Welcome to your CDP Climate Change Questionnaire 2022

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 is 23.1 (Medium Risk) in Sustainalytics. Our ranking is 34 out of 463 chemical companies by February, 2022. Our total GHG emissions intensity (Scope1+Scope2) is 0,498 (tonCO2e/ton production) in 2021.

According our research from 2020 sustability reports we compared our GHG emissions intensity with those of our peers and we reached following results;

-Eastman: 0.75 (tonCO2e(ton production)
-Tronox: 0.70(tonCO2e(ton production)
-Metanex: 0.60(tonCO2e(ton production)
-Indorama: 0.607(tonCO2e(ton production)
-Firmenich: 0.668 (for 2017)-0.344 (for 2020)(tonCO2e(ton production)
-SASA: 0.608(tonCO2e(ton production)

C0.2

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for

Reporting year	January 1, 2021	December 31, 2021	Yes	1 year

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(s)	Please explain
Board-level committee	Early Detection of Risk Committee has 3 management members. Early Detection of Risk Committee has 3 management members.

	When we look at the management structure of 2021, the chairman of the committee is a member of the board of directors. Duties and responsibilities of Early Detection of Risk Committee are; •Committee works to identify risks that may endanger the existence, development and continuity of operations of the company, to establish management systems, to identify risks, and to take necessary precautions. •It reviews the risk management system at least once a year, works to implement the committee's decisions. •Invites executives to a meeting when deemed necessary •Independent expert opinions can be used if needed •The Committee fulfills other duties and responsibilities given/to be assigned pursuant to the Turkish Commercial Code and the Capital Markets Legislation. •Committee advises the board of directors in identifying and managing climate-related risks and taking necessary actions within the company The Committee provides information, regarding its activities and outputs, to the Board of Directors, at least once a year. SASA ensures that all stakeholders be informed, in line with the risk policy and objectives determined by the Committee. It conducts activities for the internalization of these policies by the employees. Working groups consists of the persons who work at related units of the company, to realize the projects relating to objectives set in matters which shall support sustainability work on the committee side.
Other, please specify Climate Change Working Group	There is a Climate Change Working Group established under the Early Detection of Risk Committee. Tasks of Climate Change Working Group are: - Leading the identification, assessment and management of climate-related risks and opportunities, - Reporting to Board of Directors climate-related risks and opportunities identified by management, along with corresponding potential financial impacts on Company, - Establishing a process for integrating climate-related risks into the risk database, - To monitor management of climate-related risks in relation to general risks that the company is exposed to, - Provide disclosures on financial impact of climate-related risks in Annual Integrated Report,

	- To ensure that the Risk Management & Sustainability Unit Group receives corporate support to establish a structure for the inclusion of climate-related risks in the corporate risk management program.
Board-level committee	Sustainability committee consists of chairman, vice chairman, rapporteur, committee and working group coordinators and 11 members. The studies of the Sustainability Committee and detailed information are mentioned in the 2021 Sustainability Report. In line with the United Nations Sustainable Development Objectives, for the Company, the Committee shall, within the scope of its duties and responsibilities; - conduct work activities and develop projects for the purpose of integrating sustainability into the Company's structure, - follow national and international developments regarding sustainability, - compose the sustainability strategy, goals, road maps and policies, - manage, in pro-active manner, the risks regarding social, environmental and corporate governance issues, and direct the Company's sustainability strategy and policy, - support development of projects intended to decrease carbon emissions in business processes within the scope of combating against climate change, and ensure implementation of such projects, - follow the Company's road may regarding sustainability and developments in relation to implementation thereof; set objectives; accordingly, determine the performance criteria; supervise performance in accordance with the objectives and ensure participation of all related units of the Company, in the process actively, -authorise and coordinate the Working Group composed by it within the Company's organisation within the scope of relevant work activities, - revise regularly the sustainability policies, objectives, practices, working principles, management systems, and rearrange, implement, monitor and monitor them; in necessary cases, present them for approval of the Board of Directors, - ensure that all employees of the Company be informed in line with the Company's sustainability policy and objectives, and conduct work activities intended for internalisation of these policies by the employees, - ensure realisation of stakeholder participation for all stakeholders regarding the Company's sustainability strategy, policy and practices, - ensure that outputs of works, correspond to the Company's sustainability policies and the Company's expectations.

C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Monitoring and overseeing progress against goals and targets for addressing climate-related issues	Climate Change Working Group has been established in 2022 under the Early Detection of Risk Committee. On the other hand, the Sustainability Committee shall provide information, regarding its activities and outputs, to the Board of Directors, at least once a year. The Company shall ensure that all stakeholders be informed, in line with the sustainability policy and objectives determined by the Committee. It shall conduct activities for the purpose of internalisation of these policies by the employees.

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	The Climate Change Working Group undertakes the main responsibility for water-related issues. The Climate Change Working Group works under the Early Detection of Risk Committee, which is one of the highest level governance units. The EDRC consists of a chairman and 2 members. Committee chairman and committee member have a say in the Board of Directors. The Climate Change Working Group reports the results of its work to the senior management twice a year.

C1.2

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

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Other, please specify Early Detection of Risk Committee	Both assessing and managing climate-related risks and opportunities	Half-yearly
Sustainability committee	Managing climate-related risks and opportunities	Half-yearly
Other, please specify Climate Change Working Group	Both assessing and managing climate-related risks and opportunities	Half-yearly

C1.2a

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

Climate-related risks have been added to enterprise risk management procedures to integrate climate change into the organization. SASA has established a Climate Change Working Group under the Early Risk Detection Committee which is dependent to Board of Directors (President). Early Detection of Risk Committee reports evaluations about climate related risks & opportunies of SASA's operations to the Board of Directors. Climate

Change Working Group (CCWG) leads the identification, assessment, management of climate-related risks & opportunities, and reports them to theEarly Detection of Risk Committee along with their corresponding potential financial impacts on the Company. Also CCWG establises a process for integrating climate-related risks into the enterprise risk database.

In order to maintain its existence and development, SASA's Early Detection of Risk Committee performs the early detection of all kinds of risks that may arise from strategic, operational, financial and climate risks. It takes necessary and appropriate measures and manages risks.

You can visit our Sustainability Report on our website for climate change and sustainability management. See page 59,119.

https://www.sasa.com.tr/en/sustainability/sustainability-reports/2021-sustainability-report

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-termfinancial 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 behaviors 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

Risk management process

A specific climate-related risk management process

Frequency of assessment

Annually

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.
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 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	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	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 this 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	The planned PTA Production Plant 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.
Reputation	Relevant, always included	As SASA, one of the transition risks has been determined as reputation. It's the kind of risk that could arise as a result of stakeholders' concerns about SASA and its environmental sensitivity, exposing the company's reputation.
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 situtation.

- 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?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Since the limit value for the carbon cost to be applied to our products in export is not yet determined, a net carbon cost has not been calculated. On the other hand, the sector in which SASA operates is not among the priority sectors where CBAM will be applied.

Cost of response to risk

39,847,650

Description of response and explanation of cost calculation

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

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 natural gas, 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:
9,500,000 € - Low-carbon fuel investments (Considered to be commissioned in 2025)
11,350,000 € - Renewable energy generation investment (Planned as Solar Rooftop) (Declared investment cost is 11,350,000 USD. The EUR-USD parity is evaluated as 1,0 in line with the current level)
158,950 € - LED investment (Considered for 2023)
4,583,000 € - Energy efficiency projects (Considered for 2022)
15,700 € - Energy efficiency projects (Realized in 2021)
14,240,000 € - Wastewater Treatment System (Ongoing implementation process of PTA facility project)

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 Emmision 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?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Since carbon prices and CAP values are not determined in the Local ETS system, a net carbon cost could not be calculated.

Cost of response to risk

9,500,000

Description of response and explanation of cost calculation

It is reflected as the costs of switching to natural gas instead of using coal for energy generation at SASA facilities. (CAPEX)

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 natural gas, steam saving, waste heat recovery, increasing the amount of energy to be produced from biogas with the installation of an integrated waste water treatment system.

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

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 and transportation 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)

711,386,000

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 potentail financial impact arsing from raw material:

- Paraxylene (main chemical) (675,9 million USD)
- Acetic acid (main solvent) (19,6 million USD)
- Cobalt acetate, manganase acetate, hydrogen bromide (main catalysts) (9,1 million USD)
- Sodium formate, caustic, sodium carbonate (process chemicals) (6,6 million USD)
- Toluene (process solvent) (186 thousand USD)

Cost of response to risk

0

Description of response and explanation of cost calculation

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

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

Cost of response to risk

8,264.46

Description of response and explanation of cost calculation

Having a block insurance anually, renewing it annually.

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 1.21 for 2021
Average EUR-TL parity is evaluated as 9.67 for 2021)

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

Developing the customer portfolio by decarbonizing the process and products, accordingly.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Since the sales volume of low carbon products could not be determined, the amount of earnings could not be determined.

Cost to realize opportunity

39,847,650

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 natural gas, 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:
9,500,000 € - Low-carbon fuel investments (Considered to be commissioned in 2025)
11,350,000 € - Renewable energy generation investment (Planned as Solar Rooftop) (Declared investment cost is 11,350,000 USD. The EUR-USD parity is evaluated as 1,0 in line with the current level)
158,950 € - LED investment (Considered for 2023)
4,583,000 € - Energy efficiency projects (Considered for 2022)
15,700 € - Energy efficiency projects (Realized in 2021)
14,240,000 € - Wastewater Treatment System (Ongoing implementation process of PTA facility project)

Comment

Changing regulations and limitations encourage SASA to use renewable energy sources.

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)

191,760,000

Potential financial impact figure – maximum (currency)

282,000,000

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 %.

Cost to realize opportunity

0

Strategy to realize opportunity and explanation of cost calculation

SASA invest in new polyester fiber manufacturing facilities to increase the capacity double.

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 transition plan that aligns with a 1.5°C world?

Row 1

Transition plan

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

Publicly available transition plan

No

Mechanism by which feedback is collected from shareholders on your 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 transition plan (optional)

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	Facility		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. - Max temperature - Min temperature - Number of hot days - mean temperature - Number of frost days - Precipitions - Cold spell duration index - Annual SPEI drought index

			Evaluations Adana region criteria were examined in detail.
Physical climate scenarios RCP 8.5	Facility		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. - Max temperature - Min temperature - Number of hot days - Mean temperature - Number of frost days - Precipitions - Cold spell duration index - Annual SPEI drought index Adana region criteria were examined in detail.

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 diffuculties 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 Committe. 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	Extreme weather events (acute) have been studied under climate risk. Negative effects on employee health, disruptions in production and services, loss of value as a result of all these.
Supply chain and/or value chain	Yes	Potential climate effects within the supply chain are evaluated as market risk. - Raw material supply may be interrupted as a result of the effects of climate change. Another potential climate impact in the supply chain has been addressed at reputation risk.

		- Income and financial losses in line with the negativities that may occur in the production and supply chain
Investment in R&D	Yes	Our new investments which include the advanced technologies, such as water recycle, chemical recovery, energy production from waste, solar power plant turns climate change related risks to opportunies for our company.
Operations	Yes	Water cooling is required continuously for the production processes at SASA facilities. 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.

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	Technology investments, policy and legal risks (carbon pricing), raw material costs are expected to have an impact.

C3.5

(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's transition to a 1.5°C world?

Yes

C3.5a

(C3.5a) Quantify the percentage share of your spending/revenue that is aligned with your organization's transition to a 1.5°C world.

Financial Metric

CAPEX

Percentage share of selected financial metric aligned with a 1.5°C world in the reporting year (%)

0

Percentage share of selected financial metric planned to align with a 1.5°C world in 2025 (%)

45

Percentage share of selected financial metric planned to align with a 1.5°C world in 2030 (%)

0

Describe the methodology used to identify spending/revenue that is aligned with a 1.5°C world

In the 1.5°C transition scenario, SASA has investments in the transition from coal to natural gas.

Financial Metric

CAPEX

Percentage share of selected financial metric aligned with a 1.5°C world in the reporting year (%)

0

Percentage share of selected financial metric planned to align with a 1.5°C world in 2025 (%)

54

Percentage share of selected financial metric planned to align with a 1.5°C world in 2030 (%)

0

Describe the methodology used to identify spending/revenue that is aligned with a 1.5°C world

Solar Rooftop Investment Project has been evaluated.

Financial Metric

CAPEX

Percentage share of selected financial metric aligned with a 1.5°C world in the reporting year (%)

0

Percentage share of selected financial metric planned to align with a 1.5°C world in 2025 (%)

1

Percentage share of selected financial metric planned to align with a 1.5°C world in 2030 (%)

0

Describe the methodology used to identify spending/revenue that is aligned with a 1.5°C world

It is aimed to switch all factory lighting equipment from fluorescent to LED.

C4. Targets and performance

C4.1

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

Intensity target

C4.1b

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

Target reference number

Int 1

Year target was set

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 (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 (in all Scope 3 categories) covered by this 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 (%)

50

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

0.3355

% change anticipated in absolute Scope 1+2 emissions

230

% change anticipated in absolute Scope 3 emissions

0

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

0.314

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

0.184

Intensity figure in reporting year for 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)

0.498

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

51.564828614

Target status in reporting year

Underway

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

Target ambition

Please explain target coverage and identify any exclusions

Our target covers the intensity figure of Scope1+2 CO2e emissions (metric tons CO2e per unit of activity)

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

We plan to invest in energy efficiency projects, solar energy production, waste heat recovery for our electricity demand. We also decommission the old and inefficient utilities and plan the new and efficient utilities.

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)

28,000

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

0

Target year

2023

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

4.52

% 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

Underway

Is this target part of an emissions target?

Yes. The solar rooftop with a capacity of 28.000 MWh/year is planned to commence in 2022. It is aimed to reduce the carbon intensity (Scope1+Scope2) to 0.333 tCO2e/tons production in 2030, which means 50% 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 2021 Sustainability Report

Please explain target coverage and identify any exclusions

Our target covers to reduce carbon intensity (Scope1+Scope2) to 0.333 tCO2e/tons production in 2030, which means 50% reduction compared to 2019. We have also prepared our roadmap to reduce our carbon emissions creating scenarios which include installation of the solar rooftop

and Coal-to-NG Switch according to different base years.

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

It is planned to commence with the solar rooftop within the boundaries of the current production facility (factory) in 2022 and switch off coal boilers and activate new natural gas boilers up to 2025. Beginning from 2019, our company used to determine its targets for the following year to reduce carbon intensity, water intensity, wastewater intensity and hazardous waste intensity in the scope of ISO 14001 Environmental Management System. However, we started to determine our targets for carbon reduction taking into consideration

List the actions which contributed most to achieving this target

---

Target reference number

Low 2

Year target was set

2021

Target coverage

Company-wide

Target type: energy carrier

Steam

Target type: activity

Production

Target type: energy source

Low-carbon energy source(s)

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

39.8

Target year

2025

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

100

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

39.8

% 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 swtich from coal to NG.

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

There is not any exclusion.

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

In current situation, both coal and natural gas fuels are used to produce steam (NG share is 39.8, coal share is 60.2%) In 2025, all steam requirement is planned to be supplied by using natural gas 100%.

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

0

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

0

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

There is not any exclusion.

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

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

325 tCO2e emission will be decreased.

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	2	
To be implemented*	3	92,233
Implementation commenced*	0	
Implemented*	12	9,735
Not to be implemented	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)

9,735

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)

714,733

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

15,700

Payback period

1-3 years

Estimated lifetime of the initiative

16-20 years

Comment

There were 12 energy efficiency projects within the reporting year, 2021.

Electricty Savings:

-Capacity change of CP3 Jet Water Condensate Pump (795.5 GJ/year)
-Quench lighting saving project (460.5 GJ/year)
-Environmental lights improvement project 209.3 (GJ/year)
-Optimization of the 12 bar compressed air used in blow guns (1,967.8 GJ/year)
- Increasing CP10 Chiller water temperature from 7 ºC to 8.5 ºC 1,925.9 GJ/year)

Natural Gas Savings:

-Project to improve CP10 HTM boiler combustion efficiency (1,967.8 GJ/year)
-CP 8-9 HTM Boiler combustion air temperature increase (3,349.4 GJ/year)

Resource Use:

-Project to reduce vapour use in S012 conditioning silo (1,506.2 GJ/year)
-Reduction of CP1234 DMT tank temperature set and elimination of vapor leaks (3,221.6 GJ/year)
-To save energy and 8526 tons/year vapour by heating the water in the finish site with the condensate in atmospheric tank in the first flash vapour system (18,171 GJ/year)
-To save energy and 6366 tons/year vapour by heating the bico hot water bath with the condensate in atmospheric tank in the second flash vapour system (13,560 GJ/year)
-To save energy and 15,271 tons/year vapour by heating hot water baths of mono lines in the recovery system with the flash vapour coming from the atmospheric tank and discharged into the air (32,545 GJ/year)

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 11 energy efficiency projects in 2022. including electricty, steam, natural gas by changing inefficient equipment into energy efficient ones.

Dedicated budget for other emissions reduction activities	Renewable energy projects (Solar Rooftop) Project, Coal to NG Switch 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 and their sales volume:

1,2 Den 32 MM H3K VX - 50,002,511 EUR
ADV 13038 - 517,212 EUR

6 Den 150 mm Fiber Fill Hallow - 1,382,172 EUR

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

3.34

C5. Emissions methodology

C5.1

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

Yes

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 emmission

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

Base year end

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

Base year end

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

Base year end

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

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 emissions were not calculated in 2019.

Scope 3 category 6: Business travel

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 emissions were not calculated in 2019.

Scope 3 category 7: Employee commuting

Base year start

Base year end

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

Base year end

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

Base year end

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

Base year end

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

Base year end

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

Base year end

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

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 emissions were not calculated in 2019.

Scope 3 category 14: Franchises

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 emissions were not calculated in 2019.

Scope 3 category 15: Investments

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 emissions were not calculated in 2019.

Scope 3: Other (upstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 emissions were not calculated in 2019.

Scope 3: Other (downstream)

Base year start

Base year end

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)

488,358.45

Start date

January 1, 2021

End date

December 31, 2021

Comment

Scope 1 emission has a share of 45.2% in all scopes in 2021 (Scope 1, 2 and 3)

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)

391,641

Start date

January 1, 2020

End date

December 31, 2020

Comment

Scope 1 emission has a share of 64.4% in the total of Scope 1 and Scope 2 emissions in 2020. Scope 3 emissions were not calculted in 2020.

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

286,273

Scope 2, market-based (if applicable)

286,273

Start date

January 1, 2021

End date

December 31, 2021

Comment

Scope 2 emission has a share of 26.5% in all scopes in 2021. Scope 2 emissions consist of SASA's electricty usage.

Past year 1

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

Scope 2 emission has a share of 36.6% in total of Scope 1 and Scope 2 emissions in 2020. Scope 2 emissions consist of SASA's electricty usage.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

C6.5

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

Purchased goods and services

Evaluation status

Not evaluated

Please explain

Could not be calculated since the required carbon footprint data from the suppliers.

Capital goods

Evaluation status

Relevant, not yet calculated

Please explain

Could not be calculated because of time limitation.

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 w216hich are not included in Scope 1 or 2.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

216,393.38

Emissions calculation methodology

Distance-based method

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

0

Please explain

Calculated as emissions generated by products and internal vehicles as a result of transportation and handling.

Waste generated in operations

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

1,460.17

Emissions calculation methodology

Waste-type-specific method

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

0

Please explain

Emissions resulting from the transportation and disposal of wastes have been calculated.

Business travel

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

78.99

Emissions calculation methodology

Distance-based method

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

0

Please explain

It reflects emissions from business travel. These include flights and vehicle use.

Employee commuting

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

23.01

Emissions calculation methodology

Fuel-based method

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

0

Please explain

It reflects the emissions of SASA employees from company shuttles to and from work.

Upstream leased assets

Evaluation status

Not evaluated

Please explain

Could not be calculated because of time limitation

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

87,819.74

Emissions calculation methodology

Distance-based method

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

0

Please explain

Processing of sold products

Evaluation status

Not evaluated

Please explain

Could not be calculated because of time limitation

Use of sold products

Evaluation status

Not evaluated

Please explain

Could not be calculated because of time limitation

End of life treatment of sold products

Evaluation status

Not evaluated

Please explain

Could not be calculated because of time limitation

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

Could not be calculated because of time limitation

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

Could not be calculated because of time limitation

Investments

Evaluation status

Not evaluated

Please explain

Could not be calculated because of time limitation

Other (upstream)

Evaluation status

Not evaluated

Please explain

Could not be calculated because of time limitation

Other (downstream)

Evaluation status

Not evaluated

Please explain

Could not be calculated because of time limitation

C6.5a

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

Past year 1

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

0.00051

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

774,631

Metric denominator

unit total revenue

Metric denominator: Unit total

1,510,000,000

Scope 2 figure used

Market-based

% change from previous year

47.5

Direction of change

Decreased

Reason for change

Due to SASA's production volume had increased in 2021, revenue increased accordingly. Through our low-energy projects, both energy and carbon physical intensity values were decreased. As a result of high sales volume and low energy consumption comparatively, CO2e emissions per unit currency total revenue declined.

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	404,684	IPCC Sixth Assessment Report (AR6 - 100 year)
CH4	646.23	IPCC Sixth Assessment Report (AR6 - 100 year)
N2O	1,097.54	IPCC Sixth Assessment Report (AR6 - 100 year)

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
Turkey	488,358

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 CO2e)
Total Stationary Combustion Based Direct Greenhouse Gas Emission of all Facilities	403,892.11
Total Mobile Combustion Based Direct Greenhouse Gas Emission of all Facilities	2,549.76

Total Process Emissions Based Direct Greenhouse Gas Emission of all Facilities	79,727.75
Other (Refrigerant and Fire Extinguisher)	2,188.83

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

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

	Gross Scope 1 emissions, metric tons CO2e	Comment
Chemicals production activities	488,358.45	SASA's only production activity is the chemical production. Therefore, all Scope 1 emissions arise from the chemical production.

C7.5

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

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Turkey	286,273	286,273

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	286,135	286,135
SASA POLYESTER SAN. A.Ş. İskenderun Facility	121.9	121.9
SASA POLYESTER SAN. A.Ş. İstanbul Facility	14.9	14.9
SASA POLYESTER SAN. A.Ş. Ankara Facility	0.9	0.9

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	286,135	286,135	Chemicals production activities are executed in Adana Manufacturing Facility

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 were not taken into account. Transport emissions of the inputs are specified in question 6.5 as upstream transportation 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?

This is our first year of reporting, so we cannot compare to last year

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)	0	1,623,684.75	1,623,684.75
Consumption of purchased or acquired electricity		221,107.77	393,080.48	614,188.26
Total energy consumption		221,107.77	2,016,765.23	2,237,873.01

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

0

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

1,614,738.29

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

1,614,738.29

Consumption of purchased or acquired electricity

MWh consumed from renewable sources inside chemical sector boundary

221,107.77

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

393,080.48

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

614,188.26

Total energy consumption

MWh consumed from renewable sources inside chemical sector boundary

221,107.77

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

2,016,765.25

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

2,237,873.01

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 biomass usage.

Other biomass

Heating value

LHV

Total fuel MWh consumed by the organization

11,957.25

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

11,957.25

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

530,220.93

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

530,220.93

Comment

Coal is used for steam generation.

Oil

Heating value

LHV

Total fuel MWh consumed by the organization

9,256.09

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

Comment

Gasoline, diesel and LPG consumptions are taken into consideration.

Gas

Heating value

LHV

Total fuel MWh consumed by the organization

1,084,207.73

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

1,084,207.73

Comment

Natural gas is used for steam generation.

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

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

Comment

There is not any other non-renewable fuel usage.

Total fuel

Heating value

LHV

Total fuel MWh consumed by the organization

1,623,684.75

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

1,614,429

Comment

Total fuel covers consumption of coal, gasoline, 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.

Sourcing method

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

Energy carrier

Low-carbon technology type

Country/area of low-carbon energy consumption

Tracking instrument used

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

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

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

Comment

SASA did not supply any low-carbon electricty, heat, steam or cooling for the reporting year but it is planned within next 2 years.

C8.2g

(C8.2g) Provide a breakdown of your non-fuel energy consumption by country.

Country/area

Turkey

Consumption of electricity (MWh)

614,188.26

Consumption of heat, steam, and cooling (MWh)

0

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

614,188.26

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

6.11

Metric numerator

Gigajoule (GJ)

Metric denominator (intensity metric only)

tons production

% change from previous year

16

Direction of change

Decreased

Please explain

Despite our increasing energy consumption as a result of our new investments, we achieved 15% reduction in energy intensity value in 2021 as in previous years owing to our efficient energy management and energy efficiency programs. We aim to lower our energy intensity even further with our new PTA investment project to be completed in 2023.

C-CH9.3a

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

Output product

Other, please specify

Polyester Fiber

Production (metric tons)

413,112

Capacity (metric tons)

510,000

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

0.083

Electricity intensity (MWh per metric ton of product)

0.049

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.

Output product

Other, please specify

Polyester Cips

Production (metric tons)

482,762

Capacity (metric tons)

548,000

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

0.097

Electricity intensity (MWh per metric ton of product)

0.057

Steam intensity (MWh per metric ton of product)

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

Comment

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

Output product

Other, please specify

Dimethyl Terephthalate (DMT)

Production (metric tons)

231,159

Capacity (metric tons)

280,000

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

0.047

Electricity intensity (MWh per metric ton of product)

0.027

Steam intensity (MWh per metric ton of product)

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

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.

Output product

Other, please specify

Partially Oriented Yarn (POY)

Production (metric tons)

293,696

Capacity (metric tons)

397,000

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

0.06

Electricity intensity (MWh per metric ton of product)

0.035

Steam intensity (MWh per metric ton of product)

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

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.

Output product

Other, please specify

Polyester Yarn

Production (metric tons)

134,508

Capacity (metric tons)

178,000

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

0.027

Electricity intensity (MWh per metric ton of product)

0.016

Steam intensity (MWh per metric ton of product)

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

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.

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 of the R&D Center. Main parameters for the implementation of the strategy: • Product focused on meeting customer needs, • Reliable, environmental-friendly, and high quality product • Fast product launch. Our priority is implement projects that are in line with the company goals. When developing a strategy, SASA R&D Center; • 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. 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: • 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. Additionally, • 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.

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	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (optional)	Comment
Product redesign	Applied research and development	≤20%		We have been a patent owner since 2009 for the innovative production process and practices we have developed. R&D studies have been completed on the basis of the following products; - 1,2 Den 32 MM H3K VX - ADV 13038 - 6 Den 150 mm Fiber Fill Hallow

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

SASA 14064_Verification Report.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

SASA 14064_Verification Report.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

SASA 14064_Verification Report.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?

2021-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 2021	Please see page 61 1
C6. Emissions data	Year on year emissions intensity figure	GRI Sustainability Report 2021	Please see page 146 1
C3. Business strategy	Emissions reduction activities	GRI Sustainability Report 2021	For verify related solar energy applications. Please see page 25, 40

[1]2021-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 2021 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 natural gas is planned
- Energy efficiency improvement projects are being developed
- Roof solar investment plan finalized
- Renewable energy investments feasibility studies are carried out

C11.2

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

No

C11.3

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

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

C12. Engagement

C12.1

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

No, we do not engage

C12.1e

(C12.1e) Why do you not engage with any elements of your value chain on climate-related issues, and what are your plans to do so in the future?

It is questioned whether emissions are calculated through supplier assessment form

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

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

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

Mechanisms for monitoring compliance with this climate-related requirement

Supplier scorecard or rating

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

Retain 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

Direct or indirect engagement that could 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 engagement activities are consistent with your overall climate change strategy

SASA has an internal Green Procurement Policy emphasising 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-Labeled/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?

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

Adaptation and/or resilience to climate change

Other, please specify

Prevention of pollution in the chemical industry

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

Policy, law, or regulation geographic coverage

National

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

Turkey

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

Support with no exceptions

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 is aligned with the goals of the Paris Agreement?

No, we have not evaluated

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

2021-Sustainability-Report.pdf

Page/Section reference

Pages: 40,59,60,61,121,146

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 2021)
-Carbon intensity reduction target: 0.333 t-CO2e/tons production in 2030, which means 50% 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 2021 (tCO2e)

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	Studies are carried out in the light of the SASA Sustainability Policy. 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: KPI:Biodiversity Incidents Target: Minimize and continued improvement in number of reported biodiversity related incidents. KPI:Habitat disturbance Target: Minimize direct and indirect impacts of site works KPI: Access road wildlife mortality Target: Minimize and continued improvement in number of incidents related to traffic 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. KPI: Community Complaints

		Target: Minimize and continued improvement in number of biodiversity related community complaints. KPI: Staff Training Target: 100% of employee trained according to their position including environmental management practice

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Initiatives endorsed
Row 1	Yes, we have endorsed initiatives only	SDG CITES Other, please specify IUCN (International Union for Conservation of Nature)

C15.3

(C15.3) Does your organization assess the impact of its value chain on biodiversity?

	Does your organization assess the impact of its value chain on biodiversity?
Row 1	No, but we plan to assess biodiversity-related impacts within the next two years

C15.4

(C15.4) 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?
Row 1	No, we are not taking any actions to progress our biodiversity-related commitments, but we plan to within the next two years

C15.5

(C15.5) 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

C15.6

(C15.6) 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 Governance Impacts on biodiversity Details on biodiversity indicators Biodiversity strategy	Sustainability Report page 57-58 [1]

[1] 2021-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.

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	Environment and Wastewater Treatment Plant Executive- Sustainability Coordinator	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