betonsa) and delivered to customers, and then industrial studies were carried out at other external customers. In addition, Heidelberg Materials Ecocrete© product has started to be produced in our ready mixed concrete facilities. Additionally, theoretical and applied R&D studies continue on both blended cement and other alternative cement products. On the other hand, studies on CCUS technologies have gained momentum in the last two years. R&D projects for circular economy continue in both cement and ready-mixed concrete business lines on both lab-scale and industrial scale. In this context, a project for the use of construction demolition wastes in ready mixed concrete was carried out within the framework of Public-Academy-Company cooperation, and laboratory and pilot trials were successfully completed in the reporting year. Additionally, feasibility studies of a proposed CCU model as an output of these studies have been completed.

C-CE9.6a

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

Technology area

Low clinker cement

Stage of development in the reporting year

Applied research and development

Average % of total R&D investment over the last 3 years

5

R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)

Average % of total R&D investment planned over the next 5 years

5

Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

We have many years of efforts, knowledge and experience for the production of low carbon cement. We have an academic working culture that has been going on for years, especially in blended cement research. Therefore, some of the R&D and Product Development studies consist of academic and theoretical research studies. On the other hand, we are working together with Heidelberg Materials research and development center regarding low clinker cement research and development. Furthermore, in this context, we cooperate with universities and other institutions. In 2022, two graduate students from Istanbul Technical University, that have very high academic achievement, joined us as interns to conduct their direct research on the development of products with low clinker content, and they are conducting their thesis studies. This is generally the first phase of our product development strategy. After a desktop review, alternative sources to decrease clinker content are analyzed and lab-trials are conducted. Successful resources are then selected for pilot scale production trials. In our transition plan, our low clinker product switching plan is the backbone of the low carbon transition, so it is essential that basic research and development studies are completed for all products listed here. We have completed these studies, but we aim to reach the lowest possible clinker portfolio by continuing new product trials. The budget allocated to theoretical and applied R&D studies each year corresponds to approximately 5% of the total R&D budget. It is aimed to continue by allocating a budget at this rate in the next 5 years.

Technology area

Low clinker cement

Stage of development in the reporting year

Pilot demonstration

Average % of total R&D investment over the last 3 years

10

R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)

Average % of total R&D investment planned over the next 5 years

10

Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

After successful laboratory trials, the pilot scale production stages of the new product complying with the standards are started with the determined additives. Quality performance tests are carried out by performing the relevant cement production trials with different recipes at the most suitable and closest production facility to the source. Recipes whose quality parameters are equivalent to reference products are determined for industrial scale trials. In 2022, pilot trials of 2 types of new cement products were carried out in the Çanakkale and Büyükçekmece factories, and the quality performance parameters were determined. In line with our 2030 product transformation plan, it is demonstrated that which products will be piloted and produced at industrial scale for the first time in each next year. It is essential that the products included in the product switching plan, which form the backbone of our transition plan, are equivalent to standard products in terms of quality parameters, for these products to be accepted by customers and for safety. In this context, necessary raw material quality specifications and process parameters are determined by conducting pilot studies. In this way, it is aimed to achieve success in industrial scale production, which is the next stage. Pilot production trials are mainly carried out and planned under the budget of the "Operations", but the details of the studies of these productions, quality tests, conformity assessments, are carried out under R&D budgets. The budget allocated for these studies corresponds to approximately 10% of the total R&D budget. It is aimed to continue by allocating a budget at this rate in the next 5 years.

Technology area

Low clinker cement

Stage of development in the reporting year

Small scale commercial deployment

Average % of total R&D investment over the last 3 years

5

R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)

Average % of total R&D investment planned over the next 5 years

5

Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Industrial-scale trials are carried out on a small scale at first, and the actual performance is determined by using our own internal customer ready-mixed concrete business. In 2022, the first productions of our blended cement products, which have an important place in our product transformation plan, were carried out for the planned year's production, and they were used in industrial scale productions at the production facilities of our ready-mixed concrete brand Betonsa. Pilot production trials are mainly carried out and planned under the investment plan and budget of the "Operations", but the details of the studies of these productions, quality tests, conformity assessments, are carried out under R&D. The budget allocated for these studies corresponds to approximately 10% of the total R&D budget. It is aimed to continue by allocating an investment budget at this rate in the next 5 years.

Technology area

Low clinker cement

Stage of development in the reporting year

Large scale commercial deployment

Average % of total R&D investment over the last 3 years

0

R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)

Average % of total R&D investment planned over the next 5 years

0

Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Studies after pilot production trials are transferred to "Operations". Investments after this stage are not covered from the R&D budget.

Technology area

Alternative low-CO2 cements/binders

Stage of development in the reporting year

Basic academic/theoretical research

Average % of total R&D investment over the last 3 years

5

R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)

Average % of total R&D investment planned over the next 5 years

20

Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Alternative product trials (such as calcined clay) are firstly carried out with large-scale academic research studies and then applied laboratory trials. In this context, the figure allocated within the R&D budget corresponds to approximately 5% of the total R&D budget. In this context, we anticipate that the budget to be allocated for the production trials planned in the future will also be within this scope with an increased portion since the alternative products are gaining importance day by day for decarbonization of the cement industry. In the R&D pipeline we have research and development projects as well as pilot trials for this specific area. 20% of total R&D investments of 5 years will be expected to be allocated for this line.

Technology area

Carbon capture, utilization, and storage (CCUS)

Stage of development in the reporting year

Basic academic/theoretical research

Average % of total R&D investment over the last 3 years

10

R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)

Average % of total R&D investment planned over the next 5 years

50

Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

R&D studies within the scope of carbon utilization projects are ongoing. Within the scope of investments that have not been approved yet but may be planned in the future, the investment amount to be allocated for these projects will constitute a significant part of the total R&D budget, but in the current situation it corresponds to approximately 10%. We have a selected project group working in this context. We anticipate that R&D studies will mainly focus on CCU technologies in the coming period and 50% of the budget will be allocated to these studies.

Technology area

Control systems

Stage of development in the reporting year

Full/commercial-scale demonstration

Average % of total R&D investment over the last 3 years

50

R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)

Average % of total R&D investment planned over the next 5 years

5

Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Investments in control systems implemented within the scope of digitalization have made up 80% of R&D investments in the last 3 years. With these investments, significant process efficiency, energy efficiency and CO2 savings were achieved. These investments are expected to have a lifetime of at least 10 years and will have maintenance needs in the future. These investments have been completed in a large portion of the facilities, and the dissemination and implementation are expected to be completed in the missing facilities. In a 5-year period, it is aimed to disseminate and complete these practices in all facilities. Therefore, the share of these investments in total R&D investments will decrease in the upcoming period, but about 5% of the total 5-year budget will continue to be allocated to these investments.

Technology area

Fuel switching

Stage of development in the reporting year

Basic academic/theoretical research

Average % of total R&D investment over the last 3 years

5

R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)

Average % of total R&D investment planned over the next 5 years

5

Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

There is research on the use of hydrogen as an alternative fuel in cement production. As Akçansa, we also followed these theoretical research processes in our R&D processes in 2022. We plan to continue exploring this research and its applicability. in the R&D pipeline, about 5% of our research will be related with hydrogen.

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)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

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

Akcansa_EFR2022_EN_22.06.23_web.pdf

Akçansa_Limited Assurance EFR ENG Opinion (1).pdf

Page/ section reference

The CO2 emission indicators that are the subject of the limited assurance study, marked on page 173 of the 2022 Integrated Annual Report, are documented in the attached limited assurance report for the year 2022. The integrated annual report can be accessed from the link below.

http://www.akcansa.com.tr/en/docs/Akcansa2022AnnualReport.pdf

Relevant standard

ISAE 3410

Proportion of reported emissions verified (%)

100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach

Scope 2 market-based

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

Akcansa_EFR2022_EN_22.06.23_web.pdf

Akçansa_Limited Assurance EFR ENG Opinion (1).pdf

Page/ section reference

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http://www.akcansa.com.tr/en/docs/Akcansa2022AnnualReport.pdf

Relevant standard

ISAE 3410

Proportion of reported emissions verified (%)

100

Scope 2 approach

Scope 2 location-based

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

Akcansa_EFR2022_EN_22.06.23_web.pdf

Akçansa_Limited Assurance EFR ENG Opinion (1).pdf

Page/ section reference

The CO2 emission indicators that are the subject of the limited assurance study, marked on page 173 of the 2022 Integrated Annual Report, are documented in the attached limited assurance report for the year 2022. The integrated annual report can be accessed from the link below. Location based Scope 2 emissions are verified prior to market-based Scope 2 emission verification.

http://www.akcansa.com.tr/en/docs/Akcansa2022AnnualReport.pdf

Relevant standard

ISAE 3410

Proportion of reported emissions verified (%)

100

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category

Scope 3: Business travel

Scope 3: Employee commuting

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

Akcansa_EFR2022_EN_22.06.23_web.pdf

Akçansa_Limited Assurance EFR ENG Opinion (1).pdf

Page/section reference

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http://www.akcansa.com.tr/en/docs/Akcansa2022AnnualReport.pdf

Relevant standard

ISAE 3410

Proportion of reported emissions verified (%)

1

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?

Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Akcansa_EFR2022_EN_22.06.23_web.pdf

Akçansa_Limited Assurance EFR ENG Opinion (1).pdf

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C4. Targets and performance	Energy consumption	ISAE 3000 and ISAE 3410	Energy Consumption by Fuel Type, Electricity Consumption, Total Energy Intensity, Renewable Energy Consumption and Generation, Purchased Electricity from renewable and non-renewable resources are verified by third party under limited assurance. The energy indicators that are the subject of the limited assurance study, marked on page 171 of the 2022 Integrated Annual Report, are documented in the attached limited assurance report for the year 2022. The integrated annual report can be accessed from the link below.

			http://www.akcansa.com.tr/en/docs/Akcansa2022AnnualReport.pdf 1, 2
C4. Targets and performance	Waste data	ISAE 3000 and ISAE 3410	Total amount of wastes by categories were verified by third party under limited assurance. The waste indicators that are the subject of the limited assurance study, marked on page 172 of the 2022 Integrated Annual Report, are documented in the attached limited assurance report for the year 2022. The integrated annual report can be accessed from the link below. http://www.akcansa.com.tr/en/docs/Akcansa2022AnnualReport.pdf 1, 2
C4. Targets and performance	Emissions reduction activities	ISAE 3000 and ISAE 3410	Energy savings, CO2 savings and financial savings of Sustainable Investments, environmental expenditures, environmental investments, R&D and Innovation Investments and sustainability portion of R&D and Innovation Investments were verified by third party under limited assurance. The emission reduction initiatives indicators that are the subject of the limited assurance study, marked on page 174 of the 2022 Integrated Annual Report, are documented in the attached limited assurance report for the year 2022. The integrated annual report can be accessed from the link below. http://www.akcansa.com.tr/en/docs/Akcansa2022AnnualReport.pdf 1, 2
C4. Targets and performance	Year on year emissions intensity figure	ISAE 3000 and ISAE 3410	Emission intensity figures were verified by third party under limited assurance. The emission intensity indicators that are the subject of the limited assurance study, marked on page 173 of the 2022 Integrated Annual Report, are documented in the attached limited assurance report for the year 2022. The integrated annual report can be accessed from the link below. http://www.akcansa.com.tr/en/docs/Akcansa2022AnnualReport.pdf

			1, 2
C4. Targets and performance	Other, please specify Sustainable Revenues	ISAE 3000 and ISAE 3410	Revenues from low-Co2 sustainable products figure was verified by third party under limited assurance. The sustainable revenues indicators that are the subject of the limited assurance study, marked on page 174 of the 2022 Integrated Annual Report, are documented in the attached limited assurance report for the year 2022. The integrated annual report can be accessed from the link below. http://www.akcansa.com.tr/en/docs/Akcansa2022AnnualReport.pdf 1, 2
C1. Governance	Other, please specify Sustainability Trainings	ISAE 3000 and ISAE 3410	Sustainability related training hours were verified by third party under limited assurance. The training indicators that are the subject of the limited assurance study, marked on page 167 of the 2022 Integrated Annual Report, are documented in the attached limited assurance report for the year 2022. The integrated annual report can be accessed from the link below. http://www.akcansa.com.tr/en/docs/Akcansa2022AnnualReport.pdf 1, 2

[1]Akcansa_EFR2022_EN_22.06.23_web.pdf

[2]Akçansa_Limited Assurance EFR ENG Opinion (1).pdf

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?

Specifically, Türkiye is planning market-based carbon pricing mechanisms (Emission Trading Scheme - ETS) and/or other pricing mechanisms (Carbon-tax etc.) to mitigate the carbon

emissions. In 2022, many studies have been carried out in the public sector on this issue, and the studies on legal regulations have been completed to a large extent. As Akçansa, we followed these studies closely and presented our opinions through various NGOs and on different platforms. It is almost certain that cement sector will be covered under ETS scope in Türkiye.

The first draft climate law is almost complete, and the main framework of the emissions trading system has been drawn in this draft law. In order to comply with the regulation, we anticipate being regulated by, we take proactive measures to reduce our carbon emissions well below the industry average, preferably to the top-performing 10%, As we outline in our 2030 Roadmap and transition scenarios, as well as in our strategy and vision, we are currently working towards low carbon production by ensuring the implementation of energy efficiency measures, increasing the substitution of alternative fuels and alternative raw materials with lower carbon emissions during production phase, decreasing specific heat consumption at the rotary kilns and increasing alternative fuel including biomass ratio in our energy mix over the next 10 years. Our transition roadmap includes a strict product switching plan as well as demonstrated CAPEX plan with CO2 impacts. While making investment plans, the potential emission reduction amounts of all relevant investments are determined and reported to the top management for prioritization of the investments. Since the regulatory framework has not been clarified yet, regulatory risks are determined with different scenario analyzes which were also presented in section C4. Targets and Performance. In this context, the expected carbon reduction rates with the investments are used in the scenario analysis, considering the future carbon pricing regulations.

For the longer future, the cement industry intensively works in possible deployment of Carbon Capture, Storage and Utilization technologies. We closely follow the R&D conducted in this area and include it in our long-term transition plans in the future in order to secure our compliance with the anticipated regulation on carbon pricing/ETS.

In addition to our efforts to lower emissions as part of our direct operations, we also actively participate in policy engagement activities. There are two separate projects for the support and implementation phase of Türkiye's transition to carbon pricing mechanisms. The first of these is the PMR (Partnership for Market Readiness) project funded by World Bank which the beneficiary is The Ministry of Environment, Urbanization and Climate Change, which was completed in 2021. As a result of the PMR project, a draft climate law was constructed and a draft regulation on the Emissions Trading System was devised. In line with the completion of the project and current developments such as the Green Deal and Carbon Border Adjustment Mechanism in the EU, and Türkiye's ratification of the Paris Agreement, Türkiye's Green Deal Action Plan, Climate Council in 2022 and other policy developments, transition preparations have accelerated. The PMI (Partnership for Market Implementation) project, which is a continuation of the PMR project, is a project that will take place for the implementation of the ETS. The PMI project expected to include policy analysis, roadmap development, design parameters of the carbon pricing mechanisms (both ETS and carbon tax), impact assessments and cross-cutting actions. We follow policy and regulatory developments by actively participating in these projects via the NGO's that we are partnering with. Sustainability Department have a critical role in the follow up of emerging regulations together with the

Sustainability Committee. Sustainability Manager reports the developments regularly to Sustainability Steering Committee, Corporate Governance Committee and Board of Directors.

C11.2

(C11.2) Has your organization canceled any project-based carbon credits within the reporting year?

No

C11.3

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

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Type of internal carbon price

Shadow price

How the price is determined

Alignment with the price of allowances under an Emissions Trading Scheme

Objective(s) for implementing this internal carbon price

Change internal behavior

Drive low-carbon investment

Scope(s) covered

Scope 1

Pricing approach used – spatial variance

Uniform

Pricing approach used – temporal variance

Evolutionary

Indicate how you expect the price to change over time

2% increase for price per ton of CO2 each year.

Actual price(s) used – minimum (currency as specified in C0.4 per metric ton CO2e)

250

Actual price(s) used – maximum (currency as specified in C0.4 per metric ton CO2e)

1,500

Business decision-making processes this internal carbon price is applied to

Operations
Product and R&D
Risk management

Mandatory enforcement of this internal carbon price within these business decision-making processes

Yes, for some decision-making processes, please specify
Investment decisions

Explain how this internal carbon price has contributed to the implementation of your organization's climate commitments and/or climate transition plan

Within the scope decarbonization consultancy we received in 2022, we developed a projection with the consultant including their insights for the prices that may occur with the activation of the emission trading system in Türkiye, and we started applying shadow prices over different scenarios. While making the price estimation, we have made a price approach by taking into account the price developments in the worldwide ETSs after the first commissioning, the current price and allowance levels in the EU ETS, and the free allowance distribution methods expected for Türkiye. In this context, the price we apply varies between ~15€ - 100€. The pilot phase of the Turkish ETS is expected to start in 2025. While we are estimating our transition plan and the investment decisions present in our plan, we included the carbon price effect in the analyses. During the investments financial analyses, especially after the transition period of the national ETS and the timing of the Carbon Border Adjustment Mechanism's activation we proceed by implementing the carbon price in the calculations. In this context, we also understand the carbon price exposure and impacts. Comparison of financial analyzes for each investment with CO2 price impact are presented to management for decision making purposes. We also have a simulation model of how EBIDTA will be affected by carbon price scenarios, along with all investments.

C12. Engagement

C12.1

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

Yes, our suppliers
Yes, our customers/clients
Yes, other partners in the value chain

C12.1a

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

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect GHG emissions data at least annually from suppliers
Collect climate-related risk and opportunity information at least annually from suppliers
Collect other climate related information at least annually from suppliers

% of suppliers by number

8.7

% total procurement spend (direct and indirect)

71

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

70.4

Rationale for the coverage of your engagement

Permanent contractors, sub-contractors in cement, concrete and aggregate business lines, sub-contractors in Akçansa quarries i.e. raw material suppliers, global raw material suppliers, companies from which large equipment is purchased, global suppliers that constitute a significant part of the expenditures, suppliers within the scope of energy and fuel supply and which can have significant impact on our core business are defined as critical suppliers. In 2022, Akçansa had approximately 2,265 approved suppliers. However, the critical suppliers mentioned here are 197 in total, accounting for 71% of the total spend. Scope 3 calculated from these critical suppliers corresponds to 70.4% of our reported Scope 3 emissions. With our Sustainable Supply Chain Initiative launched in 2022, from these critical suppliers, we request information and data within the scope of environmental and social sustainability performance. This information includes but not limited to information on environmental management, emissions, energy, resource use and climate efforts. We work together in areas open to improvement by creating action plans with our suppliers who score below the threshold value in this evaluation. If direct GHG data is not available, they are expected to transmit the activity data required for calculation. For example, distance data or fuel consumption per transportation, vessel type etc. If supplier does not provide the relevant data, the supplier is again requested to provide the data. At this stage, while the emission calculations are made, based on the records kept by Akçansa, progress is made over the activity data or secondary data. Relevant activity data is collected by purchasing department. Critical suppliers represent 71% of total procurement spend and 70.4% total Scope-3 emissions.

Impact of engagement, including measures of success

Sustainability Evaluation is carried out for approved suppliers who are in the field of Service, Raw Material, Equipment, Energy & Fuel, which are critical in their field according to Akçansa's definition of "critical". We measure our success by means of the score of the respective supplier in our Supplier Evaluation Questionnaire. Within the scope of Supplier Sustainability Evaluation, supplier companies fill a comprehensive Supplier Evaluation Questionnaire form consisting of Environment, Social and Governance sections and share the necessary reference documents related with the

data and information they supplied. Each question within the questionnaire has a specific score and weight that changes according to the answers given. Purchasing and sustainability teams re-evaluate by receiving the reference documents together with additional requests or site visits if necessary. After final evaluation each supplier is classified as A, B, C and D due to sustainability performance between 0-100 points calculated by the answers given. Suppliers below 50 out of 100 points get C or D scores. Only, suppliers with climate related and emission data entry can receive A performance. In cases of C and D class suppliers where nonconformity is detected with the Sustainable Supply Chain policy, suppliers are contacted and 12 months for action is given if technically feasible. We work together in areas open to improvement by creating action plans with our suppliers who score below the threshold value in this evaluation. Failure to implement actions within maximum of 12 months might result in dismissal when deemed necessary, by considering the right to terminate the contract based on the re-evaluation of the business relationship with the supplier and subcontractors and the nature and size of the risk. Supplier Sustainability Evaluation is carried out annually for C and D class suppliers, and biennially for A and B class suppliers. On-site audits are a possible in order to validate the data provided through the evaluation, to monitor performance improvement and to ensure that our supply chain standards are pursued especially for the low-performing suppliers. The Sustainability Department and the Purchasing Department are responsible for conducting the evaluation, analyzing and implementing the results. Our aim is to carry our critical suppliers to A and B levels.

Comment

Emissions caused during raw material and fuel supply were calculated using these data under relevant Scope 3 categories. By dividing Category 1-Purchased Good and Services, Category 3-Fuel & Energy Related Activities, Category 4-Upstream Transportation and Category 9-Downstream Transportation to overall Scope 3 emissions reported, the supplier related percentage of Scope 3 were calculated. The total procurement spends to the critical suppliers from which we collect data in 2022 are calculated as 71%of the total spend in 2022 by dividing the spends to critical suppliers by total spends.

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

3

% total procurement spend (direct and indirect)

17

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

7

Rationale for the coverage of your engagement

Suppliers mean business-partners for Akçansa. Hence, we do care about their awareness on climate-related issues that can impact their businesses. We aim to increase their awareness and interest in climate-related issues and help them adopt low-carbon transition by regularly providing subcontractors with sustainability trainings regarding their consistent presence in Akçansa plants, facilities and quarries. We aim to help increasing our suppliers' awareness levels via numerous measures. All sub-contractors and select critical suppliers receive environmental trainings including climate change issues. In this context, trainings were provided to all subcontractors in 2022 including our sustainability approach and commitments. We are also partnering with our transportation suppliers regarding safe and efficient driving trainings as emissions from transportation and logistics make up a significant part of our Scope 3 emissions. In addition, in line with the Sustainable Supply Chain Initiative, all critical suppliers were informed within the scope of the Sustainable Supply Chain Policy, but these figures were discussed above. The figures disclosed here only represents the subcontractors and logistics suppliers. The representation rate of scope-3 emissions of subcontractors and logistics suppliers engaged in 2022 is 7%.

Impact of engagement, including measures of success

In order to increase awareness of sustainability, there are control parameters for environment and sustainability in supplier performance evaluation processes other than audits. In addition, within the scope of our 2030 sustainability goals, there is also a target to increase the rate of specific sustainability audits for suppliers. We are working to encourage all our suppliers to obtain ISO certificates. Through our sustainability evaluations, we verify that our suppliers are conducting environmental management systems. We monitor percentage of Suppliers and Contractors with ISO standards. Another target of ours is to increase the rate of suppliers with certificates (ISO 14001, ISO 14064, ISO 50001 etc.) from 3% to 80%. We received positive feedback from all suppliers we engaged to. Some of them have started to implement projects to decrease their diesel-oil use in logistics through various precautions and actions. Some took actions to decrease their energy consumptions. We consider these outcomes successful implementation of the supplier engagement activities. Another example is efficient driving trainings that we provide. In the Ready Mixed Concrete downstream transport, we monitor the fuel consumption of ready-mixed concrete trucks and efficient driving training is organized with expert companies at facilities that exceed the target consumption. Thus, fuel consumption is reduced. Moreover, our subcontractor auction criteria for logistics services, for instance, includes environmental performance from which we expect low-emission vehicles (model and age criteria) should be selected for the work.

Comment

In 2022, 1840 employees of 43 sub-contractors were trained.

Type of engagement

Other, please specify

Compliance

Details of engagement

Other, please specify

Commitment to comply with Sustainable Supply Chain Policy

% of suppliers by number

100

% total procurement spend (direct and indirect)

100

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

71

Rationale for the coverage of your engagement

In line with our policies and values, we are determined to ensure that our suppliers adopt and comply with the principles of our Code of Conduct, which includes our Sustainable Supply Chain Policy, the Supplier Code of Ethics and Business Conduct, and the ethical rules of Sabancı Holding and Heidelberg Materials. In this context, with our Sustainable Supply Chain initiative launched in 2022, we asked all our suppliers to sign their commitments to comply with these policies and principles.

Impact of engagement, including measures of success

We shared our Sustainable Supply Chain Policy which includes our expectation of cooperation to maximize our energy and resource efficiency, reduce our carbon intensity and reduce emissions by managing our energy use, water consumption and waste generation, together with Environment and Energy policy, codes of conduct and business ethics with all our suppliers by providing the necessary information. All approved suppliers accepted the policies and related codes of conduct. It is a measure of success for us that our suppliers accept this approach and continue their business relations with us. In this context, we measure the impact with audits.

Comment

By dividing Category 1-Purchased Good and Services, Category 3-Fuel & Energy Related Activities, Category 4-Upstream Transportation and Category 9-Downstream Transportation to overall Scope 3 emissions reported, the supplier related percentage of Scope 3 were calculated.

C12.1b

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

Type of engagement & Details of engagement

Education/information sharing

Run an engagement campaign to educate customers about the climate change impacts of (using) your products, goods, and/or services

% of customers by number

100

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

40

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

Akçansa continuously conducts information sharing and development studies with all its customers and approaches its customers as a solution partner. Akçansa, plans to convert its product portfolio to low-carbon products by 2030 without compromising the quality and performance of conventional cement products. Akçansa acts in cooperation with its customers at every stage of this work. As well, we work with all our customers to increase the market demand for sustainable and low-carbon products, as all our cement customers will be more effective in green construction projects that are becoming increasingly widespread with sustainable cement products, and our ready-mixed concrete customers will expect to be compatible with the climate targets of their projects by using sustainable concrete products. During the new low-carbon product development phases, the customers are informed, and trial studies are carried out in collaboration. We have set goals to expand our sustainable product portfolio across our entire value chain in order to provide climate-friendly solutions to our customers. During the trial studies, studies are carried out to increase the awareness of customers within the scope of combating climate change. In summary, we are engaging with all our customers in order to educate them regarding the climate impacts of our products and services. Our customer related Scope-3 emissions (downstream) represent about 40% of our total Scope-3 emissions.

Impact of engagement, including measures of success

In 2022, we launched our Green ForCement and Green ForCO2ncrete product families, which we gathered under the name of Green Formulation. Within the scope of these products, we aim to enable our customers to turn to climate friendly products. Our marketing teams plan promotion and trial studies of new brands so that the products are in demand in the market. We are effectively explaining on the field that all our cement customers will be more effective in green construction projects that are becoming increasingly widespread with sustainable cement products, and that our ready-mixed concrete customers will use sustainable concrete products to ensure their projects will be compatible with their climate targets.

In addition, Akçansa shares all its climate studies with all its stakeholders through sustainability reports and actively involved in various NGOs such as Assciation of Construction Material Producers and Green Buildings Association to reach customers who use our products during the design and construction phases. The aim is to work collaboratively for sustainable construction, design and operation of buildings. We build relationships with these partners, and it creates market opportunities for us. Our

communication channels with our customers include various meetings, workshops, seminars, integrated reports, social media and one-to-one meetings. With all these tools, we share our climate change targets with our customers. Additionally, we explain the product performances and application practices as well as the carbon footprint. In addition, we have renewed our environmental product self-declaration documents for 22 special products and verified EPDs for 2 cement types in 2022 in order to share life cycle impacts to our customers and end users transparently.

Customers are getting more interested in our low-carbon and sustainable products. We receive more and more information requests about Akçansa's climate-related activities. In this context, we enable our customers to calculate their own carbon footprints and have a clear idea about the impacts of the products they use. Our measure of success is the increase in sales of low carbon/sustainable products. The percentage of revenue generated by sustainable products was around 16.18% in 2022.

Type of engagement & Details of engagement

Education/information sharing

Share information about your products and relevant certification schemes (i.e. Energy STAR)

% of customers by number

100

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

40

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

We are engaging with all our customers in order to share information about our products and certifications regarding the climate change. Our customer related Scope-3 emissions (downstream) represent about 40% of our total Scope-3 emissions. In this context, we see that customer awareness is increasing day by day and expectations are expanding. Recently, we have seen that especially large and corporate customers are investigating certificates such as EPD documents or CSC Responsible Sourcing Certificates. EPD documents are documents that describe the climate impacts throughout the life cycle of products. CSC certificates, on the other hand, is a global responsible sourcing certification system developed for construction industry business lines such as cement, ready mixed concrete and aggregates. In line with all these developments, we inform all our customers about our own certification systems and the effects of our products.

Impact of engagement, including measures of success

Currently our 2 major cement plants (Büyükçekmece and Çanakkale) has Gold-Level CSC Responsible Sourcing Certificates. Additionally, Gebze and Kemerburgaz Ready Mixed Concrete Plants also have Gold Level Responsible Sourcing Certificates. We are aiming to disseminate those certifications within our main and dominant markets. As the

first company in Turkey to receive the EPD certificate for cement products, we attach importance to providing such information with transparency. In 2022 we have obtained verified EPDs for our ASTM type cements which we are mainly exporting. We are considering EPD preparations for other cement products. Sales volume of products with EPD and sales volume from certified facilities are success measures.

C12.1d

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

Akçansa attaches great importance to climate-related engagement across its value chain. Akçansa is closely working with universities (ITU, Sabancı University, Hacettepe University, Çanakkale 18 Mart University etc.) and R&D institute TUBITAK as well as Heidelberg Materials Technology and R&D Centers to create and optimize low carbon product, decarbonization in production and resource efficiency solutions. In Çanakkale plant a pilot project named “Microalgae” which was the first Carbon Capture and Utilization project in Türkiye, has been developed in cooperation with “Çanakkale 18 Mart University” academicians. The project has been initiated with the laboratory studies and the pilot implementation has been invested in Akçansa Çanakkale Plant. The algae cultures grown in the lab conditions are put into large cultivation ponds and then feed with the hot gas directly taken from the kiln stacks. This particular type of microalgae performs its metabolic activity with the CO2 present in the flue gas. The CO2 in the flue gas feeds the algae until they become well stressed to harvest. The by-product of its metabolic activity has a calorific value that can be used as fuel, and it is also the raw material of different industries. The harvested microalgae are dried out and become a product as alternative fuel or used in salmon fishery and cosmetics industry. This pilot project proves kiln hot gas (containing CO2) can be used to produce microalgae and to decrease CO2 emissions from combustion.

Within the scope of another project carried out in cooperation with Yıldız Technical University and İstanbul-Büyükçekmece Municipality, we investigated the usage of construction demolition waste (CDW) in ready-mixed concrete, cement production and filler applications. We also contributed to the literature as thesis studies of 2 master's and 2 undergraduate students. In the project, the CDW collected from the buildings in Büyükçekmece Municipality was crushed at the Akçansa Aggregate plants using the crushers and brought to the Akçansa Büyükçekmece Cement Factory in order to examine whether it can be brought to an appropriate size (<5cm) and used as a raw material in cement production after the concrete tests are completed in the Betonsa Technology Center Laboratory. The CDW was also brought to an appropriate size to be used in the highway application as a filler. It was laid as the basic material of the 200 m long road open to traffic in Büyükçekmece district. According to the results of the project, CDW can be used in cement plants, and it is possible to use these products in ready-mixed concrete applications according to the performance tests.

Our long-term cooperation with municipalities continues within the scope of using wastewater treatment sludge as an alternative fuel.

We are actively involved in working groups and projects of the following NGOs on climate change and sustainability issues:
• WBCSD Türkiye (Circular economy, water and sustainability reporting working groups)
• TUSIAD (the Turkish Industry and Business Association - Environmental and sustainability working group)
• TKYD - (Turkish Corporate Governance Association - ESG Working Group)
• TÜRKÇİMENTO - (Turkish Cement Manufacturers Association - Environment and Climate Change Committee)
• TÜRKÇİMENTO - (Turkish Cement Manufacturers Association -Sustainability Working Group)
• IMSAD - (Association of Construction Material Producers - Sustainability Working Group)
• ERTA - (Association of Integrated Reporting Türkiye)
• UN Global Compact Signatories Association - (Association of UNGC Signatories)
• ÇEDBİK (Green Building Association)

We provide opinions in the regulatory changes, advocacy activities with relevant authorizes in order to develop new projects and involve in existing projects, work to raise awareness and knowledge about climate change and sustainability, and support the public through working groups activities, communications and reports etc. For example, we have been involved in a project named The Materials Marketplace, initiated by WBCSD Türkiye, which aims to develop a network at which companies will be in contact with other to find ways to use one company's waste as another company's raw material while contributing to the "circular economy" model in Türkiye. There is a cloud-based platform and traditional and non-traditional industrial waste streams are matched according to companies' need. This project leads to minimize the amount of waste sent to landfills, save the energy and optimize natural resource/energy consumption. Within the scope of the project, we had the opportunity to conduct trial studies by matching with different waste producers.

We aim to engage with various stakeholders in our value chain to communicate our 2030 targets, long term sustainability strategy and climate transition. We aim to influence our value chain to take part in maximizing efforts to facilitate the transition to a low carbon economy.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?

Yes, climate-related requirements are included in our supplier contracts

C12.2a

(C12.2a) Provide details of the climate-related requirements that suppliers have to meet as part of your organization's purchasing process and the compliance mechanisms in place.

Climate-related requirement

Complying with regulatory requirements

Description of this climate related requirement

According to our supplier codes of conduct, while carrying out its activities, the supplier must show the necessary care and attention to the environment and will act in compliance with all applicable laws and regulations. All products and services to be provided must meet the environmental, quality and safety criteria specified in the relevant contract provisions and must be safe for their intended use. Akçansa does not work under any circumstances with suppliers that do not comply with supplier business ethics.

All of our suppliers have committed to fulfill all applicable legal environmental legislation compliance obligations in their activities included in our Sustainable Supply Chain Policy, and to monitor and manage their environmental impacts, including but not limited to natural resource consumption, carbon emissions and other pollutant emissions, biodiversity, energy, water and waste.

In cases where non-compliance is detected with our policies and laws & regulations, suppliers are contacted, and 12 months are given to take action, if technically feasible. When deemed necessary, the right to terminate the contract is considered based on a reassessment of the nature and magnitude of the risk and the business relationship with the supplier and subcontractors.

% suppliers by procurement spend that have to comply with this climate-related requirement

100

% suppliers by procurement spend in compliance with this climate-related requirement

100

Mechanisms for monitoring compliance with this climate-related requirement

Supplier self-assessment
Grievance mechanism/Whistleblowing hotline
Supplier scorecard or rating

Response to supplier non-compliance with this climate-related requirement

Suspend and engage

Sustainable Supply Chain Policy.pdf

Climate-related requirement

Climate-related disclosure through a non-public platform

Description of this climate related requirement

All of our suppliers have committed to act transparently and collaboratively within the scope of planned or unplanned audits and information requests to be carried out by Akçansa according to our Sustainable Supply Chain Policy. In supplier evaluation audits, detailed information is requested from the suppliers through the evaluation form.

These forms are first filled in as a self-assessment of the suppliers. Each question asked to the supplier has a specific score and weight according to the answers given. Scoring is done out of a total of 100 points. After self-assessment of suppliers, the information is confirmed by Sustainability and Procurement Departments with the evidence documents provided and the final scoring is made. According to their scores, suppliers are classified as A, B, C and D in terms of sustainability performance. Only, suppliers that provide emissions data and have climate-related initiatives can qualify for category A. Action plans are developed for suppliers with a score of less than 50 (Category C and D suppliers) and they are expected to take action within a defined period. Success is measured through re-assessments and follow-up audits. Suppliers that cannot directly provide emissions data, provide information such as activity data or mileage so that calculations can be made. If the information cannot be provided, action suggestions are presented to the suppliers in order to provide the relevant information and a period of 12 months is given.

% suppliers by procurement spend that have to comply with this climate-related requirement

100

% suppliers by procurement spend in compliance with this climate-related requirement

100

Mechanisms for monitoring compliance with this climate-related requirement

Supplier self-assessment

Supplier scorecard or rating

Response to supplier non-compliance with this climate-related requirement

Retain and engage

Sustainable Supply Chain Policy.pdf

Climate-related requirement

Implementation of emissions reduction initiatives

Description of this climate related requirement

We have climate related assessment criteria in our supplier evaluation questionnaires. Within the scope of our Sustainable Supply Chain Policy, we expect all our suppliers to fulfill all applicable legal environmental legislation compliance obligations in their activities, to monitor and manage environmental impacts including climate change.

% suppliers by procurement spend that have to comply with this climate-related requirement

100

% suppliers by procurement spend in compliance with this climate-related requirement

29

Mechanisms for monitoring compliance with this climate-related requirement

Supplier self-assessment

Supplier scorecard or rating

Response to supplier non-compliance with this climate-related requirement

Retain and engage

Sustainable Supply Chain Policy.pdf

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

Yes, we engage directly with policy makers

Yes, our membership of/engagement with trade associations could influence policy, law, or regulation that may impact the climate

Yes, we fund organizations or individuals whose activities could influence policy, law, or regulation that may impact the climate

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

No, but we plan to have one in the next two years

Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan

We are engaging in activities directly and indirectly through associations and unions of which we are members, such as Turkish Industry and Business Association, Turkish Cement Manufacturers Association etc., of which we are a member, directly and directly, regarding existing regulations and developing/emerging regulations. We follow the developments and efforts closely through associations and unions. On the other hand, we also give sponsorships to research and analysis studies to compile policy proposals, carried out by various global and sectoral NGOs representing both cement industry and business world which we consider contributing to the fight against climate change. In the working groups of these NGOs, we join sub-working committees and constantly express opinions, support studies especially within the scope of climate-related regulations since they will have direct impact on our business and transition plans. We also take a direct role in different working groups and undertake tasks. Some examples of these working groups were listed in C12.1d. As the working groups of these organizations, we directly support the authorities in the preparation of climate-related

policies and legislation. Again, through these associations and unions, we support the preparation of position papers that reflect the views of the business world and the industry. We represent our company and these NGO's in roundtable meetings organized by different organizations and the public institutions, participate in consultation meetings, and support projects carried out by official authorities in line with requests. In addition, we took an active role in studies and consultations in cooperation with both sectoral and supra-sectoral roof organizations from the beginning to the end of the process, especially during the preparation of climate law and sub-regulations. Akçansa participates several high-level events focusing on climate change. In 2022, Akçansa participated to COP-27 organized in Sharm el-Sheikh and communicated on its efforts on combat against climate change. This also enables Akçansa to directly engage with high-level policymakers.

C12.3a

(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

Specify the policy, law, or regulation on which your organization is engaging with policy makers

Draft Climate Law and sub-regulations: Draft climate law is basic code law that includes the responsibilities and obligations of institutions, organizations, natural and legal entities. Draft law designed to include reduction and compliance goals within the scope of the Ministries, but without limitation, for the realization of the Net zero emission target of Türkiye. Draft law also includes regulations regarding emission trading schemes and defines the authorities of the Ministries. Sub-regulations will include the implementation details of the carbon pricing instruments.

Category of policy, law, or regulation that may impact the climate

Carbon pricing, taxes, and subsidies

Focus area of policy, law, or regulation that may impact the climate

Carbon taxes
Emissions trading schemes
Carbon offsets

Policy, law, or regulation geographic coverage

National

Country/area/region the policy, law, or regulation applies to

Turkey

Your organization’s position on the policy, law, or regulation

Support with minor exceptions

Description of engagement with policy makers

Akçansa supports carbon pricing mechanisms such as the emissions trading system. Turkey had been implementing Partnership for Market Readiness (PMR) project with the funding of World Bank until 2021 which aimed at supporting Turkey's transition to a carbon pricing mechanism such as emissions trading system (ETS). Akçansa actively participated to all round table meetings and workshops and supported the Ministry of Environment, Urbanization and Climate Change during the program. After PMR, The Partnership for Market Implementation (PMI) project, which is the next step of PMR project and covers the studies for the implementation of ETS, continues. Akçansa actively participates to the necessary meetings in this project, expressing opinions and supporting the Ministry within the scope of its activities. Opinions are given directly during public consultation processes to the regulations developed. In addition, Akçansa representatives take part in global associations, national associations and organizations and take active roles in working groups. Through these organizations, contributions are made to support Turkey's climate targets in line with the Paris Agreement. Akçansa also provides opinions to institutions and organizations such as the Ministry of Commerce and the Ministry of Industry and Technology within the scope of the European Green Deal regulations that will have an impact on Turkey's climate policies. Akçansa also participates in studies such as impact analysis studies together with sector representatives. On the other hand, Akçansa offers its opinions and suggestions through various initiatives representing the business world and contributes to the development of climate policies. Akçansa also participated in the climate council meetings (GHG Reduction Commission, Carbon Pricing Commission, Green Finance Commission meetings) organized by the Ministry of Environment, Urbanization and Climate Change in 2022 and actively contributed to the draft recommendations for climate-related regulations. On the other hand, actively participating to working groups of business associations, we have contributed to draft climate law preparations in 2022. Through the associations that are members of the National Climate Change Coordination Board we participate in the studies of the carbon pricing expert group of the Ministry of Environment, Urbanization and Climate Change. Sectoral and business expectations on climate law and related sub-regulations are communicated.

Details of exceptions (if applicable) and your organization’s proposed alternative approach to the policy, law or regulation

Our most important expectation is to provide free allocations for the transition period, as in the first phases of the EU ETS system, in a way that will not contradict the climate targets of the country. On the other hand, we expect the revenues collected through the trade system to be used for sectoral green transformation with incentive and fund packages.

Have you evaluated whether your organization’s engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?

While taking mitigation measures within the scope of climate-related regulations, multidimensional evaluations and impact analyzes gain importance. In this context,

contribution is made to better analyze the regulatory barriers in front of the initiatives in both our transition plan and cement industries' decarbonization pathway. For example, the use of revenues from carbon pricing schemes included in the draft climate law for the green transformation of the private sector is a very important incentive for the effectiveness of transition plans. The opinion necessary for this issue to be included in the law has been conveyed directly to the relevant authorities. Within the scope of the law, it is expected that an effective regulation will be made for the use of these revenues. On the other hand, the Ministry of Industry has a roadmap project for the decarbonization of the cement sector. We have been providing data since the beginning of the project in the expert working group of the cement sector low carbon roadmap study prepared by the Ministry of Science, Industry and Technology and we have been actively contributing to the relevant stakeholder meetings. We are actively involved in the expert working group of this project, and we regularly express the priority issues in our transition plan to be included in the roadmap study.

Specify the policy, law, or regulation on which your organization is engaging with policy makers

Regulations on waste management, regulations on deriving alternative fuels from municipal wastes, circular economy action plans, public procurement policies, sustainable construction regulations, green procurement regulations

Category of policy, law, or regulation that may impact the climate

Low-carbon products and services

Focus area of policy, law, or regulation that may impact the climate

Alternative fuels
Circular economy
Technology requirements

Policy, law, or regulation geographic coverage

National

Country/area/region the policy, law, or regulation applies to

Turkey

Your organization’s position on the policy, law, or regulation

Support with minor exceptions

Description of engagement with policy makers

Together with the Turkish Cement Manufacturers Association (TCMA), of which we are a member, we work to overcome the obstacles to the increase in the use of alternative fuels, which play an important role in decarbonizing the cement industry. In this context, we regularly share the requirements with the relevant public authorities via TCMA in order to ensure that especially waste-derived fuels and biomass contents are provided in the desired quality. Legislative obstacles, technological problems and solution proposals for the facilities where waste-derived fuel will be produced for use in cement

plants have been conveyed to the ministry officials. Follow-up on the subject continues. On the other hand, we contribute to the work of the National Circular Economy Expert Working Group, which was established by the Ministry of Commerce to work on the preparation of National Circular Economy Strategy and Action Plan and Legislation Action Recommendations. We express opinion so that the necessary measures are included in the scope of the recommendations so that the sector can benefit from the circular economy activities to the maximum extent. Inclusion of low carbon sustainable cement products in public procurement will be an action that will accelerate the decarbonization of the sector. that's why we are actively leading in this matter as well.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

Elimination of policy barriers to the import of qualified waste in order to increase the use of alternative fuels.

To make possible the long-term contracts with municipalities to use high biomass content Solid Recovered Fuel derived from municipal wastes.

More access to waste with an effective waste collection, separation and management plan.

Elimination of constraints on the establishment of waste preparation facilities.

Inclusion of low carbon sustainable cement products in public procurement policies.

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?

Better waste management planning and tighter controls in waste treatment facilities can pave the way for the use of waste as fuel in cement plants. This can happen in two ways. First is providing access to more waste through an effective waste management plan. In order to process wastes in a qualified manner, technological barriers and restrictions in regulations should be developed. In this way, we can access the wastes more easily. On the other hand, the content of the wastes reached is very important. When the necessary incentives and control mechanisms are provided for the preparation of wastes with high biomass content, low humidity and appropriate sizes, the efficiency of alternative fuel use will increase, and climate targets will be achieved faster. On the other hand, market demand for our low carbon blended cement products is expected to increase with the adoption of green procurement principles in the sector. In this way, the volume of these products included in our low carbon transition plan will increase and our transition plan will be successful.

Specify the policy, law, or regulation on which your organization is engaging with policy makers

National Long Term Climate Strategy, National Climate Mitigation and Adaptation Action Plans preparations of the Ministry of Environment, Urbanization and Climate Change that includes policy recommendations to the policymakers.

Category of policy, law, or regulation that may impact the climate

Climate change mitigation

Focus area of policy, law, or regulation that may impact the climate

Climate-related reporting
Climate-related targets
Climate transition plans
Emissions – CO2
Emissions – methane
Emissions – other GHGs
International agreement related to climate change mitigation
Low-carbon, non-renewable energy generation
New fossil fuel energy generation capacity
Renewable energy generation
Verification and audits

Policy, law, or regulation geographic coverage

National

Country/area/region the policy, law, or regulation applies to

Turkey

Your organization's position on the policy, law, or regulation

Neutral

Description of engagement with policy makers

Türkiye declared its updated Nationally Determined Contribution at the 27th Conference of the Parties and committed to a 41% reduction in 2030 compared to the reference scenario. In line with the 2053 Net Zero Emissions target announced by our country and the national contribution goals; Türkiye's Long-Term Climate Strategy, National Climate Change Action Plan and Climate Adaptation Action Plan studies have started. Within the scope of the studies, sectoral stakeholder meetings are held and actions and targets for the management of greenhouse gas emissions in 7 different sectors (energy, buildings, transportation, industry, waste, agriculture and LULUCF) are discussed. Akçansa, together with the associations, took an active part in these meetings, participated in workshops, and contributed to the development of actions, especially in industry, energy and waste workshops.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?

Actions and policy recommendations determined within the scope of action plans are very important for critical decisions to be taken in the short-medium-long term. Including the actions related with the decarbonization roadmaps of the sector in these reputable studies as policy recommendations will also support our own transition plan. For example, actions for the use of renewable energy in the industrial sector will support the reduction of our emissions by increasing the share of renewable energy and decarbonization of energy mix, and suggestions such as incentivizing new technologies for decarbonization will contribute to our transition plan by paving the way for technological transformation.

C12.3b

(C12.3b) Provide details of the trade associations your organization is a member of, or engages with, which are likely to take a position on any policy, law or regulation that may impact the climate.

Trade association

Other, please specify

Turkish Business and Industry Association (TÜSİAD)

Is your organization's position on climate change policy consistent with theirs?

Consistent

Has your organization attempted to influence their position in the reporting year?

Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

Akçansa participates to different Roundtables, Working Groups and Task Forces established under TÜSİAD. The climate related studies are coordinated within Environment and Climate Change Working Group which was established under Environment and Energy Round Table. Akçansa is an active member within Environment and Climate Change Working Group. Sustainability Manager of Akçansa who is also representative of the membership in TÜSİAD, leads the Climate Change and Paris Agreement Sub-Working Group. The working group was established to support the development of environmental and climate policies in Turkey, and the development of regulations for ensuring economic sustainability by blending the sustainability of natural resources with the expectations of the business world. The

Working Group evaluates whether the regulations related to sustainability are implemented effectively, conducts research, supports its work with impact analyzes, represents the climate-related expectations of the business world in public works, and offers suggestions to relevant institutions and organizations within this framework. In particular, within the scope of the Climate Change and the Paris Agreement Sub-Working Group, studies on regulatory regulations regarding climate are carried out, opinions are compiled, global developments are followed, and the business world is informed within this scope.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

Turkish Cement Manufacturers Association - TCMA (TÜRKÇİMENTO)

Is your organization's position on climate change policy consistent with theirs?

Consistent

Has your organization attempted to influence their position in the reporting year?

Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

TCMA is a strong and active association that carries out the sectoral representation of cement manufacturers. Akçansa Genel Müdürü is a member of TCMA Board of Directors and Supervisory. TCMA is emphasizing the sectoral position in sustainable growth among entire public, with the awareness of protecting the reputation of the sector both in Türkiye and abroad and expanding the use of cement in a sustainable direction, taking into account the benefits of its members and the society. In line with this goal, TCMA carries out its studies by internalizing the values of creativity, transparency, honesty and reliability. The permanent Environment and Climate Change committee within the association carries out activities to strengthen the sectoral position and communicate expectations, especially in climate change and environmental regulations. Analysis studies, research studies and follow-up of current developments and

regulations in this context are carried out within the scope of the committee. In addition, studies are carried out to increase the awareness and knowledge level of the Turkish Cement industry on climate change and sustainability. Akçansa Sustainability Manager and Environmental Manager are members of this committee. Within the scope of the committee, Akçansa shares its experiences on the use of alternative raw materials and alternative fuels, the use of new technologies in the field of climate change, and emission and energy inventories, and contributes to the works carried out by the public sector. A Sustainability Sub-working group was established under this committee. Akçansa Sustainability Manager also takes an active role in this working group and contributes to the sustainability reporting of the sector. Different representatives from Akçansa also take part in various other committees of the union.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

Business World and Sustainable Development Association - SKD Türkiye (Business partner of the World Business Council for Sustainable Development (WBCSD) in Türkiye)

Is your organization's position on climate change policy consistent with theirs?

Consistent

Has your organization attempted to influence their position in the reporting year?

Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

SKD Türkiye, the regional network and business partner of the World Business Council for Sustainable Development (WBCSD) in Türkiye, shares the sustainability issues brought about by this cooperation with its members and departments on various platforms. SKD Türkiye works with the objectives of increasing the experience of the concept of sustainable development in the business world, encouraging the increase of the exemplary organization in order to achieve good results, providing promotion,

contributing to policy compilations in this field, executing to develop appropriate tools and channels. Akçansa is an active member of the association. It contributes to the circular economy platforms carried out by SKD Turkey, participates in roundtable meetings on climate change, supports and funds efforts to share good practices, and participates in research and policy proposal development studies carried out by SKD Turkey.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

Turkish Construction Material Producers Association - IMSAD

Is your organization's position on climate change policy consistent with theirs?

Consistent

Has your organization attempted to influence their position in the reporting year?

Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

Turkish Construction Material Producers Association is a non-governmental organization that represents the construction industry in Türkiye and abroad since its establishment in 1984. In order to reveal the power of the sector and to ensure unity of power, the association has been organized as a roof organization, which is unique in Türkiye, by accepting sector associations and stakeholder members as well as industrialist members. IMSAD has several sustainability related committees. IMSAD Sustainability Committee started its activities in 2013 in order to contribute to the environment, energy and climate change policies concerning the sustainability of the Turkish construction materials industry, to establish necessary cooperations in the construction industry on these issues, to raise awareness and to carry out information activities. Akçansa Sustainability Manager and R&D and Technology Manager are members of the committee and contribute to the awareness raising studies with their expertise. On the other hand Akçansa R&D and Technology Manager is member of

IMSAD Environmentally Friendly Materials Committee and R&D Committee. Environmentally Friendly Materials Committee works on issues such as the environment, global warming, ecology, energy use and efficiency, toxic mixtures, waste and recycling. It is aimed to implement projects covering training activities in order to assist the members about Environmentally Friendly Buildings/Materials and related regulations and what should be done to obtain the EPD Certificate. The Glossary of Terms for Sustainable Construction Materials prepared by the Committee was published. Within the scope of the work of the Environmentally Friendly Materials Committee, "Sustainable Building Materials Course" was opened at Yıldız Technical University with the joint work with the Sustainability Committee. The committee currently carries out studies on product certificates, PCR software for EPDs, environmentally preferable procurement. In 2022, as a joint activity of Turkey IMSAD R&D, Environmentally Friendly Materials and Sustainability Committees, studies related to the guide document titled “Green Agreement Compliance of the Construction Materials Industry: R&D and Innovation for Green Transformation” were prepared with the direct contributions of Akçansa.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

Describe the aim of your organization’s funding

Have you evaluated whether your organization’s engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

C12.3c

(C12.3c) Provide details of the funding you provided to other organizations or individuals in the reporting year whose activities could influence policy, law, or regulation that may impact the climate.

Type of organization or individual

Non-Governmental Organization (NGO) or charitable organization

State the organization or individual to which you provided funding

Sponsorship was provided to the summit organized by IMSAD Turkish Construction Material Producers Association in 2022 with a focus on sustainability in the construction industry.

Funding figure your organization provided to this organization or individual in the reporting year (currency as selected in C0.4)

50,000

Describe the aim of this funding and how it could influence policy, law or regulation that may impact the climate

The theme of the summit was Sustainable Future of Construction Industry. The aim of this summit was focusing on shaping the construction industry with a new understanding of trade within the framework of circular economy, responsible production and consumption in construction, innovative industry, sustainable energy management, smart investments, creative, new ideas and technological innovations. At the summit, the issue of sustainability was discussed in every aspect, from the cities of the future to the use of technology in the construction sector, from combating climate change to sustainability financing, and interaction was ensured with over 400 participants. Our main goal in supporting the summit is to contribute to the sharing of information about climate change efforts within the value chain of construction industry and the duties of the sector and to support the interaction between institutions.

Have you evaluated whether this funding is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

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 mainstream reports, incorporating the TCFD recommendations

Status

Complete

Attach the document

Akcansa_EFR2022_EN_22.06.23_web.pdf

Page/Section reference

Governance: pg. 27, pg. 30-33
Strategy: pg. 30-33, pg. 34-38, pg. 46-48
Risks & Opportunities: pg. 30-33, pg. 46-48
Metrics & Targets: pg. 36-37, pg.46-48
Emission Figures: pg. 173
Emission Targets: pg. 36-37
Other Metrics: pg. 36-37, pg.46-48, pg. 171-174
TCFD content table: pg. 155

Content elements

Governance

Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics
Other, please specify
Sustainability Principles Compliance Metrics

Comment

In accordance with the communiqué published by the CMB, it has become obligatory to disclose the sustainability progress within the scope of annual activity reports. Akçansa publishes the required sustainability principles compliance report which can also be accessed between pages 107-114

C12.5

(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Row 1	Task Force on Climate-related Financial Disclosures (TCFD) UN Global Compact World Business Council for Sustainable Development (WBCSD)	WBCSD' Business Partner in Türkiye,also known as SKD Türkiye, is an association working for the private sector to be more sustainable. Akçansa actively supports the efforts of WBCSD Türkiye offers both desktop support and sponsorships to particular studies and projects. Efforts are being made to actively participate in activities, meetings, roundtables, reports and other studies. Akçansa shares good practices both in the sector and by the company with other private sector representatives via WBCSD Türkiye. We have been a supporter of TCFD since 2021. In 2021 we have started to disclose our climate related risks within TCFS recommendations framework and in 2022 we have included TCFD section into our Integrated Annual Report. We have been a signatory of UN Global Compact since 2014. Each year we are actively participating to experience sharing sessions.

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity
Row 1	Yes, both board-level oversight and executive management-level responsibility	Basic raw materials used in the cement production are directly supplied from natural resources. Natural resource consumption, land use, operating the quarry areas, reclamations, water consumption, wastes, dust and noise due to cement production are the factors constituting an impact on biodiversity. Not causing any permanent negation on Biodiversity, which has a significant importance for the continuity of activities, the natural life, and the society, and even providing a positive contribution has been defined as a strategic priority by Akçansa and is listed among the Sustainability Targets 2030. Due to the prioritized areas related to corporate sustainability, Akçansa attaches importance to bring back and rehabilitate the raw material fields in order to reduce its impact on the nature as a result of natural resource use. Akçansa's targets and practices regarding biodiversity, which are considered within the scope of sustainability goals and a material issue in its sustainability strategy, are approved by the senior management team as well as the Board of Directors. By 2030, Akçansa aims to have at least 5 Biodiversity Management Plans. Akçansa also has reclamation targets in sustainability roadmap. Actions and target progresses determined by the Sustainability Committee are followed and monitored by the Sustainability Steering Committee led by CEO. In addition, progress in biodiversity targets is overseen by the Board of Directors, which is responsible for the oversight of sustainability issues. Actions and targets related to biodiversity are discussed at committee meetings and monitored at board level at least once a year.

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Initiatives endorsed
Row 1	Yes, we have endorsed initiatives only	SDG

C15.3

(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?

Impacts on biodiversity

Indicate whether your organization undertakes this type of assessment

Yes

Value chain stage(s) covered

Upstream

Tools and methods to assess impacts and/or dependencies on biodiversity

Biodiversity indicators for site-based impacts

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)

In line with the permits obtained and the Environmental Impact Assessment (EIA) reports prepared prior to commissioning our new worksites, we ensure the rehabilitation of our new areas of operation under their unique environmental conditions.

Dependencies on biodiversity

Indicate whether your organization undertakes this type of assessment

No, but we plan to within the next two years

C15.4

(C15.4) Does your organization have activities located in or near to biodiversity-sensitive areas in the reporting year?

No

C15.5

(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	Yes, we are taking actions to progress our biodiversity-related commitments	Land/water protection Land/water management Species management Education & awareness

C15.6

(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	Yes, we use indicators	Other, please specify Rehabilitated areas

C15.7

(C15.7) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In mainstream financial reports	Impacts on biodiversity	In our 2022 Integrated Annual Report, we have disclosed our efforts and performance on Biodiversity at page 54. We have Biodiversity related targets in our 2030 Sustainability Targets and we disclose yearly performance in our Integrated Annual Report [1]

[1] Akcansa_EFR2022_EN_22.06.23_web.pdf

C16. 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.

Climate change mitigation and adaptation is one of the most material topics of Akçansa and also included in the main strategy. Akçansa established its 2030 sustainability roadmap contains several KPIs to follow up the performance on climate, nature, environment, value chain engagement and social development. Two main pillars of this roadmap are climate and environmental protection. For the climate, main focus is reducing CO2 emissions in line with the most recent science. With this perspective, Akçansa committed to SBTi and plans to submit the developed reduction targets for validation in 2023. In order to achieve these targets, the process is monitored and approved by our Sustainability Steering Committee and Board of Directors and associated/necessary direct and indirect engagement actions are planned accordingly. Sustainability Steering Committee and the Sustainability Committee periodically review the progress as well as the Board level committees. The results are shared with the stakeholders through annual report both including financial and non-financial disclosures and publicly available on Akçansa web site. Climate and nature related risks, opportunities and

engagements are also monitored and maintained as consistent with our overall corporate sustainability strategy as well as climate change strategy.

Our climate efforts are also disclosed in our 2022 Integrated Annual Report that can also be accessed by the following link:
http://www.akcansa.com.tr/en/docs/Akcansa2022AnnualReport.pdf
Akcansa2022AnnualReport.pdf

Akcansa_EFR2022_EN_22.06.23_web.pdf

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	General Manager	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 understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms