

## **Independent Assurance Opinion Statement**

To the Management of Kazan Soda Elektrik Üretim A.Ş.

### **Scope and Objectives :**

BSI was commissioned by Kazan Soda Elektrik Üretim A.Ş. (hereinafter "Kazan Soda") to conduct independent assurance of its Kazan Soda 2020 Sustainability Report ('the Report'), and to carry out an independent verification of total water withdrawal, health and safety performance indicators, used electricity, training man-hours and waste.

Our assurance engagement was planned and carried out in accordance with AA1000 Assurance Standard AA1000AS v3.

### **BSI's approach**

BSI's assurance engagements are carried out in accordance with our verification procedure. Reviewing the data collection and consolidation processes used to compile selected data, including assumptions made, and the data scope and reporting boundaries; We planned and performed our work to obtain the evidence we considered necessary to provide a basis for our assurance opinion. We were engaged to provide Type 2 moderate level assurance, which covers:

- Evaluation of adherence to the AA1000AS v3 principles of inclusivity, materiality and responsiveness (the Principles); and
- The reliability of specified sustainability performance information along with related claims in the report including:
  - Desk review
  - Site visit
  - Data sampling
  - Reporting

### **Inclusivity, Materiality, Responsiveness and Impact principles;**

Kazan Soda has made a commitment to its stakeholders. The participation of stakeholders has been initiated in developing and achieving an accountable and strategic response to Sustainability Report.

Kazan Soda publishes Sustainability Report information that enables its stakeholders to make informed judgments about the company's management and performance. In our professional opinion the report covers the Kazan Soda's materiality issues.

Kazan Soda has implemented the practice to respond to the expectations and perceptions of its stakeholders.

### **Assurance level**

The moderate level assurance provided is in accordance with AA1000 Assurance Standard v3 in our review, as defined by the scope and methodology described in this statement.

## **Independence/Responsibilities of Kazan Soda and of the Assurance Providers**

BSI was not involved in collecting and calculating data, or in the development of the Report. BSI's activities are independent from Kazan Soda. Kazan Soda has sole responsibility for preparation of the Report. In performing our assurance work, our responsibility is to the management of Kazan Soda.

The assurance team was composed of Lead auditors and Carbon Footprint Verifiers experienced in industrial sector, and trained in a range of sustainability, environmental and social standards including AA1000AS, ISO 14001, ISO 45001, and ISO 9001, EU ETS, GS, VCS, ISO 50001 etc. . BSI is a leading global standards and assessment body founded in 1901. The assurance is carried out in line with the BSI verification procedure. There is no limitation.

### **BSI's Opinion**

Based on BSI's approach, we believe that Kazan Soda Elektrik Üretim A.Ş. has:

- Met the requirements above
- Disclosed accurate and reliable data and information

### **Verified Data**

Water consumption: 7,932,064 m<sup>3</sup>

Recycling water: 1,933,467 m<sup>3</sup>

Training man-hour: 30,517

Production volume (ton): 2,466,000 ton

Electricity consumption: 962,874.96 MWh

Direct water intensity: 1.3 m<sup>3</sup>/ton product.

Recycled;

Metal: 218,700 kg

Paper and board: 5,040 kg

Glass: 550 kg

Material Usage;

Plastics: 1,121,874 kg

Wood: 3,035,457 kg

Overall Accident Rate: 437

Accident Severity Rate (1,000,000 Factor): 292

Accident Frequency Rate: 32

Accident Severity Rate (1000 Factor): 0.29

The opinion expressed is formed on the basis of a moderate level of assurance and at the materiality of the professional judgement of the verifier.

Mehmet Kumru  
Sustainability Team Manager



Date: 01 April 2021

**bsi.**



**AA1000**

Licensed Assurance Provider  
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BSI Group Eurasia Belgelendirme Hizmetleri Ltd. Şti.

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KAZAN SODA ELEKTRİK

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Sustainability Report  
2020

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## ABOUT THE REPORT

Kazan Soda Elektrik Üretim A.Ş., in the spirit of transparency and accountability, and from the perspective of sustainability; shares, in this report, its management performance, future goals, approach to issues important to stakeholders, and the sustainability work it has carried out in the last year. This report, that describes Kazan Soda Elektrik Üretim A.Ş.'s sustainability performance between 1 January 2020 and 31 December 2020, is the organization's second sustainability report. The content of this report takes into consideration the organization's performance indicators and the UN Global Compact (UNGC) requirements of which it is a signatory.

The data in the 2019 and 2020 Sustainability Reports, have been audited by BSI, which is an accredited independent organization and received an Independent Assurance Statement. The 2019 greenhouse gas emissions and water inventories were subjected to and verified by external audit according to ISO 14064:2006 and ISO 14046:2014 respectively. Verification of 2020 emission and inventories is still in progress.

Kazan Soda Elektrik, is committed to annually improving its reporting practices, in which its sustainability performance is described in full detail, in light of the changing expectations of its stakeholders. Past reports are available at [www.kazansoda.com](http://www.kazansoda.com). Questions and opinions about the report are welcome at [surdurulebilirlik@kazansoda.com](mailto:surdurulebilirlik@kazansoda.com).



[www.linkedin.com/company/kazan-soda-elektrik](https://www.linkedin.com/company/kazan-soda-elektrik)



[surdurulebilirlik@kazansoda.com](mailto:surdurulebilirlik@kazansoda.com)

## A MESSAGE FROM THE CEO

Dear Stakeholders,

We are happy to present to you, our second sustainability report, published in line with our values of transparency and accountability. We at Ciner Group have completed another successful year of reporting, in which we focused on sustainable growth and value creation, with a keen awareness of our responsibilities towards the community and the environment. The coronavirus pandemic which impacted the world in a very short amount of time, is another stark reminder of the absolute importance of our environment, the ecosystem, biodiversity and protecting natural resources. We continue to use resources in the most efficient way possible and develop circular economy solutions via our sustainable business model. While our innovative approach to business guides us into tomorrow, our focus remains on maintaining respect for people and the environment. We value our employees and display our commitment to them through policies that emphasize diversity and reject all manners of discrimination. To our stakeholders, we promise to be a company that is transparent, participative, constantly improving and centred around people. We have made sustainability our strategic foundation in order to offer our wide array of stakeholders as much benefit as possible. This is how we will continue to strive with all our might to leave a more liveable world to future generations. As Ciner Group, we leave behind a period in which we have implemented pioneering and innovative sustainability practices and our main goal is to make our achievements stronger and more long lived through the environmental, social and economic value we have created throughout this journey. Our whole team shares the strong belief that we will take bold steps to reach our goals, and that our goals will be reached. I offer my thanks to all our stakeholders, first and foremost our employees, suppliers and business associates who have supported us in our sustainability journey and worked hard for us to reach our goals.

CEO  
Gürsel USTA



# A MESSAGE FROM THE GENERAL MANAGER

Respected Stakeholders,

As Kazan Soda Elektrik, we present to you for your evaluation our second sustainability report, the developments regarding our operation, carried out in line with our sustainable growth target. Our priority, in view of the COVID-19 pandemic that constituted one of the most important topics of this past year, was to protect the health and safety of all our stakeholders, most importantly our employees. Throughout this time, we also diligently continued with our work in sustainability. 3 Kaizen projects from our production and water management departments participated in the 23<sup>rd</sup> Quality Circles Award, organised by the Turkish Quality Association and our Trona Hunters Team was honoured to receive the Jury Encouragement Award. We are proud that practices we implemented on the road to achieving our goals were seen fit to be rewarded in this way.

We continue to go full steam ahead to fulfil the principles of the United Nations Global Compact that we are signatories of. We are diminishing our environmental footprint through the improvements we are making in our operations. We are working to reduce negative impact on nature and protect water resources in our process through practices that reduce water use and reuse waste water. We have reduced the energy consumption density per product by 17% thanks to the investments made and projects carried out from 2018-2020. Water consumption per product has also gone down 21% as a result of increasing the amount of water supplied through water recovery. When it comes to waste management, our zero-waste document enables us to contribute to the circular economy and we aim to use this document to reduce our waste and recover waste by separating it at the source. I would like to express my gratitude to all our stakeholders who have supported our sustainability journey in the 2020 operating period and hope our success will continue to grow.

General Manger  
M. Tanzer ERGÜL



# ABOUT KAZAN SODA ELEKTRİK

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## ABOUT KAZAN SODA ELEKTRİK

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 km<sup>2</sup> 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 it continues to improve every day. 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.

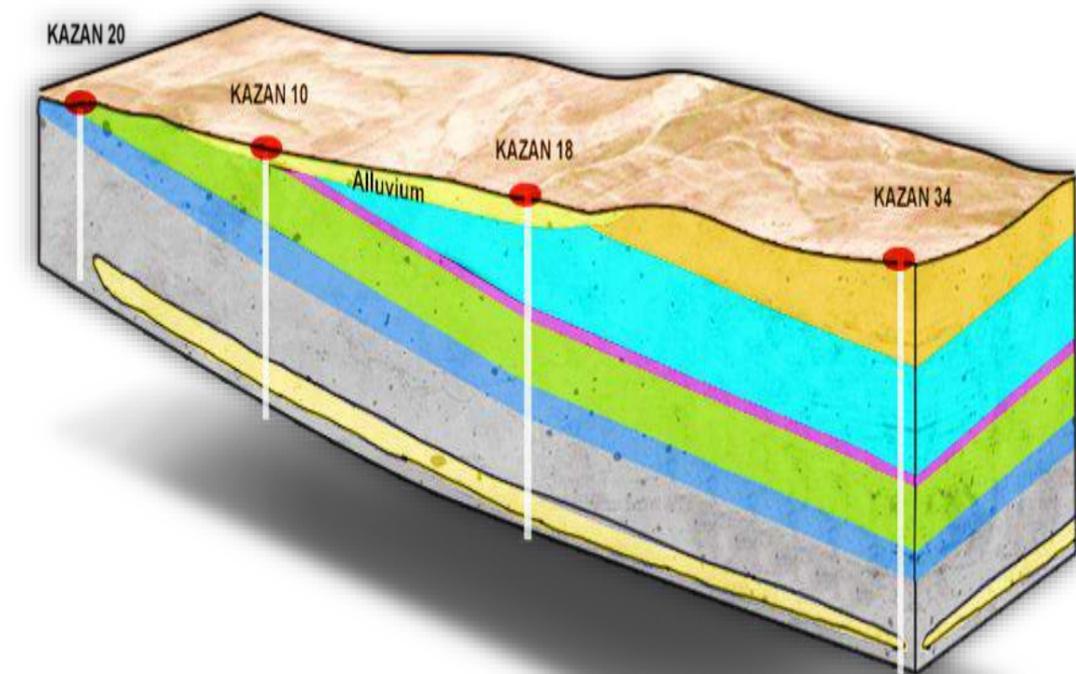


## ABOUT KAZAN SODA ELEKTRİK

Trona ore, which has a molecular structure of  $\text{Na}_2\text{CO}_3 \cdot \text{NaHCO}_3 \cdot 2\text{H}_2\text{O}$  and is found at a depth of 650 ms, is dissolved using a solvent containing hot water and extracted through vertical and horizontal drilling wells. The trona ore, which is then turned into a solution, is transferred to the production area via wells and pumps. Kazan Soda Elektrik adopts an environmentally friendly production approach thanks to the solution mining technique it uses in places of conventional mining, thus realizing the production of Natural Sodium Carbonate and Sodium Bicarbonate.

The trona solution from the mine solution wells is sent first to the Pre-Treatment unit for purification. Then it moves on to the Stripper-Evaporator to increase concentration and convert  $\text{NaHCO}_3$  content into  $\text{Na}_2\text{CO}_3$ . After the Stripper-Evaporator, a deca crystal is obtained in the Decahydrate Unit. The deca solution, divided into two after the Decahydrate Unit, passes through the Centrifuge & Drying Unit after the Monohydrate and Sodium Bicarbonate Crystallizer Units to obtain natural Sodium Carbonate and Sodium Bicarbonate. Soda Ash is the basis of many industrial production processes and is an invisible actor that plays an important part in the sustainable products we use in daily modern life.

Soda Ash is not only one of the most widely used inorganic compounds in the world but is also a safe and simple compound. It is an important component in food and pharmaceuticals and has an important role in industrial processes such as glass and detergent production. Kazan Soda Elektrik is proud to produce high quality natural Soda Ash with its environmentally friendly production technique and supply its products to the whole world



Trona Ore

**Facility Permission Area: ~20km<sup>2</sup>**

**Economic Ore Area: ~10km<sup>2</sup>**

**Total Geological Reserve: ~1.68 Milyar tonnes trona ore**

CORPORATE MANAGEMENT



## CORPORATE MANAGEMENT

Kazan Soda Elektrik stands out with its strong management structure, its mission to contribute to the national economy and the environment by increasing the quality of its production and services. It keeps a close eye on all technological developments, values sustainability, the environment and innovation, and aims to become the world leader in the production of Heavy Soda Ash and Sodium Bicarbonate. Kazan Soda Elektrik also deeply values its young, dynamic and well-educated staff, committed to developing and renewing itself in perpetuity and emphasizing full customer satisfaction.

Kazan Soda Elektrik adopts a long-term approach to adopting corporate governance principles and awareness of corporate social responsibility and a responsible relationship with the environment, believing that these principles are the key to creating sustainable economic value.

Kazan Soda Elektrik's management structure includes a Board of Directors.

The board of directors is made up of 7 members, one of whom has the title of General Director.

Kazan Soda Elektrik's strong and steady development in management is the basis of the confidence it provides to all its stakeholders.

For detailed information on our corporate management structure and upper management, please see the "About Us" and "Corporate" sections of our official website.

## BOARD OF DIRECTORS

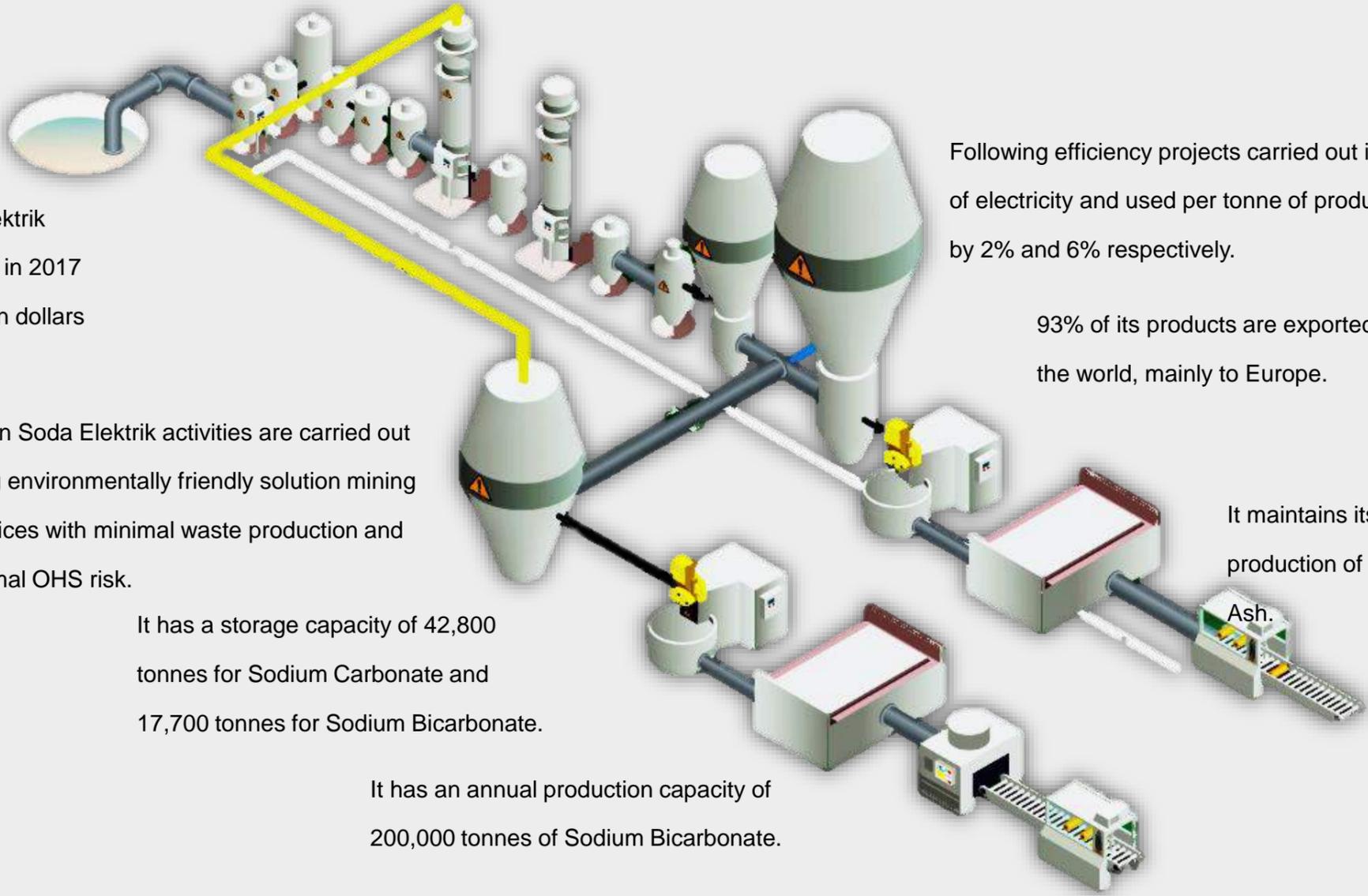
Name-Surname	Title
Gürsel Usta	Chairman
Ali Coşkun Duyak	Vice Chairman
Cevdet Özçevik	Board Member
Erdal Yavuz	Board Member
Orhan Yüksel	Board Member
Selçuk Yeşiltaş	Board Member
Mustafa Tanzer Ergül	Board Member and General Director

# KAZAN SODA ELEKTRİK IN NUMBERS

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# KAZAN SODA ELEKTRİK IN NUMBERS



Founded in 2011, Kazan Soda Elektrik commenced commercial activities in 2017 following an investment on 2 billion dollars to develop its facilities.

Kazan Soda Elektrik activities are carried out using environmentally friendly solution mining practices with minimal waste production and minimal OHS risk.

It has a storage capacity of 42,800 tonnes for Sodium Carbonate and 17,700 tonnes for Sodium Bicarbonate.

It has an annual production capacity of 200,000 tonnes of Sodium Bicarbonate.

Following efficiency projects carried out in 2020, the rate of electricity and used per tonne of product was reduced by 2% and 6% respectively.

93% of its products are exported all over the world, mainly to Europe.

It maintains its lead in the sector with an annual production of 2,500,000 tonnes of natural Soda

2020 shipment figures;  
470,734.92 tonnes of packaged product  
2,010,055.88 tonnes of bulk product

The trona solution from the mine solution wells is first sent to the Pre-Treatment Unit for purification, then to the Stripper Evaporator section to increase the concentration and convert  $\text{NaHCO}_3$  content into  $\text{Na}_2\text{CO}_3$ . Next, a deca crystal is obtained in the decahydrate crystallization unit. After the Decahydrate Unit, the deca solution is divided into two and passes through the Centrifuge & Drying Unit, after the Monohydrate and Sodium Bicarbonate Crystallizer Units, and natural Sodium Carbonate and Sodium Bicarbonate are obtained.

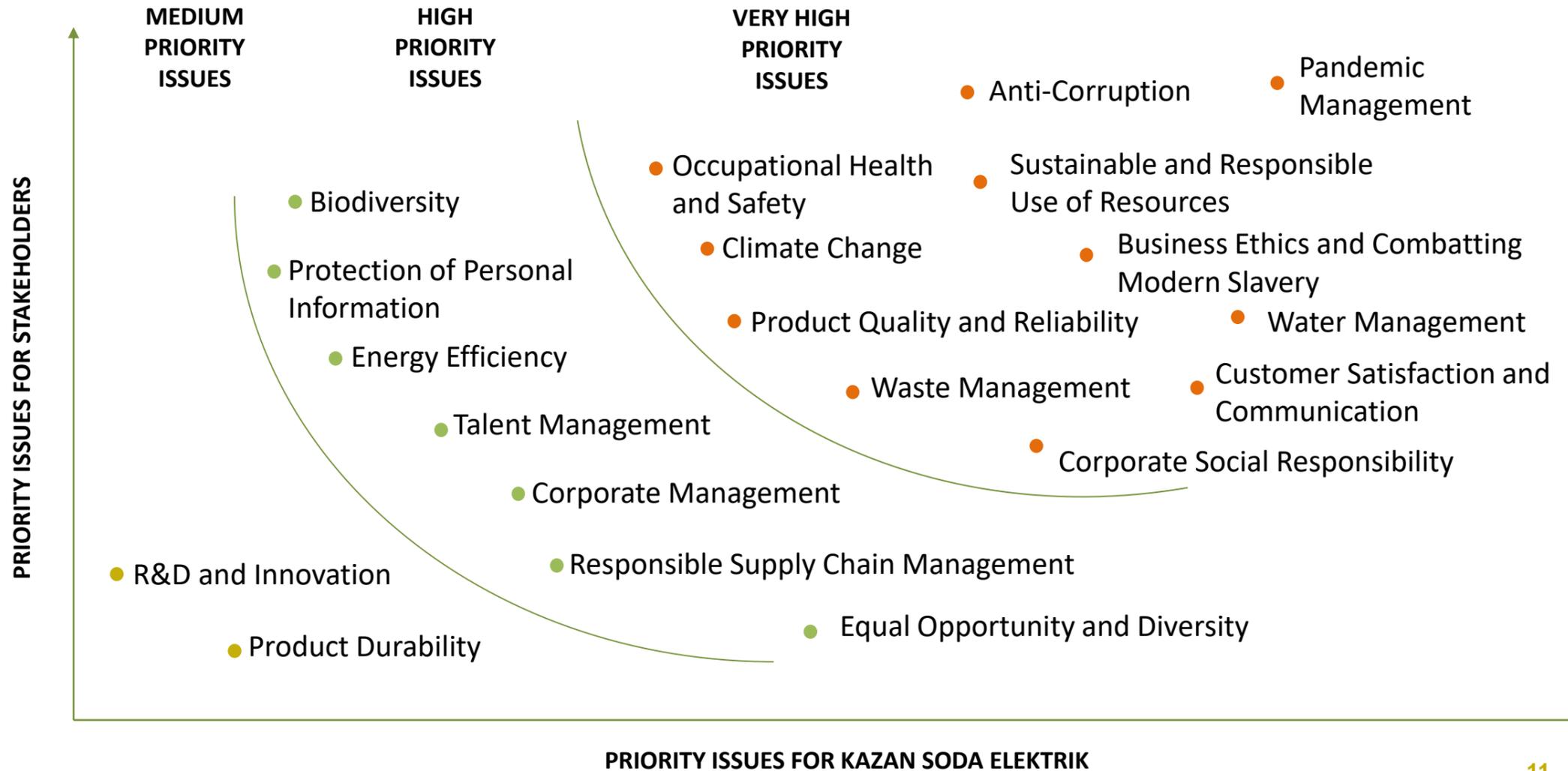
# PRIORITIZATION ANALYSIS

Prioritization Analysis is one of the most important building blocks of Kazan Soda Elektrik’s sustainability strategy. Comprehensive prioritization analysis is conducted every year in order to identify and review key issues that impact the company and its stakeholder. In addition to the results of the stakeholders’ meetings, the analysis also includes external trends, business strategies and the opinions of upper management. A total of 20 issues were determined by this year’s Prioritization Analysis and 11 of these issues were deemed highly important.

The issues addressed in the analysis were grouped into five Focal Points.

- **Improving Employee Satisfaction and Well-Being**
- **Reducing Environmental Impact**
- **Improving Economic and Social Resources**
- **Responsible Business Practices**
- **Sustainability Practices in Other Areas**

Sustainability Practices in Other Areas is not the most important part of our sustainability plan, but it includes issues related to our commitments as a responsible business. These issues are ranked in order of priority, according to their impact on our business and their importance to our stakeholders.



# Enhancing Employee Satisfaction and Well-Being

## VERY HIGH PRIORITY

### • PANDEMIC MANAGEMENT

Since the first day COVID-19 appeared in our country, various administrative and operational decisions have been implemented within our company and our factories. In this context, the Pandemic Influenza Action Plan was prepared, our company switched to a partial work-from-home system, the card system was revised to replace the fingerprint system for field entry, thermal cameras were supplied, and visitor access was restricted.

### • BUSINESS ETHICS AND MODERN SLAVERY CODES

Kazan Soda Elektrik ensures, through relevant policies, that all employees can openly report potential suspicions regarding business ethics and modern slavery without fear of retaliation due to their report.

## HIGH PRIORITY

### • TALENT MANAGEMENT

Within the scope of employee well-being, health and safety, all hygiene measurements and periodic controls of work equipment are carried out by TÜRKAK accredited organizations. The work environment offered to Kazan Soda Elektrik Üretim employees, the physical infrastructure of the dining hall, locker rooms and social areas are in accordance with working standards, legislation, hygiene and health conditions to ensure employee well-being, health and safety.

- TSE COVID-19 Safe Production Document
- Covid-19 Awareness Training
- Principles of Using Surgical Masks Training

- BM Global Compact
- Policy to Combat Slavery and Human Trafficking
- Reporting Policy

- Effective Presentation Techniques Training
- Stress Management Training
- Working During Difficult Times 'Individual Leadership' Training
- Business Continuity in Health and Safety Management
- Leadership Training

# Reducing Environmental Impact

## VERY HIGH PRIORITY

### • CLIMATE CHANGE

At Kazan Soda Elektrik, carbon emissions caused by business operations are minimised via measures taken to reduce the long-term negative effects of climate change resulting from global greenhouse gas emissions. Every year, its carbon footprint is calculated and verified by an external organization.

### • WASTE MANAGEMENT

In line with the goal of reducing environmental impact, waste at the factory is separated at the source and delivered to licensed companies for recycling.

### • WATER MANAGEMENT

By ensuring the use of sustainable water resources, the company water footprint is calculated every year and verified by an accredited external organization. Our main goal is to improve Access to water and sustainably manage water use and water consumption across our value chain.

### • SUSTAINABLE AND RESPONSIBLE USE OF RESOURCES

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.

### • BIODIVERSITY

Biodiversity activities are carried out in order to support and protect the diversity, and plant and animal life in our area of operation,

- ISO 14064 Carbon Footprint
- ISO 14044 Product Lifecycle
- Low Carbon Products
- Zero-Waste Document
- Separation of Waste in its Place
- Recycling
- ISO 14046 Water Footprint
- Water Map
- Water Risks Management
- Solution Mining
- Regular Subsidence Measurements in the Mine Area
- Sustainable Use of Resources
- Endemic Plant Area
- Wildlife Conservation and Monitoring Project
- Beekeeping

# Enhancing Economic and Social Resources

## VERY HIGH PRIORITY

### • CORPORATE SOCIAL RESPONSIBILITY

Kazan Soda Elektrik prioritizes local development while contributing to employment in the areas where it operates. The social development projects conducted, contribute to the Sustainable Development Goals. Activities carried out for corporate social responsibility are certified with the ISO 26000 Corporate Social Responsibility Certificate.

## HIGH PRIORITY

### • CORPORATE MANAGEMENT

Kazan Soda Elektrik Corporate Management supports the fundamental rights and freedoms of everyone working along the value chain.

### • EQUAL OPPORTUNITY AND DIVERSITY

We see equal opportunity and diversity practices as important cornerstones of sustainability in order to implement practices that benefit multiple stakeholder groups and to ensure fair remuneration at all levels in the value chain.

- ISO 26000 Corporate Social Responsibility Document
- Supporting the Betterment of the Local Population
- Donations to Municipalities
- Student Scholarships
  
- Ethics Codes
- Policy for Combatting Slavery and Human Trafficking
- Employee Handbook
  
- 35% Rate of Female Employment
- Equal Pay for Equal Work Policy
- Fair Supplier Choice
- Fair Employment Practices

# Responsible Business Practices

## VERY HIGH PRIORITY

### • ANTI-CORRUPTION

Financial activities at Kazan Soda Elektrik are verified every year via independent audits carried out by an accredited external organization. In addition, corruption risks are minimised with the ISO 37001 Anti-Corruption Certificate. In order to comply with international sanction, full checks are conducted to see if any suppliers, customers, potential suppliers, potential customers and organizations with which we are likely to do business are on the sanctions list.

### • OCCUPATIONAL HEALTH AND SAFETY

At Kazan Soda Elektrik, the common goal of all employees and units insofar as occupational safety is zero work accidents and zero occupational diseases. The main goal is to develop a behaviour-oriented occupational health and safety culture in all employees.

### • PRODUCT QUALITY AND SAFETY

International certification and system certification is carried out to achieve our goal of ensuring the quality and safety of our products.

### • CUSTOMER SATISFACTION AND COMMUNICATION

The Customer Relations Unit aims to ensure customer satisfaction, and responsible and sustainable relationships.

### • RESPONSIBLE SUPPLY CHAIN MANAGEMENT

We aim to ensure social, environmental and economic sustainability in supply chain practices. Before starting work with a new supplier, we check to see if the company is on the sanctions list using a software system that has a comprehensive databas, including the search lists of all known countries, central banks and law enforcement agencies in the world.

- Anti-Bribery and Anti-Corruption Policy
- Sanctions Compliance Board
- ISO 37001 Anti-Corruption Certificate
- ISO 37001 Training for Employees
- Vocational Training
- OHS Training
- Occupational Health and Safety Management System
- BRC, FEMAS, NSF, HELAL, KOSHER ve TS
- 897/TS 898 Certificates for Products Used in Drinking Water Treatment
- ISO/IEC 17025 Laboratory Accreditation
- ISO 9001-14001-22000 Management Systems Certificates
- Customer Relations Management
- Procurement Guidelines
- Supplier Evaluation Procedure
- Environmental and OHS Specification

# Responsible Business Practices

## HIGH PRIORITY

### • ENERGY EFFICIENCY

Cogeneration power plant production and consumption parameter targets are set and checked by the Energy Production Department.

- Energy efficiency with KAIZEN Improvement Projects
- ISO 50001 Energy Management Certificate

# Sustainability Practices in Other Areas

## HIGH PRIORITY

### • PROTECTION OF PERSONAL INFORMATION

Kazan Soda Elektrik is committed to the principle of protecting the privacy of all its stakeholders and the all personal data is processed in compliance with the applicable Data Protection Laws. The KVKK Compliance and Implementation Committee has been established to protect the information of our stakeholders from malicious attacks and improper use.

- KVKK Compliance and Implementation Committee
- Protection of Personal Information Training
- Data Protection Laws

## MEDIUM PRIORITY

### • R&D AND INNOVATION

R&D tests are carried out in our accredited laboratory within the scope of process improvements and in line with customer demand.

- Process Improvements
- Research and Design
- Customer Demand

### • PRODUCT SHELF LIFE

Product Shelf Life tests are carried out by an accredited external organization.

- Shelf Life Tests

# VALUES

## ENVIRONMENTAL IMPACT MINIMISATION

Kazan Soda Elektrik has adopted a responsible production approach that minimises environmental impact. Waste production is minimised through the use of environmentally friendly solution mining technology.

- In 2020, 1225 person.hours of Basic Environmental Awareness Training was provided to our employees.
- 290,120 kg of Waste Recycling has been achieved.
- As Turkey's leading brand in export, we improve our performance in all operation processes every year with respect and responsibility for the community and environment in which we reside.

## OCCUPATIONAL HEALTH AND SAFETY FOCUESD APPROACH

We consider providing our employees with a healthy, safe and ideal working environment as one of our fundamental responsibilities.

- OHS risks identified as per the OHSAS 18001 certificate are examined and possible additional measures are evaluated on a monthly basis by the Occupational Health and Safety Board.
- A total of 13,090 person-hours of OHS training was provided to our employees in 2020.
- We aim to complete our transition to ISO 45001 Occupational Health and Safety certification at the factory by September 2021.
- We create a strong occupational health and safety culture by managing all operations with the goal of zero work accidents and occupational diseases.

## CUSTOMER CENTRIC PROCESS MANAGEMENT

We see meeting the demands of our customers at the highest standard as our main responsibility with the advanced technologies we use in production.

- At Kazan Soda Elektrik, customer-oriented business processes are developed using many applications in order to fulfil the expectations of our customers and to supply the highest quality product, according to these expectations.
- In this context, customers are informed of our work and we receive active feedback from customers via customer meeting, visits, satisfaction surveys and attendance to international conferences.

# SUSTAINABILITY INDICATORS

At Kazan Soda Elektrik, sustainable business models are developed so as to leave a better world to future generations, and our sustainability approach, as a global organization, is integrated into how we do business throughout the value chain. The effective sustainability framework within the company ensures that sustainability policies are present from the management level to the lowest levels in the organization and value chain. Here at Kazan Soda Elektrik, we continue improving our sustainable production techniques and work to provide a fair, equitable and respectful work environment in line with the objectives on the United Nations Global compact, of which we are a signatory this year. Within the scope of our sustainability roadmap, and with the dedication of our employees, we strive to ceaselessly improve operational processes, use global resources more effectively and continue to grow by creating sustainable growth for all our stakeholders.

## FOCAL POINTS

Climate Change  
Water Management  
Waste and Packaging  
Management

Talent Management  
Employee Loyalty  
Occupational Health and  
Safety

Contributing to the Local  
Economy  
Community Benefit  
Investments

Responsible Production  
Responsible Procurement  
Quality and Food Safety



Having participated in the Quality Circles Award ceremony, our Trona Hunters team received the Jury Encouragement Award.



Improvements made between 2018-2019 have reduced our water footprint by 20%.



Having participated in the Ecovadis Sustainably Supply Management platform, we achieved Silver Recognition Level.



A 17.5% carbon footprint improvement has been achieved between 2018-2019.

Signing the United Nations Global Compact (UNGC) has brought our sustainability commitments to the next level.



ISO 26000 Social Responsibility Training and Modern Slavery Training have been completed and certification work has started.



After becoming a member of the SEDEX platform, the audit was completed successfully and thus, employee shift return programs were improved.



# SUSTAINABILITY INDICATORS

%  
87,5

Following the pareto analysis aiming to reduce stoppages in the Caustic Unit of our factory, a Kaizen team was established under the leadership of this unit. Improvements resulted in a reduction in stoppages in the caustic unit of 87.5%.

With the KAIZEN project, developed to increase the efficiency of scraper columns in the Process Unit, we achieved our goal of using 20% less trona solution and we received the Jury Encouragement Award in the Quality Circles competition organized by KALDER.

%  
20

30517

Trainings that could not take place face to face due to the pandemic were carried out online and a total of 30,517 person.hours of training was provided.

UNGC

Kazan Soda Elektrik Business Ethics and Modern Slavery Codes were published and the UN Global Compact was signed.

%  
7

Improvements in Water management resulted in a 7% improvement in water recovery compared to the previous year.

%  
66

Basic environmental awareness training provided to our employees has increased by 66% in 2020.

ISO,  
BRC,  
FEMAS

The facility laboratory at Kazan Soda Elektrik is accredited by TURKAK within the scope of ISO/IEC 17025 standard and continuous improvement is achieved. ISO 9001/14001/27001/50001/22000, OHSAS 18001 management systems and BRC, FEMAS, HELAL, KOSHER, NSF product certificates are applied by continuous improvement throughout the factory.

# 2020 HIGHLIGHTS

## ENVIRONMENTAL DEVELOPMENT

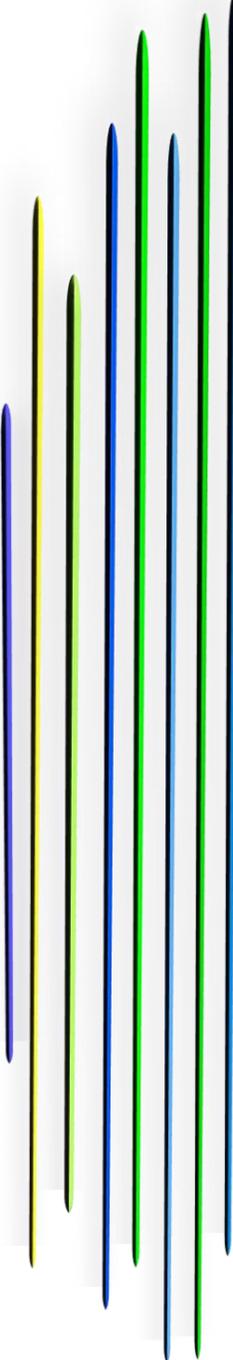
27% reduction in waste per tonne of product in 2020.	1047 saplings planted.	Approximately 2.8 million TL environmental expenditure and investment.	1225 person.hours Environmental Awareness Training.	Approximately 40,000 MWh electricity savings thanks to energy efficiency projects implemented in 2020.
------------------------------------------------------	------------------------	------------------------------------------------------------------------	-----------------------------------------------------	--------------------------------------------------------------------------------------------------------

## SOCIAL DEVELOPMENT

13,090 person.hours OHS training.	30,517 person.hours total training.	35% female employment rate in white collar work force.	293,006.59 TL investment and donation for the benefit of society.	Scholarships for 300 students since 2016.
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## ECONOMIC DEVELOPMENT

11,808,834.63 tonnes Raw Trona processed.	2,283,500 tonnes Sodium Carbonate produced.	182,500 tonnes Sodium Bicarbonate produced.	2,540,690 tonnes product sold.
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# CORPORATE SUSTAINABILITY APPROACH

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# CORPORATE SUSTAINABILITY APPROACH

Sustainability is at the heart of work carried out at Kazan Soda Elektrik, and is an important element that is the foundation of how we do business. To this end, all investment decisions, product and process development work are planned and carried out with consideration for the social and environmental impact of our activities. Kazan Soda Elektrik aims to imbue its sustainability approach to all stakeholders in its wide value chain, from raw material supply to post-consumption recovery.

Kazan Soda Elektrik identified the SDG to which it contributed the most, and focused its efforts in the field of sustainability on these goals. Kazan Soda Elektrik contributes to 11 development goals under these main headings within its practices.

Supplier Days are held annually at Kazan Soda Elektrik. During the event that was held online this year due to the pandemic, all suppliers were informed of our SDGs. Likewise, our suppliers are expected to set SDGs and take relevant action to fulfil their goals.

- 6 Clean Water and Sanitation
- 7 Accessible and Clean Energy
- 8 Humane Work and Economic Growth
- 9 Industry, Innovation and Infrastructure
- 10 Reducing Inequality
- 12 Responsible Production and Consumption
- 13 Climate Action
- 14 Aquatic Life
- 15 Terrestrial Life
- 16 Peace, Justice and Strong Institutions
- 17 Goal Based Partnership



# CORPORATE SUSTAINABILITY APPROACH

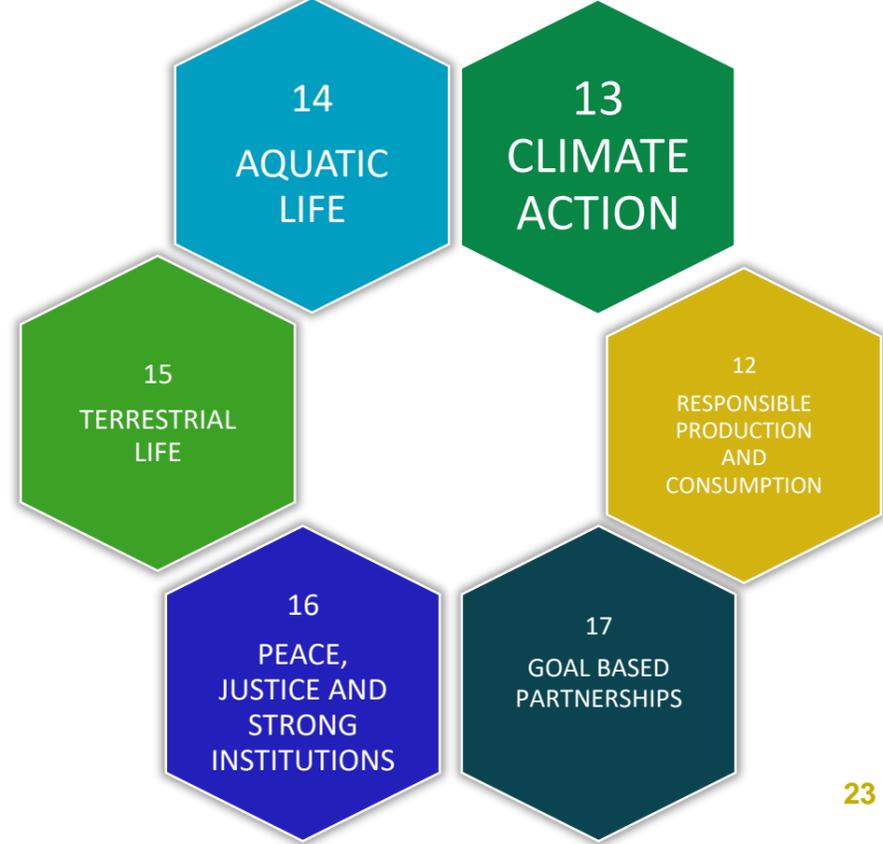


At Kazan Soda Elektrik, sustainability is defined as providing long-term financial, environmental, social and ethical value for the benefit of our customers, suppliers employees and society. Our approach to sustainability is based on three building blocks: Sustainable procurement, sustainable operation 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.

This is why addressing the climate crisis is one of our top priorities. In addition to managing water risks, our company has received the ZERO-WAST certificate within the scope of our goal to implement waste and packaging practices that support the circular economy.

We see contributing to society as the key to long-term success. While contributing to economic growth and employment around the factory site, we also prioritize local development.

The Kazan Soda Elektrik sustainability strategy evaluates all risks affecting business processes from a holistic perspective. We aim to continuously increase the added value we foresee to create for stakeholders by actively evaluating the risks and opportunities in all relevant issues. This approach, which is integrated into the business strategy of Kazan Soda Elektrik, is based on the main issues of creating permanent value, protecting natural resources, investing in people, and keeping up with technological developments. People are the focus of our business. Kazan Soda Elektrik considers talent development as the most important factor in furthering our business. In this context, we create a fair working environment that values diversity by investing in the development of employees and thus, employee satisfaction is increased. Operations are carried out with a zero work accident and occupational disease approach with the principle of “safety first”.



## RISK MANAGEMENT

Within the scope of risk management, Kazan Soda Elektrik prepares the plans necessary for early detection of the risks the company may encounter and turns them into opportunities. In coordination with the Management Systems Unit, all units are responsible for defining, evaluating, monitoring and managing risks, creating internal control systems for the management of these risks, integrating these systems into the corporate structure, and quantifying risk elements. Internal audits at Kazan Soda Elektrik are based on international ISO, BRC and FEMAS Standards and a proactive methodology. Our expert internal audit team carries out audits on the main types of risk, processes, legal compliance, business ethics, modern slavery and anti-corruption principles in every unit.

Fundamental financial and process audits at Kazan Soda Elektrik are carried out annually by an accredited external organization. Internal controls are carried out continuously in order to ensure that the activities and services of Kazan Soda Elektrik are carried out effectively, reliably and without interruption, and to ensure the integrity, consistency, reliability and timely availability of the information provided by the accounting and financial reporting system used to consolidate financial statements. The financial processes of the company are verified through periodic audits conducted by the independent auditing firm DRT Bağımsız Denetim ve Serbest Muhasebeci Mali Müşavirlik A.Ş.





## BUSINESS ETHICS AND MODERN SLAVERY CODES AND ANTI-CORRUPTION

Kazan Soda Elektrik, published its Business Ethics and Modern Slavery Codes in 2020 in order to meet the needs arising from global growth. The functioning and healthy implementation of the Business Ethics and Modern Slavery Codes, United Nations principles and relevant internal policies are carried out by the company Ethics Committee.

In addition to deciding the Business Ethics Principles and related policies and codes of conduct, Kazan Soda Elektrik has also established policies and procedures regarding the fight against corruption within the scope of ISO 37001 Anti-Bribery and Corruption standard. Thus, employees are guaranteed to work in respectable working environments and they receive guidance about appropriate behaviour internally and externally. These Policies also ensure a work environment respectful of human rights, where all employees work in mutual trust and without discrimination.

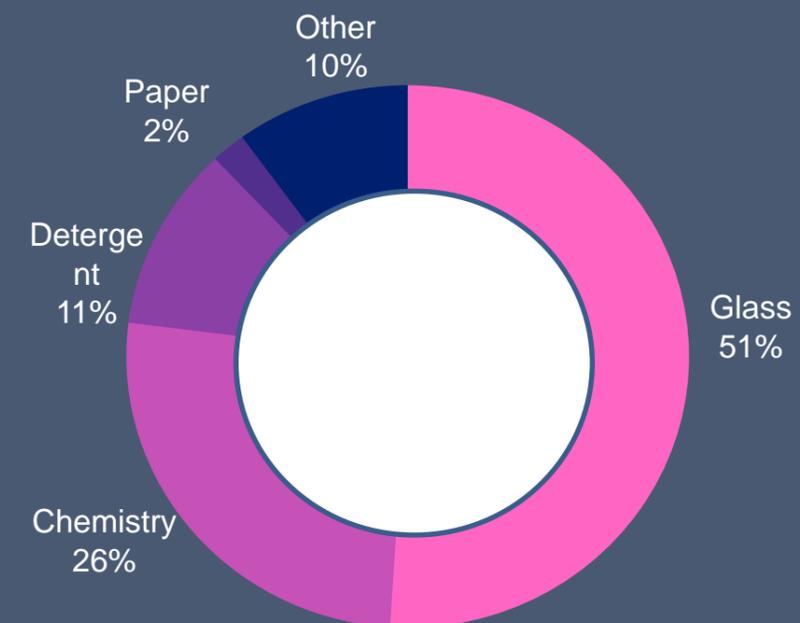
Compliance with legal regulations and business ethics codes is one of the core principles of Kazan Soda Elektrik's corporate culture. The ethical behaviour guidelines put forth by the Kazan Soda Elektrik Business Ethics and Modern Slavery codes, shape the anti-corruption principles and policies. The Ethics Committee and Upper Management are responsible for identifying and, if necessary, revising these principles. Kazan Soda Elektrik Business Ethics Codes apply to all company activities, employees, suppliers and business partners. The Ethics Committee, which operates under Upper Management, is responsible for ensuring compliance to the ethical rules and taking action in case violation of ethical rules is identified. All business units are evaluated within the scope of anti-bribery and anti-corruption. Any and all findings of noncompliance are communicated to the Ethics Committee, and necessary sanctions are applied in line with the Board's decision. Then, regulatory and preventative work is carried out in a timely manner. Apart from audits, suspicions of noncompliance can be reported through the communication channels available to employees and other relevant stakeholders. All Kazan Soda Elektrik employees are obliged to report ethical violations or suspicions of bribery and corruption. Reports are treated as confidential. Kazan Soda Elektrik shares information within the framework of transparent relations with public institutions and responds to requests for information about the sector.



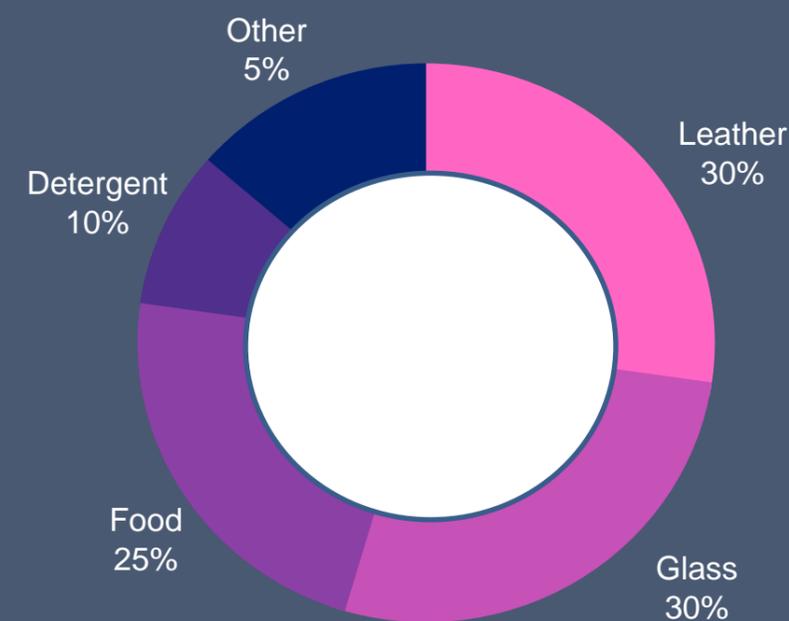
## PRODUCTS AND AREAS OF USE

Sodium Carbonate, also called Heavy Soda Ash, is a white-coloured basic salt with the chemical formula  $\text{Na}_2\text{CO}_3$ . The glass industry is the main industry in which Heavy Soda Ash is used. Soda ash is the second main raw material in glass making, after silica. The chemical industry ranks second in soda consumption and heavy soda ash is also used in many sectors such as detergents, paper and aluminium production. More than 50% of Sodium Carbonate obtained from Trona ore is sent to the glass production sector. Its main areas of use are the soap and detergent industry, cellulose and paper industry, flue gas desulphurization, water softening, water and waste water treatment, textile industry.

Sodium Bicarbonate is a chemical compound with the chemical formula is  $\text{NaHCO}_3$ , also called Sodium Hydrogen Carbonate. It is white in colour and its aqueous solution is clear and colourless. 3 types of Sodium Bicarbonate are produced at Kazan Soda Elektrik; food, technical and feed. The food type is used as an additive in the food industry, the feed type is used as an ingredient in animal feed, and the technical type is used in various industries such as textiles, flue gas, water and waste water treatment. Sodium Bicarbonate is more commonly known as baking soda. Its main areas of use are food additive, toothpaste, leather industry, beverages, cleaning materials, paper making, healthcare/haemodialysis, baking soda, flue gas treatment, water and waste water treatment.



Sodium Carbonate Areas of Use



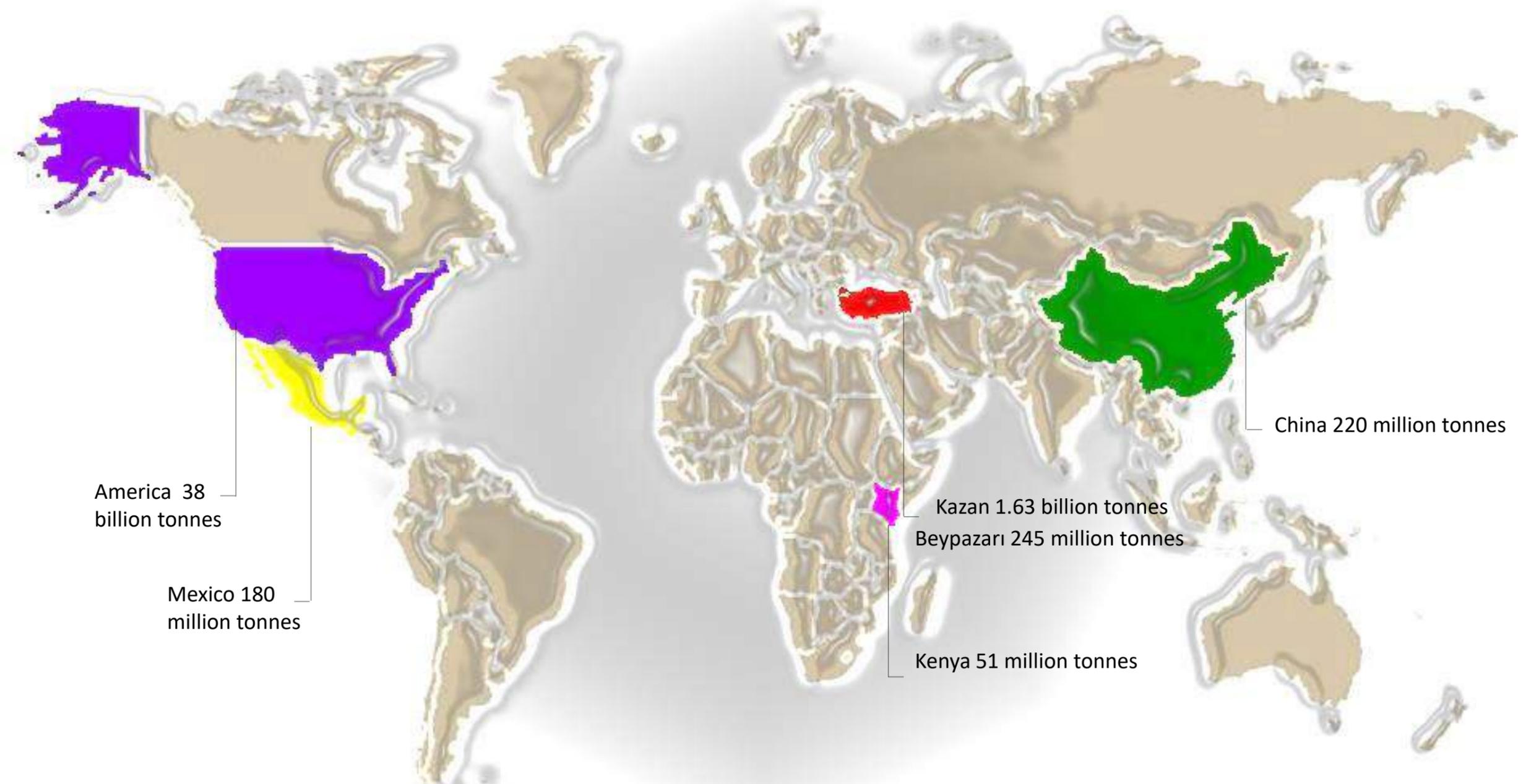
Sodium Bicarbonate Areas of Use

# TRONA RESERVE

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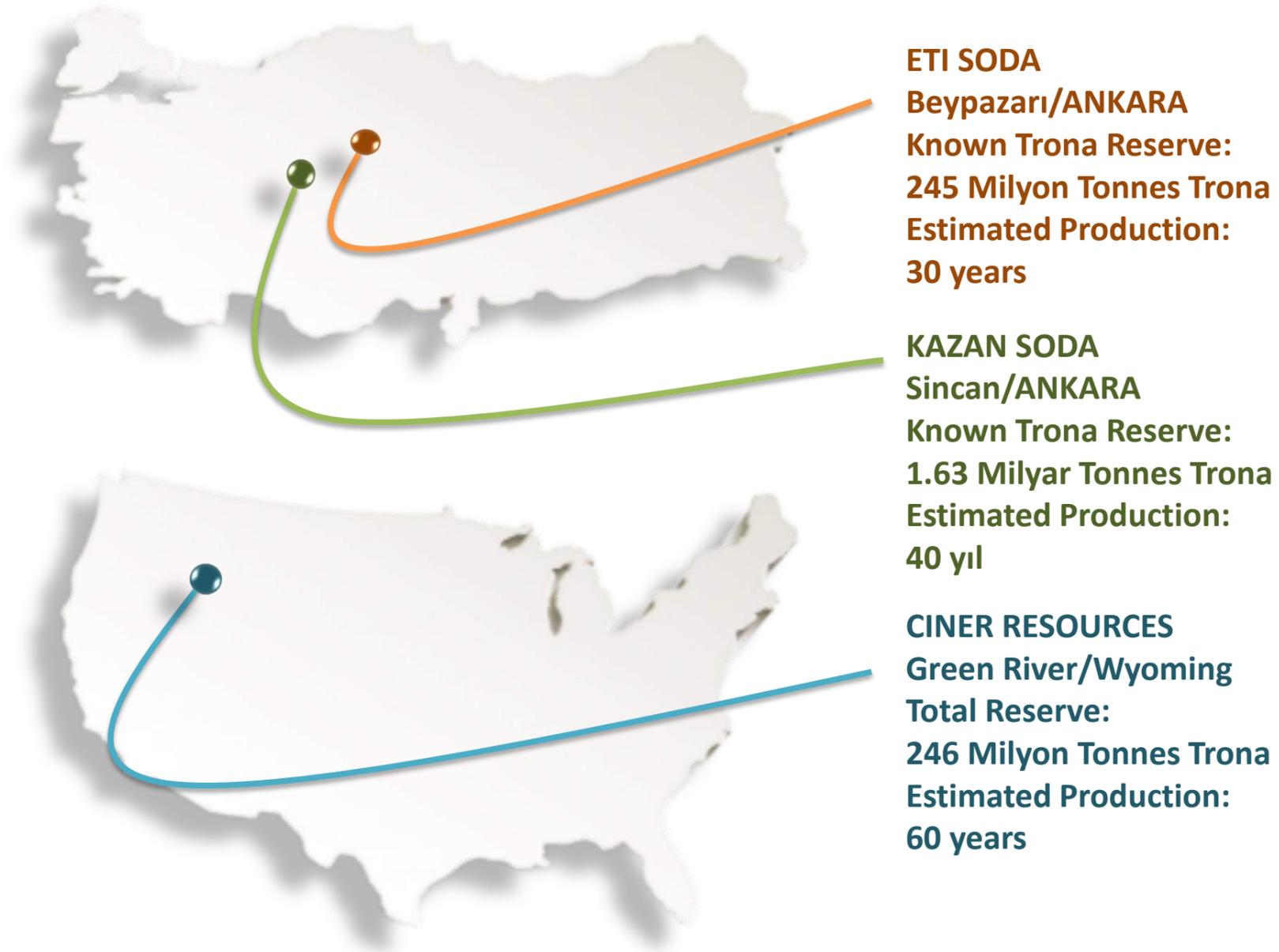


# GLOBAL TRONA ORE



The largest trona deposits in the world are found in the Green River basin in Southwest Wyoming, USA. This location represents 95% of the world's total reserves. The second largest trona deposit after the Green River basin is found in the Kazan district of Ankara.

# CİNER GROUP TRONA RESERVE



Trona ore has a molecular structure of  $\text{Na}_2\text{CO}_3 \cdot \text{NaHCO}_3 \cdot 2\text{H}_2\text{O}$  and is found approximately 650 meters underground. Trona ore is dissolved in a solvent containing hot water and extracted using vertical and horizontal drilling wells. Trona ore, which is turned into a solution, is transferred to the production area via wells and pumps.

Ciner Group produces natural soda in three parts of the world. Ciner Group trona reserves are made up of Kazan Soda, followed by Eti Soda in Ankara/Sincan, Ciner Resources in Wyoming/USA.

Kazan Soda Elektrik is a leader in exports with its strong sales network. Countries sold to;

ALGERIA- BELGIUM- BRAZIL- CHILE- DENMARK- DOMINICAN REPUBLIC- EGYPT- ENGLAND- FILAND- FRANCE- GREECE - GUATEMALA- INDIA - INDONESIA- IRAQ- ITALY- IVORY COAST- JORDAN- LEBANON- MALAYSIA- MOLDOVIA- MOROCCO- NANBIA- NETHERLANDS- NEW ZELAND- NIGERIA- NORWAY- PANAMA- PERU- PORTUGAL- ROMANIA- RUSSIA- SENEGAL- SPAIN - UKRAINE-UNITED ARAB EMIRATES

## STAKEHOLDER INVOLVEMENT

At Kazan Soda Elektrik, all suppliers and business partners are required to comply with the Supplier Code of Conduct, based on Kazan Soda Elektrik Business Ethics and Modern Slavery Codes. These guidelines outline our company's expectations insofar as workforce and human rights, occupational health and safety, environmental protection, ethics and management practices. Detailed information on our supplier selection processes can be found the Procurement Guide.

According to the performance evaluation and system audits carried out in 2020, there are 73 suppliers with a score of 85 and above. These suppliers are included in the approved supplier list and take priority in purchasing.

Kazan Soda Elektrik is committed to establishing a two-way, open and transparent communication with its stakeholders who have a direct and indirect impact on its activities and play a vital role in achieving success.

Stakeholders are categorised in order to manage relations effectively, and the most ideal communication method and frequency is determined for each stakeholder category.

We believe that regular and two-way communication with our stakeholders has an important place in our sustainability journey and our leading role in the sector. Learning the expectations of our stakeholders and including them in decision-making mechanisms allows us to both improve the products we offer and effectively manage risks and opportunities. All stakeholders are expected to determine sustainable development goals with the belief that sustainability is an issue to be taken seriously for all our stakeholders.



The annuals supplier day was held online this year due to the pandemic. Nearly 40 suppliers joined the event and the Sustainability Development Goals (SDG), determined within the scope of UN principles, were shared with the suppliers.

# STAKEHOLDER INVOLVEMENT

STAKEHOLDER CATEGORY	COMMUNICATION PLATFORM	PERIOD	MEMBERSHIPS	
<b>Employees</b>	Training, events, OHS committee meetings, KAIZEN groups, internal memos	OHS committee meetings Once a month	MINISTRY OF FINANCE	Sharing Financial Data
<b>Customers</b>	Customer satisfaction surveys, bi-annual Soda Ash Magazine, customer visits, customer audits, social media accounts	Customer satisfaction surveys Once a year Soda Ash Magazine Once every 6 months	YURT MINING	Membership
<b>Local Population and Local Government</b>	Meetings with the local population, annual events	Local population meetings Twice a year	ANKARA CHAMBER OF COMMERCE	Membership
<b>Public Organizations</b>	Meetings and one on ones, conferences, audit reports, official written communication, corporate website	Audit periods and in case of official business	ANKARA CHAMBER OF INDUSTRY	Membership
<b>Distributors</b>	One on ones, bi-annual Soda Ash Magazine, website, common projects, social media accounts	Constant communication via e-mail, telephone, one on one meetings if necessary	TÜİK	Sharing financial and environmental data, industrial production survey
<b>Suppliers</b>	Annual supplier day, one on one meetings, audits, corporate website, social media accounts	Supplier day Once a year Periodic one on one meetings with suppliers if necessary	AGED (WASTE PAPER RECYCLING INDUSTRIES ASSOCIATION)	Environmental Agreement
<b>Universities</b>	Internship programmes, career days, conferences, corporate website, social media accounts	Internship programmes All year Career days Two or three times a year	TURKISH COGENERATION ASSOCIATION	Membership
			SMRI (SOLUTION MINING RESEARCH INSTITUTE)	Membership
			UNITED NATIONS GLOBAL COMPACT	Signatory

## CUSTOMER RELATIONS

Customer satisfaction and working in a customer centric fashion is paramount for all employees at Kazan Soda Elektrik. In order to ensure this, we have developed relevant business processes. Sustainable customer satisfaction is ensured through effective, transparent and bilateral communication with customers. Within the scope of Customer Relations Management, pre- and post-sales support is provided to determine customer needs and expectations, determine customer conditions, evaluate customer suggestions and complaints, and ensure sustainable customer satisfaction. Customer complaints are monitored by the Customer Relations Department, and solutions to prevent recurrence of complaint are formulated by establishing communication with the relevant process owners. Complaints are reviewed and followed up through periodical meetings that are attended by upper management.

Due to the COVID-19 pandemic experienced in 2020, no visitors have been allowed in our factory since March 2020. Our face to face customer meetings were held just once, and one visit was made to our distributor, Newport Industries and their port Bulk Powder in Liverpool. All other customer meetings and audits were conducted by phone or via Microsoft Teams. During the customer meetings, one on one meetings took place between the top level executives of the company. Issues related to customer complaints for the year 2020, general level of satisfaction, product quality and shipment were discussed during these meetings.

On September 30, 2020, the Guardian company conducted a remote inspection to ascertain soda production safety and the audit was completed successfully. Meetings with Unilever regarding the carbon footprint calculation process are taking place online.

### ***Stakeholder Opinion***

Thank you for smooth multi-beneficial cooperation and positive, constructive and customer oriented approach  
AB Eti Products

### ***Stakeholder Opinion***

By always delivering agreed quantities on time  
AGC Glass

### ***Stakeholder Opinion***

People very kind. And work well done! Congratulations from SAISA Chemicals!  
SAISA Chemicals

### ***Stakeholder Opinion***

We request online information by login to dedicated portal abt. shipment, order status, our history etc.  
Aarna International

## CUSTOMER RELATIONS

Kazan Soda Elektrik has a total of 27 distributors, one of which are in Turkey, and ship to 151 different regions. According to the Customer Satisfaction Survey conducted at the end of 2020, we received a score of 93%. In line with customer requests, online order tracking and ship tracking software systems have been put into place by the logistics unit in 2020, and all logistics processes can be monitored by customers in real time. The annual customer complaints evaluation meeting was held in December 2020 with the participation of the Port, Foreign Trade and Logistics Units. Actions to be taken to make improvements as per the detailed suggestion/complaint analysis were determined during this meeting.

Kazan Soda Elektrik aims to obtain ISO 10002 Customer Satisfaction Quality Management System certification in 2021 in order to improve our processes and provide a better customer experience.

## AWARDS AND NOMINATIONS

### **BRCGS Food Safety Awards**

BRCGS Food Safety (Europe) Awards were held in London on February 12, 2020. As part of the European Food Safety conference, Kazan Soda was nominated for “BRCGS Professional of the Year” and participated in the event.

### **SEDEX Responsible Business Awards**

The Sedex Responsible Business Awards highlight responsible sourcing programmes and broad sustainability initiatives, and recognize organizations open to improving themselves. Kazan Soda was nominated for Best Environmental Sustainability Programme and Best Health/Safety Workforce Programme. The winners were to be announced on March 18, 2020 but the award night was postponed due to the COVID-19 pandemic.

### **SEDEX Supplier Workbook – Case Study**

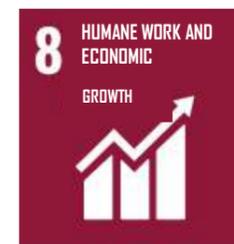
In relation to our application to Sedex’s “Best Environmental Sustainability Programme” with our “Biodiversity Conservation and Monitoring Project”, we requested a case study from Sedex and that the relevant work be published in the Sedex Supplier Workbook however, this study was postponed due to the COVID-19 pandemic.



# SALES AND EXPORTS

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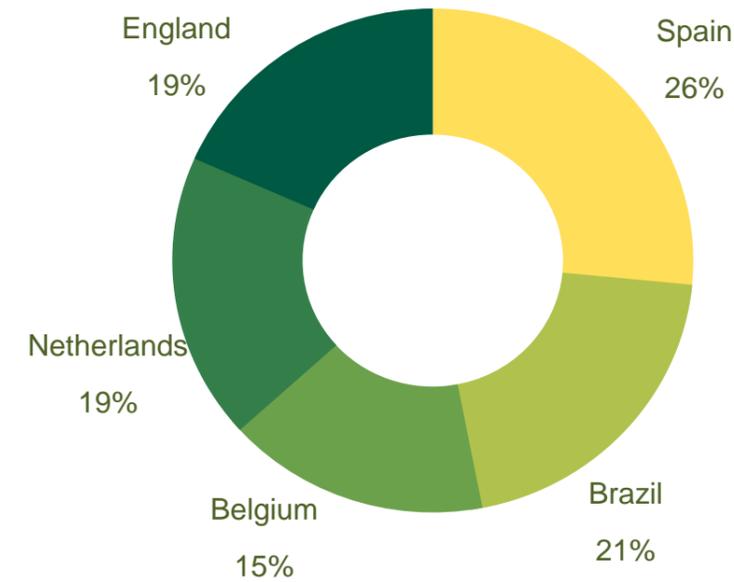
# SALES AND EXPORTS

Kazan Soda Elektrik manages every stage of the sales and marketing processes with the principle of customer centricity. Correctly understanding and defining customer needs and expectations, and taking necessary actions to meet those needs and expectations are a priority,

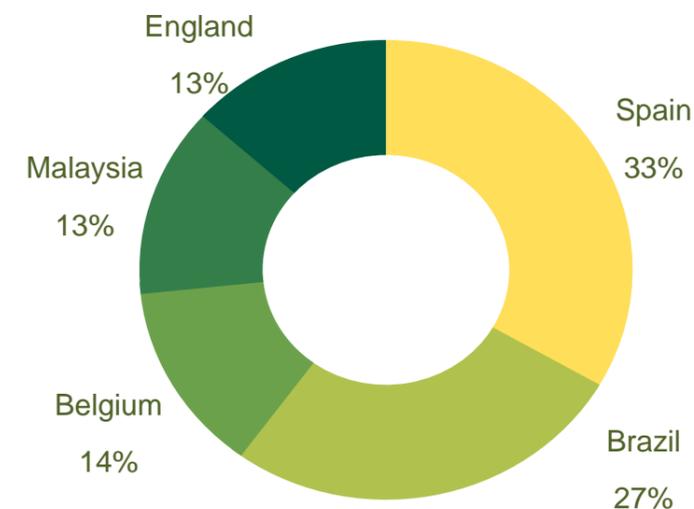
With this in mind, ensuring sales take place at the right time and under the right conditions according to the demands of current and potential customers, creating pricing strategies that maximize income and profitability, identifying elements that may pose a risk for the continuity of customer satisfaction and taking the necessary measures to mitigate the risks, establishing interdepartmental coordination, determining profitable markets, engaging in activities to enter these markets and gaining new customers form the basis of our sales and marketing strategy.

Our Heavy Soda Ash and Sodium Bicarbonate products reach thousands of consumers worldwide. This is why we adopt a responsible marketing approach and centre our marketing communication around raising awareness among our customers.

All logistics activities related to exports are carried out in compliance with the legal requirements of the respective countries.

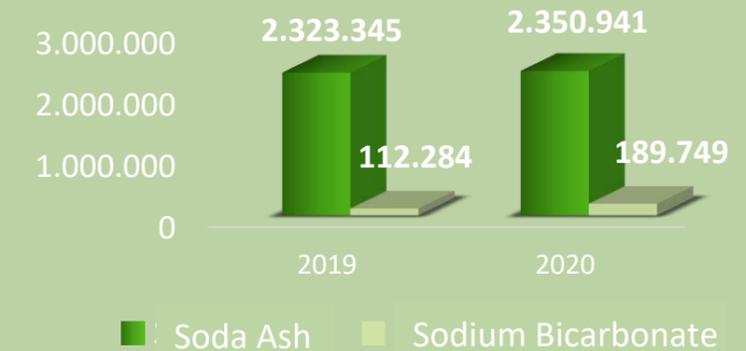


Top 5 Export Countries in 2019



Top 5 Export Countries in 2020

2019-2020 Net Sales Volume (tonnes)



2019-2020 Net Sales Distribution (%)



2019-2020 Production Amount (tonnes)



## SUPPLY CHAIN MANAGEMENT

Kazan Soda Elektrik works with more than 700 personnel, more than 500 suppliers and a total of 27 distributors, 1 domestic and 26 foreign. We contribute to the development of all stakeholders we work with by adapting standards. As a company that has an annual production capacity of 2.7 million tonnes and who exports its products to more than 40 countries and 151 different regions, we aim to make a positive impact on the wide value chain we manage. We create added value for all stakeholders in the value chain by encouraging our suppliers to improve environmental and social performance. Supplier Days have been organized since 2019 in order to strengthen communication with suppliers, and share strategies, purchasing policies and expectations. The sustainability approach in the supply chain is based on international commitments.

As part of the Kazan Soda Elektrik Business Ethics and Modern Slavery Codes published in 2020, the Supplier Code of Conduct specifies the expectations we have for suppliers insofar as legal compliance, work conditions, human rights, occupational health and safety, the environment etc. and we do not work with suppliers who do not fulfil these specifications. Self-assessment questionnaires on quality, the environment and business ethics are sent to all newly recruited suppliers and the responses are evaluated. Supplier audits are carried out when necessary. Stakeholders can report suspicious behaviour or business ethics violations by suppliers by sending an e-mail to [eti@kazansoda.com](mailto:eti@kazansoda.com). Kazan Soda Elektrik shall handle all reports of suspicious violations confidentially and protect those who made a report from any retaliation.

### Stakeholder Opinion

We are proud to be a supplier of Kazan Soda Elektrik and we support their exemplary sustainability work.

PETKİM PETROKİMYA HOLDİNG A.Ş

### Stakeholder Opinion

Kazan Soda Elektrik prioritizes customer satisfaction and product quality while contributing to environmentally friendly production technologies and energy efficiency in order to make our world a better place to live in.

VESKİM KİMYEVİ MADDE İTH. İHR. A.Ş

### Stakeholder Opinion

Kazan Soda Elektrik's strong position in water and wastewater management throughout our work together is a source of motivation for us. We hope our cooperation with Kazan Soda Elektrik, one of Turkey's biggest export brands, will continue.

INFO GROUP END.DAN.SAN. VE TİC. A.Ş

# TALENT DEVELOPMENT





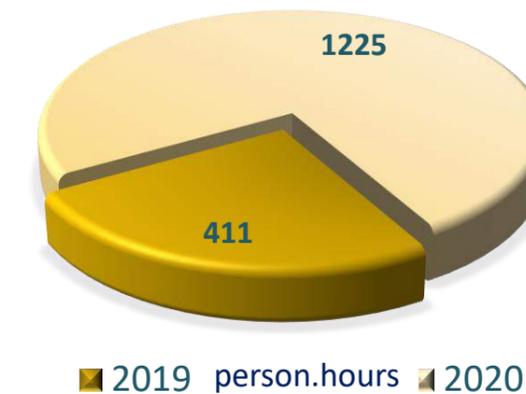
# TALENT MANAGEMENT AND EMPLOYEE LOYALTY

At Kazan Soda Elektrik, investing in people and human resources is seen as the guarantee to future success. In line with the company mission, we offer an inclusive work environment, based on equal opportunity, taking differences into account and focusing on development. Our talent management approach is based on creating educated human resources that focus on the company’s strategic goals, work as a team, and have high motivation and loyalty. The first step to talent management is recruiting the people who are right for the company and for the task, and then revealing the true potential of these people through effective training and development opportunities.

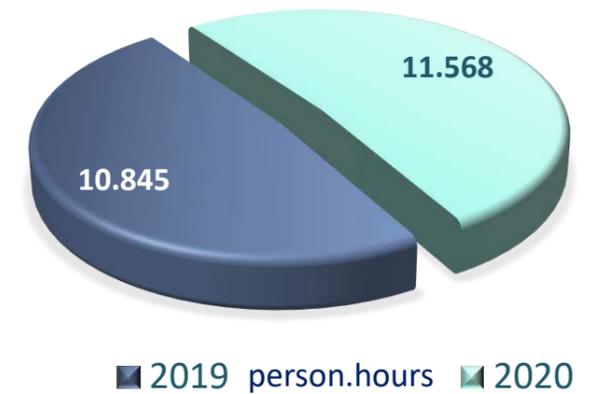
We make sure that employees work in the unit and position appropriate for their knowledge and experience. Employees are rewarded for outstanding effort, work and success in the fulfilment of their duties. All rewards and reasons for receiving rewards are recorded in the employees’ records. Performance evaluations and employee records are taken into account for promotion applications.

At Kazan Soda Elektrik, we value education at every stage and level greatly, in order to prepare our employees for the future by focusing on the requirements of the sector and the various needs of the employees. To this end, we follow a policy that encourages continuous learning in training leaders and creating a common management language. Kazan Soda Elektrik focuses on increasing employee loyalty and satisfaction, the most important resources for sustainable success. We nurture open and transparent communication with employees at all times and encourage the culture of open communication throughout the company via informative training programmes and messages sent within the company. Various internal events are held in order to increase cooperation and communication between different departments and units by offering various platforms and channels of communication within the company to enable effective communication between employees.

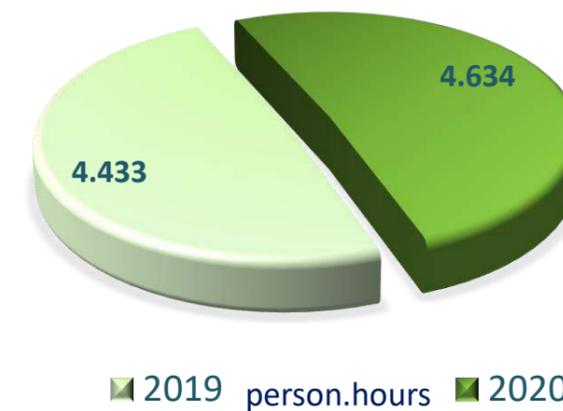
ENVIRONMENTAL TRAINING



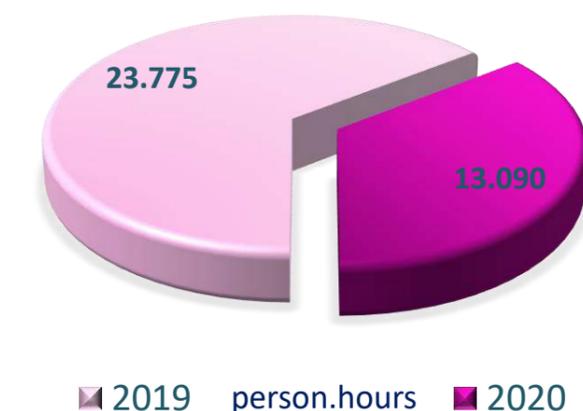
VOCATIONAL TRAINING



MANAGEMENT SYSTEMS TRAINING



OHS TRAINING





## EMPLOYEE SATISFACTION

Continuous efforts are made to maintain employee loyalty at Kazan Soda Elektrik. We design and implement award programmes to encourage performance within our organization. Providing employees with the opportunity to access training and achieve competence is seen as a vital tool in not only keeping the talent we have but also nurturing employees sense of belonging to the organization. A well functioning talent management process is highlighted as an important factor in enhancing employee loyalty and satisfaction. In order to find out about employee satisfaction, loyalty, opinions and feedback, an Employee Satisfaction and Loyalty Survey is conducted once a year. A meeting is held with upper management to evaluate the results of the questionnaire and create an action plan for improvements. This year's Employee Satisfaction and Loyalty Survey was conducted using the quantitative research method, online survey. The main topic of the research are; employee satisfaction level, commitment level, motivation level, COVID-19 process evaluations, impact-satisfaction analysis, loyalty-motivation segmentation, perception of development and the future. 570 people participated in the survey and according to the results, the overall satisfaction level is 75.3%, general loyalty level is 78.7%, general motivation level is 77.4%. Overall COVID-19 process evaluations were 80.8%. The 3 issues with the highest satisfaction level were The Company's Position in the Local and Wider Community (90.1%), Job Security and Legal Rights (83.1%) and Work Conditions in the COVID-19 Process (80.8%).

In 2020, psychological support meetings were held on behalf of Kazan Soda Elektrik with 20 personnel from different departments. In these interviews the personal, family, social and professional history of the individual was taken, as well as their personality, emotional state, crisis management skills, stress, anger management and their opinions on certain issues. As a result, the opinion of the expert psychologist is as follows: It is thought that there is a good relationship between the employees personal qualities, the workplace and their private lives. However, it would be appropriate to work with some employees for psychological support services to be offered on issues such as in service training, needs analysis, employee satisfaction, employee efficiency and loyalty. In addition it was deemed appropriate to conduct examinations, research and periodic interviews if employees are negatively impacted by various stress factors. There could also be activities or individual work done on stress management specifically.

## PERFORMANCE EVALUATION

All employees at Kazan Soda Elektrik are subject to performance reviews and career development evaluations. Employee performance is evaluated by first and second unit supervisors separately using the Performance Evaluation Survey conducted at the end of the year. The results of the performance evaluations guide wage management and promotions.

## KAIZEN TEAMS

3 Kazan Soda Elektrik KAIZEN projects, started in 2020, had the honour of being able to participate in the Quality Circles Award ceremony organised by the Turkish Quality Association and our Trona Hunters team received the Jury Encouragement Award. The Kaizen team carried out a project to increase the capacity of the stripper columns where the pre-treatment and concentration of the trona solution occurs and to reduce the use of steam and antifoam.

As a result of these projects, financial gain was achieved by reducing the amount of trona solution and the consumption of steam and antifoam.



Trona Hunters Kaizen Team

### Success in Other Areas

**OHS:** Possible accidents that could occur during condensate and acid washing due to clogging were prevented.

**Energy:** Due to clogging, there was too much caustic, steam and antifoam preventing the desired production and break down of bicarbonate. As a result of improvements made, the goal of producing more soda using the least amount of steam possible was achieved.

**Environment:** After the actions, acid washing is not performed in the scraper columns. As a result, the problem of disposing of waste resulting from acid wash has been eliminated.



Kazan Soda/Trona Hunters Kaizen Team

As a result of pareto analysis conducted to reach the intended production capacity and consumption figures in the pre-treatment and evaporation unit in our factory, our kaizen team was formed to improve the stripper columns that were clogged and enhance production capacity. The fishbone method was used to identify the reasons for the problems, the issue was looked at under 6 main heading and the main reasons for the problem was identified. Later, the actions necessary to solve the issue were determined and the actions were taken according to the prioritisation analysis. Looking at the results, we see that regular conditioning eliminated the clogging issue and the goal of more efficient production was achieved by using 20% less trona solution, as was aimed. Also, revisions to the stripper column packages and installation of the filtration station made it so that the goal of 25% less steam consumption and 10% water waste was reached, reducing our energy consumption.



Kazan Soda/Group Caustic Kaizen Team

To reduce reactor induced stoppages that were in second place according to prioritisation in the pareto analysis conducted to reduce stoppages in our Kazan Soda factory Thin Caustic Unit, the Kaizen team was founded with the leadership of the caustic unit. Thin caustic is used as an intermediate product in the production stages of the factory to turn bicarbonate into sodium bicarbonate. Reactor induced stoppages caused by impurities (stone, sand etc.) in the lime from the Thin Caustic Unit being diverted from the system impact the production efficiency of thin caustic. This is why we focused on reducing stoppages and using the fishbone method conducted improvements in 4 main areas (human, machine, method and material). By feeding more limewash and puff into the reactor and changing the temperatures of the materials we fed at the same time, steps were taken to reduce the duration of stoppages. Reactor induced stoppages in the Thin Caustic Unit were reduced by 87.5% and the goal identified was reached.



Kazan Soda/Group Osmosis Kaizen Team

As a result of pareto analysis aimed at reducing production loss in our Kazan Soda factory, the kaizen team was formed in order to reduce the loss of sodium carbonate production due to lack of steam production. The steam used in the sodium carbonate production process is obtained from pure water and produced in high pressure boilers. Issues in obtaining pure water lower the steam procurement capacity and result in the loss of sodium carbonate production. Therefore, we focused on the reverse osmosis device which is the pure water production tool and conducted improvement work to reduce the equipment stoppage and maintenance durations using the brainstorming and fishbone methods. Following improvements to the reverse osmosis filter and membrane replacement and maintenance operations, our goals to reduce loss of sodium carbonate production due to insufficient steam production became realistic and 100% improvement was made to sodium carbonate production loss and 80% improvement was made to equipment stoppage durations.

Konferans Katılım Bedelleri	
KalDer Üyeleri	95 TL
Potansiyel Üye	125 TL

Aynı kurumdan 5-9 kişi arası katılımlarda %5,  
10-14 kişi üzerinde %10 ve 15 kişi üzeri tüm  
katılımlarda ise %15  
Katılım bedelli üzerinden indirim uygulanacaktır.

PLATİN SPONSOR



ALTIN SPONSOR



GÜMÜŞ SPONSOR



BRONZ SPONSOR



# KAIZEN TEAMS



Group Osmosis  
Kaizen Team

In this project, Group Osmosis Kaizen Team aimed to ensure the supply of steam required to achieve the targeted production capacity and to reduce the loss of heavy soda ash due to steam production insufficiency. After work and improvements on reverse osmosis equipment membrane, filter changes and washing operations in the steam production process, 100% improvement was achieved in soda production lost caused by lack of steam production.



Group Caustic  
Kaizen Team

In this project, Group Caustic Kaizen Team aimed to reduce the reactor-induced stops in the Thin Caustic Production Unit. As a result of the work undertaken by this team, reactor-induced stoppages in the thin caustic unit were reduced by 87.5% in our facility that operates 24/7. As a result of the Kaizen improvement, the cost of caustic procured externally due to reactor related shutdowns was reduced by 75% on a monthly basis.



Trona Hunters  
Kaizen Team

## Success in Other Areas

As a result of the project, decreases in stoppages resulted in the closed working conditions in the reactor to disappear, increasing employee satisfaction and decreasing OHS risks.

The environmental impact caused by the evacuation and transportation of waste within the reactor with each stoppage was eliminated.

## PROTECTION OF PERSONAL DATA

Kazan Soda Elektrik is committed to protecting the confidentiality of all customers, suppliers, distributors, employees and sub-contractors as well as all stakeholders with whom they have a business relationship. The company processes personal data in accordance with the relevant Data Protection Laws. In cases where the provisions of the relevant Data Protection Laws require a higher level of protection than those ensured by our companies policies, the Company must comply to the laws and legislations. In order to implement activities related to the Protection of Personal information, the KVKK Compliance and Implementation Committee was established on 18.03.2020. Work to comply with the Law on the Protection of Personal Data, which have been completed to a great extent, continue under the coordination of this committee. In this context, work was carried out related to explanation documents written to inform stakeholders, open consent statements in cases that require explicit consent, personal data inventory created for the security and tracking of personal data, and personal data access matrix studies.

At Kazan Soda Elektrik, personal information is not used for any purpose other than that for which it was collected. In 2020 there were no breaches of personal data within Kazan Soda Elektrik and for this reason, we did not receive any complaints from the relevant persons (customers, consumers, suppliers, employees). The relevant persons are informed about the method and legal reason for collecting the personal data processed by our company, the purposes for the processing of the personal data, to whom and for what purposes it can be transferred, and the rights of the persons concerned.

In addition, relevant persons have the right to; learn if personal data has been processed request information related to the data being processed if their personal data has been processed, learn the purpose of the personal data being processed and where the data is used in accordance with the purpose, to be informed of third parties to whom personal information is transferred domestically or abroad, request that personal data be corrected if it is incomplete or processed incorrectly, request that their personal data be deleted or destroyed in accordance with the stipulations of Article 7 of Law No. 6698, to request notification to third parties to whom personal data has been transferred, to object to object to results occurring against their person through analysis of the processed exclusively through automated systems, demand compensation for damages occurring due to the illegal processing of personal data regarding the personal data processed by our company. The digital operations we carry out in our company have inherent risks in this area. The risk of cyber attacks, the security of all kinds of information and the protection of personal data are issues that we care about deeply. In this context, we take the necessary precautions by evaluating the potential risks in advance with the ISO 27001 Information Security Management System established in our company. We constantly improve ourselves in these areas and continue our efforts to create safer digital operations every day. Our work in this area also contributes to increasing customer satisfaction and trust in our company.

**At Kazan Soda Elektrik, protecting personal data is part of our corporate culture and is one of the building blocks of our sustainable business model.**

# CORPORATE SOCIAL RESPONSIBILITY

At Kazan Soda Elektrik, we see contributing to society as the key to long-term success. While contributing to employment in our field of operation, we also prioritise local development. We are constantly expanding our sphere of influence through various social benefit investments that create common value related to our fields of activity. In our social development projects, we aim to contribute to the local economy by prioritizing our Sustainable Development Goals and local suppliers throughout our value chain.

Kazan Soda Elektrik owes its success to the communities in which it operates and therefore aims to support these communities in their efforts to become more sustainable. Sustainable community initiatives mainly focused on the local population in Yenikent Sincan and centred around the environment and education, and maintaining and establishing important municipal buildings.

Kazan Soda Elektrik has supported many social projects since it was established. Keeping in mind the United Nations Sustainable Development goals, it prioritizes the following 4 key issues in its social responsibility projects for a more sustainable world:

- Creating sustainable communities and promoting economic growth
- Supporting activities that help improve the local communities
- Ensuring equal access to education for all
- Protecting and preserving the environment

Kazan Soda Elektrik's social initiatives are mainly focused on helping local communities near the factory, and numerous environmental protection initiatives and educational activities for the local community have been supported.

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## TOPICS

### COMMUNITY DONATIONS

- Donation to Kazan Municipality
- Guard House Repair
- Donation to State Hydraulic Works Foundation

### ENVIRONMENTAL INITIATIVES

- Beekeeping Initiative (Kazan)
- Biodiversity Protection and Monitoring Project (Sincan/Kazan)
- Tree Planting (Sincan/Kazan)
- Lavender Planting (Sincan/Kazan)
- Environmental Protection Training (Sincan/Kazan)
- Mammal Protection Project (Sincan/Kazan)

### PROJECTS TO SUPPORT LOCAL COMMUNITIES AND ORGANIZATIONS

- Donation to Local Community (İncirlik)
- Donation to Local Community (Fethiye)
- Village Building Repair (İlyakut/Sincan)
- Village Building Construction (Mülk/Ankara)
- Imam House Construction and Heating System Renovation (Fethiye/Ankara)
- Guesthouse Construction (Çimşit/Sincan)

### EDUCATION

- Scholarships for students
  - Donation to Nev-Ce Private Rehabilitation Centre
-



# ENVIRONMENTAL MANAGEMENT



## CARBON NEUTRAL PROJECT

In addition to our goal of reducing greenhouse gasses in our production operations and the improvement activities carried out to achieve this goal, we support the United Nations Sustainable Development Goals with our carbon neutralization project for all Kazan Soda employees in 2021.

# ENVIRONMENTAL MANAGEMENT

At Kazan Soda Elektrik, the greenhouse gas reduction target in the entire value chain, especially the production operations, and raising awareness of the stakeholders on this issue are among the top priorities. While mining activities are carried out underground using the solution mining technique, the land above is open to locals as agricultural land and existing agricultural production and animal husbandry activities are supported.

The sodium bicarbonate in the trona solution being converted into sodium carbonate releases CO2 gas, which is used in the production of Sodium Bicarbonate. Process water is used as a recyclable in solution mining, reducing the use of natural resources.

Environmental performance is monitored effectively and improvements are made in all areas. The Environmental Management System is constantly kept up to date by following the newest global developments. Annual environmental management targets are determined throughout the facility. Effective monitoring of environmental performance is carried out in order to achieve these targets.

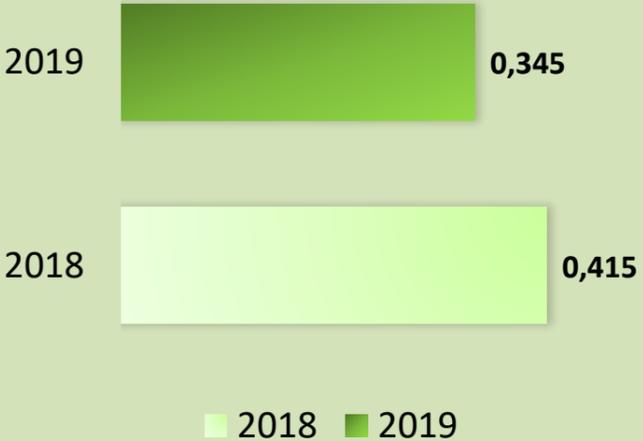
In the production of Sodium Carbonate, solution recycling is provided at an optimum level, by-products generated during production activities are brought into the economy and a Zero Waste Policy is implemented.

One of the United Nations Sustainable Development Goals, the commitment in this area is fulfilled by developing carbon neutral projects that will contribute to the fight against the climate crisis.

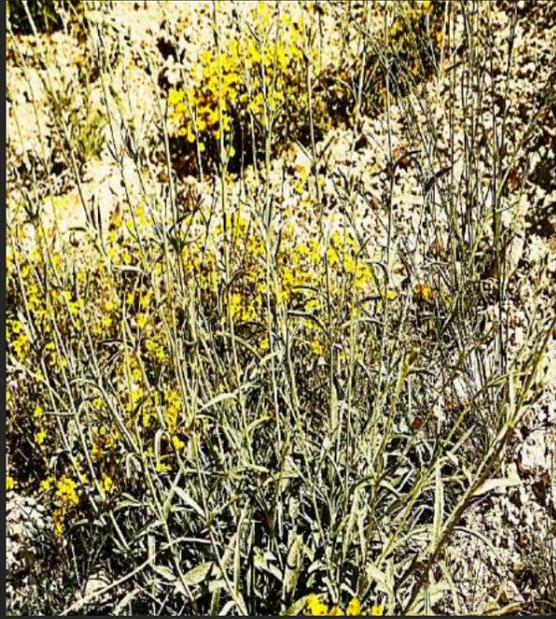
In 2021 we plan to clear a total of 3500 tonnes of CO2 Carbon Footprint for 700 Kazan Soda Elektrik employees in cooperation with a company that produces renewable energy. A separate project to reduce greenhouse gas emissions related to logistics is being carried out in the fight against the climate crisis.

In this context, we aim to decrease greenhouse gas emissions caused by transportation by increasing the use of railways in place of roads in shipments to ports. The greenhouse gas emissions arising from the production and shipment of products are calculated according to the ISO 14064-1 Standard and verified by BSI, an independent, accredited external organization.

## EMISSION INTENSITY



In 2019, within the scope of ISO 14064 Standard, the emission intensity for our Scope 1 and Scope 2 operations decreased by 17.5% compared to the previous year and was 0.345 tonnes of CO2e/tonne of product.



# BIODIVERSITY

We continue our efforts to improve biodiversity at our factory site with our Endemic Plant Protection, Wildlife Monitoring and Beekeeping activities.

# BIODIVERSITY

## ENDEMIC PLANT PROTECTION PROJECT

In 2016, Kazan Soda Elektrik initiated a Project focusing on the protection of biodiversity in the region surrounding its campus. Eight academics, including Prof. Dr. Hayri Duman, a flora expert and ecologist from Ankara Gazi University, were involved in this project. In 2016, Duman visited the project site to observe the flora under different seasonal conditions. These visits took place in March, June, July and November. A detailed list of taxa in the project site was put together during these visits. The project team evaluated which taxa from the list were endemic and which were at risk of extinction, whether they were endemic or not. Within the scope of 2016 site visits and research, 246 different plant species were identified in the area and highlighted as important for the project. 41 of the 246 species are native to Turkey and 6 of these native plants have specific local or regional distribution. The six species are as follows: *Aethionema dumanii* (which is named for Prof. Duman), *Campanula damboldtiana*, *Erodium sibthorpiatum* subsp. *Sibthorpiatum*, *Scutellaria yildirimlii*, *Sideritis galatica*, *Salvia tchihatchefii*. If the six taxa named, only *Campanula damboldtiana* was a local distribution. This is why it has been categorised as “critical, CR” on the International Union for Conservation of Nature (IUCN) red list, which is a comprehensive list of endangered species in the world. The seeds of these six endemic plants were collected at the appropriate times and sent to Ankara Seed Genetics Bank. In light of efforts to protect endemic plants and raise awareness, and upon the recommendation of Ekoiz, Kazan Soda has built a greenhouse of approximately 8,000 m<sup>2</sup> for endemic plants.

When the greenhouse is completed, Kazan Soda aims to organize field trips for local schools and villages to raise awareness about these plants.

## Stakeholder opinion

The project we have undertaken with Kazan Soda was specifically designed to help protect local and regional endemic plants. In order to protect these plants, contributions can be made for the storage of the seeds of these plants in a seed bank and awareness can be increased through exhibiting and promoting these plants in order to contribute to their protection in their natural environment. To this end, a small botanical garden was created on the Kazan Soda campus. The botanical garden was created to raise awareness about these plants and inform the public about this issue. Although the botanical garden has not been fully completed at this time, the vegetative parts of some locally distributed plants have been moved to the botanical garden, the plant population in the garden has increased and improvement studies have been completed.

The endemic plants being protected in the botanical garden will eventually be introduced to the public and are generally distributed only on the outskirts of Ankara and other similar habitats. One of these plants only grows in the area surrounding Kazan Soda. Kazan Soda's project contributes to the protection of these plants.



Gazi Üniversitesi  
Prof. Dr. Hayri Duman

# BIODIVERSITY

## BEEKEEPING ACTIVITIES

Kazan Soda Elektrik owes its success to the communities in which it operates and therefore aims to support these communities in their efforts to become more sustainable. Kazan Soda Elektrik's sustainable community initiatives mainly focus on supporting the local population of Yenikent Sincan regarding the environment and education, and establishing important municipal buildings.



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 Kudret Arıcı, a local beekeeper and the honey obtained from these activities is distributed to the employees.

The project started with 50 beehives and now has around 130 beehives. The beekeeping project has attracted the attention of the local community around the factory and has been a source of information for them.

Two beekeepers from the villages Fethiye and Mülk received assistance from Kudret Arıcı about issues pertaining to beekeeping such as how to deal with parasites that hinder beekeeping activities in the field. Kazan Soda also supports beekeeping by planting lavender and acacia trees, two of the plants most preferred by bees. The aim of the project is to revive beekeeping in the region and reintroduce it to the local population.

## LAVENDER PROJECT

The lavender project was initiated to support Kazan Soda Elektrik's beekeeping initiative. Bees often prefer flowers such as lavender. In 2018, 33,000 lavender plants were planted within the Kazan Soda factory site. Another purpose of planting lavender is to increase lavender cultivation in the region by starting lavender oil production.

## Stakeholder Opinion

Kazan Soda, which has always attracted attention with its sustainability work, has made a great contribution to the protection of endemic plant species in its region thanks to the "Kazan Soda Botanical Garden" it was built within its license area, and this project is significant as one of the best examples of the value given to species that need protection.

Our country will host the United Nations Convention on Biodiversity as the Term President between 2022-2024 for the 16<sup>th</sup> Conference of the Parties for approximately two weeks in the last quarter of 2022. 7 to 10 thousand delegates from 196 countries are expected to attend the conference. The Kazan Soda Botanical Garden, realized by our international brand Kazan Soda is a source of pride for all of us in this time when we will be term president for the United Nations Convention on Biological Diversity.

This area, where critical species will be preserved and exhibited in situ, is important for the continuation of the species as well as the for making these types of conservation efforts more commonplace.

# WASTE AND PACKAGING MANAGEMENT

Within the scope of activities, trona ore is extracted from underground by the solution mining method known as “Environmentally Friendly” and Sodium Carbonate and Sodium Bicarbonate are obtained through various processes.

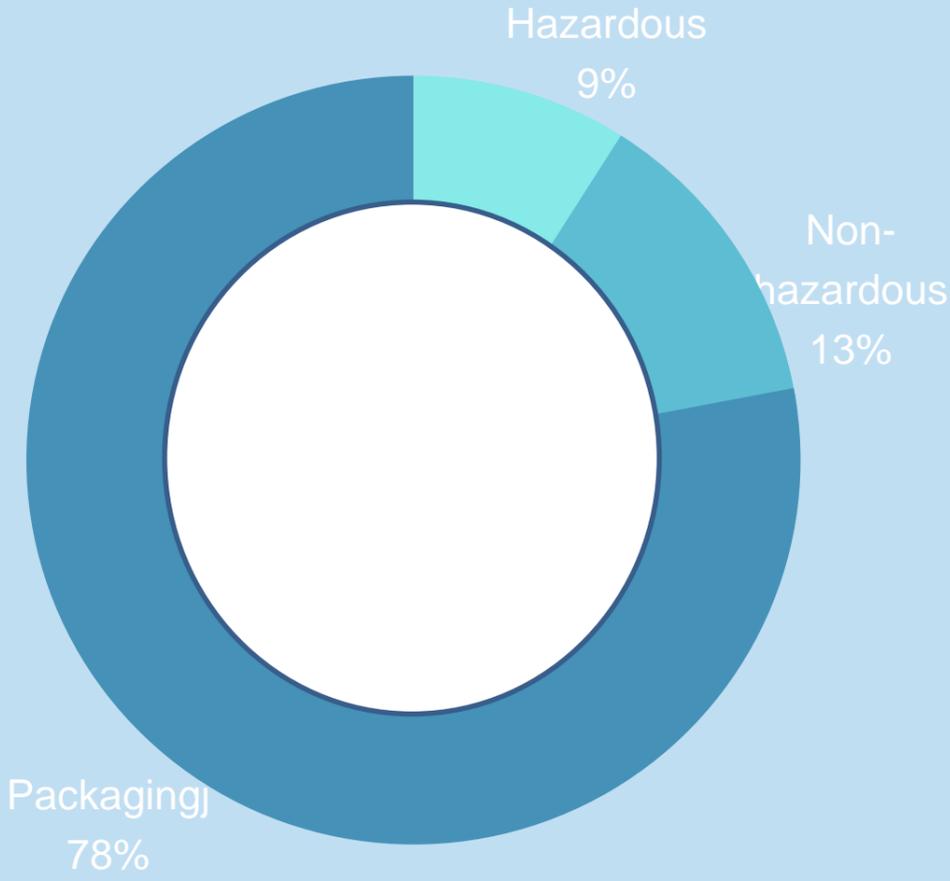
The annual production capacity of the facility is 2,500,000 tonnes of Soda Ash and 200,000 tonnes of Sodium Bicarbonate, and 12,830,618.5 tonnes and 11,808,834.63 tonnes of trona was used as raw material in 2019 and 2020 respectively.

Wooden pallets and plastic packaging is used for the packaging of main products (Sodium Carbonate and Sodium Bicarbonate)

The amount of packaging purchased, the packaging put on the market and the waste packaging for these materials that come from the facility are reported to the relevant authorities every year.

In order to reduce the amount of natural resources used, all process water is reused in solution mining. The packaging materials that leave the facility as waste are regularly sent to licensed recycling companies.

All hot solution, water and steam pipes in the mine site and facility are covered with polyethylene cover over polyurethane insulation in order to protect the field and energy. As required by the Kazan Soda Elektrik Environmental Policy, the company sources its steam from the Natural Gas Combined Cycle Power Plant, which uses a more environmentally friendly combustion technology.



2017-2020 Total Waste Rates

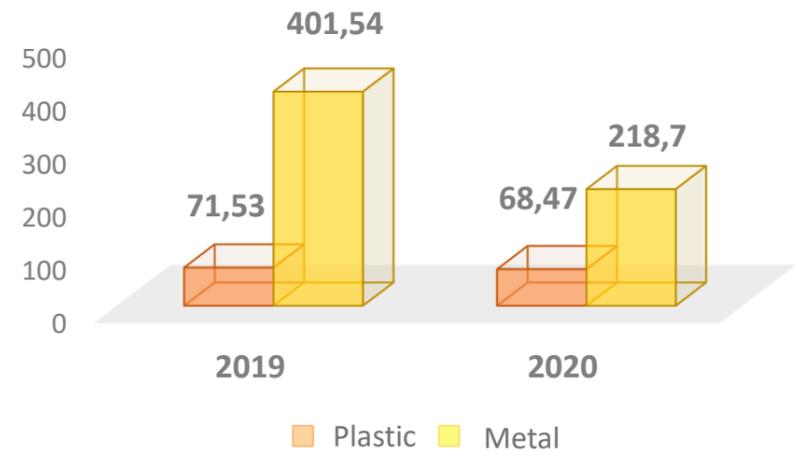
# WASTE AND PACKAGING MANAGEMENT

The Kazan Soda Elektrik waste management policy is to keep the environmental impacts of waste under control, reduce or recycle at the source and ensure that non-recyclable waste is disposed of in accordance with legal requirements and without doing harm to the environment.

To this end, efforts are made to realize the activities necessary for the formation and development of environmental awareness in employees in order to achieve our goals, and to increase the environmental awareness of all employees, from the highest level of management to the lowest unit by providing environmental training to all employees in the company.

- The steam needs of the facility is met by the Natural Gas Combined Cycle Power Plant, which uses a more environmentally friendly combustion technology, thus preventing the creation of waste ash.
- By products of the process are not considered waste and are brought into the economy.
- Thanks to the “Solution Mining“ technique used in the mine, only trona is extracted and tallow material formation is prevented.

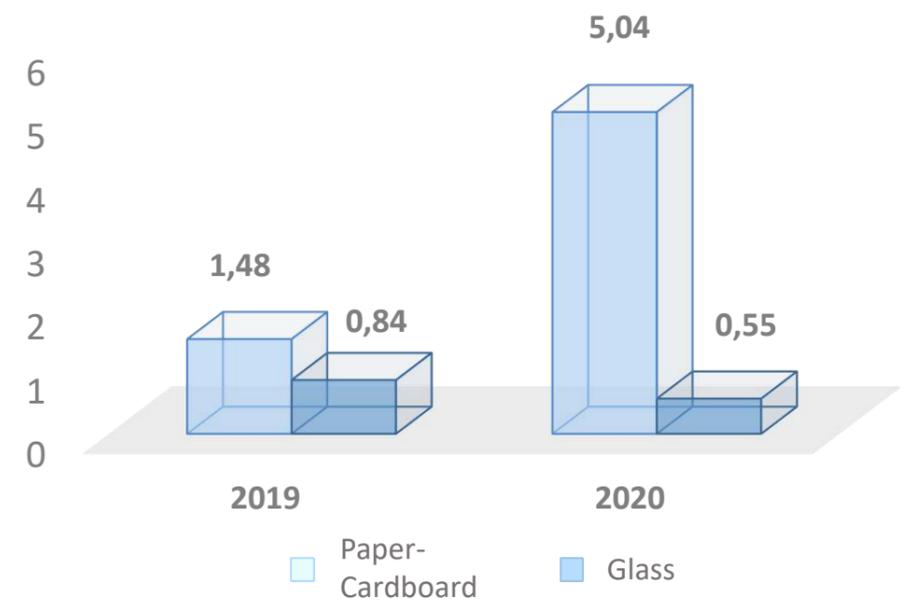
Amount of Recycling (tonnes)



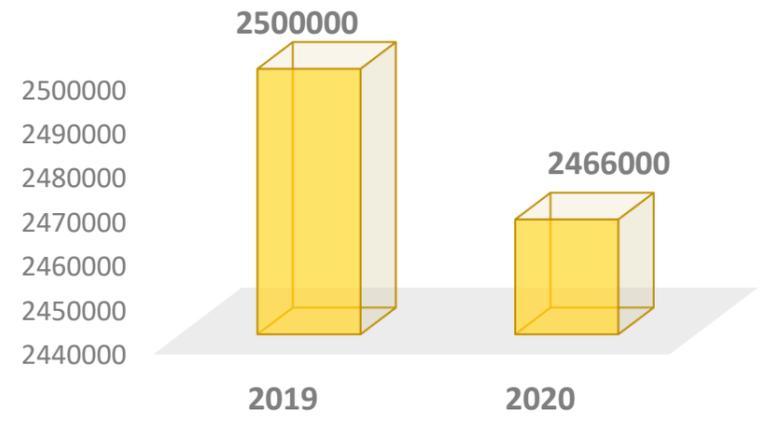
Amount of Packaging Used (tonnes)



Amount of Recycling (tonnes)



Total Amount of Production (tonnes)



## ZERO WASTE PRACTICES

In order to achieve our Zero Waste goal, we use resources more efficiently, prevent and reduce waste caused by our operations, and strengthen our waste management performance by separating the waste at the source. At Kazan Soda Elektrik, “Zero Waste” work, which is the most robust approach to prevent waste, use resources more efficiently, reduce the amount of waste created, establish an effective collection system and recycle waste, started as of 2018.

Since training is of the utmost importance for the efficient practice of this approach, training and information has been provided to target demographics. Following “Zero Waste and Environmental Awareness training, Zero Waste Units were placed throughout the field/deficiencies were eradicated and online “Where should I assign it?” training was provided to all employees.

Na and Ca based salts obtained through the process of Soda Ash and Sodium Bicarbonate production were categorized as by-products by studies carried out by the Ministry of Environment and Urbanization and Istanbul Technical University. These by-products contributed to the economy and process related zero waste work was realized. By-product Permits for the use of Na-Based Salts and raw materials in factories that prepare salt solutions for the textile industry were obtained from the relevant ministries.



T.C.  
ANKARA VALİLİĞİ  
Çevre ve Şehircilik İl Müdürlüğü



Belge No: TS/6/B2/15/2

Tarih: 19/11/2020

### SIFIR ATIK BELGESİ (Temel Seviye)

Adı : KAZAN SODA ELEKTRİK ÜRETİM ANONİM ŞİRKETİ  
Adresi : ANKARA, MÜLK Mahallesi, MÜLK KÜME EVLER, No: 122-, SİNCAN, Türkiye  
Vergi No : 5410515528

12/07/2019 tarihli ve 30829 sayılı Resmî Gazete’de yayımlanarak yürürlüğe giren Sıfır Atık Yönetmeliği’nce Sıfır Atık Yönetim Sistemi’ni kurarak Sıfır Atık Belgesi’ni almaya hak kazanmıştır.

Belge Son Geçerlilik Tarihi: 19/11/2025

e-İmzalıdır

Ali Vedat ÇİFTÇİ  
Çevre ve Şehircilik İl  
Müdürü

Bu belge, güvenli elektronik imza ile imzalanmıştır.

Belge Doğrulama Adresi: <https://www.turkiye.gov.tr/cevre-ve-sehircilik-ankara/il-belge-dogrulama-kodu-FXAFAVSK>

**The Zero Waste Management System was established in accordance with the Zero Waste Regulation on 19.11.2020 and we received the right to receive the Zero Waste Certificate.**

An aerial night view of a large industrial facility, likely a refinery or chemical plant. The scene is illuminated by various lights, including purple and blue spotlights on the ground and warm yellow lights from the distillation columns. Several tall smokestacks are visible, emitting thick white plumes of steam or smoke. The facility consists of numerous large buildings, pipes, and storage tanks. The overall atmosphere is industrial and active.

# ENERGY AND WATER MANAGEMENT

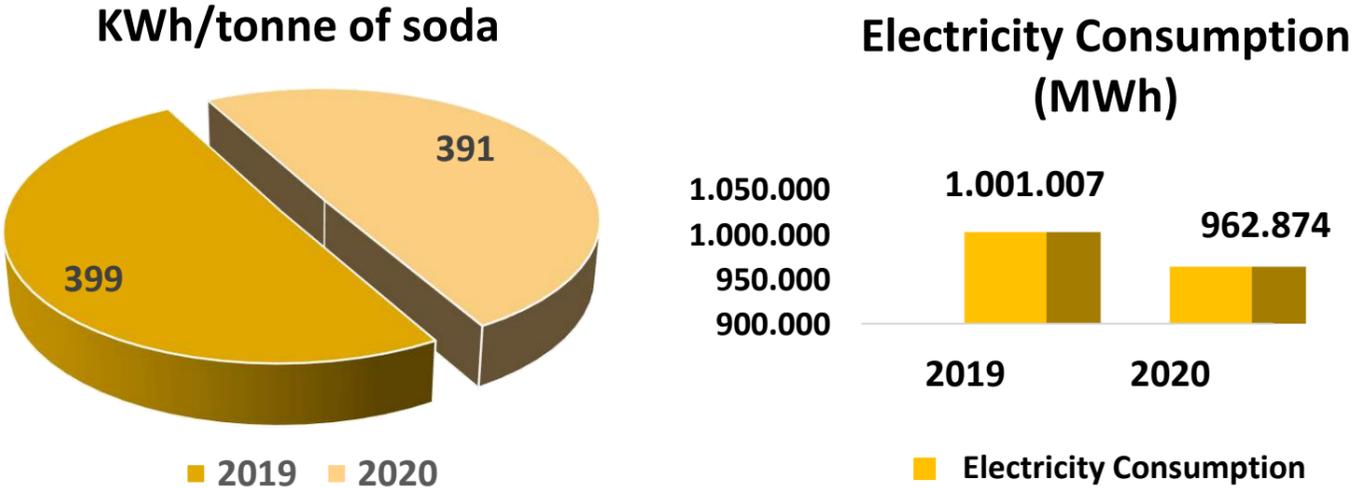
# ENERGY MANAGEMENT

The steam and electricity necessary for the production of Sodium Carbonate and Sodium Bicarbonate are met via the natural gas cogeneration plant installed at the facility. After the needs of the facility have been met, approximately 60% of the electricity produced is sold to EPIAŞ, Park Cam and Cengiz Elektrik which contributes to meeting Turkey’s electricity needs.

Targets and consumption parameters for the cogeneration power plant are set and checked by the Energy Production Department.

Kazan Soda Elektrik is aware of its responsibility in combating one of the biggest problems of our time, “Climate Change and Global Warming”. The CO2 gas released in the production of Sodium Carbonate is used in the production of Sodium Bicarbonate, and thanks to the closed cycle production method, much less carbon is emitted and environmental impacts are minimized. Greenhouse Gas Emissions are calculated every year during the reporting period and this data is presented to the relevant official institutions. In 2019, Carbon Footprint reports for operational emissions were prepared voluntarily in the scope of ISO 14064 standard and Water Footprint reports were prepared within the scope of ISO 14046 standard. The same studies are carried out for the activity data for the year 2020.

Energy efficiency, which has a significant effect on reducing environmental impact and greenhouse gas emissions caused by production processes, is vital for combating the climate crisis. With this in mind, Kazan Soda Elektrik aims to be one of the leading companies in the fight against Climate Change and Global Warming thanks to measures taken and targets set to protect the environment. As a result of improvements made in 2020, a 2% reduction was achieved in the amount of electricity used per tonne and energy efficiency in production is pursued through our targets. Areas in need of improvement are identified via effective control mechanisms and productivity is increased. A budget is allocated every year for the realization of energy efficiency projects and investments in our enterprises and energy consumption and greenhouse gas emissions are reduced with the projects we carry out.



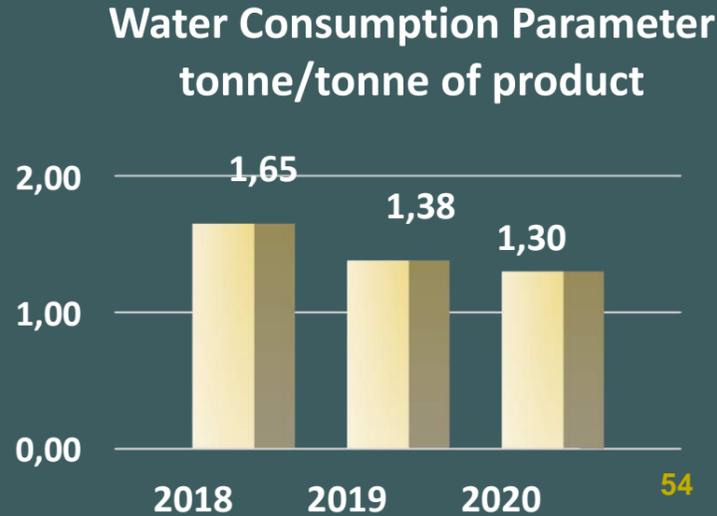
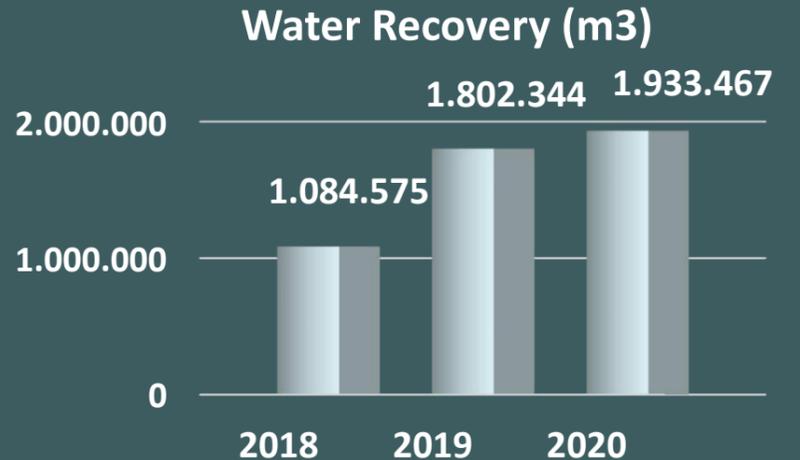
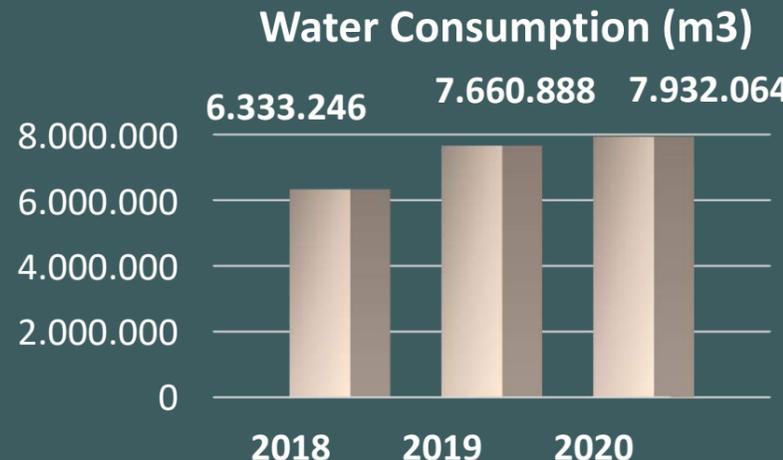
WATER MANAGEMENT

# WATER PROCUREMENT AND TREATMENT

The Water Supply and Treatment Department is responsible for developing and supervising water management activities, which are vital to the operations of the company. Activities related to the supply, treatment and conditioning of the water needed for the facility are carried out by this department. To this end, work programs are created and followed in order to determine the corporate water risk and take the necessary actions. Thanks to projects carried out in 2020, 6% savings have been achieved in the amount of water used in the scope of facility operations. In all operations, wastewater is treated in chemical and biological treatment facilities according to its nature, ensuring that it remains below the legal wastewater limits in order to protect water resources and biological diversity, and their compliance with standards is checked periodically.

In 2018, a water management system was established to manage water-related risks and to calculate the corporate water footprint in accordance with ISO 14046 standard. The water footprint is calculated in accordance with ISO 14046 Standard and verified by an independent, accredited external organization every year. In this context, the BSI verification body has verified the water data for the year 2018-2019, and the data verification studies for 2020 are ongoing.

As a result of efficiency-enhancing projects carried out, the "Water Footprint" in 2019 was reduced by 20% compared to the previous year. The production facility is designed as a closed circuit for water recovery, and the steam used in production is condensed and sent back to the mine and water treatment unit.



A potential drought event poses a risk to production activities. According to the World Resources Institute (WRI) Water Risk Atlas, the Kazan-Sincan/Ankara Region is categorized as being at the 5<sup>th</sup> level of Baseline Water Stress, extremely high stress (>80%) which pushes us to take new measures concerning water efficiency.

Kirmir spring has been made operational as an alternative to Kurtboğazi dam to ensure water supply security. Monthly water analyses are carried out by accredited third party laboratories. The amount of water drawn from these sources, used in production stages and discharged is continuously monitored and checked via meters and flowmeters.

Today, the limited existence or excessive use of water resources is a problem for everyone, not only for those who are involved in this issue.

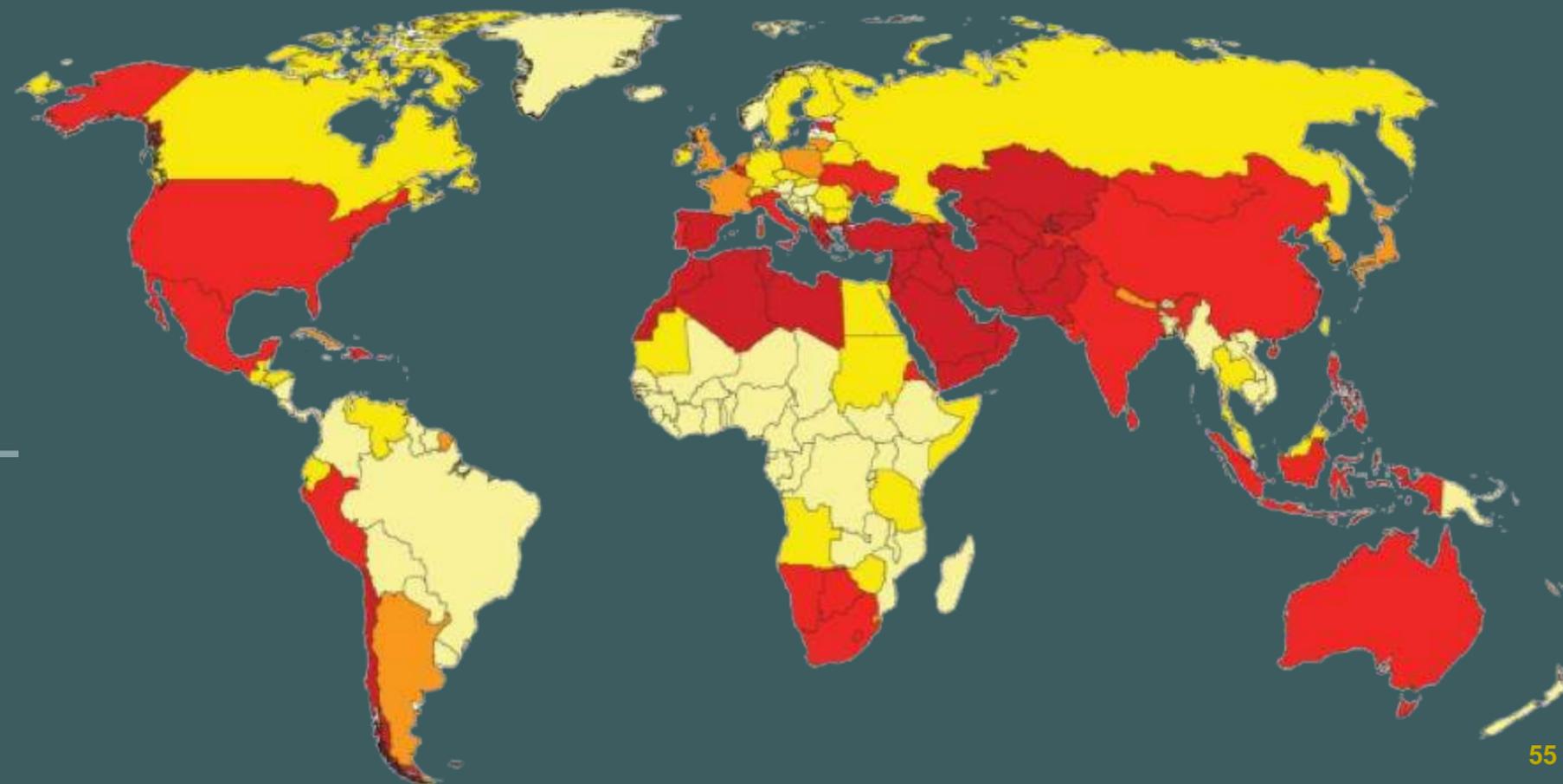
All companies operating in countries that experience water shortages should make sure their water policies take into account what will happen many years ahead.

To this end, as Kazan Soda Elektrik, we plan to create our strategic, well-planned and long-term Water Footprint Reduction goal by reducing our water use every year in line with our goal of becoming a Water CEO Mandate signatory.

WATER PROBLEMS TO BE ENCOUNTERED IN 2040 BY COUNTRY

RATIO OF WATER WITHDRAWALS TO SUPPLY

- Low Stress (<10%)
- Low to Medium Stress (10-20%)
- Medium to High Stress (20-40%)
- High Stress (40-80%)
- Extremely High Stress (>80%)



# OHS MANAGEMENT

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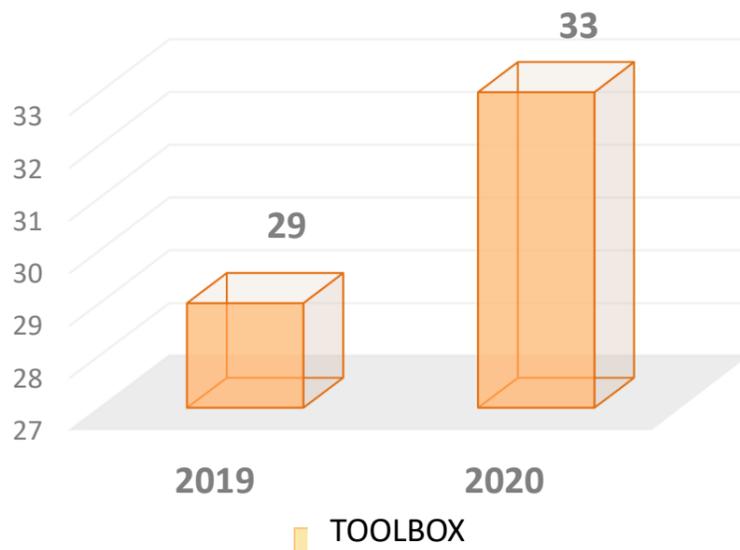
**kazan**   
SODA ELEKTRİK



## GENERAL ACCIDENT RATIO



## TOOLBOX



At Kazan Soda Elektrik, the common goal of all employees and units when it comes to occupational safety is zero work accidents and zero occupational diseases. We aim to reach this goal by developing a behaviour-oriented occupational health and safety culture in all our employees. In this vein, Behaviour-oriented OHS training was provided to white-collar employees in February 2020 by expert trainers, and "Team Harmony and Team Leadership" training was provided to Health and Safety Management in May. During this difficult time caused by the global COVID-19 pandemic, our first priority at Kazan Soda Elektrik has always been keeping our employees, customers, stakeholders and their families safe and healthy. To ensure everyone's safety, we have put into place various administrative and operational changes since the first day COVID-19 appeared in our country, in accordance with the measures announced by the Republic of Turkey Ministry of Health and the Coronavirus Scientific Advisory Board. In this context, the Pandemic Influenza Action Plan was prepared and we switched to a partial work from home system, field entries were revised from a finger-pressing system to a card system, thermal cameras were supplied and visitor access was restricted. In addition to all these measures, COVID-19 Safe Production Certificate was obtained on 14.07.2020 following the TSE audit.

Kazan Soda Elektrik aims to carry out all stages of its production activities in a healthy and safe work environment. In order to ensure the occupational health and safety of employees and to achieve the goal of zero work accidents and occupational diseases, occupational safety measures for general and work-specific risks are provided to eliminate or reduce risk to an acceptable level. In order to create a culture of occupational health and safety in employees, regular training is provided and these training programmes are also provided to new employees or employees who change their duties, subcontractors and interns.

In order to cultivate effective OHS leadership in all units, a Hazard and Risk Hunting Practice and Drama workshop was identified as the Champions League Project in 2020.

Content of the Activity:

- Preparing hazard and risk hunt checklists
- Methods of identifying hazard and risk
- Hazard hunt and competition in work areas
- Identification of hazards and feedback
- Communication in hazard and risk management
- Hazard and risk hunt drama workshop
- Group Work/Hazard and Risk Management

In line with this content, a total of twenty personnel from each unit attended a 4 day training on 10.03.2020, 13.07.2020, 21.07.2020 and 28.07.2020.

For the workshop activities in the training, teams of 5 were put together, roles were distributed in the team and each team member took part in the activities.

Teams took part in a hazard and risk hunt in the field, and reported and presented their findings. Group winners for each training were chosen according to the scoring criteria.

On 14.09.2020 the group winners of the previous four training sessions took part in a Champions League Final, and one of the four teams participating in the final was awarded a trophy as Champion in Hazard and Risk Hunting.

Work at Height, First Aid, Behaviour Oriented Occupational Safety, ADR General Awareness, ISO 45001 Standard, Covid-19 Awareness, Team Cohesion and Team Leadership in Health and Safety Management, Employees' Legal Rights and Responsibilities of Employees, Legal Consequences of Occupational Diseases, Emergency (Protection, Rescue, Extinguishing), Environmental Accidents Response Emergency Trainings were provided to our employees in 2020.

A COVID-19 company wide psychosocial risk factors questionnaire was conducted with 123 employees and psychosocial risk analysis was conducted using the results of this survey.

In addition to medical intervention, 5 personnel who had experienced an work accident were offered psychological support interviews. None of the employees exhibited symptoms of post-traumatic stress disorder.

At Kazan Soda Elektrik, OHS Reward/Penalty Procedure is applied to manage occupational health and safety and environmental safety activities of personnel, to create and measure individual performance monitoring criteria and to contribute to highlighting work safety. This procedure entails rewarding personnel who abide by occupational health and safety rules, who contribute to work concerning the improvement of occupational health and safety, and who work in a way that is mindful to the environmental impact of their work in order to encourage constant improvement in the behaviour of the employees while also punishing employees who do not comply with safe work guidelines. The scoring system is as detailed below and the 5 employees with the highest points in the last quarter were rewarded with 1 gram of gold.

- Near-miss report: +10 Points
- Elimination/improvement of dangerous situation: +10 Points
- Non-compliance report: +5 Points
- On the job speech performance: +5 Points
- Performance in OHS training tests: +5 Points
- Completely fulfilling inspection/audit criteria in internal or external audits: +20 Points
- Completing/closing Corrective-Preventative Actions before the specified deadline and groups/persons of whom the action effectivity was verified: +10 Points
- Work accident caused by dangerous action: - 20 Points
- Actions taken without creating a permit to work form: - 20 Points
- Environmental Accidents: -15 Points
- Causing the creation of an unsafe environment: - 10 Points
- Dangerous behaviour: - 10 Points
- Failure to use Personal Protective Equipment: - 5 Points
- Incorrect/improper use of equipment: - 5 Points

# PERFORMANCE INDICATORS

## Financial Tables

	PRODUCTION (TONNES)	NET PRODUCT SALES (TONNES)	BY REGION (TONNES)			BY PRODUCT GROUP (TONNES)	
			Turkey	Europe	Other	Heavy Soda Ash	Sodium Bicarbonate
<b>2018</b>	1,785,000	1,793,501	76,900	1,008,537.53	708,063	1,751,075	42,426
<b>2019</b>	2,500,000	2,435,629	180,345	1,245,848.75	1,009,435	2,323,345	112,284
<b>2020</b>	2,466,000	2,540,690	225,831	1,056,986	1,257,873	2,350,941	189,748

	Total Short Term Liabilities (Million €)	Total Liabilities (Million €)	Investment Spending (Million €)	Personnel Expenditure (Million TL)	Community Benefit Investments (Million TL)
<b>2018</b>	1,765,642,678.32	6,592,656,088.21	991,544,529.57	42,079,867.88	1,331,970.44
<b>2019</b>	1,032,053,454.58	5,931,768,553.21	332,804,135.25	65,596,500.29	427,376.13
<b>2020</b>	514,619,561.73	6,269,047,507.73	168,154,496.39	72,530,823.66	293,006.59

# PERFORMANCE INDICATORS

## Social Data

	Employee Distribution According to Status			Employee Distribution According to Type of Contract			Employee Distribution According to Gender			Employee Distribution According to Age Group			Distribution of Turkish and Non-Turkish Employees			
	Blue Collar	White Collar	Total	Permanent	Temporary	Total	Male	Female	Total	<30	30-50	50<	Total	TR	Non-TR	Total
<b>2018</b>	560	97	657	565	78	657	603	54	657	311	299	47	657	580	77	657
<b>2019</b>	622	119	741	665	76	741	675	66	741	322	363	56	741	667	74	741
<b>2020</b>	603	122	725	654	71	725	660	65	725	299	376	50	725	655	70	725

	Average Age by Employee Category			Average Seniority by Employee Category			Distribution of Turkish and Non-Turkish Employees in High Level Management			Distribution of High Level Management According to Gender (%)		Employee Circulation (%)
	High Level Management	Mid Level Management	Experts and Clerks	High Level Management	Mid Level Management	Experts and Clerks	TR	Non-TR	Total	Female	Male	
<b>2018</b>	43	31	36	8	4	4	16	0	16	%31.25	%68.75	%28.26
<b>2019</b>	46	32	35	9	4	4	19	0	19	%26.18	%73.68	%12.74
<b>2020</b>	48	33	35	9	4	5	23	0	23	%17.39	%82.61	%10.11

# PERFORMANCE INDICATORS

## OHS Data

	Work Accident Weight Speed (1)	Work Accident Frequency Speed (2)	Work Accident Weight Rate (3)
<b>2018</b>	6.462	119	6.46
<b>2019</b>	238	27.9	0.24
<b>2020</b>	292	32	0.29

	Number of Work Accidents	Work Accident Days Lost	person.hour Work	Total Production (Tonnes)	Total Number of Employees for 12 Months	Accident/Million Tonnes of Production	General Rate of Accidents (4)
<b>2018</b>	151	8.198	1,268,732	1,785,000	7,585	85	1,991
<b>2019</b>	39	333	1,397,611	2,500,000	8,649	16	451
<b>2020</b>	39	355	1,215,700	2,466,000	8,933	16	437

**(1)** Work Accident Weight Speed = (Total number of days lost due to accidents/Total number person hours worked) x 1.000.000

**(2)** Work Accident Frequency Speed = (Total Number of Accidents/Total number person hours worked) x 1.000.000

**(3)** Accident Weight Rate = (Total number of days lost due to accidents/Total number person hours worked) x 1000

**(4)** General Rate of Accidents= (Total Number of Work Accidents/Total Number of Employees) x 100.000

# PERFORMANCE INDICATORS

## Environmental Data

	WASTE (TONNES)					Domestic Treatment (legal limit: 120 mg/L)	Industrial Treatment (legal limit: 150 mg/L)
	Hazardous	Non-Hazardous	Medical	Packaging	Total		
<b>2018</b>	93,165	481,84	0,119	53,36	628,484	71,165	31,57
<b>2019</b>	77,235	415,88	0,098	59,51	552,723	29,43	27,25
<b>2020</b>	109,1	612,387	0,089	60,42	781,996	20,12	13

	Greenhouse Gas Emission (tonnes CO <sub>2</sub> / tonnes of product)	CONSUMPTION FIGURES							
		Total	Trona (tonnes)	Trona (tonnes/tonnes of soda)	Energy (MWh)	Energy (kWh/tonnes of soda)	Water (m <sup>3</sup> )	Water (m <sup>3</sup> /tonnes of soda)	Wood (tonnes)
<b>2018</b>	0,418	10,073,713.40	5.64	841,871	471	6,333,246	1.65	1,614.972	0.0009
<b>2019</b>	0,345	12,830,618.50	5.13	1,001,007	399	7,660,888	1.38	2,571.621	0.001
<b>2020</b>	Pending	11,808,834.63	4.79	962,874,962	391	7,932,064	1.30	3,035.46	0.001

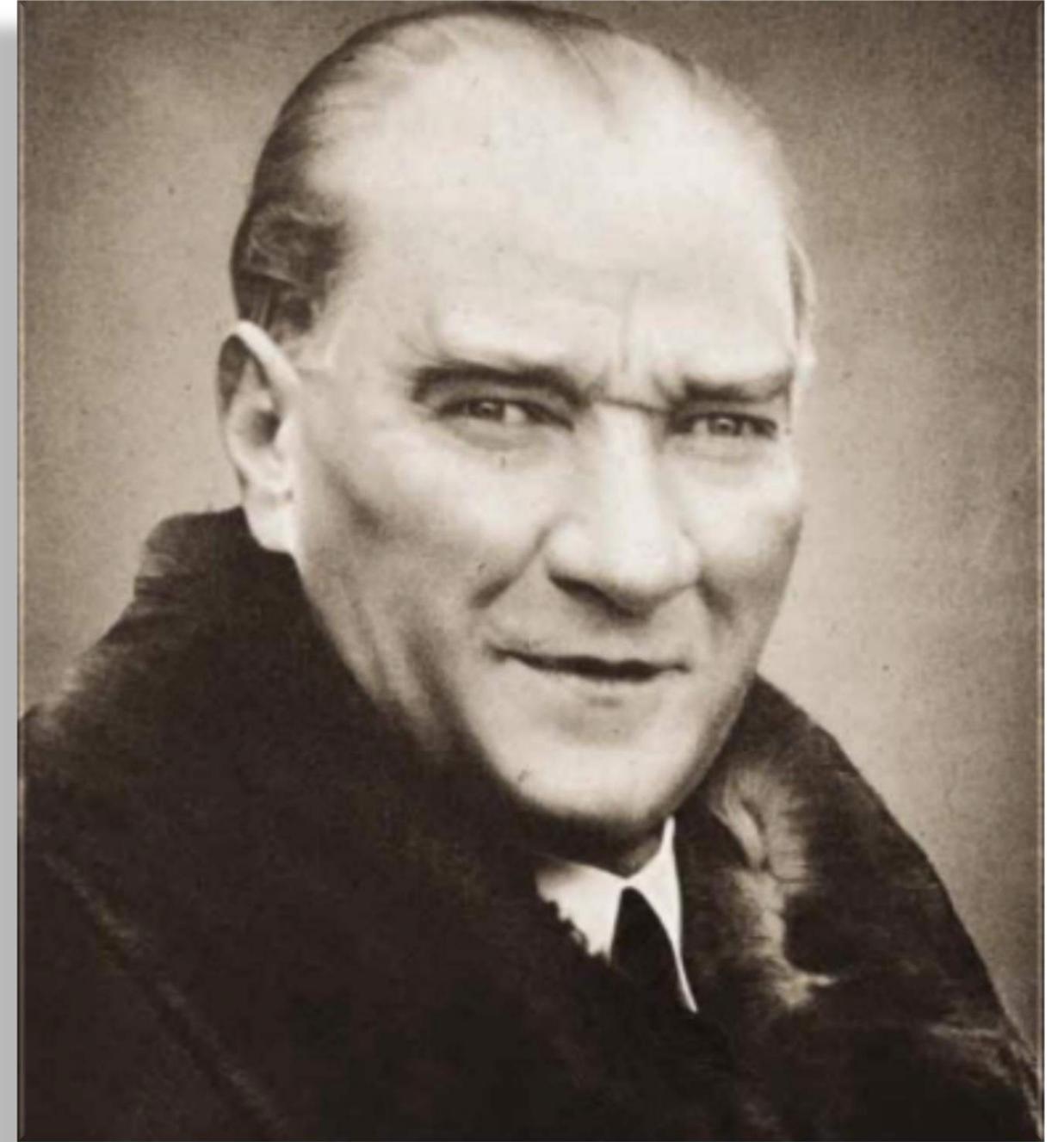
## CONTACT INFORMATION

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We need nothing, we need but one  
thing and that is to be hardworking!  
M. Kemal Atatürk