

Welcome to your CDP Climate Change Questionnaire 2023

C0. Introduction

C0.1

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

About the organization

SASA is one of the world's leading manufacturers of polyester fiber, filament yarn, polyester-based polymers, specialty polymers and intermediates. SASA successfully manages the entire process from design to manufacturing and distribution by combining its leadership responsibility in its sector, its strong technical heritage and innovation culture with its high production capacity.

Having started its production in the polyester industry in 1966, **SASA** has always maintained its rapid growth process with its uninterrupted investments since its establishment. **SASA** established a joint-venture partnership with world chemistry giant **Dupont** in 2000 to maintain its leadership in the polyester industry and to further strengthen this position, and consecutively acquired the name "**DupontSA**".

The name **DupontSA** was changed to **ADVANSA** with the acquisition of Dupont shares in 2004 by Sabancı Holding. The name of the group's organization in Turkey was also changed to **ADVANSA SASA Polyester Sanayi A.Ş.** in 2005. In 2011, Sabancı Holding acquired all the shares of **ADVANSA BV** and changed its name from ADVANSA SASA to **SASA** in September 2011.

On April the 30th, 2015, Sabancı Holding shares were acquired by ERDEMOĞLU Holding, which led to a new shareholding structure in which 51% of the total shares were held by **ERDEMOĞLU Holding**, and the remaining quantity being publicly held.

ERDEMOĞLU Holding A.Ş. Became the owner of 84.80% of the shares of SASA Polyester Sanayi A.Ş. SASA with Nobel, ICI, and DuPont technologies under its use has a strong technical infrastructure with its almost 5000 competent employees, high capacity manufacturing plants, and Research and Development Center built in 2002. 120,350,000 lots which represent 14.50% of the total capital of Sasa Polyester Sanayi A.Ş. of the shares of 51% which were not publicly traded in the stock market of Sasa Polyester Sanayi A.Ş (SASA) with a nominal capital of 830,000,000 TL, of which Erdemoğlu Holding A.Ş. had 84.80% of the shares were sold on 30/09/2019 to Merinos Halı San. Ve Tic. A.Ş. which is a subsidiary company of Erdemoğlu Holding A.Ş. Additionally 62,250,000 lots which represent 7.50% of the total capital were sold

on 30/09/2019 to Dinarsu İmalat ve Ticaret T.A.Ş. which is a subsidiary company of Erdemoğlu Holding A.Ş. at a price of 7.20 to per lot. With the acquisitions in July 2021 following the above, the company achieved its current partnership structure. SASA has integrated production facilities and head office located on an area of 2,181,000 m² in Adana, its own raw material storage facility on an area of 55,625 m² in Iskenderun, and liaison offices in Istanbul and Ankara.

SASA's ESG Risk Rating score decreased from 23.1 (Medium Risk) to 15.4 (Low risk) in Sustainalytics in 18th June, 2023. Our ranking is 6 out of 562 chemical companies in June, 2023. Also, in the Sustainalytics, SASA is ranked 1st in its own sub-industry.

Our total GHG emissions intensity (Scope1+Scope2) is 0,487 (tonCO₂e/ton production) in 2022.

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

2 years

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.

EUR

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-CH0.7

(C-CH0.7) Which part of the chemicals value chain does your organization operate in?

Row 1

Bulk organic chemicals

Ethylene oxide & Ethylene glycol

Methanol

Polymers

Bulk inorganic chemicals

Other chemicals

Other, please specify

SASA produce special polyester products, polymer, polymer chips, textile chips, bottle chips, and pet chips, fiber and filament yarn. The main chemicals used are paraxylene, methanol, monoethyleneglycol (MEG).

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, an ISIN code	TRASASAW91E4

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-level committee	<p>The Climate Change Working Group, under the Early Detection of Risk Committee, carries out studies on the adaptation of SASA to the transition to a low carbon economy, the management of carbon emissions from operations, and the analysis of climate change risks and opportunities.</p> <p>The Climate Change Working Group organizes meeting at least two times a year and presents a report evaluating the climate-related risks and opportunities for the company. The tasks of the group are:</p> <ul style="list-style-type: none"> -Leading the identification, assessment and management of climate-related risks and opportunities. -Reporting to the EDRC (Early Detection of Risk Committee) the climate-related risks and opportunities identified by the management, along with their corresponding potential financial impacts on the Company. -Establishing a process for integrating climate-related risks into the enterprise risk database - To monitor the management of climate-related risks

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

<p>Scheduled – all meetings</p>	<p>Reviewing and guiding annual budgets Overseeing major capital expenditures 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 Overseeing value chain engagement</p>	<p>Within SASA, climate-related matters are addressed at various management levels. The highest representation in climate-related issues is the Early Detection of Risk Committee, which is responsible for overseeing climate risks. Under this committee, there is a Climate Change Working Group, which is responsible for climate-related issues and risks. The group reports to the Early Detection of Risk Committee six times a year through regular meetings. The meeting topics consistently revolve around climate change and the actions to be taken. The working group consists of a multidisciplinary structure within SASA, with members from different departments. This composition plays a significant role in evaluating climate-related risks. Additionally, the climate change working group takes the lead in creating TCFD (Task Force on Climate-related Financial Disclosures) reports. The development of climate-related policies, procedures, and commitments is among the primary responsibilities of the working group. Additionally, the committee and the Climate Change Working Committee take the lead in annual budgeting and carrying out the work. They manage the company's climate-related strategies and the transition to a low-carbon economy. They conduct research on suitable scenario analyses to adapt to climate change. All these efforts are aligned with the company's plans and combined with appropriate targets.</p>
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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	Criteria used to assess competence of board member(s) on climate-related issues
Row 1	Yes	<p>The board members that oversee water and climate related issues are selected from independent directors. This is to ensure that the company acts on the best interest of the environment and to show support that the company brings the best experts to oversee the climate and water related issues.</p> <p>The people that are selected on the committee which oversees climate-environmental related issues have extensive management</p>

		<p>experiences to understand and to implement new strategies for climate issues.</p> <p>Management and financial experiences are sought since the Early Detection of Risk Committee (EDRC) is multidisciplinary and recent trends and risks arising in the climate related issues.</p> <p>Adaptability is an important criteria as well. Trends tend to change and the Committee is to foresee the change and adapt itself and advise the company accordingly.</p>
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C1.2

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

Position or committee

Risk committee

Climate-related responsibilities of this position

Managing annual budgets for climate mitigation activities
 Developing a climate transition plan
 Implementing a climate transition plan
 Integrating climate-related issues into the strategy
 Conducting climate-related scenario analysis
 Setting climate-related corporate targets
 Managing public policy engagement that may impact the climate
 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

Half-yearly

Please explain

Early Detection of Risk Committee Chairman General Duties

- Chairs the Early Detection of Risk Committee and manages the meetings.
- Sets the meeting agenda.
- Provides information flow and coordination between the Board of Directors and the Committee.
- During the discussion of certain issues, he/she may invite the relevant expert or

experts to the meeting when necessary.

- Takes the necessary measures for the Committee to fulfill its duties and responsibilities effectively.

The above-mentioned tasks assign tasks to the committee in the company's transition to a climate-related low-carbon economy, using scenario analyses, setting climate-related targets, identifying and managing risks and opportunities.

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	No, not currently but we plan to introduce them in the next two years	In the coming reporting years, it is planned to establish a senior management incentive mechanism not only for water but also for other climate issues.

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	3	Risks that may arise during the current reporting year and have an impact on short-term financial results. This time period is defined as one 3 years or less. Climate-related risks were introduced to the system within the scope of the Management System within SASA. According to our studies, these risks may arise during the current reporting year and have an impact on short-term financial results. This time period is defined as one 3 years or less. These risks are market, flood, fire, forest fire, extreme weather events.

Medium-term	3	10	These are the risks that can arise within a timeframe of 3 to 10 years. Risks that have a substantial impact on the company's strategy and financial results. SASA has defined policy, legal, technology, market, flood, fire, forest fire, extreme weather events, over temperature, decreasing groundwater level, destruction of biodiversity as medium-term risks.
Long-term	10	100	Risks that could have a significant impact on the organization's long-term strategy and the feasibility of the SASA facilities, including those that could more than 10 years. SASA has defined policy, legal, technology, reputation, fire, forest fire, extreme weather events, overtemperature, decreasing groundwater level, rising sea level, destruction of biodiversity. drought, change in precipitation regime as long term risks.

C2.1b

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

Risk management is one of the most important workflows within SASA. With our corporate business management perspective, we plan the behaviours or actions that may affect the operation thus make them manageable. In our company, we carry out Corporate Risk Management in accordance with the requirements of ISO 31000/Risk Management–Principles and Guidelines Standard and the Corporate Risk Management Policy we have prepared in line with our knowledge and experience. In this policy, we ensure the establishment and effective implementation of Corporate Risk Management systems and the assurance of the execution of corporate risk management activities. The Early Detection of Risk Committee (EDRC), which reports to the Board of Directors, and manages the process of risk identification, assessment, and mitigation, is the main risk management body in our company and ensures the continuity of the risk management cycle. The purpose of the committee is the early detection of all kinds of strategic, operational, and financial risks that may jeopardize the existence, development, and continuation of our company, the implementation of necessary measures and solutions for these risks, and the management of the risk. This committee provides updates and reporting on risk development and trends, as well as the execution of risk reduction strategies every year.

Risk Assessment

We identify, analyze, and prioritize our risks in line with our risk assessment instructions. Our company evaluates the possible risks under four main risk categories: financial, operational, strategic, and environmental. Environmental, social and governance risks, including climate crisis risks, are managed in an integrated manner under these categories. The ESG risk categories addressed by our company are as follows:

- Environmental Safety and Climate Crisis
- Technological Innovations
- Occupational Health and Safety
- Corruption
- Business Interruption
- Employee Satisfaction

- International Impact
- Ethics

Within SASA, risks are included in internal risk management procedures. In this context, risks are defined in 3 different timing periods (short, medium, and long). Risk assessments are made on an annual basis. The following steps are considered when addressing risks. Risk levels range from 1 to 4 from low to very high. When we look at the financial situations:

- 10 million and above - very high risk
- 10 to 6 million - high risk
- 6 to 2 million - moderate risk
- 2 to 500 thousand Turkish liras -low risk is expressed as.

We define the impact and probability ranges of the risks and include the relevant business units responsible for taking actions that can minimize these risks using the risk impact assessment table we have created in accordance with the categories.. With our corporate business management perspective, we plan the behaviors or actions that may affect the operation of our company and our strategies in advance and thus make them manageable. According to the SASA Enterprise Risk Management Procedure, risk definitions were made on the basis of business lines and processes. These are risk definitions such as risk, opportunity, Risk Control, Financial Risk, Operational Risk, Strategic Risk, Climate Risk, External Environment Risk.

The approaches to the risks that have been defined are categorized as follows, and approaches are also determined with flow charts in the OHS Risk / Environmental Dimension Evaluation Procedure;

1. Avoiding Risk: It is the decision to end the activities or process that caused the risk to arise. While taking this decision, the return of the activity or process and the size of the risk are compared and a decision is made in accordance with the risk appetite of the company.
2. Reducing the Probability of Risk: It is the decision to eliminate the frequency of occurrence of possibilities with appropriate controls.
3. Reducing the Effects of Risk: These are the decisions and controls aimed at reducing the damages that may occur before and after the incident. Emergency plans are included in these approaches so that the damages do not grow further after the incidents occur.
4. Transfer / Sharing of Risk: All or part of the risk is assumed by an external party. Solutions such as insurance applications, forming business partner agreements, partnerships are included in this approach. There is usually a cost in the risk-forming approach. For this reason, the cost-effect balance is given importance when making a decision.
5. Acceptance of Risk: Acceptance of residual risks. These risks should remain below the risk appetite.

How the risks are evaluated numerically is detailed in the OHS Risk / Environmental Aspect Evaluation Procedure. The probability of occurrence of the risk and the degree of impact are calculated by scoring from 1 to 5. It is evaluated using the 5x5 matrix. 1 point is in the minor risks, 2-6 low risks, 8-15 medium risks, 16-25 high risks.

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

A specific climate-related risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

Within SASA, climate risks are included in internal risk management procedures. In this context, risks are defined in 3 different timing periods (short, medium, and long). Risk assessments are made on an annual basis. The following steps are considered when addressing risks. Risk levels range from 1 to 4 from low to very high. When we look at the financial situation:

- 10 million and above - very high risk
- 10 to 6 million - high risk
- 6 to 2 million - moderate risk
- 2 to 500 thousand Turkish liras -low risk is expressed as.

According to the SASA Corporate Risk Management Policy, risk definitions were made on the basis of business lines and processes. These are risk definitions such as risk, opportunity, Risk Control, Financial Risk, Operational Risk, Strategic Risk, Climate Risk, and External Environment Risk. The approaches to the defined risks are categorized as follows. At the same time, approaches were determined with flow charts in the OHS Risk / Environmental Aspect Assessment Procedure;

1. Avoiding Risk: It is the decision to end the activities or process that caused the risk to arise. While taking this decision, the return of the activity or process and the size of the risk are compared and a decision is made in accordance with the risk appetite of the company.
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occurrence of possibilities with appropriate controls.

3. Reducing the Effects of Risk: These are the decisions and controls aimed at reducing the damages that may occur before and after the incident. Emergency plans are included in these approaches so that the damages do not grow further after the incidents occur.

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5. Acceptance of Risk: Acceptance of residual risks. These risks should remain below the risk appetite.

How the risks are evaluated numerically is detailed in the OHS Risk / Environmental Aspect Evaluation Procedure. The probability of occurrence of the risk and the degree of impact are calculated by scoring from 1 to 5. It is evaluated using the 5x5 matrix. 1 point is in the minor risk, 2-6 low risk, 8-15 medium risk, 16-25 high risk categories.

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	SASA is constantly affected by regulation changes and instantaneous situations. One of the most important examples is SASA's legal obligation to report GHG emissions. In Turkey, there is a Regulation on monitoring and reporting of greenhouse gases for the companies which has higher thermal power than 20 MW. SASA is one of the companies reporting annually to the Ministry of Environment, Urbanization and Climate Change.
Emerging regulation	Relevant, always included	Turkey's leading industrial organization such as SASA is constantly keeping up with the new regulations. SASA constantly examines the regulations that are expected to develop and their effects and develops appropriate scenarios. In Turkey, an Emission Trading System is planned to be operated in 2024 in pilot scale, then will be operated fully for the following years. In the draft ETS Regulation, it is stated that the companies which has higher thermal power than 20 MW will participate into the system, SASA will participate also.
Technology	Relevant, always included	Rapidly developing technology can impact every aspect of the business. Technology-based risks of our new plant; it is the preference for goods and services that produce fewer emissions that they can compete with existing products and systems. On the other side, improper use of new technologies due to a lack of qualified employees in our country can be counted as a technology-based transition risk. It

		is possible to reduce emissions limitations with national and international measures and technology solutions taken to combat the devastating effects of global climate change. Another risk that should be evaluated at this point is the expenses of the equipment and facilities to be installed.
Legal	Relevant, always included	The impact of developing and revising climate-related policies and regulations on SASA can be unpredictable. As a result, precise risk identification is critical. Threshold emission limits and legislative frameworks governing land use should be regularly checked. As an organization, we keep a careful eye on the impact of climate change on policy and legal frameworks.
Market	Relevant, always included	Another dimension of climate risks is about the market. Risks may be the increase in investor and stakeholder demands in general or the problems experienced in the supply of raw materials. Alternative raw material supply options are constantly being examined to prevent problems that may occur in the supply chain. At the same time, the committee and senior management take action to meet investor demands on climate (especially ESG). Studies for increasing investor and credit institution demands are managed in working groups under the committee and senior management.
Reputation	Relevant, always included	SASA continually reviews climate-related reputational risks. Reputation-related issues on the SASA agenda are the appropriate targeting of the SBTi and the need to respond transparently to stakeholder needs. SASA continuously continues its national and international reporting studies in order to eliminate the reputation risk. It has been publishing TCFD reporting in 2022 and 2023, and a GRI-approved Sustainability Report since 2020. In addition, continuous assessment is carried out by Sustainalytics, the ESG risk rating agency.
Acute physical	Relevant, always included	Acute risks are climate related droughts, floods, storms, sudden heat waves, and sudden temperature changes that show their effects at the time of the climate event. Considering the characteristics of acute risks, extreme weather events might occur at an uncertain timeframe. From a regional perspective, geographical effects are guiding in defining acute risks. Finally, in some circumstances, the elements that influence weather events might be complex and varied.
Chronic physical	Relevant, always included	Chronic risks, on the other hand, include climatic events that show their effects over many years. Unlike acute risks, its effects can be felt more gradually.

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?

Downstream

Risk type & Primary climate-related risk driver

Emerging regulation
Carbon pricing mechanisms

Primary potential financial impact

Other, please specify
Decreasing in the revenue because of the carbon costs in export operations

Company-specific description

- After 2026, EU CBAM will be in charge in Turkey but SASA won't be in the prioritized sector according to current situation.
- When it is considered EU CBAM Regulation development is an ongoing process now, SASA may be affected because of chemical sector's possible inclusion to the CBAM.
- If CBAM sector scope is enlarged to chemicals and polymers, SASA's products exportation will be affected directly.

Time horizon

Medium-term

Likelihood

Likely

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)

13,331,962

Explanation of financial impact figure

Cradle-to-gate Life Cycle Assessment (LCA) studies have been conducted for the main product groups, and product carbon footprint calculations have been made in line with the CBAM emission scopes.

SASA's product groups do not fall among the priority sectors based on current regulations. Official sources do not provide product benchmark values for the polymer groups produced by SASA. In this context, when conducting the analysis, it is assumed that the carbon footprint difference between the product benchmark values and SASA's products might be 0-20%. The evaluated product groups are PET Chips and Polyester Yarn. The sales volumes of these products to Europe have been taken into account.

The calculation of CBAM cost is based on the carbon price of 80.32 EUR/t-CO₂e, which is the average value for 2022 in the EU ETS.

Cost of response to risk

234,829,195

Description of response and explanation of cost calculation

Implementing renewable energy / Energy efficiency / Low-carbon fuel investments

Breakdown of carbon reduction projects' cost:

- 38,040,000 € - Low-carbon fuel investments (Considered to be commissioned in 2026)
- Estimated investment cost is 40,000,000 USD. 2022 average USD/EUR parity is evaluated as 0,951)
- 2,187,300 € - Renewable energy generation investment (Solar Rooftop) (Realized in 2022) (Declared investment cost is 2,300,000 USD. 2022 average USD/EUR parity is evaluated as 0,951)
- 8,749,200 € - Renewable energy generation investment (Solar Rooftop) (to be implemented in 2023) (Declared investment cost is 9,200,000 USD. 2022 average USD/EUR parity is evaluated as 0,951)
- 171,180,000 € - Renewable energy generation investment (Planned as Land Solar) (To be commissioned by 2030 - Estimated total investment costs is 180,000,000 USD. 2022 average USD/EUR parity is evaluated as 0,951)
- 158,950 € - LED investment (Considered for 2023)
- 273,745 € - Energy efficiency projects (Realized in 2022)
- 14,240,000 € - Wastewater Treatment System (Ongoing implementation process of PTA facility project)

Comment

SASA plans to minimize the financial effects of risks by means of renewable energy, energy efficiency and fuel conversion investments in 2023 and beyond.

The investments planned to be established are transition technologies from coal to

biomass, steam saving, lighting efficiency for the facility, waste heat recovery, high energy efficiency class in newly installed equipment in offices and production facilities, and increasing the amount of energy to be produced from biogas with the installation of an integrated waste water treatment system.

Identifier

Risk 2

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

-Local Emission Trading System will be valid in Turkey after year 2024. Since the capacity of SASA is higher than 20 MW, SASA will be a participant in the system. Therefore, Turkish ETS requirements will be followed.

Time horizon

Short-term

Likelihood

Very likely

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)

33,193,148

Explanation of financial impact figure

Since carbon prices and CAP values are not determined in the Local ETS system, a net carbon cost could not be calculated. However, it is assumed that SASA will receive 100% free allowance for the calculation of minimum potential financial impact. For the calculation of the maximum potential financial impact, it is assumed that stationary

combustion fuel emissions will pay for 100% (free allowance 0%). SASA's stationary combustion-related emissions amount to 413,261 t-CO₂e. The calculation of the maximum potential cost is based on the carbon price of 80.32 EUR/t-CO₂e, which is the average value for 2022 in the EU ETS.

Cost of response to risk

38,126,250

Description of response and explanation of cost calculation

It is reflected as the costs of switching to biomass instead of using coal for energy generation at SASA facilities. The investment cost (CAPEX) for the biomass power plant has been calculated as 38,040,000 €. The transition to biomass is targeted to be completed by the year 2026.

Additionally, in 2022, seven different energy efficiency projects were implemented to reduce emissions evaluated under Turkey ETS. The costs of these investments amount to 86,250 €.

Comment

SASA plans to minimize the financial effects of risks by means of energy efficiency and fuel conversion investments in 2023 and beyond.

The investments planned to be established are transition technologies from coal to biomass, steam saving, waste heat recovery, increasing the amount of energy to be produced from biogas with the installation of an integrated wastewater treatment system.

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Market

Increased cost of raw materials

Primary potential financial impact

Increased direct costs

Company-specific description

SASA has market risks associated with climate change. These risks can be listed as changes in customer expectations and behaviors, uncertainties in the markets, and finally, the increase in raw material product costs because of their enlarged production costs.

Time horizon

Medium-term

Likelihood

More likely than not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

985,600,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Financial impact will occur in case of disruption of raw material supply within the scope of climate risks.

Breakdown of potential financial impact arising from raw material:

- Purified Terephthalic Acid (PTA) (process chemical) (701.6 million EUR/year)
- Monoethylene Glycol (MEG) (process chemical) (184.7 million EUR/year)
- Paraxylene (process chemical) (56.8 million EUR/year)
- Butanediol (process chemical) (21,5 million EUR/year)
- MEOH , 2-Ethylhexanol (process solvent) (17,6 million EUR/year)
- Acetic acid ,cobalt acetate, caustic soda , IPA (main catalyts) (3,4 million EUR/year)

Cost of response to risk

1,150,710,000

Description of response and explanation of cost calculation

Yearly contracts with suppliers and tracking raw material stocks in the factory.

To mitigate market risks associated with one of our crucial raw materials, PTA (Purified Terephthalic Acid), we are currently establishing a PTA production facility. Through this ongoing installation of the PTA plant, we aim to minimize the potential risks we might encounter in raw material procurement. The investment cost of our PTA facility represents the cost of response to risk that we incur to mitigate raw material market risks.

Average EUR-USD parity is evaluated as 0.951 for 2022

Comment

In SASA, to handle the financial impact of raw materials price increase, annual contracts are signed with suppliers. Raw material prices are set according to the formulations based on the data of the reporter companies in which internationally accepted base

prices are published.

On the other hand, the stock level of raw materials are kept as corresponds to 1 month consumption and ensured that it does not fall below this level.

Identifier

Risk 4

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical

Other, please specify

Heavy precipitation, flood, tornado, fire

Primary potential financial impact

Decreased asset value or asset useful life leading to write-offs, asset impairment or early retirement of existing assets

Company-specific description

Disasters that may occur due to physical climate risks

Time horizon

Short-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)

728,462,771

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

SASA's financial tangible fixed assets may be affected by physical risks related to climate change. Therefore, all tangible fixed assets except from land asset are included to potential financial impact figure value for 2021 :

Buildings
Machinery, plant and equipment
Vehicles
Furniture and fixtures
Construction in progress

The calculations made in 2021 for assets containing acute risks remain valid in the year 2022 as well.

Cost of response to risk

19,020,000

Description of response and explanation of cost calculation

Annual cost of having a block insurance.

Comment

SASA has block insurance to compensate the damage to be encountered in the raw material or product during the transportation, and production facilities in case of fire or any other natural/climate related disaster.

(Average EUR-USD parity is evaluated as 0.951 for 2022
Average EUR-TL parity is evaluated as 17,3955 for 2022)

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?

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

The chemical industry is considered a critical sector in terms of decarbonization due to its use of raw materials. Therefore, by decarbonizing its production processes and producing low-carbon intensity products, SASA is expected to strengthen its position in the market.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

334,194,252

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

In 2022, the proportion of our low-carbon products was 7.4%, and we anticipate increasing it to 10% by 2026. Due to the expected preference for low-carbon products in the market with CBAM implementation in 2026, we are increasing our investments in sustainable product groups. By the year 2026, we expect our sustainable product revenue to reach 10%.

Cost to realize opportunity

234,829,195

Strategy to realize opportunity and explanation of cost calculation

SASA plans to minimize the financial effects of risks by means of renewable energy, energy efficiency and fuel conversion investments in 2023 and beyond.

The investments planned to be established are transition technologies from coal to biomass, steam saving, lighting efficiency for the facility, waste heat recovery, high energy efficiency class in newly installed equipment in offices and production facilities, and increasing the amount of energy to be produced from biogas with the installation of an integrated waste water treatment system.

Breakdown of carbon reduction projects' cost:

- 38,040,000 € - Low-carbon fuel investments (Considered to be commissioned in 2026 - Estimated investment cost is 40,000,000 USD. 2022 average USD/EUR parity is evaluated as 0,951)
- 2,187,300 € - Renewable energy generation investment (Solar Rooftop) (Realized in 2022) (Declared investment cost is 2,300,000 USD. 2022 average USD/EUR parity is evaluated as 0,951)
- 8,749,200 € - Renewable energy generation investment (Solar Rooftop) (to be implemented in 2023) (Declared investment cost is 9,200,000 USD. 2022 average USD/EUR parity is evaluated as 0,951)
- 171,180,000 € - Renewable energy generation investment (Planned as Land Solar) (To be commissioned by 2030 - Estimated total investment costs is 180,000,000 USD. 2022 average USD/EUR parity is evaluated as 0,951)
- 158,950 € - LED investment (Considered for 2023)
- 273,745 € - Energy efficiency projects (Realized in 2022)
- 14,240,000 € - Wastewater Treatment System (Ongoing implementation process of PTA facility project)

Comment

Changing regulations and restrictions encourage SASA to produce low-carbon products.

Identifier

Opp2

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Markets

Primary climate-related opportunity driver

Other, please specify

Extending market share of polyester fiber due to the cotton production shortage and price increase

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

The agricultural sector is the most likely area to be affected in the possible water crisis as a result of global climate change. It is foreseen that the cotton production, which has decreased as a result of water scarcity, will be replaced by fiber in the market. The increase in fiber demand is expected to increase SASA's revenues by increasing its fiber product group sales.

Time horizon

Medium-term

Likelihood

Likely

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)

178,500,000

Potential financial impact figure – maximum (currency)

262,500,000

Explanation of financial impact figure

Assuming that petroleum and derivative raw materials will progress as in current level in 2025-2030, the anticipated impact of the decrease in cotton supply on, SASA polyester turnover will increase 17-25 %.

Although polyester fiber unit prices will follow an upward trend in the long run, there is a partial decline in the potential impact figure in the reporting period compared to the previous year due to the decrease in global fiber demand, the decrease in oil-derivative prices and the decrease in raw material costs in polyester fiber unit prices.

Cost to realize opportunity

380,400,000

Strategy to realize opportunity and explanation of cost calculation

SASA invest in new polyester fiber manufacturing facilities to increase the capacity double. Cost to realize opportunity is represent our polyester fiber facility's capacity increase investment cost.

Comment

The decrease in cotton supply will push prices up in the long run as demand remains high. Therefore, unit prices of polyester fiber, which is the alternative product, will respond to this increase and will follow an upward trend.

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 have both internal and external grievance mechanism to evaluate suggestions and grievances from all of the stakeholders. We received the feedbacks from the stakeholders with the questionnaires and performed materiality analysis in the scope of sustainability which also include prior issues related to climate change risks.

Frequency of feedback collection

Annually

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

see page 65

 2022-Sustainability-Report.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

Physical climate scenarios RCP 4.5	Company-wide		<p>The following criteria have been taken into account in the RCP 4,5 and 8.5 assumptions within SASA. RCP scenarios were created on the World Bank Climate Change Knowledge Portal.</p> <ul style="list-style-type: none"> - Max temperature - Min temperature - Number of hot days - mean temperature - Number of frost days - Precipitation - Cold spell duration index - Annual SPEI drought index <p>Evaluations Adana region criteria were examined in detail.</p>
Physical climate scenarios RCP 8.5	Company-wide		<p>The following criteria have been taken into account in the RCP 4,5 and 8.5 assumptions within SASA. RCP scenarios were created on the World Bank Climate Change Knowledge Portal.</p> <ul style="list-style-type: none"> - Max temperature - Min temperature - Number of hot days - Mean temperature - Number of frost days - Precipitation - Cold spell duration index - Annual SPEI drought index <p>Adana region criteria were examined in detail.</p>
Transition scenarios Customized publicly available transition scenario	Company-wide	2.1°C - 3°C	<p>Transition risks that SASA will face,</p> <ul style="list-style-type: none"> - Policy and Legal Risk -Technology Risk - Market Risk -Reputation Risk <p>In the next stage, analytical method will be developed to determine the impact of these Transition Risks on SASA.</p>

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

For transitional risks our focal questions are mainly based on how to manage penalties, and carbon pricing regarding changes in policies and legal regulations; need of qualified personnel in altered technologies; possible fines and financial losses that affect reputation; increasing energy consumptions and supplying difficulties in line with new market prices.

For physical risks our focal questions are mainly based on how to manage risks that are related to flood, fire, forest fire, overtemperature, extreme weather events that may affect also groundwater level, sea level, biodiversity, precipitation regime, droughts.

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

For efficient use of sources and management of energy and waste, our organization monitors its emissions, and emission reduction targets are determined accordingly. Also we invest on solar power plant, water recycle, chemical recovery technologies based on BAT (Best Available Technologies). We are prepared to extreme weather events by our Climate Change Working Group under the control of Early Risk Detection Committee. Additionally, our emergency response plans, engineering design, hydrogeologic reports, ESIA reports, special safety systems are utilized during these processes.

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	Market Risk - Problems in the supply of raw materials: Collateral problems in the supply of raw materials as a result of climate change caused SASA to evaluate purchasing raw materials from different geographies. Alternative raw material suppliers are being researched with

		<p>a sustainable supply chain perspective.</p> <p>Politics and Legal - EU Carbon Border Adjustment Mechanism: SASA's product and sector specification is not among the priority sectors and will have experience in the actual implementation of the system to be established. SASA manages its management strategies against legal and international regulations as investors, stakeholders, etc., and is constantly updated in line with its demands</p>
Supply chain and/or value chain	Yes	<p>Potential climate effects within the supply chain are evaluated as market risk.</p> <p>- Raw material supply may be interrupted as a result of the effects of climate change.</p> <p>Another potential climate impact in the supply chain has been addressed at reputation risk.</p> <p>- Income and financial losses in line with the negativities that may occur in the production and supply chain</p>
Investment in R&D	Yes	<p>Technology - Changing the materiality of the product and technology used: SASA has been adapting to changing technology processes with its R&D team since 2002. Strict requirements are complied with in university collaborations, technology investments and national standards such as IFC and ISO</p> <p>Technology - Transition to low-carbon materials and processes: Within the scope of sustainable innovation studies, R&D projects are developed for the use of recyclable and bio-based materials. Life cycle assessments are carried out to analyze the environmental impacts of products.</p>
Operations	Yes	<p>Water Stress: Water cooling is required continuously for the production processes at SASA facilities. In order to meet the water needs of the facilities, 13 additional wells are being drilled in the production area. An underground water modeling study, precipitation data, regional geology, and model findings were evaluated in the hydrogeological report for the New PTA Production Plant.</p> <p>Extreme weather event: If the ambient temperature is too high, the cooling efficiency will decrease. At the same time, extreme temperatures can increase the evaporation rate of the water used in the system for cooling.</p>

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	Direct costs Indirect costs Capital expenditures Assets	Technology investments, policy and legal risks (carbon pricing), raw material costs, transportation costs are expected to have an impact on direct and indirect costs. Flood, fire, extreme weather events and higher temperatures are expected to have an impact on our assets.

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
Row 1	Yes, we identify alignment with our climate transition plan

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)

273,745

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

0.02

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

2.13

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

9.59

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

In the 1.5°C transition scenario:

SASA has invested in energy efficiency initiatives in 2022.

SASA plans to invest in a biomass power plant in 2025.

By 2030, SASA will have invested in 2 on-site solar power plants.

SASA is planning to make various investments to reduce emissions, gradually increasing its capital expenditure (CAPEX) each year. In the climate transition plan reported for the year 2022, the CAPEX percentage is 0.02%. This percentage will increase to 2.13% in 2025 and reach 9.59% by 2030. Compared to the reported period in 2025, the CAPEX amount will increase 139 times, while it will increase 625 times compared to the reported period in 2030.

C4. Targets and performance

C4.1

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

Intensity target

C4.1b

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

Target reference number

Int 1

Is this a science-based target?

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

Target ambition

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)

Intensity metric

Metric tons CO₂e per unit of production

Base year

2019

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

0.474

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

0.197

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)

0.671

% 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

100

% 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 (%)

69

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

0.20801

% change anticipated in absolute Scope 1+2 emissions

163

% change anticipated in absolute Scope 3 emissions

0

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

0.313

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

0.174

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)

0.487

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]

39.7416790859

Target status in reporting year

Revised

Please explain target coverage and identify any exclusions

Our emission target includes Scope 1 and Scope 2 emissions of all SASA facilities.

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

Our previous carbon intensity target was 0.333 tCO₂e/ton production (for Scope 1 + Scope 2) but we developed a new strategic carbon reduction roadmap and planned new reduction initiatives. As a result, we improved our target for 2030 from 0.333 to 0.21 tCO₂e/ton production.

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

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

2021

Target coverage

Company-wide

Target type: energy carrier

Electricity

Target type: activity

Production

Target type: energy source

Renewable energy source(s) only

Base year

2021

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

0

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

0

Target year

2023

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

2.5

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

0

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

0

Target status in reporting year

Revised

Is this target part of an emissions target?

Yes. The solar rooftop with a capacity of 16,4 MWdc is planned to fully operational in 2023. It is aimed to reduce the carbon intensity (Scope1+Scope2) to 0.21 tCO₂e/tons production in 2030, which means 69% reduction compared to 2019. This roof type solar energy plant is a part of our emissions intensity target by reducing our Scope 2 emissions intensity due to electrical consumption.

Is this target part of an overarching initiative?

Other, please specify

This target is declared in our 2022 Sustainability Report

Please explain target coverage and identify any exclusions

Our target covers all Scope 1 and 2 emissions of all our facilities. The target refers to that are renewable energy production according to the rate of renewable energy in all electricity consumption.

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

The solar rooftop project has been started in 2022 and will be fully operational in 2023. We will reach our capacity target in the 2023 fiscal year.

List the actions which contributed most to achieving this target

Target reference number

Low 2

Year target was set

2022

Target coverage

Company-wide

Target type: energy carrier

Steam

Target type: activity

Consumption

Target type: energy source

Low-carbon energy source(s)

Base year

2022

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

903,462

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

0

Target year

2026

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

83

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

0

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

0

Target status in reporting year

New

Is this target part of an emissions target?

Yes. Our strategic greening roadmap covers the fuel switch from coal to biomass.

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

In 2026, it is aimed to zero coal consumption in steam production. 83% of the amount of steam generated from coal in the base year will be obtained from biomass in the target year. The remaining 17% steam amount will be obtained from natural gas.

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

The 4.5 MW biomass power plant is included in the strategic green transformation roadmap. Thanks to the biomass plant, the steam requirement will be met from carbon neutral biomass and this plant will also be used in electricity generation.

List the actions which contributed most to achieving this target

Target reference number

Low 3

Year target was set

2021

Target coverage

Site/facility

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Low-carbon energy source(s)

Base year

2021

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

1,343

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

0

Target year

2023

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

100

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

90.4

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

90.4

Target status in reporting year

Underway

Is this target part of an emissions target?

Yes.

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain target coverage and identify any exclusions

We are covering all our facilities with this target. There is not any exclusion.

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

Base year situation: 633 items 4x18 W, 960 items 2x36W, 536 items 72W fluorescent lighting will be changed to 2129 items 36 W LED

Reporting year status: In the year 2022, a total of 1,952 fluorescent lights were replaced with LED lights across our facilities, with 64 units in the DMT facility, 60 units in the Polyester Yarn facility, 466 units in the CP8 fiber facility, 633 units in the polyester chips facility, and 729 units in other facilities.

In the next reporting year, we expect all remaining items to achieve this target will be completed.

325 tCO2e emission will be decreased in 2023.

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	0	0

To be implemented*	9	16,159.2
Implementation commenced*	0	0
Implemented*	11	11,825.2
Not to be implemented	0	0

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
Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

3,470

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)

1,016,218

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

0

Payback period

<1 year

Estimated lifetime of the initiative

16-20 years

Comment

In our DTY plants, the Reduction of Air Consumption project has been reviewed and the same quality of yarn is produced with the changes made in machine drafting, temperature and spot pressure, while less air consumption in the process has been ensured. Within the scope of the project, an annual saving of 7,244,718 kWh was achieved.

Initiative category & Initiative type

Energy efficiency in production processes
Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

5,396

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)

2,982,500

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

36,217

Payback period

<1 year

Estimated lifetime of the initiative

16-20 years

Comment

Through consumption optimization measures implemented in our CP10 facility, we have achieved an annual natural gas savings of 2,716,260 m³, contributing to the reduction of operational energy expenses.

Initiative category & Initiative type

Energy efficiency in production processes
Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

2,959

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)

1,426,998

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

237,528

Payback period

1-3 years

Estimated lifetime of the initiative

16-20 years

Comment

In our fiber plant, through energy audits and consumption optimizations, the electricity demand of the operation has been reduced by 20%. The achieved electricity savings amount to 1,950,000 kWh. Additionally, in different locations, we replaced the old cooling tower blades with new ones, resulting in an electricity savings of 2,386,674 kWh. We have implemented various energy efficiency projects, both large and small, to reduce our emissions.

C4.3c

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

Method	Comment
Compliance with regulatory requirements/standards	-Emission Trade System will be valid in Turkey after year 2024. Since capacity of SASA is higher than 20 MW, we will have to follow the ETS requirements. -As we expect that the Carbon Board Adjustment Mechanism will be on the agenda of Turkey after 2026, we have already commenced initiatives to reduce our carbon emissions.
Dedicated budget for energy efficiency	There will be applied another 8 energy efficiency projects in 2023. With energy efficiency projects, electricity and steam consumption will be reduced.
Dedicated budget for other emissions reduction activities	Renewable energy projects (Solar Rooftop) Project, Coal to Biomass Switch, Economizer application and LED investments are evaluated.

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

Product or service

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

No taxonomy used to classify product(s) or service(s) as low carbon

Type of product(s) or service(s)

Chemicals and plastics

Other, please specify

Low carbon production

Description of product(s) or service(s)

Our sustainable products:

1,2 Den 32 MM H3K VX

ADV 13038

6 Den 150 mm Fiber Fill Hallow

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

7.4

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?	
Row 1	No

C5.2

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

Scope 1

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO₂e)

300,024

Comment

Scope 1 emissions resulting from Natural gas, coal consumption and process emissions.

Scope 2 (location-based)

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

124,862

Comment

Scope 2 emissions resulting from electricity consumption

Scope 2 (market-based)

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

124,862

Comment

Scope 2 emissions resulting from electricity consumption

Scope 3 category 1: Purchased goods and services

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

Comment

Scope 3 emissions were not calculated in 2019.

Scope 3 category 2: Capital goods

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

Comment

Scope 3 emissions were not calculated in 2019.

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

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

Comment

Scope 3 emissions were not calculated in 2019.

Scope 3 category 4: Upstream transportation and distribution

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

Comment

Scope 3 emissions were not calculated in 2019.

Scope 3 category 5: Waste generated in operations

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

Comment

Scope 3 emissions were not calculated in 2019.

Scope 3 category 6: Business travel

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

Comment

Scope 3 emissions were not calculated in 2019.

Scope 3 category 7: Employee commuting

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

Comment

Scope 3 emissions were not calculated in 2019.

Scope 3 category 8: Upstream leased assets

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

Comment

Scope 3 emissions were not calculated in 2019.

Scope 3 category 9: Downstream transportation and distribution

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

Comment

Scope 3 emissions were not calculated in 2019.

Scope 3 category 10: Processing of sold products

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

Comment

Scope 3 emissions were not calculated in 2019.

Scope 3 category 11: Use of sold products

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

Comment

Scope 3 emissions were not calculated in 2019.

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

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

Comment

Scope 3 emissions were not calculated in 2019.

Scope 3 category 13: Downstream leased assets

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

Comment

Scope 3 emissions were not calculated in 2019.

Scope 3 category 14: Franchises

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

Comment

Scope 3 emissions were not calculated in 2019.

Scope 3 category 15: Investments

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

Comment

Scope 3 emissions were not calculated in 2019.

Scope 3: Other (upstream)

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

Comment

Scope 3 emissions were not calculated in 2019.

Scope 3: Other (downstream)

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

Comment

Scope 3 emissions were not calculated in 2019.

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

ISO 14064-1

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

The Greenhouse Gas Protocol: Scope 2 Guidance

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)

494,823.41

Start date

January 1, 2022

End date

December 31, 2022

Comment

It seems that our Scope 1 emissions has increased compared to last year, the reason is our increasing production volume, and total energy consumption accordingly.

Following emission sources are considered for Scope 1 emission calculations

- Stationary Combustion Based Direct Emission (Natural Gas, Sub-bituminous, Other-bituminous and Lignite Coal, Diesel, LPG, Acetylene) (CO₂, CH₄, N₂O)
- Mobile Combustion Based Direct Emission (Company vehicles (on-road, off-road) - Diesel, Gasoline, LPG) (CO₂, CH₄, N₂O)
- Process Emission (Input: Methanol and Paraxylene; Output: DMT) (CO₂)
- Direct Emission-Leakage (fire extinguishers (CO₂), refrigerants (HFC's))

Past year 1

Gross global Scope 1 emissions (metric tons CO₂e)

488,358

Start date

January 1, 2021

End date

December 31, 2021

Comment

Past year 2

Gross global Scope 1 emissions (metric tons CO2e)

391,641

Start date

January 1, 2020

End date

December 31, 2020

Comment

Past year 3

Gross global Scope 1 emissions (metric tons CO2e)

300,024

Start date

January 1, 2019

End date

December 31, 2019

Comment

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

There are Carbon reduction instruments (IREC, YEK-G) in the market in our country, but IREC certificate has not been obtained for the reporting year.

C6.3

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

Reporting year

Scope 2, location-based

275,152.53

Scope 2, market-based (if applicable)

275,152.53

Start date

January 1, 2022

End date

December 31, 2022

Comment

Following emission sources have been considered to calculate Scope 2 emissions.

Energy Indirect Emission (Electricity) (CO₂, CH₄, N₂O)

Past year 1

Scope 2, location-based

286,273

Scope 2, market-based (if applicable)

286,273

Start date

January 1, 2021

End date

December 31, 2021

Comment

Past year 2

Scope 2, location-based

215,607

Scope 2, market-based (if applicable)

215,607

Start date

January 1, 2020

End date

December 31, 2020

Comment

Past year 3

Scope 2, location-based

124,862

Scope 2, market-based (if applicable)

124,862

Start date

January 1, 2019

End date

December 31, 2019

Comment

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, not yet calculated

Please explain

Because of time limitation, we could not receive company specific emission data from most of our suppliers.

Capital goods

Evaluation status

Relevant, not yet calculated

Please explain

Because of complicated data collection process, it could not be calculated.

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

Evaluation status

Not relevant, explanation provided

Please explain

SASA does not have any other fuel-and-energy-related activities which are not included in Scope 1 or 2.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

279,390.1

Emissions calculation methodology

Distance-based method

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

100

Please explain

For emission factors, tier 1 DEFRA and GHG Protocol are applied as these are the most achievable and appropriate data.

Activity data have been collected from ERP reports, sampled invoices, bill of conveyances and shipping bills, contracts, reports.

Waste generated in operations

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

2,290.31

Emissions calculation methodology

Distance-based method

Waste-type-specific method

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

40

Please explain

Waste transportation data has been obtained from the supplier. Emissions related to waste disposal have been calculated according to Tier 1 Defra Emission Factor.

Business travel

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

649.2

Emissions calculation methodology

Distance-based method

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

100

Please explain

All data has been obtained from our travel agency reports.

Employee commuting

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

9,020.25

Emissions calculation methodology

Distance-based method

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

100

Please explain

It reflects the emissions of SASA employees from company shuttles to and from work.
All data has been obtained from our travel agency reports.

Upstream leased assets

Evaluation status

Relevant, not yet calculated

Please explain

It will be included to our calculations next year.

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

91,756.73

Emissions calculation methodology

Distance-based method

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

100

Please explain

For emission factors, tier 1 DEFRA and GHG Protocol are applied as these are the most achievable and appropriate data.

Activity data have been collected from ERP reports, sampled invoices, bill of conveyances and shipping bills, contracts, reports.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Please explain

Because of the complexity of our products being used as an intermediate product in other versatile industries, the data collection for processing of sold products is not possible.

Use of sold products

Evaluation status

Not relevant, explanation provided

Please explain

Because of the complexity of our products being used as an intermediate product in other versatile industries, the data collection for use of sold products is not possible.

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Please explain

Because of the complexity of our products being used as an intermediate product in other versatile industries, the data collection for end of life treatment of sold products is not possible.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

We do not have any downstream leased assets.

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

Since there is no franchise, no emissions have been calculated in this category.

Investments

Evaluation status

Relevant, not yet calculated

Please explain

It is planned to be included to our calculations within next 2 years.

Other (upstream)

Evaluation status

Not relevant, explanation provided

Please explain

We do not have any other upstream emission source.

Other (downstream)

Evaluation status

Not relevant, explanation provided

Please explain

We do not have any other upstream emission source.

C6.5a

(C6.5a) Disclose or restate your Scope 3 emissions data for previous years.

Past year 1

Start date

January 1, 2021

End date

December 31, 2021

Scope 3: Purchased goods and services (metric tons CO2e)

Scope 3: Capital goods (metric tons CO2e)

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

Scope 3: Upstream transportation and distribution (metric tons CO2e)

216,393.38

Scope 3: Waste generated in operations (metric tons CO2e)

1,460.17

Scope 3: Business travel (metric tons CO2e)

78.99

Scope 3: Employee commuting (metric tons CO2e)

23.01

Scope 3: Upstream leased assets (metric tons CO2e)

Scope 3: Downstream transportation and distribution (metric tons CO2e)

87,819.74

Scope 3: Processing of sold products (metric tons CO2e)

Scope 3: Use of sold products (metric tons CO2e)

Scope 3: End of life treatment of sold products (metric tons CO2e)

Scope 3: Downstream leased assets (metric tons CO2e)

Scope 3: Franchises (metric tons CO2e)

Scope 3: Investments (metric tons CO2e)

Scope 3: Other (upstream) (metric tons CO2e)

Scope 3: Other (downstream) (metric tons CO2e)

Comment

Empty emission categories were not evaluated in this reporting period. The franchises category is an not relevant category and has not been calculated.

Past year 2

Start date

January 1, 2020

End date

December 31, 2020

Scope 3: Purchased goods and services (metric tons CO2e)

Scope 3: Capital goods (metric tons CO2e)

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

Scope 3: Upstream transportation and distribution (metric tons CO2e)

Scope 3: Waste generated in operations (metric tons CO2e)

510.81

Scope 3: Business travel (metric tons CO2e)

40.77

Scope 3: Employee commuting (metric tons CO2e)

243.83

Scope 3: Upstream leased assets (metric tons CO2e)

Scope 3: Downstream transportation and distribution (metric tons CO2e)

Scope 3: Processing of sold products (metric tons CO2e)

Scope 3: Use of sold products (metric tons CO2e)

Scope 3: End of life treatment of sold products (metric tons CO2e)

Scope 3: Downstream leased assets (metric tons CO2e)

Scope 3: Franchises (metric tons CO2e)

Scope 3: Investments (metric tons CO2e)

Scope 3: Other (upstream) (metric tons CO2e)

Scope 3: Other (downstream) (metric tons CO2e)

Comment

2020 was the first year of Scope 3 emissions were calculated within SASA. During the adaptation period to Scope 3 calculations, we could not cover all Scope 3 categories.

C6.7

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

No

C6.10

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

Intensity figure

0.487

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

769,975.94

Metric denominator

metric ton of product

Metric denominator: Unit total

1,581,122

Scope 2 figure used

Market-based

% change from previous year

2.2

Direction of change

Decreased

Reason(s) for change

Other emissions reduction activities

Please explain

From 2021 to 2022, the amount of production increased by 1.7%, while the amount of emissions decreased by 0.6%. In 2022, thanks to 11 energy efficiency projects that reduce steam, electricity and natural gas consumption, a total of 63,045 MWh of energy was saved. With this energy saving and increase in tons of product, physical density decreased by 2.2%.

C7. Emissions breakdowns

C7.1

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

Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	491,665.7	IPCC Sixth Assessment Report (AR6 - 100 year)
CH4	725.19	IPCC Sixth Assessment Report (AR6 - 100 year)
N2O	1,225.53	IPCC Sixth Assessment Report (AR6 - 100 year)
HFCs	1,206.98	IPCC Sixth Assessment Report (AR6 - 100 year)

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	494,823.41
☞ ₁	

☞₁All Facilities

C7.3

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

By activity

C7.3c

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

Activity	Scope 1 emissions (metric tons CO ₂ e)
Total Stationary Combustion Based Direct Greenhouse Gas Emission of all Facilities	413,261.31
Total Mobile Combustion Based Direct Greenhouse Gas Emission of all Facilities	2,778.95
Total Process Emissions Based Direct Greenhouse Gas Emission of all Facilities	77,575.98
Other (Refrigerant and Fire Extinguisher)	1,207.2

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 CO ₂ e	Comment
Chemicals production activities	494,823.41	SASA's only production activity is the chemical production. Therefore, all Scope 1 emissions arise from the chemical production. Gross Scope 1 emissions also include process emissions from DMT (Dimethyl Terephthalate) production. Process emissions account for 15,7% of Gross Scope 1 emissions.

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 CO ₂ e)	Scope 2, market-based (metric tons CO ₂ e)
Turkey	275,152.53	275,152.53

1		
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1 All Facilities

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)
SASA POLYESTER SAN. A.Ş. Adana Facility	275,016.37	275,016.37
SASA POLYESTER SAN. A.Ş. İskenderun Facility	112.39	112.39
SASA POLYESTER SAN. A.Ş. İstanbul Facility	15.4	15.4
SASA POLYESTER SAN. A.Ş. Tarsus Facility	7.51	7.51
SASA POLYESTER SAN. A.Ş. Ankara Facility	0.85	0.85

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

Chemicals production activities	275,016.37	275,016.37	Chemicals production activities are executed in Adana Manufacturing Facility
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C-CH7.8

(C-CH7.8) Disclose the percentage of your organization’s Scope 3, Category 1 emissions by purchased chemical feedstock.

Purchased feedstock	Percentage of Scope 3, Category 1 tCO2e from purchased feedstock	Explain calculation methodology
Other (please specify) All purchased chemicals	0	Emissions from production and extraction are not calculated. The transport emissions of the feedstock are specified in question 6.5 as upstream transport and distribution.

C-CH7.8a

(C-CH7.8a) Disclose sales of products that are greenhouse gases.

	Sales, metric tons	Comment
Carbon dioxide (CO2)	0	SASA does not have/ sell any product that is greenhouse gas.
Methane (CH4)	0	SASA does not have/ sell any product that is greenhouse gas.
Nitrous oxide (N2O)	0	SASA does not have/ sell any product that is greenhouse gas.
Hydrofluorocarbons (HFC)	0	SASA does not have/ sell any product that is greenhouse gas.
Perfluorocarbons (PFC)	0	SASA does not have/ sell any product that is greenhouse gas.
Sulphur hexafluoride (SF6)	0	SASA does not have/ sell any product that is greenhouse gas.
Nitrogen trifluoride (NF3)	0	SASA does not have/ sell any product that is greenhouse gas.

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	0	No change	0	
Other emissions reduction activities	11,825.2	Decreased	1.53	SASA implemented 11 different emission reduction projects during the reporting period. Total emission reduction with these energy initiatives is 11,825 tCO2e. Our gross Scope 1 and Scope 2 emissions are 774,631 t-CO2e in 2021. Therefore, emission value percentage column is calculated 1,53 [$(11,825/774,631)*100 = 1,53\%$]. With the projects, it has saved 2,800,795 sm3 of natural gas and 13,071,728 KWh of electricity. Only in 2022, energy efficiency projects carried out within the scope of lighting, saved 10,844 KWh of electricity. Energy efficiency projects such as replacing cooling tower blades with new generation blades, optimizing natural gas consumption at the CP10 facility and applying a condensate tank to the CP3 facility were carried out.
Divestment	0	No change	0	The status of the enterprise did not change in the reporting period.
Acquisitions	0	No change	0	The status of the enterprise did not change in the reporting period.
Mergers	0	No change	0	The status of the enterprise did not change in the reporting period.
Change in output	7,170.1	Increased	0.93	The amount of production from operations in 2022 is increasing compared to 2021. Our gross coverage 1 and scope 2 emissions in 2022 are 769,976t-CO2e and

				<p>in 2021 it is 774,631 t-CO₂e. While we have achieved an emission reduction of 11,825 t-CO₂e thanks to energy initiatives, our emission increase due to production increase has been calculated as 7,170 t-CO₂e [774,631 - 11,825 - 7,170=769,976 t-CO₂e]. The ratio of the emission increase resulting from the increase in production to the previous year is calculated as 0.93 [(7,170/774,631)*100=0.93].</p> <p>Although there is an increase in emissions due to the amount of production, it is clear that we have decreased our gross emissions thanks to energy initiatives and accordingly we have reduced our emission intensity.</p>
Change in methodology	0	No change	0	No changes in 2022.
Change in boundary	0	No change	0	No changes in 2022.
Change in physical operating conditions	0	No change	0	The category is irrelevant in the annual comparison.
Unidentified	0	No change	0	The category is irrelevant in the annual comparison.
Other	0	No change	0	

C7.9b

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

Location-based

C8. Energy

C8.1

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

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

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	No

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)	4,159	1,534,766	1,538,925
Consumption of purchased or acquired electricity		211,939	376,780	588,718
Total energy consumption		216,097	1,911,546	2,127,643

C-CH8.2a

(C-CH8.2a) Report your organization's energy consumption totals (excluding feedstocks) for chemical production activities in MWh.

Consumption of fuel (excluding feedstocks)

Heating value

LHV (lower heating value)

MWh consumed from renewable sources inside chemical sector boundary

4,159

MWh consumed from non-renewable sources inside chemical sector boundary (excluding recovered waste heat/gases)

1,534,766

MWh consumed from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary

0

Total MWh (renewable + non-renewable + MWh from recovered waste heat/gases) consumed inside chemical sector boundary

1,538,925

Consumption of purchased or acquired electricity

MWh consumed from renewable sources inside chemical sector boundary

211,939

MWh consumed from non-renewable sources inside chemical sector boundary (excluding recovered waste heat/gases)

376,780

MWh consumed from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary

0

Total MWh (renewable + non-renewable + MWh from recovered waste heat/gases) consumed inside chemical sector boundary

588,718

Total energy consumption

MWh consumed from renewable sources inside chemical sector boundary

216,097

MWh consumed from non-renewable sources inside chemical sector boundary (excluding recovered waste heat/gases)

1,911,546

MWh consumed from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary

0

Total MWh (renewable + non-renewable + MWh from recovered waste heat/gases) consumed inside chemical sector boundary

2,127,643

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	No
Consumption of fuel for the generation of steam	Yes
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

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

Comment

No sustainable biomass usage

Other biomass

Heating value

LHV

Total fuel MWh consumed by the organization

4,159

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

4,159

Comment

Biogas is produced as a result of anaerobic wastewater treatment and it is used for steam generation.

Other renewable fuels (e.g. renewable hydrogen)

Heating value

LHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

Comment

No hydrogen usage.

Coal

Heating value

LHV

Total fuel MWh consumed by the organization

535,152

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

535,152

Comment

Coal is used for steam generation.

Oil

Heating value

LHV

Total fuel MWh consumed by the organization

7,972

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

7,972

Comment

Diesel consumptions are taken into consideration

Gas

Heating value

LHV

Total fuel MWh consumed by the organization

952,108

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

952,108

Comment

Natural gas is used for steam generation.

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

Heating value

LHV

Total fuel MWh consumed by the organization

2,250

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

2,250

Comment

LPG consumptions are taken into consideration

Total fuel

Heating value

LHV

Total fuel MWh consumed by the organization

1,501,641

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

1,501,641

Comment

Total fuel covers consumption of coal, diesel, LPG, natural gas and biogas.

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

None (no active purchases of low-carbon electricity, heat, steam or cooling)

Energy carrier

Low-carbon technology type

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

Tracking instrument used

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

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

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

Comment

SASA did not supply any low-carbon electricity, heat, steam or cooling for the reporting year.

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)

588,718

Consumption of self-generated electricity (MWh)

0

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]

588,718

C-CH8.3

(C-CH8.3) Does your organization consume fuels as feedstocks for chemical production activities?

No

C9. Additional metrics

C9.1

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

Description

Energy usage

Metric value

4.85

Metric numerator

Gigajoule (GJ)

Metric denominator (intensity metric only)

tons production

% change from previous year

6.2

Direction of change

Decreased

Please explain

Despite our increasing energy consumption, we achieved 6% reduction in energy intensity value in 2022 as in previous years owing to our efficient energy management and energy efficiency programs. In 2022, thanks to energy initiatives that reduce steam, electricity and natural gas consumption, a total of 63,045 MWh of energy was saved. We aim to lower our energy intensity even further with our new energy initiatives and renewable energy plant.

C-CH9.3a

(C-CH9.3a) Provide details on your organization's chemical products.

Output product

Other, please specify
Polyester Fiber

Production (metric tons)

418,553

Capacity (metric tons)

510,000

Direct emissions intensity (metric tons CO₂e per metric ton of product)

0.12

Electricity intensity (MWh per metric ton of product)

0.17

Steam intensity (MWh per metric ton of product)

0

Steam/ heat recovered (MWh per metric ton of product)

0

Comment

The calculations for Polyester Fiber, which is among the main product groups of SASA, are taken into account the CO₂ emission produced per product and the corresponding electricity intensity.

Compared to the previous year, in the reporting year, we changed the data monitoring system on our production lines and started collecting energy consumption data for products more accurately.

Output product

Other, please specify
Polyester Chips

Production (metric tons)

495,211

Capacity (metric tons)

548,000

Direct emissions intensity (metric tons CO₂e per metric ton of product)

0.11

Electricity intensity (MWh per metric ton of product)

0.08

Steam intensity (MWh per metric ton of product)

0

Steam/ heat recovered (MWh per metric ton of product)

0

Comment

The calculations for Polyester Chips, which is among the main product groups of SASA, are taken into account the CO₂ emission produced per product and the corresponding electricity intensity.

Compared to the previous year, in the reporting year, we changed the data monitoring system on our production lines and started collecting energy consumption data for products more accurately.

Output product

Other, please specify
Dimethyl Terephthalate (DMT)

Production (metric tons)

163,288

Capacity (metric tons)

280,000

Direct emissions intensity (metric tons CO₂e per metric ton of product)

0.84

Electricity intensity (MWh per metric ton of product)

0.44

Steam intensity (MWh per metric ton of product)

0

Steam/ heat recovered (MWh per metric ton of product)

0

Comment

The calculations for DMT, which is among the main product groups of SASA, are taken into account the CO2 emission produced per product and the corresponding electricity intensity.

Compared to the previous year, in the reporting year, we changed the data monitoring system on our production lines and started collecting energy consumption data for products more accurately.

Output product

Other, please specify
Partially Oriented Yarn (POY)

Production (metric tons)

352,622

Capacity (metric tons)

397,000

Direct emissions intensity (metric tons CO2e per metric ton of product)

0.11

Electricity intensity (MWh per metric ton of product)

0.18

Steam intensity (MWh per metric ton of product)

0

Steam/ heat recovered (MWh per metric ton of product)

0

Comment

The calculations for POY, which is among the main product groups of SASA, are taken into account the CO2 emission produced per product and the corresponding electricity intensity.

Compared to the previous year, in the reporting year, we changed the data monitoring

system on our production lines and started collecting energy consumption data for products more accurately.

Output product

Other, please specify
Polyester Yarn

Production (metric tons)

151,438

Capacity (metric tons)

178,000

Direct emissions intensity (metric tons CO2e per metric ton of product)

0

Electricity intensity (MWh per metric ton of product)

0.91

Steam intensity (MWh per metric ton of product)

0

Steam/ heat recovered (MWh per metric ton of product)

0

Comment

The calculations for Polyester Yarn , which is among the main product groups of SASA, are taken into account the CO2 emission produced per product and the corresponding electricity intensity.

Compared to the previous year, in the reporting year, we changed the data monitoring system on our production lines and started collecting energy consumption data for products more accurately.

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	SASA, R&D Strategy includes creating a difference with sustainable and innovative products, developing new markets, being a leader and pioneer in the industry, and maintaining this position. This strategy is also the main goal

		<p>of the R&D Center. Main parameters for the implementation of the strategy:</p> <ul style="list-style-type: none"> • Product focused on meeting customer needs, • Reliable, environmental-friendly, and high quality product • Fast product launch. <p>Our priority is implement projects that are in line with the company goals. When developing a strategy, SASA R&D Center;</p> <ul style="list-style-type: none"> • Follows the developments in the industry, • Analyzes expectations in cooperation with customers and develops market based strategies, • We participate in local and international trade fairs, build collaborations with suppliers and gain information about new developments. <p>Our R&D strategy matches our corporate sustainability strategy and is updated for all markets (target markets/main market). Key factors in our strategy are:</p> <ul style="list-style-type: none"> • High quality and environmentally friendly product • Innovative and reliable product • Product that aligns with the brand image and strategy • Ability to launch product fast into the market. <p>Additionally,</p> <ul style="list-style-type: none"> • We follow all developments in the industry by following sector journals, publications, and online sources. • We design and develop new products by using different production techniques and different input materials, • We evaluate new and different raw materials working together with the supply chain management.
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C-CH9.6a

(C-CH9.6a) Provide details of your organization’s investments in low-carbon R&D for chemical production activities over the last three years.

Technology area

Product redesign

Stage of development in the reporting year

Applied research and development

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

60.7

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

599,523

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

100

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

In 2022, the R&D budget constitutes 7,4% of the total turnover. The R&D strategy of the SASA, by design, is geared towards creating difference with innovative and sustainable products, creating new markets, and bolstering its leadership position. Fast market release of environment-friendly and reliable products focused on the customer requirements are at the heart of our strategy, as the main parameters.

We also keep tab on new developments with our periodical, publication and online subscriptions, and use different production methods and inputs to design and develop new products. In addition to our biodegradable polymer groups in our portfolio, our R&D studies on the use of biobased raw materials continue. We study new and different raw materials in collaboration with supply chain management.

We have been a patent owner since 2009 for the innovative production process and practices

we have developed. Our new patents in 2022;

- Production of Polymer
- Process of production of PET
- Biaxially Stretched Polymer film Comprising A Decarboxylation Catalyst, Its Use In Electrical Insulation Applications, And Process For Its Production

By the year 2026, we expect our sustainable product revenue to reach 10%.

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

Reasonable assurance

Attach the statement

 ISO 14064_1 Verification Report SASA 2022.pdf

Page/ section reference

Page 6, Section 2.1 : The objective of the verification is to assess the conformance of the GHG assertion against 14064-1:2018 criteria and to verify that the quantified emissions are reasonable.

Relevant standard

ISO14064-1

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

Reasonable assurance

Attach the statement

 ISO 14064_1 Verification Report SASA 2022.pdf

Page/ section reference

Page 6, Section 2.1 : The objective of the verification is to assess the conformance of the GHG assertion against 14064-1:2018 criteria and to verify that the quantified emissions are reasonable.

Relevant standard

ISO14064-1

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: Upstream transportation and distribution
- Scope 3: Waste generated in operations
- Scope 3: Business travel
- Scope 3: Employee commuting
- Scope 3: Downstream transportation and distribution

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

 ISO 14064_1 Verification Report SASA 2022.pdf

Page/section reference

Page 6, Section 2.1 : The objective of the verification is to assess the conformance of the GHG assertion against 14064-1:2018 criteria and to verify that the quantified emissions are reasonable.

Relevant standard

IS)14064-1

Proportion of reported emissions verified (%)

100

C10.2

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

Yes

C10.2a

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

 2022-Sustainability-Report.pdf

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C4. Targets and performance	Year on year emissions intensity figure	GRI Sustainability Report 2022	Please see page 62  1
C6. Emissions data	Year on year change in emissions (Scope 1)	GRI Sustainability Report 2022	Please see page 122  1
C6. Emissions data	Year on year change in emissions (Scope 2)	GRI Sustainability Report 2022	Please see page 122  1
C6. Emissions data	Year on year change in emissions (Scope 3)	GRI Sustainability Report 2022	Please see page 122  1
C6. Emissions data	Year on year emissions intensity figure	GRI Sustainability Report 2022	Please see page 122  1
C3. Business strategy	Emissions reduction activities	GRI Sustainability Report 2022	Please see page 76,77,78  1

 12022-Sustainability-Report.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?

SASA carries out its climate-related strategies on the basis of sustainability. Within the scope of the 2022 SASA Corporate Sustainability Principles Compliance Report, it constantly monitors and takes action on the Emission Trading System, Carbon Pricing and Carbon Tax. The aforementioned systems are not implemented in Turkey.

- Projects to be done to reduce emissions are determined
- Transition from coal to biomass is planned
- Energy efficiency improvement projects are being developed
- Roof solar investment plan is finalized in 2023
- Renewable energy investments feasibility studies are carried out such as land solar power plant (2x100 MWp)

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

Cost of required measures to achieve emissions reduction targets
Price with material impact on business decisions

Objective(s) for implementing this internal carbon price

Drive energy efficiency
Drive low-carbon investment
Identify and seize low-carbon opportunities

Scope(s) covered

Scope 1

Scope 2

Pricing approach used – spatial variance

Uniform

Pricing approach used – temporal variance

Evolutionary

Indicate how you expect the price to change over time

As part of our climate action plan, various investments are planned over the years. These investments include biomass power plants, on-site solar power plants, and others. Therefore, changes in our investment costs over time may also affect our internal carbon pricing.

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

14.58

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

14.58

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

Capital expenditure
Operations

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

Yes, for some decision-making processes, please specify
Internal carbon pricing is used as a parameter in the decision-making process for emission reduction investments.

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

Internal carbon pricing is used as a parameter in decision-making processes for emission reduction investments and our climate transition plan. The same internal carbon price is used in all facilities of SASA, our internal carbon price is uniform.

C12. Engagement

C12.1

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

Yes, our suppliers
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 targets information at least annually from suppliers

Collect climate-related risk and opportunity information at least annually from suppliers

Collect climate transition plan information at least annually from suppliers

% of suppliers by number

100

% total procurement spend (direct and indirect)

82

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

73

Rationale for the coverage of your engagement

All our suppliers are subject to evaluations through our "Supplier Audit Evaluation Form".

In our Supplier Audit Evaluation Form, issues related to environmental management are given priority and our relations with suppliers who work on these issues are prioritized. Our purpose is to improve our both environmental and social supplier standards in the upcoming period to reinforce our responsible supplier chain.

We assume that emissions from our raw materials suppliers will make up the majority of our gross total scope 3 emissions. Therefore, we create the necessary data information to calculate our relevant emissions, thanks to the information we receive from our suppliers. We conduct this information collection activity to understand our supply chain effects to our climate-related activities.

Impact of engagement, including measures of success

Within the scope of the Supplier Audit Evaluation Form, our suppliers are expected to answer the following environmental impact questions.

- Is there a procedure or risk management system in place?
- Do they perform carbon footprint tracking?
- Do they have a carbon emission target and monitoring system?

Thanks to our supplier evaluation approach, we encourage our supply chain to take

actions under the heading of environmental impacts.

Using the Supplier Classification and Action Table, suppliers are classified and necessary actions are taken based on the scores resulting from supplier performance evaluations.

Supplier Classification and Action Table;

General Score	Class	Actions
90-100 Score	A Class	No action will be taken
70-89 Score	B Class	An audit may be conducted, and improvement suggestions are researched.
50-69 Score	C Class	An audit is always conducted, and efforts are initiated to eliminate any detected non-conformities.
0-49 Score	D Class	They are removed from the "Approved Supplier List"

Comment

The column "% of supplier-related Scope 3 emissions as reported in C6.5" is calculated by considering the emissions from Upstream transportation and distribution within the scope of the answers given in C6.5. [279,390 t-CO₂e/ 383,106 t-CO₂e =73%]

C12.1d

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

Employee Engagement: One of the most important components of the SASA value chain is its employees. SASA continuously provides training for its stakeholders, including employees. The scope of these trainings covers environmental, chemical safety, water risks, and climate risks. Especially, ISO 31000 Corporate Risk Management Training has been provided to employees to understand SASA's risk management approach and effectively address risks within the organization. Additionally, training sessions such as OHS supervisor trainings, Security Management System, and ADME are conducted for sustainability topics related to chemical and emergency management. Climate change is a subject that SASA prioritizes and aims to raise awareness among its employees. To further develop its employees in this area, SASA plans to incorporate the topic of climate change into the "SASA Academy" program, which is scheduled to launch in 2023.

University Engagement: SASA collaborates with universities and technology institutes for process improvement, new product development, research on alternative catalyst systems, and academic consulting.

Contractor Engagement: As part of the Contractor Security and Performance Management Program, training is provided on climate and water security in accordance with EBRD, IFC, and legal regulations.

Sectoral, Market Engagement: The SASA Sustainability Department participates in sector events such as Sustainability Talks 22 to facilitate knowledge sharing and transfer in the industry.

C12.2

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

Yes, suppliers have to meet climate-related requirements, but they are not 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

Climate-related disclosure through a non-public platform

Description of this climate related requirement

All our suppliers are subject to evaluations through our "Supplier Audit Evaluation Form".

We measure climate change performances with the questions included in our supplier procedures. There are below questions in our Supplier Assessment Forms:

- Is there a procedure or risk management system in place?
- Do they perform carbon footprint tracking?
- Do they have a carbon emission target and monitoring system?

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

82

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

82

Mechanisms for monitoring compliance with this climate-related requirement

Grievance mechanism/Whistleblowing hotline
Supplier scorecard or rating

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

Suspend and engage

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

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

SASA has an internal Green Procurement Policy emphasizing that;

- Minimizing unnecessary purchasing
- Minimizing waste
- Minimizing toxicity
- Minimizing habitat destruction
- Minimizing soil degradation
- Minimizing greenhouse gas emissions
- Maximizing energy efficiency
- Maximizing water efficiency
- Maximizing health and safety aspects
- Purchasing Eco-Labelled/Eco-friendly products and services
- Planning trainings to increase awareness of sustainability opportunities in purchasing processes
- Creating fair trade opportunities

We have evaluate and monitor our suppliers' performance through our below mentioned procedures:

- Approved Supplier Selection Procedure: It covers the selection of our suppliers according to certain criteria in order to ensure the continuity and development of quality.
- Supplier Performance Evaluation Procedure: It covers the processes of evaluating the performance of our existing suppliers, classifying them, or removing them from the list.
- Supplier Audit Procedure: It covers the preparation of the annual audit plan for our

existing suppliers, and the inclusion of the suppliers in the audit process.

-Supplier-Based Non Conformance Management Procedure: It covers the notification, registration, permanent resolution, and improvement processes of non-conformities arising from the supplier.

-Procurement Procedure: It covers the procurement of the necessary goods and services in accordance with the standard procurement specifications and OHS rules within the framework of the specified powers and responsibilities.

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

- Declaring opinion on the regulation on greenhouse gas in the Republic of Turkey. Engagement with Ministry of Environment, Urbanization and Climate Change
- Joint work of the ministry and SASA for the applicability of the Chemical Industry Integrated Pollution Prevention and Control Directive

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

Emissions trading schemes

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

SASA collaborates with Ministry of Environment, Urbanization and Climate Change. Opinions on greenhouse gas regulations are given through the Union of Chambers and Commodity Exchanges of Turkey. At the same time, SASA Polyester production facility in Adana was used as a pilot facility to measure the applicability of the Integrated Pollution Prevention and Control Directive in the chemical industry. Opinions were given on legal regulations and regulations on both greenhouse gas emissions and water pollution.

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 not aligned

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

One of the important regulatory sanctions and a central element that will affect our climate transition plan is the Turkish Emissions Trading System. In the Turkish Emissions Trading System, we are expected to be subject to carbon pricing based on SASA's emissions. We prioritize our climate transition plan in order to reduce the financial burden we will pay to the emissions trading system and to reduce the environmental impacts of our operations.

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In voluntary sustainability report

Status

Complete

Attach the document

 2022-Sustainability-Report.pdf

Page/Section reference

Pages: 61 -65 , 67, 76-78, 122,123

Content elements

Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

In our Sustainability Report, we provide:

- Our current carbon intensity values and change in last year in comparison to the base year (Reduction from 0.671 t-CO₂e/ ton of production in 2019 to 0.487 t-CO₂e/ ton in 2022)
- Carbon intensity reduction target: 0.21 t-CO₂e/tons production in 2030, which means 69% reduction compared to 2019.
- Assessment of the impact of physical and transitional risks with respect to TCFD, EP4, and Equator Principles Guidance Note on Climate Change Risk Analysis standards
- Climate Related Risks, Potential Financial Impacts Descriptions
- Absolute Greenhouse Gas Emission Values 2022 (tCO₂e)

Publication

In mainstream reports, incorporating the TCFD recommendations

Status

Complete

Attach the document

 SASA-TCFD-Report-(Entire-Facilities).pdf

Page/Section reference

The entire TCFD document refers to our risk and opportunity management and other metrics.

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

In addition to the metrics in our sustainability report, this and more metrics are also included in your TCFD report.

In our TCFD Report, we provide:

- Water use
- Water intensity
- Water recovery
- Energy recovery
- Renewable energy use

- Technology investments
- Internal carbon pricing
- And other physical metrics

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	UN Global Compact	SASA declared its commitment to the 10 principles of UNGC in 2022. We have determined KPIs to show our commitment to these 10 principles and we continue to take actions in this direction.

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, executive management-level responsibility	<p>Studies are carried out in the light of the SASA Sustainability Policy.</p> <p>Detailed studies were also examined in the Biodiversity Management Plan (BMP) and KPIs. We follow the following KPIs especially for new investments such as PTA Production Facility:</p> <p>KPI:Biodiversity Incidents Target: Minimize and continued improvement in number of reported biodiversity related incidents.</p> <p>KPI:Habitat disturbance Target: Minimize direct and indirect impacts of site works</p> <p>KPI: Access road wildlife mortality Target: Minimize and continued improvement in number of incidents related to traffic</p>

		<p>KPI: Uncontrolled release of oil, wastewater, waste etc. Target: Minimize and continued improvement in number of incidents related to uncontrolled release of oil, wastewater, waste, dust, etc.</p> <p>KPI: Community Complaints Target: Minimize and continued improvement in number of biodiversity related community complaints.</p> <p>KPI: Staff Training Target: 100% of employee trained according to their position including environmental management practice</p>
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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	Biodiversity-related public commitments	Initiatives endorsed
Row 1	Yes, we have made public commitments and publicly endorsed initiatives related to biodiversity	<p>Adoption of the mitigation hierarchy approach</p> <p>Commitment to respect legally designated protected areas</p> <p>Commitment to avoidance of negative impacts on threatened and protected species</p>	<p>SDG</p> <p>CITES</p> <p>Other, please specify</p> <p>IUCN (International Union for Conservation of Nature)</p>

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

No, but we plan to within the next two years

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?

Yes

C15.4a

(C15.4a) Provide details of your organization's activities in the reporting year located in or near to biodiversity -sensitive areas.

Classification of biodiversity -sensitive area

Other biodiversity sensitive area, please specify
IUCN Red List Criteria

Country/area

Turkey

Name of the biodiversity-sensitive area

Adana Seyhan Dam Lake Wildlife Development Area

Proximity

Up to 10 km

Briefly describe your organization's activities in the reporting year located in or near to the selected area

There is no direct interaction in the mentioned area.

Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity

Not assessed

Mitigation measures implemented within the selected area

Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Classification of biodiversity -sensitive area

Other biodiversity sensitive area, please specify
IUCN Red List Criteria

Country/area

Turkey

Name of the biodiversity-sensitive area

Adana Tuzla Lake Wildlife Development Area and Wetland

Proximity

Up to 50 km

Briefly describe your organization's activities in the reporting year located in or near to the selected area

There is no direct interaction in the mentioned area.

Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity

Not assessed

Mitigation measures implemented within the selected area

Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Classification of biodiversity -sensitive area

Other biodiversity sensitive area, please specify
IUCN Red List Criteria

Country/area

Turkey

Name of the biodiversity-sensitive area

Adana Akyatan Wildlife Development Area and Wetland

Proximity

Up to 50 km

Briefly describe your organization's activities in the reporting year located in or near to the selected area

There is no direct interaction in the mentioned area.

Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity

Not assessed

Mitigation measures implemented within the selected area

Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

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	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	State and benefit indicators Pressure indicators Response indicators

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 voluntary sustainability report or other voluntary communications	Content of biodiversity-related policies or commitments Details on biodiversity indicators Biodiversity strategy	SASA 2022 Sustainability Report content elements summarized 73, 74, 75 pages.  1

 12022-Sustainability-Report.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.

-  SASA-TCFD-Report-(Entire-Facilities).pdf
-  2022-Sustainability-Report.pdf
-  ISO 14064_1 Verification Report SASA 2022.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	Sustainability & HSE Manager	Other C-Suite Officer

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