

Welcome to your CDP Water Security Questionnaire 2021

W0. Introduction

W0.1

(W0.1) Give a general description of and introduction to your organization.

Kazan Soda Elektrik Üretim A.Ş., part of Ciner Group, was established in Ankara in 2011 with the aim of contributing to the national economy and becoming a world leader in the production of Heavy Soda Ash and Sodium Bicarbonate via its sustainable, eco-friendly, innovative and growing value chain. 1.6 billion tons of trona ore, 2.5 million tons of Heavy Soda Ash, 200 000 tons of Sodium Bicarbonate are produced annually in our 20 km² facilities and we produce soda ash with a purity of 99.8%, the purest soda ash in the world. Heavy Soda Ash (Sodium Carbonate) and Sodium Bicarbonate are used in a wide variety of sectors from glass production to baking powder, and have a significant contribution to the country's economy through export income since they are exported all around the world, mainly to the European Union.

Kazan Soda Elektrik's logistics network delivers products to more than 40 countries and has an export target of 600 million dollars. Strategically, Kazan Soda Elektrik maintains its leadership in the global Soda Ash industry in terms of production volume, product quality and supply chain reliability, technology and process innovation, safety and environmental standards, all of which are supported via ISO 9001, ISO 14001 Environmental Management System Standard Certification, ISO 50001 Energy Management System, ISO 27001, ISO 22000, OHSAS 18001, ISO/IEC 17025, ISO 14046, ISO 14064, EcoVadis, LCA, Zero Waste Management, ISO 14044 management systems and certifications. To provide safety of the chemical products exported upon the human health and environment, Kazan Soda has completed the regulations determined in the REACH Legislation, which is effective in the European Union Countries. Moreover, KKDIK(Turkish Reach) studies are conducted.

The electricity and steam energy required for production is supplied by the natural gas cogeneration plant within the factory and the excess electricity meets 2.3 billion kW/hours' worth of Ankara's electricity needs.



We calculated our Scope 1, Scope 2 and Scope 3 emissions per ISO 14064-1 standard an look at our equivalent carbondioxide emission per ton of product, we can say 0.418 value for 2018 and 0.345 for 2019. According to these values we can say that an emission reduction of 18% has been achieved in 2019.

Carbon emissions of individual activities of Kazan Soda’s employees the offset in 2020 via carbon offset projects. Verra, in its capacity as administrator of the Verra Registry, does hereby certify that on 05 Feb 2021, 3,500 Verified Carbon Units (VCUs) were retired on behalf of 700 employees of Kazan Soda Elektrik.

Kazan Soda Elektrik also giving high priority to the biodiversity activities with beekeeping, wildlife conservation and monitoring and endemic plant area projects.

- Kazan Soda started a beekeeping initiative in its facilities in 2018 in order to improve the profession of beekeeping and to encourage local people to take part in beekeeping again. Beekeeping activities are carried out by local beekeeper and the honey distributed to the employees. Kazan Soda also supports beekeeping by planting lavender and acacia trees, two of the plants most preferred by bees.
- Within the scope of sustainability studies, natural life mammals and aquatic creatures, birds, ecosystem plants, endemic and indicator species were determined and recorded by field observations and camera traps by expert academicians.
- Kazan Soda Botanical Garden is the first botanical garden in Turkey, established in its natural habitat within the scope of biodiversity studies. It has been determined that 148 species belonging to 39 different families show natural distribution in the Botanical Garden area. 6 of these identified species are local or regional endemic; A total of 23 species are endemic to our country. Moreover,In 2019, approximately 30,040 trees were planted around the factory to reduce carbon emissions.

Kazan Soda disclosed its sustainability activities via publishing year ending sustainability report since 2018. With LCA Life Cycle Assessment, Kazan Soda defined the systematic analysis of the potential environmental impacts of products or services during its entire life cycle. In 2020, Kazan Soda has achieved Silver Status at EcoVadis platform via its environmental performance. By science based target commitment, Kazan Soda put a set of goals to provide a clear route to reduce greenhouse gas emissions. In addition to be a signatory to the UN Global Compact, Kazan Soda Elektrik endorsed CEO Water Mandate by implementing water stewardship it aimed to identify and reduce water risks, seize water-related opportunities, and contribute to water security and the sustainability development goals. Kazan Soda facility has achieved “zero waste” target at the end of 2020. For more information on Kazan Soda Elektrik is available at <https://www.kazansoda.com/en/home-page/>

W-MM0.1a

(W-MM0.1a) Which activities in the metals and mining sector does your organization engage in?

Activity	Details of activity
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Mining	Other mining, please specify Trona ore
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W0.2

(W0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date
Reporting year	January 1, 2019	December 31, 2019

W0.3

(W0.3) Select the countries/areas for which you will be supplying data.

Turkey

W0.4

(W0.4) Select the currency used for all financial information disclosed throughout your response.

TRY

W0.5

(W0.5) Select the option that best describes the reporting boundary for companies, entities, or groups for which water impacts on your business are being reported.

Companies, entities or groups over which operational control is exercised

W0.6

(W0.6) Within this boundary, are there any geographies, facilities, water aspects, or other exclusions from your disclosure?

No

W1. Current state

W1.1

(W1.1) Rate the importance (current and future) of water quality and water quantity to the success of your business.

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Vital	Important	Water is a precious resource which is gradually getting scarcer. More than half of the world population will be living with water shortage within 50 years because of a worldwide water crisis, according to a report issued by the United Nations Environment Program. We apply solution mining method; therefore, we need good quality water during the Trona mine extraction process. In addition to that, steam is used in sodium carbonate and sodium bicarbonate producing process. Therefore, water supply is a vital issue for our production. If sufficient amount of water is not supplied, the production activities will be directly affected negatively (Production capacity will decrease thus results in a financial impact). Kazan Soda uses Kirmir River and Çamlıdere Dam (the water sources are leased from the government by Kazan Soda) as water source. Kazan Soda does not withdraw water from Kirmir River during the agricultural irrigation period when an average of 2 months in summer. In the case of no water supply, the production will stop in a very short time. For this reason, a dam with a capacity of 1 million cubic meters was established by Kazan Soda inside the Kazan Soda field. Indirect use of freshwater is used in Kazan Soda's suppliers' production processes, but this is not under the financial/operational control of Kazan Soda.
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Not very important	Water is a precious resource which is gradually getting scarcer. More than half of the world population will be living with water shortage within 50 years because of a worldwide water crisis, according to a report issued by the United Nations Environment Program. We apply solution mining method; therefore, we need good quality water during the Trona mine extraction process. In addition to that, steam is used in sodium carbonate and sodium

			<p>bicarbonate producing process. Recycled water counts for 30% percent of our water demand. For this reason, recycled water is “important”. Indirect use of recycled water can be used in Kazan Soda’s suppliers’ production processes, but this is not under the financial and/or operational control of Kazan Soda. The amount of recycled water usage effects the usage of freshwater and therefore the operational costs of suppliers. For this reason, indirect use of freshwater “not very important” for Kazan Soda’s indirect use. At Kazan Soda, water recovery/recycling by all our operations and 100% of facilities on a monthly basis are being monitored and recorded by water meters and flowmeters. Water recycle enables to reduce our freshwater demand and reduce our dependence on water scar water sources. Recycling is an important issue in our factory. This is stated in our company policy. The future water recycling rates expected to be increased due to our recycling rate improvement targets.</p>
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W1.2

(W1.2) Across all your operations, what proportion of the following water aspects are regularly measured and monitored?

	% of sites/facilities/operations	Please explain
Water withdrawals – total volumes	100%	Water withdrawn by all our operations (100% facilities) on a monthly basis are being monitored and recorded by water meters and flowmeters.
Water withdrawals – volumes by source	100%	Kirmir River (DSİ) and Çamlıdere Dam (ASKİ) which are belonging to ASKİ (Ankara Water and Sewerage Administration General Directorate) and DSİ (General Directorate of State Hydraulic Works) are our water sources.
Entrained water associated with your metals & mining sector activities - total volumes [only metals and mining sector]	Not relevant	No entrained water associated with Trona Ore.
Water withdrawals quality	100%	At Kazan Soda, water withdrawals quality parameters (100% of facilities) on a daily basis are being tested and recorded.

Water discharges – total volumes	100%	Water discharges – total volumes at both industrial and domestic waste water treatment plants are being measured and recorded.
Water discharges – volumes by destination	100%	Water discharges – volumes by destination are monitored and measured by meters on Daily basis.
Water discharges – volumes by treatment method	100%	Waste water from different processes is treated in different production facilities. Depending on the pollution load, different degrees of treatment may be required. Kazan Soda continuously measures and records the amount of wastewater according to the discharge.
Water discharge quality – by standard effluent parameters	100%	Water discharged volumes and the pollutant load are monitored, measured by test methods in line with the Water Quality Parameters by Water Quality Control Regulation and recorded on monthly basis or more regularly as required.
Water discharge quality – temperature	100%	Water discharge temperature are monitored and measured (100% of facilities).
Water consumption – total volume	100%	Water consumption by all our operations and 100% of facilities on a monthly basis are being monitored and recorded by water meters and flowmeters.
Water recycled/reused	100%	Water recovery by all our operations and 100% of facilities on a monthly basis are being monitored and recorded by water meters and flowmeters. Recycling is an important issue in our factory. This is stated in our company policy. All water is recycled in our factory. Kazan Soda has permission of 0.020 mm ³ / day and it is not used .
The provision of fully-functioning, safely managed WASH services to all workers	100%	Access to clean water and a hygienic working environment are an integrated part of Health and Safety management approach. The primary concern is health of our workers and local people affected by our mining operation within the mining site. Kazan Soda uses solution mining method to extract the Trona ore from the underground that requires water. Water parameters are monitored and measured on monthly basis.

W1.2b

(W1.2b) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, and how do these volumes compare to the previous reporting year?

	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total withdrawals	5,856.32	Higher	In this reporting year water withdrawal from the Çamlıdere Dam and Kirmir Dam was measured by flow meters and the withdrawn amount has been monitored instant. Comparing to the previous reporting year consumption of water per ton product have been reduced .In 2018, total withdrawals are 5,254.42 megaliters/year.The increase in the amount of water withdrawal was occurred due to the effective water management planning and operational improvement workings even though the increase in the production amount comparing with the previous year.Production increase of Kazan Soda is %40 in 2019.So, while increase of production is %40 , incerase of water withdrawals is only %11.4. Natural Sodium Carbonate and Sodium Bicarbonate production highly depends on water. Water is an essential part of our processes. Therefore, for the future projection, water consumption decreases and increases in line with the production amount. However, water management is the integral part of our risk management and production management approaches. Water withdrawal volumes in the mining sector can be difficult to estimate. It is not possible to predict whether future consumption volumes will increase or not. Thresholds for comparison: +/-5% "about the same"; +/-15% "higher/lower" and +/-70% "much higher/much lower". No significant uncertainty has been detected with the water withdrawal amount since our flow meters have always been calibrated.
Total discharges	76.65	Lower	At Kazan Soda, Water discharges – total volumes at both industrial and domestic wastewater treatment plants are being measured and recorded. Comparing to the previous reporting year water withdrawal and the consumption of water per ton product have been reduced and the change can be described as 8.7%. The decrease in the amount of water withdrawal was occurred due to the effective water management planning and operational improvement workings even

			though the increase in the production amount comparing with the previous year. Natural Sodium Carbonate and Sodium Bicarbonate production highly depends on water. Water is an essential part of our processes. Therefore, for the future projection, water consumption decreases and increases in line with the production amount. However, water management is the integral part of our risk management and production management approaches. Water withdrawal volumes in the mining sector can be difficult to estimate. It is not possible to predict whether future consumption volumes will increase or not. Thresholds for comparison: +/-5% "about the same"; +/-15% "higher/lower" and +/-70% "much higher/much lower". No significant uncertainty has been detected with the water withdrawal amount since our flow meters have always been calibrated.
Total consumption	5,976.4	Higher	In 2018, total consumption is 5,254 megaliters/year

W1.2d

(W1.2d) Indicate whether water is withdrawn from areas with water stress and provide the proportion.

	Withdrawals are from areas with water stress	% withdrawn from areas with water stress	Comparison with previous reporting year	Identification tool	Please explain
Row 1	Yes	100%	About the same	WRI Aqueduct	In this reporting period, 2019, water footprint of our water consumption and contaminated water footprint have been conducted aligned with Global Water Footprint Standard and per ISO 14046. Water stress of all activities at Kazan Soda is analysed on an annual basis. The location of Kazan Soda's operations' water stress location has had from Çamlıdere Dam and Kirmir River. Baseline water stress indicator is used in the WRI Aqueduct Water Risk Atlas for the purpose of disclosure to CDP. According to the WRI Aqueduct Water Risk Atlas Ankara (Kazan Soda location) is defined Baseline Water Stress as "high (3-4)"

W1.2h

(W1.2h) Provide total water withdrawal data by source.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	5,856.32	Higher	In this reporting year water withdrawal from the Çamlıdere Dam and Kirmir River were measured by flow meters and the withdrawn amount has been monitored instant. Water withdrawal increased as production increased by 40% compared to the previous reporting year. However, water consumption per ton of product has decreased and the change is up to 20%. The decrease consumption of water per ton product was occurred due to the effective water management planning and operational improvement workings even though the increase in the production amount comparing with the previous year. Water is an essential part of our processes. Water management approaches is the integral part of our risk management and production management.
Brackish surface water/Seawater	Not relevant			Çamlıdere Dam and Kirmir River are the water source of Kazan Soda. Kazan Soda has only two water sources in the reporting period.
Groundwater – renewable	Not relevant			Çamlıdere Dam and Kirmir River are the water source of Kazan Soda. Kazan Soda has only two water sources in the reporting period.
Groundwater – non-renewable	Not relevant			Çamlıdere Dam and Kirmir River are the water source of Kazan Soda. Kazan Soda has only two water sources in the reporting period.
Produced/Entrained water	Not relevant			Çamlıdere Dam and Kirmir River are the water source of Kazan Soda. Kazan Soda has only two water sources in the reporting period.
Third party sources	Not relevant			Çamlıdere Dam and Kirmir River are the water source of Kazan Soda. Kazan Soda has only two water sources in the reporting period.

W1.2i

(W1.2i) Provide total water discharge data by destination.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water	Not relevant			Kazan Soda does not discharge to fresh surface water.
Brackish surface water/seawater	Relevant	76.65	Lower	At Kazan Soda, Water discharges – total volumes at both industrial and domestic wastewater treatment plants are being measured and recorded. Comparing to the previous reporting year water withdrawal and the consumption of water per ton product have been reduced and the change can be described as %8.7 lower. The decrease in the amount of water withdrawal was occurred due to the effective water management planning and operational improvement workings even though the increase %40 production amount comparing with the previous year. Natural Sodium Carbonate and Sodium Bicarbonate production highly depends on water. Water is an essential part of our processes. Therefore, for the future projection, water consumption decreases and increases in line with the production amount. However, water management is the integral part of our risk management and production management approaches. Water withdrawal volumes in the mining sector can be difficult to estimate.
Groundwater	Not relevant			Kazan Soda does not discharge to groundwater.
Third-party destinations	Not relevant			Kazan Soda does not discharge to third party destinations.

W1.2j

(W1.2j) Within your direct operations, indicate the highest level(s) to which you treat your discharge.

	Relevance of treatment level to discharge	Volume (megaliters/year)	Comparison of treated volume with previous reporting year	% of your sites/facilities/operations this volume applies to	Please explain
Tertiary treatment					
Secondary treatment					
Primary treatment only	Relevant	76.65	Lower	100%	76.65 megaliter/year water discharge is monitored and treatment
Discharge to the natural environment without treatment	Not relevant				
Discharge to a third party without treatment	Not relevant				
Other	Not relevant				

W-MM1.3

(W-MM1.3) Do you calculate water intensity information for your metals and mining activities?

Yes

W-MM1.3a

(W-MM1.3a) For your top 5 products by revenue, provide the following intensity information associated with your metals and mining activities.

Product	Numerator: Water aspect	Denominator	Comparison with previous reporting year	Please explain
Sodium Carbonate and Sodium Bicarbonate	Total water withdrawals	Ton of final product	Higher	Water intensity metric is used internally for tracking water performance. Water intensity for both product group is 2.93 m3 water / 1 ton of sodium carbonate/sodium bicarbonate in 2018 and 2.34 m3 water / 1 ton of sodium carbonate/sodium bicarbonate in 2019. Water intensity is decreased %20 while comparing previous year. Sodium carbonate and sodium bicarbonate production lines are integrated together. Both products are manufactured from the same Trona solution. Water is used to make the Trona solution. TRONA ore is extracted from the ground by the solution mining method

W1.4

(W1.4) Do you engage with your value chain on water-related issues?

Yes, our suppliers

W1.4a

(W1.4a) What proportion of suppliers do you request to report on their water use, risks and/or management information and what proportion of your procurement spend does this represent?

Row 1

% of suppliers by number

51-75

% of total procurement spend

76-100

Rationale for this coverage

In order for Kazan Soda's business and operations to be continued with no interruption, we have to manage supply chain processes efficiently. To manage an efficient procurement process, we make regular supplier assessments. In the scope of our approved supplier list, we monitor our main suppliers in environmental issues, including water-related issues. We engage our supplier through our Procurement policy, our Sustainability Reports, Contract negotiations, and Supplier Sustainability Assessment Questionnaire. According to our procurement policy, a supplier has to complete our Supplier Sustainability Assessment Questionnaire. Our supplier engagement method creates an opportunity to better understand our influence over our supply chain and gives us an understanding of what is needed by our suppliers in terms of sustainability.

Impact of the engagement and measures of success

As Kazan Soda request information from our suppliers about their company quality systems (ISO 9001, ISO 14001, ISO 22000, BRC, ISO27001 etc.) and their product certifications (TSE, CE, etc.) and water withdrawals by source by sending them questionnaires. Those questionnaire results are evaluated by Kazan Soda and site visits are arranged to control whether the information provided from our suppliers is correct and valid. According to our Procurement policy, we assess our suppliers per Supplier Sustainability Assessment Questionnaire results with 4 categories. We can find out Corrective and Preventive Actions (CAPA) for our suppliers and we give training at supplier engagement days. Our suppliers are given time to accommodate identified CAPAs in a good time. Also, we evaluate the information provided and determine/continue to work with our suppliers according to questionnaire results.

Comment

W1.4b

(W1.4b) Provide details of any other water-related supplier engagement activity.

Type of engagement

Innovation & collaboration

Details of engagement

Educate suppliers about water stewardship and collaboration

% of suppliers by number

1-25

% of total procurement spend

26-50

Rationale for the coverage of your engagement

In order for Kazan Soda's business and operations to be continued with no interruption, we have to manage supply chain processes efficiently. To manage an efficient procurement process, we make regular supplier assessments. In the scope of our approved supplier list, we monitor our main suppliers in environmental issues, including water-related issues. We engage our supplier through our Procurement policy, our Sustainability Reports, Contract negotiations, and Supplier Sustainability Assessment Questionnaire. According to our procurement policy, a supplier has to complete our Supplier Sustainability Assessment Questionnaire. Our supplier engagement method creates an opportunity to better understand our influence over our supply chain and gives as an understanding of what is needed by our suppliers in terms of sustainability

Impact of the engagement and measures of success

According to our Procurement policy, we assess our suppliers per Supplier Sustainability Assessment Questionnaire results with 4 categories. We can find out Corrective and Preventive Actions (CAPA) for our suppliers and we give training at supplier engagement days. Our suppliers are given time to accommodate identified CAPAs in a good time. Also, we evaluate the information provided and determine/continue to work with our suppliers according to questionnaire results. If the supplier cannot establish improvements regarding the identified CAPA, our Education&Training Departments arrange a meeting and training specific to that supplier to train their management in terms of water security, water consumption and importance of water and techniques how to reduce water withdrawal. The supplier engagement days are very significant opportunities for those initiatives.

Comment

W2. Business impacts

W2.1

(W2.1) Has your organization experienced any detrimental water-related impacts?

No

W2.2

(W2.2) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations?

No

W3. Procedures

W-MM3.2

(W-MM3.2) By river basin, what number of active and inactive tailings dams are within your control?

Country/Area & River basin

Turkey

Sakarya

Number of tailings dams in operation

0

Number of inactive tailings dams

0

Comment

Kazan Soda does not have any active or inactive tailing dams.

W3.3

(W3.3) Does your organization undertake a water-related risk assessment?

Yes, water-related risks are assessed

W3.3a

(W3.3a) Select the options that best describe your procedures for identifying and assessing water-related risks.

Direct operations

Coverage

Full

Risk assessment procedure

Water risks are assessed as part of an enterprise risk management framework

Frequency of assessment

Annually

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

Enterprise Risk Management
International methodologies

Databases

Other

Tools and methods used

ISO 31000 Risk Management Standard

Environmental Impact Assessment

Life Cycle Assessment

IPCC Climate Change Projections

Regional government databases

Internal company methods

External consultants

National-specific tools or standards

Other, please specify

WRI Aqueduct

Comment

Supply chain

Coverage

Partial

Risk assessment procedure

Water risks are assessed as part of an enterprise risk management framework

Frequency of assessment

Annually

How far into the future are risks considered?

More than 6 years



Type of tools and methods used

- Enterprise Risk Management
- International methodologies
- Databases
- Other

Tools and methods used

- ISO 31000 Risk Management Standard
- Environmental Impact Assessment
- Life Cycle Assessment
- IPCC Climate Change Projections
- Internal company methods
- External consultants
- National-specific tools or standards
- Other, please specify

Comment

Other stages of the value chain

Coverage

- None

Comment

W3.3b

(W3.3b) Which of the following contextual issues are considered in your organization's water-related risk assessments?

	Relevance & inclusion	Please explain
Water availability at a basin/catchment level	Relevant, always included	Water availability at a basin/catchment level is always significantly important for Kazan Soda and covered by risk assessment processes. Water security has a Substantive impact on company's production. In the case of no water supply, the production will stop after approximately 30 hours. Water scarcity and water stress level are being reassess within particular periods. Baseline water stress indicator is used in the WRI Aqueduct Water Risk Atlas as an accurate assessment method. According to the WRI Aqueduct Water Risk Atlas, Sincan, Ankara is in a location in which the Baseline Water Stress defined as "High (40-80%)" and the river basin is Sakarya. In the process risk and opportunity evaluation form prepared by the water sanitation and treatment unit, risks related to the basin water level are discussed. (decrease in water quantity, seasonal drought, etc.)
Water quality at a basin/catchment level	Relevant, always included	Likewise, water availability at a basin/catchment level, water quality has also a Substantive impact on company's production and we consider water quality in our water related risk assessment and considered in our WATER MANAGEMENT STRATEGY PLAN. Principles identified in this plan includes water quality parameters. Water quality is being testes hourly in our accredited laboratories. In our risk assessment, we consider risks from current and emerging water quality challenges.
Stakeholder conflicts concerning water resources at a basin/catchment level	Relevant, always included	
Implications of water on your key commodities/raw materials	Relevant, always included	In order to evaluate the water related impacts on our supply chain we have been conducting life cycle assessment study since 2018. Water scarcity has been calculated in SimaPro with SimaPro LCA software with Ecoinvent v3.5 database via -Berger et al 2014 (Water Scarcity) method which analyses the vulnerability of basins to freshwater depletion and via -Pfister et al 2009 (Water Scarcity) method. With a cradle to gate life cycle assessment we identified that our supply chain water scarcity indicator only accounts for less than 5% of entire life cycle impact. We still evaluate water related impact over our supply chain in our WATER MANAGEMENT STRATEGY PLAN. The water which is used for mine (raw material)

		extraction acts as a carrier and it only provides the underground dissolution of Trona ore. However, Trona is in our core operation and we have direct impacts on mining operation.
Water-related regulatory frameworks		The water-related regulatory framework is considered in our risk assessment in the water management strategy plan. This includes risks presented by existing and emerging regulations national and international. We have all protocols and permit to withdraw water from our water source Çamlıdere Dam and Kirmir River. Also, wastewater parameters are always being measured, tested and recorded in line with the water quality control directive by the Ministry. We are fulfilling our obligations under the related legislation for both fresh waters used in the operation and wastewater generated as a result of operations. To ensure both the raw water and wastewater met the regulation limit values, samples are taken, and analysis are carried out periodically.
Status of ecosystems and habitats		In the scope of the protocol signed with General Directorate of State Hydraulic Works, arrangements have been made for the amount of usage water that will not adversely affect the habitat and natural life. Environmental Impact Assessment Reports also cover this issue. In addition, necessary analyses for discharged water are conducted and analysis results are reported to Ministry of Environment and Urbanization in order to avoid any damage by both Kazan Soda Quality Control Laboratory and a third-party accredited laboratory.
Access to fully-functioning, safely managed WASH services for all employees	Relevant, always included	Risk assessment is carried out for the water provided within the scope of WASH services and the amount of water supplied is monitored by "Kazan Soda-Water Supply and Treatment Department" and analysed by both the Quality Control Laboratory and a third-party accredited laboratory. At Kazan Soda, access to clean water and a hygienic working environment are an integrated part of Health and Safety management approach. The primary concern is health of our workers and local people affected by our mining operation within the mining site. Kazan Soda uses solution mining method to extract the Trona ore from the underground that requires water. Water parameters are monitored and measured on monthly basis.
Other contextual issues, please specify	Not considered	

W3.3c

(W3.3c) Which of the following stakeholders are considered in your organization's water-related risk assessments?

	Relevance & inclusion	Please explain
Customers	Relevant, always included	Importance: Collaboration with our customers as part of our risk assessment process is part of our strategy planning to better understand and meet our customers' expectations. Relevance: Customers demanding eco friendly, low carbon, less water consumed products day by day and requesting water consumption date, water footprint data and there is an increasing demand for water related disclosures. Engagement method: Supply contracts, face-to-face meetings, Annual surveys and focus groups, Customer audits, our Environmental Product Declaration certificates, CDP
Employees	Relevant, always included	Importance: As an integral part of the production and value of Kazan Soda, employees have a big portion on achieving Kazan Soda targets. The amount and quality of the water supplied for personal usage are always controlled by Kazan Soda - Quality Control Laboratory. Relevance: Employees and workers have a significant impact on foreseeing the risks and opportunities in manufacturing. Engagement method: Written communication, newsletters and posters; surveys, forums on environmental issues, training, regular meetings. All new employees are educated on environmental issues and awareness is increased in order to minimize both the amount of water consumed and the consumption of natural sources.
Investors	Relevant, always included	Investors are included in our water risk assessment. We are reporting our water data and water saving projects to investors via Sustainability Reports.
Local communities	Relevant, always included	Importance: Local communities consist of one of the most important part of our stakeholder groups. Within our mining operation area there are several villages. Those people living in the are identified as our stakeholder group and directly affected by our operations. Relevance: Water withdrawal and wastewater discharged from our wastewater treatment plants can affect the local people's life standards. Engagement method: Meetings are organized with the local communities in the nearest settlements at least once a year. In these meetings, water-

		related risks and developments are discussed. Local communities' needs and expectations are taken into consideration.
NGOs	Relevant, always included	Importance: Interactive liaisons with NGOs are considered in our water-related risk assessment procedures and NGOs are considered in our risk assessment in the Water Management Strategy Plan. Relevance: Due to the reputational risk, water-related activities of our company are evaluated for any negative response that would occur from the NGOs side. Relative concerns from NGOs can be defined as, environmental disclosures, transparency, environmental impacts on water contamination Engagement method: Regular meetings, ongoing dialogues, social media, print media.
Other water users at a basin/catchment level	Relevant, always included	Importance: Other water users at a basin/catchment level are included in our stakeholder groups and considered in our risk assessment in the Water Management Strategy Plan. Relevance: We aware of we need to share the limited sources of the world and we located in a water scar river basin and the risk will increase after 2041 according to the IPCC A2 scenario analysis. Engagement method: CDP Water Security Disclosure, Participation in forums
Regulators	Relevant, always included	Importance: It is an obligation to renew the required water permits on time in order to maintain our mine operation activities. Relevance: Necessary applications are made to the Ministry of Environment, Ankara Water and Sewerage Administration General Directorate and Urbanization, General Directorate of State Hydraulic Works and all related corporations, therefore they are considered in our water related potential risk and stakeholder groups. Engagement method: Compliance reporting, signed agreements, Regular meetings, Site Audits.
River basin management authorities	Relevant, always included	As mentioned in the Regulators section, the river basin is under the control of government and activities are carried out under the protocol signed with the General Directorate of State Hydraulic Works and Ankara Water and Sewerage Administration General Directorate. Importance: It is an obligation to renew the required water permits on time in order to maintain our mine operation activities. Relevance: Necessary applications are made to the Ministry of Environment and Urbanization, Ankara Water and Sewerage Administration General Directorate, General Directorate of State Hydraulic Works and all related corporations, therefore they are considered in our water related potential risk and stakeholder groups. Engagement method: Compliance reporting, signed agreements, Regular meetings, Site Audits.

Statutory special interest groups at a local level	Relevant, always included	Importance: Statutory special interest groups that we share the water resource at a local level are included in our stakeholder groups and considered in our risk assessment in the Water Management Strategy Plan. Relevance: We aware of we need to share the limited sources of the world and we located in a water scar river basin and the risk will increase after 2041 according to the IPCC A2 scenario analysis. With these stakeholder group, the awareness of Environmental impacts specially on air quality and water contamination has been raising. Engagement method: Regular meetings, Written communication, Ongoing dialogue.
Suppliers	Relevant, always included	Importance: In order for Kazan Soda's business and operations to be continued with no interruption, we have to manage supply chain processes in an efficient way. Relevance: To manage an efficient procurement process, we make regular supplier assessments. This assessment included water related issues, our suppliers water risks and company sustainability. Engagement method: Procurement policy, Sustainability Reports, Contract negotiations, Supplier Sustainability Assessment Questionnaire.
Water utilities at a local level	Relevant, always included	As mentioned in Regulators section, our water supply Çamlıdere Dam and Kirmir River utility are under the control of government and activities are carried out under the protocol signed with the General Directorate of State Hydraulic Works and Ankara Water and Sewerage Administration General Directorate. Importance: It is an obligation to renew the required water permits on time in order to maintain our mine operation activities. Relevance: Necessary applications are made to the Ministry of Environment and Urbanization, Ankara Water and Sewerage Administration General Directorate, General Directorate of State Hydraulic Works and all related corporations, therefore they are considered in our water related potential risk and stakeholder groups. Engagement method: Compliance reporting, signed agreements, Regular meetings, Site Audits
Other stakeholder, please specify	Relevant, always included	Stakeholder Group: Local vulnerable people living in villages within Kazan Soda mining work site. Importance: The community living in the villages within the influence of mining site is likely to be affected by Kazan Soda's management decision or action, and we believe the community likely to influence the management of our mining site. Relevance: The water demand at the local level is not provided by Kazan Soda. However, the needs and expectations of the local people are met by making joint decisions as a result of the meetings. For example, agricultural production and farming have been supported by the construction for 1450 m pipe lines with flow 50 cubic meters per hour the agricultural fields of the villagers in Fethiye Village from Kazan Soda. Engagement method: Kazan Soda top management if available the General Manager if not the Assistant General Manager always welcomes Official/Elected Neighborhood Representative of each village 24/7 without any appointment.

	They are able to come through the administrative building of Kazan Soda directly or contact to the top management via direct telephone for any inquiry.
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W3.3d

(W3.3d) Describe your organization’s process for identifying, assessing, and responding to water-related risks within your direct operations and other stages of your value chain.

At Kazan Soda, water-related risks is carried out under Environmental Risk Assessment in the scope of ISO 31000. The risk assessment calculations are made with the formula below.

Risk = Probability x Impact (5x5 matrix)

Risk rating is classified as very high, high, medium, low, very low. For the risks determined as medium and/or higher level, work programs (activity / action / responsible person / term and realization) are applied.

In addition, in the scope of ISO 14001: 2015 revision, procedures for company and process-based environmental risks and opportunities have been established and relevant assessments have been made in accordance with these procedures.

Direct Operations:

We use WRI Aqueduct Water Risk Atlas to assess the baseline water stress on our direct operations. Our manufacturing plant and our only main water source Çamlidere Dam and Kirmir river within the same river basin, Sakarya River Basin. WRI Aqueduct Water Risk Atlas provides Overall Water Risk and baseline water stress in an explanatory way and helps to identify and respond to local water risks.

Turkey experienced the worst drought of the last 44 years in 2017 due to a substantial decrease in rain levels. In 2019 and 2018, we calculated our water footprint and get verified by a third-party in order to manage the water related risk emerging from stakeholders, current regulations and reputational risks. WRI Aqueduct Water Risk Atlas helps us to understand the significance of the impact.

Supply chain:

In order to understand and manage the water related risk, we started our LCA studies in 2019 because we are startup in 2018. We use Berger et al 2014 (Water Scarcity) methodology for our supply chain water stress analysis. This method analyses the vulnerability of basins to freshwater depletion over our supply chain. Also, we use Pfister et al 2009 (Water Scarcity) method - water scarcity indicator (WSI) - which is based on a withdrawal to availability (WTA) ratio and modelled using a logistic function (S-curve) in order to fit the resulting indicator to values between 0.01 and 1 m3 deprived/m3 consumed. The curve is tuned using OECD water stress thresholds, which define moderate and severe water stress as 20% and 40% of

withdrawals, respectively. Data for water withdrawals and availability were obtained from the Water Gap model. This water risk approach enables us to early detect the any potential improvement over our suppliers.

W4. Risks and opportunities

W4.1

(W4.1) Have you identified any inherent water-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes, only within our direct operations

W4.1a

(W4.1a) How does your organization define substantive financial or strategic impact on your business?

By the view of the Board of Management, substantive impact would be anything that can significantly affect our ability to meet business goals and material importance for our stakeholders. Water related risks are evaluated (in terms of violence / impact and probability) by analysing any expected and unexpected factors that may affect the company's achievement of its goals and objectives. Substantive financial or strategic impacts can be caused by Physical risk, Regulatory risk and Reputational risk.

Physical risk

Relates to water quantity (scarcity and flooding) and water quality that is unfit for use (pollution). Physical risk means that Kazan Soda might not have sufficient amounts of good quality water for their business operations and supply chains.

Regulatory risk

Relates to the imposition of restrictions on water use by government. This may include the pricing of water supply and waste discharge, licenses to operate, water rights, quality standards etc.

Reputational risk

Relates to the impact on Kazan Soda's brand & image and can influence customer purchasing decisions. Reputational risk manifests itself through tensions and conflict around access to water or the degradation of local water resources. In a highly globalised information economy, public perceptions can emerge rapidly around business decisions that are seen to impact on aquatic ecosystems or local communities' access to clean water.

At Kazan Soda probability and effects of risks are evaluated between 1-5. Number 1 represents the lowest risk realization rate for probability and 5 is the value for the highest probability. In terms of impact, the number 1 indicates that the outcome of the risk is of little importance; The number 5 means that this result is very important. It is determined by which value the risks take between 1 and 5 in terms of probability and effect.

Definition of substantive impact:

Risks to be evaluated according to severity impact definition;
Substantive impact on financial loss defined as ≥ 500000 TRY.

Substantive impact as strategic defined as discontinuation of national and / or international product sales and discontinuation of production. ($\geq 50\%$ of market share).

Risk realizations are evaluated by the Board at the Management Review meeting every year. If there is no change in risk inputs, it is reviewed and updated every 2 years.

Example:

We apply solution mining method; therefore, we need water during the Trona mine extraction process. In addition to that, water vapor is used in sodium carbonate and sodium bicarbonate producing process. Therefore, water supply is a vital issue for our production. If sufficient amount of water is not supplied, the production activities will be directly affected negatively (Production capacity will decrease thus results in a financial impact).

In the case of no water supply, the production will stop in a short time. For this reason, a dam with a capacity of 1 million cubic meters was established by Kazan Soda inside the Kazan Soda field.

The defined strategic impact of our factory applies both direct operations and supply chain. For example, in the case of the cancellation of the protocol signed with "General Directorate of State Hydraulic Works (permit for water supply from Kirmir River)" and "Ankara Water and Sewerage Administration General Directorate (permit for water supply from Çamlıdere Dam)", the water cannot be supplied and the production will be stop.

W4.1b

(W4.1b) What is the total number of facilities exposed to water risks with the potential to have a substantive financial or strategic impact on your business, and what proportion of your company-wide facilities does this represent?

	Total number of facilities exposed to water risk	% company-wide facilities this represents	Comment
Row 1	1		

W4.1c

(W4.1c) By river basin, what is the number and proportion of facilities exposed to water risks that could have a substantive financial or strategic impact on your business, and what is the potential business impact associated with those facilities?

Country/Area & River basin

Turkey
Sakarya

Number of facilities exposed to water risk

1

% company-wide facilities this represents

100%

Production value for the metals & mining activities associated with these facilities

2,500,000

% company's total global revenue that could be affected

100%

Comment

Because Kazan Soda process and mining sections has water depending production methods, water problems could have a substantive financial or strategic impact on our all business studies.

W4.2

(W4.2) Provide details of identified risks in your direct operations with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Country/Area & River basin

Turkey
Sakarya

Type of risk & Primary risk driver

Physical
Increased water scarcity

Primary potential impact

Upfront costs to adopt/deploy new practices and processes

Company-specific description

A possible drought situation is considered a risk for production activities. In case of drought, the production capacity can be reduced. According to WRI Aqueduct Water Risk Atlas, Kazan Soda, Ankara is in location in which the Baseline Water Stress defined as "4. High (40-80%)" This may force us to take new measures for water efficiency. It will cause the cost of new technologies that provide more efficient water usage to ensure to continuity of production.

Timeframe

More than 6 years

Magnitude of potential impact

Medium-low

Likelihood

About as likely as not

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)

500,000

Potential financial impact figure - maximum (currency)

1,650,000

Explanation of financial impact

- In case of capacity reduction, financing may be adversely affected as the amount of products produced will decrease. - Finance can be affected negatively in case of considering an alternative water resource which costs higher.

Primary response to risk

Increase investment in new technology

Description of response

In case of an increase in the water scarcity, Kazan Soda will face to new technology to improve water efficiency within the production plant. Best available technology measure will have to be taken in order to increase water recycling/reuse that results in a reduction of the water supply from Çamlidere Dam

Some projects with new technology and investments are done and some of them are planned for this aim.

-Water cooling towers are one of the main sources of evaporation in the field. Therefore, our cooling tower will be replaced with an adiabatic water cooling tower in order to reduce the amount of evaporation and not lose water from it. After this change, evaporation will decrease by 30%.

-The filters used in the reverse osmosis system were replaced with cartridge filters and the efficiency of the system increased . After this changes,backwashing of filters are decreased. The amount of water used decreased.

-There is dam in Kazan Soda site with 1000000 m3 capacity for water scarcity and for decreasing water stress in area.Water savings will be achieved by closing the top of the dam and preventing the evaporation of 50000000 m3 of water annually.

Cost of response

150,000,000

Explanation of cost of response

Infrastructure for water cooling and water recycle system to/from the Trona wells will have to be changed.

Country/Area & River basin

Turkey
Sakarya

Type of risk & Primary risk driver

Physical
Increased water scarcity

Primary potential impact

Reduced revenues from lower sales/output

Company-specific description

A possible drought situation is considered a risk for production activities.In case of drought, the production capacity can be reduced.According to WRI Aqueduct Water Risk Atlas, Kazan Soda, Ankara is in location in which the Baseline Water Stress defined as "4. High (40-80%)" This may force us to take new measures for water efficiency. It will cause the cost of new technologies that provide more efficient water usage to ensure to continuity of production.

Timeframe

1-3 years

Magnitude of potential impact

High

Likelihood

About as likely as not

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)

500,000

Potential financial impact figure - maximum (currency)

1,750,000

Explanation of financial impact

In case of capacity reduction, financing may be adversely affected as the amount of products produced will decrease. As a result of this, product price will be increase and demand of product will be decrease because of high costs.

Primary response to risk

Secure alternative water supply

Description of response

In case of an increase in the water scarcity, Kazan Soda should have secure alternative water supply to continue its production. With this aim, an alternative water source is found, Kirmir River. If there is any problem about Çamlıdere Dam, Kazan Soda will take water from Kirmir River and can continue to production. For this project 36 km pipeline is constructed and cost of project is 6100000 TL. Another secure alternative water supply is Dam of Kazan Soda which is constructed in Kazan Soda site and has 1000000 m3 capacity. With this capacity, Kazan Soda can continue production for 2 months. Budget of this project 12500000 TL.

In a possible water scarcity, Kazan Soda has produced alternative solutions in order to guarantee the water supply. Thanks to these solutions, Kazan Soda will be able to continue its production.

Cost of response

18,600,000

Explanation of cost of response

Country/Area & River basin

Turkey
Sakarya

Type of risk & Primary risk driver

Regulatory
Statutory water withdrawal limits/changes to water allocation

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

A possible drought situation is considered a risk for production activities. In case of drought, the production capacity can be reduced or an alternative water source can be evaluated for water withdrawals. With this aim, Kazan Soda has alternative water sources.; Kirmir River and Dam at site. Exceeding the

maximum consumption amount in the protocol is defined as the other risk effect. Current Measures Taken: Hourly flowmeter is monitored. Annual Flowmeter calibration/verification is performed by the accredited company. Operational water consumption requirement is monitored.

Timeframe

More than 6 years

Magnitude of potential impact

Low

Likelihood

Very unlikely

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)

10,000

Potential financial impact figure - maximum (currency)

150,000

Explanation of financial impact

- In case of capacity reduction, financing may be adversely affected as the amount of products produced will decrease. - Finance can be affected negatively in case of considering an alternative water resource which costs higher. - Financial impacts are expected due to the inability to produce due to the cancellation of the protocol



Primary response to risk

Secure alternative water supply

Description of response

The raw water, which we currently use, is withdrawn from Çamlıdere Dam in the scope of the protocol signed with ASKİ. In case of a water shortage due to seasonal drought, another river in Ankara basin will be considered as an alternative. The protocol is revised according to the operational water consumption requirement. Third alternative is 1000000 m3 water dam at the site.

Cost of response

50,000,000

Explanation of cost of response

Financial impacts were calculated as the infrastructure costs of the new transmission line for the transportation of water from the new water source. Also, the water charge tariff provided is specific for each municipality and vary from year to year. Therefore, the cost calculations will be updated when needed.

W4.2c

(W4.2c) Why does your organization not consider itself exposed to water risks in its value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact?

	Primary reason	Please explain
Row 1	Risks exist, but no substantive impact anticipated	Overall water-related risks are evaluated for Kazan Soda's value chain during the risk assessment procedure. Since the risk level was determined as low risk for other than direct operations, no operations are planned. Kazan Soda has been conducting a life cycle assessment study with a cradle to grave approach including its raw material and water supply, transportation of materials, core processes and downstream distribution, use and end of life phases of its value chain. Even though Kazan Soda is assessed under the Metals Mining sector in CDP, Kazan Soda's 2 end products sodium carbonate and sodium bicarbonate are inorganic chemicals and defined as sodium salts. Kazan Soda has had environmental and water impact assessment via life cycle assessment study. Delay of raw materials purchased from abroad can be evaluated as a risk however, with the current precautions this risk defined as very low. Current precautions include; • Material / raw material stock quantity control and follow-up are performed. • The purchasing process is monitored. • Demand type is determined

		<p>according to deadline status. • Material stock is made for critical equipment. Likewise, downstream processes that defined as the processes after the product leaves our factory gate, have no substantive financial or strategic impact. Our products are used in several different sectors and our products are input materials for our customers. As inorganic chemicals, our products are being converted into other materials in customer's manufacturing line for example glass.</p>
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W4.3

(W4.3) Have you identified any water-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes, we have identified opportunities, and some/all are being realized

W4.3a

(W4.3a) Provide details of opportunities currently being realized that could have a substantive financial or strategic impact on your business.

Type of opportunity

Efficiency

Primary water-related opportunity

Cost savings

Company-specific description & strategy to realize opportunity

Kazan Soda applies the solution mining method; therefore, our process needs water during the Trona mine extraction process. In addition to that, water vapour is used in sodium carbonate and sodium bicarbonate producing process. Explanation of the action to realize the opportunity: As the water used is circulated in the closed-circuit in the factory, the water loss is reduced to the minimum and the water-related expenses are minimized. Example of the strategy: In 2019, via the water recovery/recycle within the processes we have saved over 1763191 m3 freshwater withdrawal from Çamlıdere Dam. Moreover, when we compare 2019 and 2020, our water recovery/recycle rate was increased as 9.7 % in one year.

Estimated timeframe for realization

1 to 3 years

Magnitude of potential financial impact

Medium-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)

500,000

Potential financial impact figure – maximum (currency)

1,000,000

Explanation of financial impact

As the water used is circulated in the closed-circuit in the factory, the water loss is reduced to the minimum and the water-related expenses are minimized. Less water consumption will result in less water withdrawal from the Çamlıdere Dam. Water withdrawal is monitored instantly the cost of the consumption are calculated based on the volume. In 2019, via the water recovery/recycle within the processes we have saved over 1763191 m3 freshwater withdrawal from Çamlıdere Dam. Moreover, when we compare 2019 and 2020, our water recovery/recycle rate was increased as 9.7 % in one year. Due to the confident issues, we are not able to provide and exact financial impact.

Type of opportunity

Markets

Primary water-related opportunity

Increased brand value

Company-specific description & strategy to realize opportunity

Kazan Soda's business strategy is to increase climate change-friendly and environmentally friendly products, solutions and technologies for product lifecycle. Environmentally friendly production and products in line with this strategy. They are the main elements of Kazan Soda's sustainability management. In line with our goal of sustainable and responsible use of resources, we use the solution mining technique to minimise environmental impact and maximise mine efficiency. At Kazan Soda Elektrik, sustainability is defined as providing long-term financial, environmental, social and ethical value for the benefit of our customers, suppliers employees and society . Our approach to sustainability is based on three building blocks: Sustainable procurement, sustainable operation and corporate social responsibility. As a manufacturer that supplies its raw materials from nature, environmental impacts play a key role in the continuity of our sustainability activities. Climate change and diminishing resources have a significant impact on our water supply. So, by increased sustainability work for water supply and need, our brand value are increasing.

Estimated timeframe for realization

4 to 6 years

Magnitude of potential financial impact

Unknown

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)

5,000,000

Potential financial impact figure – maximum (currency)

15,000,000

Explanation of financial impact

Environmental-friendly products&production activities are also opportunities to increase our brand value and provides competitive advantage

W5. Facility-level water accounting

W5.1

(W5.1) For each facility referenced in W4.1c, provide coordinates, water accounting data, and a comparison with the previous reporting year.

Facility reference number

Facility 1

Facility name (optional)

Kazan Soda

Country/Area & River basin

Turkey

Sakarya

Latitude

40.10741

Longitude

32.5023

Located in area with water stress

Yes

Total water withdrawals at this facility (megaliters/year)

5,856.32

Comparison of total withdrawals with previous reporting year

Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

Withdrawals from brackish surface water/seawater

Withdrawals from groundwater - renewable

Withdrawals from groundwater - non-renewable

Withdrawals from produced/entrained water

Withdrawals from third party sources

Total water discharges at this facility (megaliters/year)

76.65

Comparison of total discharges with previous reporting year

Lower

Discharges to fresh surface water

Discharges to brackish surface water/seawater

Discharges to groundwater

Discharges to third party destinations

Total water consumption at this facility (megaliters/year)

5,976.39

Comparison of total consumption with previous reporting year

Higher

Please explain

Comparing to the previous reporting year consumption of water per ton product have been reduced .In 2018, total withdrawals are 5,254.42 megaliters/year.The increase in the amount of water withdrawal was occurred due to the effective water management planning and operational improvement workings even though the increase in the production amount comparing with the previous year.Production increase of Kazan Soda is %40 in 2019.So, while increase of production is %40 , incerase of water withdrawals is only %11.4

W5.1a

(W5.1a) For the facilities referenced in W5.1, what proportion of water accounting data has been externally verified?

Water withdrawals – total volumes

% verified

76-100

What standard and methodology was used?

Water Footprint Network: Water Footprint Assessment Manual

Water withdrawals – volume by source

% verified

76-100

What standard and methodology was used?

Water Footprint Network: Water Footprint Assessment Manual

Water withdrawals – quality

% verified

76-100

What standard and methodology was used?

Water Footprint Network: Water Footprint Assessment Manual

Water discharges – total volumes

% verified

76-100

What standard and methodology was used?

Water Footprint Network: Water Footprint Assessment Manual

Water discharges – volume by destination

% verified

76-100

What standard and methodology was used?

Water Footprint Network: Water Footprint Assessment Manual

Water discharges – volume by treatment method

% verified

76-100

What standard and methodology was used?

Water Footprint Network: Water Footprint Assessment Manual

Water discharge quality – quality by standard effluent parameters

% verified

76-100

What standard and methodology was used?

Water Footprint Network: Water Footprint Assessment Manual

Water discharge quality – temperature

% verified

76-100

What standard and methodology was used?

Water Footprint Network: Water Footprint Assessment Manual

Water consumption – total volume

% verified

76-100

What standard and methodology was used?

Water Footprint Network: Water Footprint Assessment Manual

Water recycled/reused

% verified

76-100

What standard and methodology was used?

Water Footprint Network: Water Footprint Assessment Manual

W6. Governance

W6.1

(W6.1) Does your organization have a water policy?

Yes, we have a documented water policy that is publicly available

W6.1a

(W6.1a) Select the options that best describe the scope and content of your water policy.

	Scope	Content	Please explain
Row 1	Company-wide	Description of business dependency on water Description of business impact on water	New policies and institutional reforms, adaptation strategies, effective financial and technological innovations are needed to adapt water management strategies to global changes and to address water problems from a broad perspective for sustainable and efficient production. At Kazan Soda, Water Management Strategy Plan articulates our water commitments and challenges, and the ways that action to meet those commitments will be driven. The scope of Water Management Strategy Plan

	<p>Description of water-related performance standards for direct operations</p> <p>Description of water-related standards for procurement</p> <p>Reference to international standards and widely-recognized water initiatives</p> <p>Company water targets and goals</p> <p>Commitment to align with public policy initiatives, such as the SDGs</p> <p>Commitments beyond regulatory compliance</p> <p>Commitment to water-related innovation</p> <p>Commitment to stakeholder awareness and education</p> <p>Commitment to water stewardship and/or collective action</p> <p>Acknowledgement of the human right to water and sanitation</p> <p>Recognition of environmental linkages, for example, due to climate change</p>	<p>constitutes the scope of this strategic plan to carry out the studies to be conducted in accordance with the strategic plan, methods to be followed, to carry out coordinated works in cooperation with all units, to present the current situations and the setting of targets by developing a strategy for the next years and acting in line with this strategic plan constitute the scope of this strategic plan. At Kazan Soda, Water Management Strategy Plan has been developed as company-wide and consists of a swot analysis (strengths weaknesses-opportunities-threats), targets and strategies. The Water Management Strategy Plan covers companywide water related risks understanding, education regarding to water risks. Also, Kazan Soda has a water policy and it is integrated with Sustainability approach. Kazan Soda participates water management strategy, targets,performance via Sustainability Reports. The aim of the policy is to minimise the impact of our activities on water through product lifecycle. In addition, the plan complying with the Sustainability Committee’s risk opportunities in line with climate change affect and UN SDGs in corporate sustainability expectation. In this plan principles have been identified including OHS and environmental requirements, personnel awareness training and changes of the system according to the variability of raw water parameters.</p> <p>PR.32 Strategic Planning Procedure.pdf</p> <p>PR.32.F.04 Risk and Opportunity Determination Form - Water Supply and Treatment Department.pdf</p>
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W6.2

(W6.2) Is there board level oversight of water-related issues within your organization?

Yes

W6.2a

(W6.2a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for water-related issues.

Position of individual	Please explain
Director on board	Water-related issues are integrated aspects of Kazan Soda management approach and a very significant strategic issue due to the company's responsible management code. The Board is the highest level of authority and decision-maker at Kazan Soda and responsible for reviewing water related policies, strategies and targets. Through the Sustainability Committee, the Board manages all the water risk topic at regular meetings. Sustainability Committee Director reports directly to the (CEO) Chairman of the Board. The Boards tasks include considering the social, environmental and economic interests of the company as well as the water related risks and opportunities that the company will face. Water is a vital component of the company strategy and managed at the highest level at Kazan Soda.

W6.2b

(W6.2b) Provide further details on the board's oversight of water-related issues.

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Row 1	Scheduled - all meetings	Monitoring implementation and performance	Likewise climate change risks, The Board – the highest level of the company are responsible to manage, monitor and take action for the water-related issues and its impacts over the

		<p>Overseeing acquisitions and divestiture</p> <p>Overseeing major capital expenditures</p> <p>Providing employee incentives</p> <p>Reviewing and guiding annual budgets</p> <p>Reviewing and guiding business plans</p> <p>Reviewing and guiding major plans of action</p> <p>Reviewing and guiding risk management policies</p> <p>Reviewing and guiding strategy</p> <p>Reviewing and guiding corporate responsibility strategy</p> <p>Reviewing innovation/R&D priorities</p> <p>Setting performance objectives</p>	<p>Board strategy discussions, portfolio review and investment decisions. With the assist of the Sustainability Committee, the Board is the decision maker on water-related issues, risks and opportunities. The Sustainability Committee works to identify potential risk before the company face. In order to enhance this work, the Board has decided to receive support from experts and academicians. The Sustainability Committee schedule its regular meetings with those climate change, GHG emission, socio-economic, biodiversity experts. One of the most significant risks the company is facing is the water scarcity and the water stress. The Sustainability Committee works towards reducing all those risks regarding to the water with sector experts. The committee review current situation regarding to water risks, land management and rehabilitation of the used areas and makes GAP analysis to take actions and informs the Board and The Board monitors water related issues through the committee. During the reporting year, the followings are the examples of water-related issues the Board discussed: • Activities to protect water source and prevent water source pollution. • Decisions to ensure the elimination of washing wastewater without disturbing the ecological balance. • For the water withdraw to be used at Soda Ash, Sodium Bicarbonate Production Plant and Auxiliary Unit protocols to be taken from Sarıyar Dam Lake with the additional line and the recovery of the flow rate. • CDP scores were the other main issue for the Board. The Board has decided to get verified the company's water consumption, water withdrawal and water discharges for the reporting period. With the support of the Sustainability Committee, The Board considers all topics during its meetings with water-related issues. This includes, new investments, suppliers, customers, portfolio and financial risks.</p>
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W6.3

(W6.3) Provide the highest management-level position(s) or committee(s) with responsibility for water-related issues (do not include the names of individuals).

Name of the position(s) and/or committee(s)

Chief Executive Officer (CEO)

Responsibility

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

At Kazan Soda The Board is the highest level of authority. Through the Sustainability mmittee, the Board manages all the water-related issues at regular meetings.Sustainability Committee Director reports directly to the Chairman of the Board who has also been assigned as CEO. Sustainability Committee consist of one Board member, a Deputy General Manager, QA/QC HSE Department Manager and Management System Supervisor. CEO, who is also the Chairman of the Board, is the top management and responsible level over water-related issues. The Board is responsible for setting quality policy and objectives, assessing the performance of management systems, providing resources for improvements, and approving this procedure.

W6.4

(W6.4) Do you provide incentives to C-suite employees or board members for the management of water-related issues?

	Provide incentives for management of water-related issues	Comment
Row 1	Yes	

W6.4a

(W6.4a) What incentives are provided to C-suite employees or board members for the management of water-related issues (do not include the names of individuals)?

	Role(s) entitled to incentive	Performance indicator	Please explain
Monetary reward	Director on board Corporate executive team Chief Executive Officer (CEO)	Reduction of water withdrawals	As a result of purposeful and planned activities, award rules ensure that people who contribute to water objectives are brought to the forefront in order to carry out the operations on a regular basis within the framework of water safety, to raise awareness and achieve the desired results. These objectives are focused on ensuring water safety for our operations and moving towards our goals of attracting and consuming less water, resulting in more water recycling. KazanSoda employees are obliged to obey targets have been identified and achievement of those criteria and target are recorded in the score cards. Individuals are evaluated in teams with monthly periods. A scaled weighting is applied to the achievement of these indicators.
Non-monetary reward			

W6.5

(W6.5) Do you engage in activities that could either directly or indirectly influence public policy on water through any of the following?

Yes, direct engagement with policy makers

W6.5a

(W6.5a) What processes do you have in place to ensure that all of your direct and indirect activities seeking to influence policy are consistent with your water policy/water commitments?

A protocol has signed between Kazan Soda and Ankara Water and Sewerage Administration on 3rd June 2016 and signed between General Directorate of State Hydraulic Works on 20th March 2020. Moreover, the amount and the quality of discharged water is reported to the Ministry of Environment and Urbanization once a month.

W6.6

(W6.6) Did your organization include information about its response to water-related risks in its most recent mainstream financial report?

No, but we plan to do so in the next two years

W7. Business strategy

W7.1

(W7.1) Are water-related issues integrated into any aspects of your long-term strategic business plan, and if so how?

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	> 30	Since the quantity and quality of production are both directly and indirectly related to water, the water-related issues have been evaluated for 30 years of operation in the long-term strategic business plan. At Kazan Soda, Water Management Strategy Plan articulates our water commitments and challenges. Water Management Strategy Plan constitutes the scope of this strategic plan to carry out the studies to be conducted in accordance with the strategic plan, methods to be followed, to carry out coordinated works in cooperation with all units, to develop a strategy for the next 30 years and to determine goals and act in line with this strategic plan. At Kazan Soda, Water Management Strategy Plan has been developed as company-wide and consists of a swot analysis (strengths weaknesses-opportunities-threats), targets and strategies. Also, the plan complying with the Sustainability Committee's risk opportunities in line with climate change affect and UN SDGs in

			<p>corporate sustainability expectation. In this plan principles have been identified, • OHS and environmental requirements, • personnel awareness training, • changes of the system according to the variability of raw water parameters, • to protect water source and prevent pollution, • to ensure the elimination of washing wastewater without disturbing the ecological balance, • providing uninterrupted water supply.</p>
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	> 30	<p>Since the quantity and quality of production are both directly and indirectly related to water, the water-related issues have been evaluated for 40 years of operation in the long-term strategic business plan. At Kazan Soda, Water Management Strategy Plan articulates our water commitments and challenges. Water Management Strategy Plan constitutes the scope of this strategic plan to carry out the studies to be conducted in accordance with the strategic plan, methods to be followed, to carry out coordinated works in cooperation with all units, to develop a strategy for the next 40 years and to determine goals and act in line with this strategic plan. At Kazan Soda, Water Management Strategy Plan has been developed as company-wide and consists of a swot analysis (strengths weaknesses-opportunities-threats), targets and strategies. Also, the plan complying with the Sustainability Committee’s risk opportunities in line with climate change affect and UN SDGs in corporate sustainability expectation. In this plan principles have been identified, • OHS and environmental requirements, • personnel awareness training, • changes of the system according to the variability of raw water parameters, • to protect water source and prevent pollution, • to ensure the elimination of washing wastewater without disturbing the ecological balance, • providing uninterrupted water supply.</p>
Financial planning	Yes, water-related issues are integrated	> 30	<p>Since the quantity and quality of production are both directly and indirectly related to water, the water-related issues have been evaluated for 40 years of operation in the long-term strategic business plan. At Kazan Soda, Water Management Strategy Plan articulates our water commitments and challenges. Water Management Strategy Plan constitutes the scope of this strategic plan to carry out the studies to be conducted in accordance with the strategic plan, methods to be followed, to carry out coordinated works in cooperation with all units, to develop a strategy for the next 40 years and to determine goals and act in line with this strategic plan. At Kazan Soda, Water Management Strategy Plan has been developed as company-wide and consists of a swot analysis (strengths-weaknesses-opportunities-threats), targets and strategies. Also, the plan complying with</p>

			the Sustainability Committee's risk opportunities in line with climate change affect and UN SDGs in corporate sustainability expectation. In this plan principles have been identified, • OHS and environmental requirements, • personnel awareness training, • changes of the system according to the variability of raw water parameters, • to protect water source and prevent pollution, • to ensure the elimination of washing wastewater without disturbing the ecological balance, • providing uninterrupted water supply.
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W7.2

(W7.2) What is the trend in your organization's water-related capital expenditure (CAPEX) and operating expenditure (OPEX) for the reporting year, and the anticipated trend for the next reporting year?

Row 1

Water-related CAPEX (+/- % change)

10

Anticipated forward trend for CAPEX (+/- % change)

10

Water-related OPEX (+/- % change)

10

Anticipated forward trend for OPEX (+/- % change)

500

Please explain

Since water relates awareness is raising, being a sector leader and reputational company, water-related risks are significantly important due to emerging regulation, financial impacts, climate change, stakeholder expectation and opportunities such as financial saving with water recycling. We can make assumptions for water OPEX and we estimate the future trend for water-related risks, operational expenditure is estimated to

increase year by year up to 500%. Likewise, water-related CAPEX is also estimated since there is no clear definition for water CAPEX. CAPEX is also expected to increase.

W7.3

(W7.3) Does your organization use climate-related scenario analysis to inform its business strategy?

	Use of climate-related scenario analysis	Comment
Row 1	Yes	

W7.3a

(W7.3a) Has your organization identified any water-related outcomes from your climate-related scenario analysis?

Yes

W7.3b

(W7.3b) What water-related outcomes were identified from the use of climate-related scenario analysis, and what was your organization's response?

	Climate-related scenarios and models applied	Description of possible water-related outcomes	Company response to possible water-related outcomes
Row 1	Other, please specify IPCC-A2 Scenario	Based on the IPCC A2 scenario It is anticipated that 50% of the surface waters in Basins in the middle Anatolia and in western side will be lost by the end of the century and that water scarcity will be faced in industrial water usages. According to the IPCC A2 scenario the magnitude of precipitation decreases (5%-25%) in Turkey during the first half of 21st century. ECHAM5 model's A2 scenario simulation shows that by the end of the twenty first century, surface temperature increases are projected to reach to around 3.5 °C in winter and 6 °C in summer. Likewise, ECHAM5 model's A2 scenario simulation shows that precipitation is projected to decrease in the southern and western parts of Turkey by up to 20% in the second	Climate-related scenario analysis are alternative images of how the future might unfold and are an appropriate tool with which to analyse how driving forces may influence future water issues outcome and to assess the associated uncertainties.



		<p>half of 21th century. According to the A2 scenario, the middle Anatolia where Kazan Soda is located and our river basin Sakarya, the basin’s water potential may decrease around 10% by 2070 and 30% by 2100. There is currently around 112 billion m3 of available water, around 1,387 m3/capita-yr, which means Turkey is a water-stressed country. It is expected that available water will be around 1,267 m3/capita-yr by 2030. According to the A2 scenario the amount of water per capita, which is estimated to be less than 1,000 m3/yr by 2070. We use A2 climate scenario of IPCC because some climate studies focused on Turkey and regional climate change simulation based on the IPCC A2 scenario over Eastern Mediterranean has been investigated for Turkey.</p>	<p>They assist in climate change analysis and in water security, including climate modelling and the assessment of impacts, adaptation, and mitigation. At Kazan Soda, scenarios enable us to establish a program for ongoing evaluations and comparisons of long-term emission and water relates issues under the climate change approach. Outcome of the A2 scenario analysis for Kazan Soda shows that Sakarya river basin in the location of high-water risk areas in Turkey. 50% loss in the surface water will result in significant financial and operational loss for the company. Between 2041 and 2070, 10% decrease is expected in the water potentials under the our A2 scenario analysis. The anticipated lifetime of the Trona Ore within Kazan Soda’s operation is nearly 30 years. Trona wells will be closed</p>
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			<p>and ant the entire ore will be processes into natural soda ash by 2050. This show, Kazan Soda will face the water scarcity from 2041, which would result in reduction in annual water withdrawals. In order to cope with this very likely risk in the long term Kazan Soda will increase close loop water recycle percentage and will invest in new technology.</p>
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W7.4

(W7.4) Does your company use an internal price on water?

Row 1

Does your company use an internal price on water?

No, but we are currently exploring water valuation practices

Please explain

Water can be sufficient for the entire sector and cost is low for today. According to the approach of the basic economy, the price will always increase in direct proportion with the increasing demand to a scarce resource. That means water will be precious according to our climate-related scenario analyses by 2041 for Turkey. At present, at Kazan Soda there is not an internal price process on water. However, the Sustainability Committee and the Board are evaluating the internal price on water and its implementation within the company. A new mythology

is to be developed for Kazan Soda to bring an internal price on water. Internal price on water will ensure Kazan Soda to over come the increasing water prices when the scenario analysis' result will occur.

W8. Targets

W8.1

(W8.1) Describe your approach to setting and monitoring water-related targets and/or goals.

	Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
Row 1	Company-wide targets and goals Business level specific targets and/or goals Site/facility specific targets and/or goals	Targets are monitored at the corporate level Goals are monitored at the corporate level	Water-related issues are integrated aspects of Kazan Soda management approach and a very significant strategic issue due to the company's responsible management code. The Sustainability Committee and Sustainability Team are responsible for reviewing water related policies, strategies and targets. Through the Sustainability Committee, the Board manages all the water risk topic at regular meetings. Sustainability Committee Director reports directly to the (CEO) Chairman of the Board. The Boards tasks include considering the social, environmental and economic interests of the company as well as the water related risks and opportunities that the company will face. Water is a vital component of the company strategy and managed at the highest level at Kazan Soda. Therefore, company-wide targets&goals are assessed by the SC and evaluated by the Board in the regular meetings. Likewise, monitoring of water-related goals and targets is carried out via the "Strategic Target Tracking Form" within our "Water Management Strategy Plan". The progress for all company-wide targets and goals and monitoring results are reported in the internal "Management Review Performance Report". Water related goals and targets of company-wide, business level and facility/site level are set through the following policy as stated in the "Water Management Strategy Plan". > Establishing a system for the determination of methods and controls for the supply of water to be supplied to the factory and production processes (Mining, Process, Energy) in the specified conditions and amounts, > To ensure production by following technological developments and conducting research and development activities, > Ensuring the detection and control of risky situations in our activities and preventing the occurrence of occupational accidents, ensuring that the personnel of the unit are trained

			to raise OHS awareness, > To fulfil the responsibilities regarding the environment and to carry out the necessary works to prevent environmental pollution, > To protect water resources and to minimise water withdrawal, > To ensure the disposal of washing wastewater without disturbing the ecological balance, > To ensure the goals and targets cover the climate related scenario analysis water related results and potential water risks.
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W8.1a

(W8.1a) Provide details of your water targets that are monitored at the corporate level, and the progress made.

Target reference number

Target 1

Category of target

Water discharge

Level

Company-wide

Primary motivation

Reduced environmental impact

Description of target

Target: Reducing the amount of wastewater discharged to 1% of the total water withdrawal. Importance: Reduced pollutant loads, not to disturb the ecological balance, fulfil the responsibilities regarding the environment, meeting the requirements of SDGs, Rationale: Monitored at the corporate level since the target related to entire manufacturing plant and the value of Kazan Soda as company level. Water discharge includes all the water discharge from processes, mines, cogeneration plant and domestic wastewater as well.

Quantitative metric

Other, please specify

% Reduction in the water discharge amount.

Baseline year

2018

Start year

2018

Target year

2023

% of target achieved

75

Please explain

We can reduce domestic wastewater by reducing the consumption of domestic water. In this context, taps were replaced with sensor taps. According to the Technical Compliance Report prepared by Gebze Technical University Environmental Engineering Department, "The wastewater from the process in Kazan Soda plant can be reused without discharge". The Ministry of Environment and Urbanization reviewed the Technical Compliance Report and approved the report on the reuse of industrial wastewater. As Kazan Soda is provided not to discharge the industrial waste water at all by recovering the industrial waste water.

Target reference number

Target 2

Category of target

Water withdrawals

Level

Company-wide

Primary motivation

Reduced environmental impact

Description of target

Kazan Soda's water reduction target is to decrease water withdrawal per product (m³/ton product) in production by 5% compared to 2018 base year until 2023. Thus reduced pollutant loads, not to disturb the ecological balance, fulfil the responsibilities regarding the environment, meeting the requirements of SDGs.

Quantitative metric

% reduction per product

Baseline year

2018

Start year

2018

Target year

2023

% of target achieved

60

Please explain

Thanks to water efficiency projects realized in our plants, in 2023, we will reduce our average water withdrawal per product 5% compared to 2018. For this purpose; the dam of Kazan Soda, which has a capacity of 1 million cubic meters, will be covered in order to prevent 50 thousand cubic meters of evaporation per year. Thus, the amount of water withdrawn will decrease by 50 thousand cubic meters per year. In addition, 30% recovery in water vapor will be achieved by replacing the cooling towers in the process of Kazan Soda with an adiabatic tower. So, Kazan Soda is aimed to reduce water withdrawal. In addition, the 5 micron cloth filter system in the water pre-treatment system (before reverse osmosis) was replaced with a 1 micron cartridge filter. Thus, the contamination time of reverse osmosis is extended and the backwash water is reduced. This reduced water consumption by 20%.

Target reference number

Target 3

Category of target

Other, please specify
Alternative water source

Level

Company-wide

Primary motivation

Risk mitigation

Description of target

Kazan Soda apply solution mining method; therefore, we need good quality water during the Trona mine extraction process. In addition to that, steam is used in sodium carbonate and sodium bicarbonate producing process. Therefore, water supply is a vital issue for our production. If sufficient amount of water is not supplied, the production activities will be directly affected negatively. Kazan Soda uses Kirmir River and Çamlidere Dam as water source. In the case of no water supply, the production will stop in very short time. For this reason, a dam with a capacity of 1 million cubic meters was established by Kazan Soda inside the Kazan Soda field. According to the WRI Aqueduct Water Risk Atlas Ankara (Kazan Soda location) is defined Baseline Water Stress as “high (3-4)” Therefore, Kazan Soda aim to make a water agreement as the alternative water source.

Quantitative metric

Other, please specify
% Risk mitigation

Baseline year

2018

Start year

2020

Target year

2022

% of target achieved

85

Please explain

Kazan Soda is negotiating a water agreement with Şehzade Su (private company) as an alternative water source. Water quality and quantity commitments are under review.

W8.1b

(W8.1b) Provide details of your water goal(s) that are monitored at the corporate level and the progress made.

Goal

Improve wastewater quality beyond compliance requirements

Level

Company-wide

Motivation

Reduced environmental impact

Description of goal

The Goal of Kazan Soda is that reducing water-related environmental impacts via accomplishing all water-related targets in 2021 in order to improve wastewater quality. With the aim of this, we are monitoring our water consumption originating from our activities, reporting it in our sustainability report every year, to ensure efficient use of water and to raise awareness in this regard both among our employees and our stakeholders.

In the scope of the production activities, our water-related targets constitute about 25 % of our overall environmental targets with regard to reducing environmental impacts. Monitored at the corporate level since the goal related to the entire manufacturing plant and the value of Kazan

Soda as company level. The goal is the same for all basins/facilities, located in Sakarya river basin. This goal contributes to water security by achieving all water-related targets.

This goal is carried out via the Strategic Target Tracking Form within our Water Management Strategy Plan. The progress for all company-wide goals and monitoring results are reported in the internal Management Review Performance Report.

Baseline year

2018

Start year

2020

End year

2021

Progress


Through successful compliance with the goal requirement and successful monitoring progress via the STRATEGIC TARGET TRACKING FORM within our WATER MANAGEMENT STRATEGY PLAN, our goal has been achieved by 75% in 2020


W9. Verification

W9.1

(W9.1) Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1a)?

Yes

 Kazan_Soda_14064_14046_DogrulamaRaporu_1_Rev02_1412020.pdf

 ISO 14046 ve ISO 14064 Doğrulama Sertifikası.pdf

W9.1a

(W9.1a) Which data points within your CDP disclosure have been verified, and which standards were used?










Disclosure module	Data verified	Verification standard	Please explain
W1 Current state	Water withdrawal, water consumption and water discharge water (of 2019 figures.	Other, please specify ISO 14046:2014,	Water Footprint Network: Water Footprint Assessment Manual.

W10. Sign off

W-FI

(W-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.

All documents are attached.

-  PS.03.PL.07 Water Supply and Treatment-Energy Production Department.pdf
-  2019 Company Targets.pdf
-  Sürdürülebilirlik Komitesi Atama Yazısı 08.01.2020-İmzalı.pdf
-  Sürdürülebilirlik Politikası 10.12.2020-İmzalı.pdf
-  Kazan Soda Biyoçeşitlilik Politikası 22.03.2021-REV-İmzalı.pdf
-  Kazan Soda Su Politikası.pdf
-  ISO 14064 and ISO 14046 Verification Report.pdf
-  Sustainability Committe Letter.pdf
-  PS.03.PL.03 Laboratory Quality Control Plan-Process.pdf

-  Integrated Company Policy.pdf
-  PS.03.PL.05 Laboratory Quality Control Plan-Mine.pdf
-  Sustainability Policy.pdf
-  Performance Report - Water Supply and Treatment Department - 2019.pdf
-  PR.21.PL.01 Emergency Plan.pdf
-  International Day For Biological Diversity - Brochure 1.jpg
-  PR.26.F.01 Supplier Evaluation Questionnaire - Material.pdf
-  United Nations Global Compact 01.12.2020 .pdf
-  ISO 22000 Certificate.pdf
-  Water - ASKİ Protocol.pdf
-  PR.32 Strategic Planning Procedure.pdf
-  TS EN ISO 18001 Certificate.pdf
-  PR.06.F.02 Process Monitoring Form - 2019 - Water Supply and Treatment.pdf
-  PS.19 Water Supply and Treatment Process.pdf
-  PR.32.F.04 Risk and Opportunity Determination Form.pdf
-  ISO 14046 and ISO 14064 Verification Certificate.pdf
-  PR.32.F.06 Internal and External Topic Determination Form - Water Supply and Treatment.pdf
-  FEMAS Certificate.pdf
-  International Day For Biological Diversity - Brochure 2.jpg
-  PR.32.F.05 Value Chain Determination Form - Water Supply and Treatment.pdf
-  PR.06 Management's Responsibility Procedure.pdf
-  Kazan Soda Elektrik SBT-Commitment Letter.pdf

- 📎 Technical Compliance Report.pdf
- 📎 Biodiversity Policy.pdf
- 📎 Water - KİRMİR Protocol.pdf
- 📎 PR.26.F.01 Supplier Evaluation Questionnaire - Service.pdf
- 📎 KOSHER Certificate.pdf
- 📎 TS EN ISO 14001 Certificate.pdf
- 📎 TS EN ISO 9001 Certificate.pdf
- 📎 TS EN ISO IEC 17025 2017.pdf
- 📎 CEO Water Mandate Welcome Letter.pdf
- 📎 Water - ASKİ Water Demand.pdf
- 📎 Kazan Soda Elektrik Sustainability Report-2020.pdf
- 📎 Climate_Ambition_Accelerator_Brochure.pdf
- 📎 Technical Report Approval Letter.pdf
- 📎 Kazan Soda Elektrik Uretim A.S. CEO Manadate Commitment Letter.pdf
- 📎 Helal Certificate.pdf
- 📎 PS.13.PL.02 Waste Shipment Routing Plan.pdf
- 📎 Social Responsibility Internal Auditor Training Certificate.pdf
- 📎 PS.03.PL.06 Laboratory Quality Control Plan-Water Supply and Treatment.pdf
- 📎 PR.34 Principles of Ethical Behavior.pdf
- 📎 ISO 31000.2018 Information Training Certificate.pdf



W10.1

(W10.1) Provide details for the person that has signed off (approved) your CDP water response.

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

W10.2

(W10.2) Please indicate whether your organization agrees for CDP to transfer your publicly disclosed data on your impact and risk response strategies to the CEO Water Mandate’s Water Action Hub [applies only to W2.1a (response to impacts), W4.2 and W4.2a (response to risks)].

Yes

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

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

Please confirm below

I have read and accept the applicable Terms

