





#### SUSTAINABILITY BULLETIN

FEBRUARY 2024



NEWS FROM AKSA

AKSA GENERATOR'S
SUSTAINABILITY-FOCUSED
PROJECT: WAIST CUSHION MADE
OF CLEAN WASTE SPONGES

KAZANCI HOLDING ESTABLISHED GLOBAL CORPORATE GOVERNANCE POLICIES IN LINE WITH ITS 2030 VISION AKSA NATURAL GAS
BECAME THE LOW CARBON
HERO FOR THE FOURTH
TIME IN A ROW!

#### KAZANCI HOLDING ESTABLISHED GLOBAL CORPORATE GOVERNANCE POLICIES IN LINE WITH ITS 2030 VISION



Kazancı Holding established Corporate Governance Policies in line with its 2030 strategic goals. The policies are designed to regulate the relationships betweenthe company's management team, employees and other relevant parties and to ensure that the company conducts its activities in an ethical and transparent manner, taking into account the best global governance practices and principles. Aksa is preparing to take an important step by putting these policies into practice in order to implement the Aksa Global 2030 strategy, which was prepared by adhering to the polar stars of globalisation, sustainable high growth and institutionalisation.

The policies aim to strengthen Kazancı Holding's presence in the international arena and place transparency, ethical values and good corporate governance principles at the centre of its business conduct.



#### NAME OF THE PARTY OF THE PARTY

## AKSA NATURAL GAS BECAME THE LOW CARBON HERO FOR THE FOURTH TIME IN A ROW!



Emphasising the importance of a clean and healthy airspace, Aksa Natural Gas continues to implement environmentally friendly practices. In this context, with the main support of the Ministry of Environment, Urbanisation and Climate Change and Istanbul Technical University, the 8. Participated in the Istanbul Carbon Summit. At the event organised by the Sustainable Production and Consumption Association at the summit, Aksa Natural Gas' Low Carbon Solution in Meter Reading Project was highlighted as an effective way to combat climate change by reducing greenhouse gas emissions. As a result of this successful project, Aksa Natural Gas was awarded the SÜT-D 2023 Low Carbon Heroes Award.

As part of Aksa Natural Gas' award-winning project, some of the meter reading teams preferred electric motorbikes and bicycles instead of cars. Thanks to this practice, 111.8 tonnes of carbon emission reduction was achieved in one year. The company aims to further expand this successful application and make it widespread in all regions. Aksa Natural Gas will continue to support its environmentally friendly approach through continuous improvement and development efforts.





# AKSA NATURAL GAS COMPLETED THE FIRST PHASE OF THE CARBON EMISSION CALCULATION AND REDUCTION PROJECT

Aksa Natural Gas, Türkiye's largest private natural gas distribution company, successfully completed the Carbon Emission Calculation and Reduction Project in the Trabzon-Rize region, which was implemented to identify greenhouse gas sources, control and reduce carbon emissions in 27 provincial centres, 297 districts and towns where it operates. In the first phase of the project, which was initiated in the pilot region in 2022 as an important step of sustainability studies and where feasibility studies were concluded, an infrastructure system was established to ensure that the emission calculation provides measurable, reportable and verifiable results. Scope 1-2-3 emissions for 2023 were calculated in six categories according to ISO 14064 Corporate Greenhouse Gas Emissions Calculation and Reporting standard.

Setting out with the aim of leaving a more livable world for future generations, Aksa Natural Gas took action to expand the Carbon Emission Calculation and Reduction project to all of its distribution regions following the completion of the work in the Trabzon-Rize pilot region and started working for 2023. In order to minimise the environmental impacts caused by its activities and to contribute to the protection of the environment, it undertakes to share all future reports with the public in a transparent manner.



On the other hand, Aksa Natural Gas conducts R&D activities for even more environmentally friendly alternatives to meet the increasing energy demand. In parallel with Europe, the Company has successfully completed the process of mixing 20 percent hydrogen into natural gas with the Renewable Gas Production R&D Project, which was implemented within Gazbir-Gazmer in cooperation with Yıldız Technical University. Believing in the importance of alternative fuels and energy sources in combating the effects of climate change and intensifying its efforts in this field, Aksa Natural Gas successfully completed another R&D study conducted with GAZMER, which examines the economic sustainability and energy efficiency effects of the use of gas obtained as a result of blending biomethane obtained from organic wastes with natural gas.

#### Hanife Hülya OLGUN

Aksa Natural Gas Integrated Management Systems and Business Processes Manager





#### AKSA GENERATOR'S SUSTAINABILITY-FOCUSED PROJECT: WAIST CUSHION MADE OF CLEAN WASTE SPONGES



Aksa Power Generation aims to create a more livable world for future generations by prioritising environmental sustainability at every stage of its operations. Aksa Power Generation initiated an upcycling project targeting waste minimisation and contributes to the circular economy with lumbar cushions produced from clean waste sponges.

Aksa Power Generation realises this advanced transformation project together with women entrepreneurs by adopting a gender equality approach. In this way, it both supports women entrepreneurs and plans to prevent an average of 2 thousand kg of sponge waste per month.





## OPENING OF AKSA MALATYA LIFE CENTRE TOOK PLACE



On the anniversary of the February 6 earthquake, Kazancı Holding inaugurated the Aksa Malatya Life Centre, which was built for the use of the residents of the container city where 1,100 people, including employees and their families, live, with the participation of the senior management.

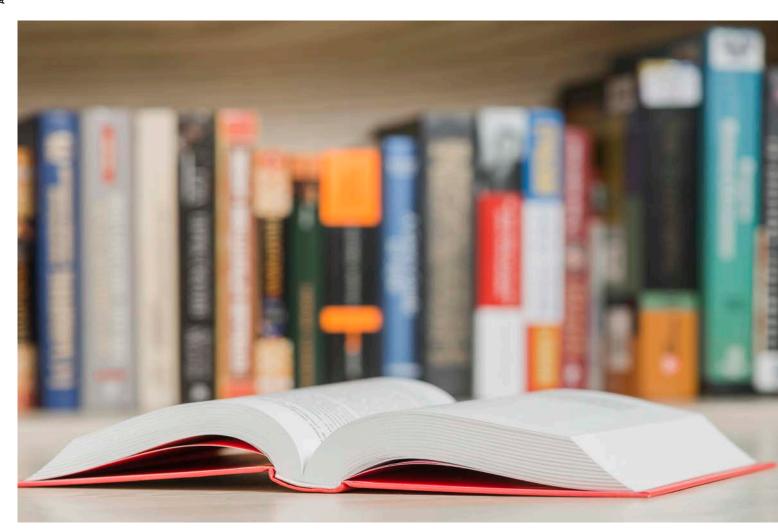


The Life Centre aims to meet the social needs of all container city residents with a kindergarten for children, a course centre for women, a library for general use, a recreation area and outdoor sports areas.

In addition to the opening ceremony, our senior management visited the Aksa Malatya Vocational High School, which is under construction, the lighting maintenance work site, maintenance areas to ensure uninterrupted natural gas supply in the city, and the Aksa Natural Gas Malatya Provincial Directorate, which is under construction.

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## BOOK COLLECTION CAMPAIGN FOR OUR LIBRARY IN MALATYA AKSA LIFE CENTRE



Adding a new one to its social responsibility projects, Kazancı Holding launched a book collection campaign to support the Library at Malatya Aksa Life Centre. As part of this campaign, our company is calling for book collection to contribute to the library at the Life Centre.

As part of the campaign, employees at Kazancı Holding's headquarters donated books. The collected books are on their way to be delivered to the library. Kazancı Holding's campaign is a social responsibility project that aims to strengthen community solidarity in the container city and reduce inequalities in educational opportunities.



## SPECIAL HALF-YEAR EVENT FOR AKSA CHILDREN FROM KAZANCI HOLDING



Kazancı Holding added a new one to its social responsibility projects and organised an unforgettable event for young children. With the event organised for children, our Holding aims to both provide fun moments and contribute to their development.



As part of the event, colourful activity areas were set up at Kazancı Holding's headquarters. The little guests had the opportunity to spend a pleasant time with many activities such as face painting, puppet shows, art workshops and playgrounds. In addition, educational games and competitions were organised for children, contributing to their learning process. The little ones closed the day with a film session.

Aksa families who participated in the event expressed their satisfaction that their children had a pleasant time and expressed their wish that our Holding would continue such activities.

#### **SUSTAINABILITY ESG RATINGS**



ESG rating is a process that assesses the sustainability performance of a company or investment based on environmental, social and governance (ESG) criteria. This rating takes into account factors such as an organisation's environmental impact, social responsibility and management quality, as well as its financial performance. The ESG rating provides investors and other stakeholders with an overview of companies' capacity for sustainability and long-term value creation.

This assessment is usually based on three main criteria:

Environmental Criteria: This criterion assesses the company's impact on the environment. Factors such as carbon emissions, water use, waste management and renewable energy use are part of this assessment. Companies' efforts to minimise or eliminate their environmental impacts ensure that this criterion is assessed positively.

Social Criteria: Social criteria examine the company's impact on society and employees. Factors such as employee rights, human rights, community participation, occupational health and safety are evaluated under this criterion. Participation in social responsibility projects and contribution to the society help to score positively in this criterion.

Governance Criteria: This criterion assesses the company's governance structure, corporate governance practices and ethical standards. The company's transparency, accountability, quality of management and ethical standards play an important role under this criterion. Companies with strong governance and ethical standards are viewed more favourably by investors and stakeholders.

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#### **ESG RATING AGENCIES**



MSCI ESG Indices: MSCI provides a range of ESG indices that assess the ESG performance of companies in various industries and offer investors the opportunity to make sustainability-focused investments. There are examples such as MSCI World ESG Leaders Index and MSCI Emerging Markets ESG Leaders Index.

Dow Jones Sustainability Indices (DJSI): The DJSI, created in collaboration with S&P Dow Jones Indices and RobecoSAM, is one of the world's leading sustainability indices. These indices measure the sustainability performance of companies in various sectors and list the best performing companies.

FTSE4Good Index: This index, created by FTSE Russell, includes companies that meet various sustainability criteria. The Index offers investors the opportunity to invest with a focus on sustainability.



Bloomberg Index: Bloomberg, as a financial data provider, offers a range of data and indices that assess and report ESG performance. Through the Bloomberg Terminal, investors can access companies' ESG scores and other sustainability data.

Refinitiv: As a data provider for financial markets, Refinitiv offers ESG data and analyses. They offer various indices and reports that assess the ESG performance of companies.

EcoVadis: EcoVadis is a global supply chain sustainability rating and monitoring platform. It assesses and certifies the sustainability performance of companies throughout the supply chain.

CDP (Carbon Disclosure Project): CDP is an organisation that measures and reports companies' performance on environmental issues such as climate change, water management and deforestation. Investors and companies can assess environmental risks and opportunities using the data platform offered by CDP.

#### HOTTEST JANUARY IN TÜRKİYE IN THE LAST 53 YEARS



January 2024 brought a significant increase in temperature values across Türkiye. While temperatures close to seasonal norms were experienced in various regions from Kırklareli to Gazipaşa, Yozgat to Trabzon, most of the country exceeded the average temperature values.

while the average January temperature for the period 1991-2020 was 2.9°C, this value almost doubled to 5.7°C in January 2024. This was recorded as the highest January temperature average in the last 53 years.

According to the "2023 Global Climate Report" announced by Copernicus (C3S), the EU's European Climate Change Service, 2023 will go down in history as the year with the highest average temperatures ever recorded.

At the same time, according to the analyses, January 2024 was recorded as the January with the highest temperature averages recorded worldwide. During this period, the global average surface air temperature was 13.14°C, 0.70°C higher than the 1991-2020 January average and surpassing the 2020 record by 0.12°C. Every month for the last eight months has broken the record for the highest temperature for that month.

#### WALL TO SERVICE

# CLIMATE CHANGE PRESIDENCY PUBLICLY ANNOUNCES TÜRKİYE'S STRATEGIC PLAN FOR 2024-2028



In this period when the world is struggling with the serious effects of climate change, Türkiye is determined to take green transformation steps in every sector in order to build environmentally sensitive, disaster-resistant and climate-resilient cities in line with the 2053 Net Zero Emission Target. Türkiye continues to take strong steps to increase local adaptation capacity, improve financing opportunities and play an important role in sustainable development.

Accordingly, the Climate Change Directorate shared Türkiye's 2024-2028 Strategic Plan with the public after a meticulous work. This comprehensive plan includes targets in key areas such as combating climate change, sustainable energy use, environmental protection and green economy. the 2024-2028 Strategic Plan aims to strengthen Türkiye's environmental sustainability through immediate implementation.



2024 - 2028 Stratejik Plan

The Strategic Plan leads to three main objectives;

- Objective 1: 2053 Taking the steps required by green transformation in line with the Net Zero Target.
- Objective 2: Increasing adaptation capacity to climate change at national and local scale.
- Objective 3: Increasing institutional capacity and capability.



#### NAME OF THE PARTY OF

# 54th DAVOS SUMMIT "REBUILDING TRUST REALISED WITH CONTACT PLANNED BY WORLD ECONOMIC FORUM



This year's summit of the World Economic Forum (WEF) was organised with the main theme of "Rebuilding Trust", bringing together the most influential leaders from around the world. As part of the summit, issues such as global security issues, employment, combating climate and natural emergencies, artificial intelligence applications, global trade, economic growth, energy transformation, technological development and disruption, digitalisation were discussed. The meetings emphasised the importance of international cooperation to find quick solutions.

17 PARTNERSHIPS FOR THE GOALS

At the Davos Summit, global leaders also emphasised the issue of sustainability. Key sustainability issues such as climate change, nature conservation, energy transition and social responsibility were the focus of the summit. In sessions at the World Economic Forum, business, politicians, academics and civil society representatives emphasised the importance of collaborating to accelerate sustainability efforts and find solutions to global challenges. Throughout the summit, topics such as green energy, circular economy, nature restoration and fair trade were discussed in an effort to develop strategies for a sustainable future.

#### WALL OF THE PARTY OF

#### 3SEAS HYDROGEN COUNCIL SIGNS LANDMARK 'HYDROGEN-CENTRED' AGREEMENT



Representatives of the hydrogen associations of nine Central European and Baltic countries signed in Paris the official cooperation agreement of the 3Seas Hydrogen Council (3S), which aims to develop the hydrogen sector in the region.

At the Hyvolution conference, the world's leading hydrogen technology showcase, hydrogen associations from the respective countries (Poland, Czech Republic, Estonia, Lithuania, Latvia, Slovakia, Slovenia, Hungary and Ukraine) agreed to work together to identify and exploit synergies to work together. The aim is to accelerate and facilitate the transition to hydrogen technologies, thus helping to achieve the goal of a zero-emission economy.

Established in May last year, the 3Seas Hydrogen Council aims to support the green transformation of member countries and to explore opportunities for co-operation where hydrogen will play an important role in a low-carbon economy. This organisation will take on the task of effectively representing the sector before the European Commission and the European Parliament, an initiative of strategic importance.



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# INNOVATIVE STEP IN THE FIGHT AGAINST CLIMATE CHANGE: FLOATING SOLAR POWER PLANTS



Climate change is one of the biggest problems of our time. Nature and ecological balance are being damaged under the adverse effects of climate change, with harmful consequences for human health. In this struggle, the use of renewable energy sources is of great importance. Solar energy offers an important and permanent solution in this struggle.

Renewable and sustainable energy can be obtained by installing Solar Power Plants. These power plants, which are traditionally installed on roofs and fields, can now also be installed on water bodies as a result of research. This type of power plants are called "Floating Solar Power Plant".

Floating Solar Power Plants are installed with solar energy panels mounted on floating platforms on the water. Although it is more costly and more difficult to install than normal Solar Power Plants, it is usually installed on lakes or dams, reducing evaporation in fresh water resources and preventing the proliferation of algae.

The Law Proposal on the Amendment of the Mining Law and Certain Laws, which includes regulations in this field, was adopted by the TBMM Industry, Trade, Energy, Natural Resources, Information and Technology Commission on 01.02.2024. As part of this law, renewable energy generation plants can be established without a zoning plan in the areas declared as renewable energy resource areas by the Ministry of Energy and Natural Resources in the seas, dam lakes, artificial lakes and natural lakes, except for the reservoirs and wetlands where drinking-utility water is supplied and the coasts and coastlines as part of the Coastal Law.

According to researches, Türkiye can prevent approximately 4.9 gigatonnes of carbon emissions per year until 2050 thanks to solar energy systems.







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## RESULTS OF SALT GOAL PLANT EXPERIMENT IN SPACE SHARED



Ege University shared the results of the space experiment conducted by astronaut Alper Gezeravcı, who successfully returned from Türkiye's first manned space science mission, on the "Schrenkiella parvula" plant growing endemically in Salt Lake. In this unique experiment, the astronaut was able to provide important data to the scientific world by analysing the plant's interactions in the space environment. The findings on how this plant, which is endemic to Salt Lake, adapts to space conditions and how it evolves in the space environment may provide important clues for future space missions and plant science research.

Assoc. Prof. Dr. Barış Uzilday shared the following information in his statement "We observed that the plants germinated on the second and third day of the experiment. It was very significant for us. We found that they reached the growth level we expected, but the leaf and stem shapes of the plants differed with microgravity. Schrenkiella parvula is a plant that is tolerant to high salt, heavy metals, low and high temperatures and can adapt to harsh conditions around Salt Lake.

It has pioneering features that will enable us to reclaim places like Mars, where humans intend to go and farm in the future."

Stating that the experiment process continues, Assoc. Prof. Dr. Uzilday said: "The plants were harvested by our astronaut Alper Gezeravcı at the end of the experiment. With a solution the metabolic process is completely stopped. It was then transferred to a deep freezer at -80 degrees centigrade on the International Space Station. It was brought into the world in a capsule at the same temperature. From there it will come to our country. Following this, we will try to investigate both the growth performance of plants and which genes are activated by the new generation RNA sequencing method and how the plant responds to salt under microgravity."



#### **WATER FOOTPRINT**

#### WHAT IS WATER FOOTPRINT?

Water footprint refers to the volume of fresh water used in all processes from the processing of a raw material, to the delivery of the raw material to consumers as a product and the consumption of the product by the consumer. In short, it is the measurement of the volume of fresh water required to produce a product or service in the whole process. Water footprint can be defined as the total volume of freshwater consumed by individuals or used by businesses in production. The water footprint shows the capacity of water used based on human consumption.

#### WHY ARE WATER FOOTPRINT CALCULATIONS IMPORTANT?

Due to income inequality in the world, most countries suffer from fresh water scarcity despite being rich in water. Although developed countries can access fresh water more easily, their resources are gradually running out. Resources all over the world are facing depletion, pollution and extinction. When we have such limited resources, it is very important to use these resources without wasting them. At this point, the importance of Water Footprint Measurement comes into play. Thanks to the Water Footprint measurement, the best use and consumption of water resources can be ensured.









#### **BLUE WATER FOOTPRINT**

The blue water footprint is water that is extracted or evaporated from surface or groundwater sources (lakes, rivers, wetlands and aquifers), added to a product, taken from one water body and delivered to another or returned at a different time. Indicates the total volume of underground and surface water used in production. Industrial and domestic water use, irrigated agriculture can all have a blue water footprint.

#### **GREEN WATER FOOTPRINT**

Green Water Footprint is the total amount of rainwater used to produce a product. It tells us the rainwater consumed in the production of a product. In the Green Water Footprint, rainwater does not enter underground water bodies, but is absorbed by the soil or stored above ground for some time. Since the Green Water Footprint is directly related to the amount of precipitation, the seasonal and climatic activities of the region should be taken into account when making calculations. The Green Water Footprint tells us how much green water is used. Green Water is the amount of water from rainfall that is stored in the soil or the part of the water from rainfall that temporarily remains above the soil. At the same time, the Green Water Footprint, when calculated by taking into account evaporation and the amount of rain falling in the region, expresses how much of the water used in the production of a product or due to daily activities is rainwater-derived.

#### **GREY WATER FOOTPRINT**

When it comes to Grey Water Footprint, pollution comes to mind, the reason for this is that the Grey Water Footprint refers to the water pollution caused by the production process of a product. Grey Water Footprint refers to the amount of fresh water used to completely clean or reduce pollution in contaminated waters resulting from production in order to meet the specified water quality standards. The concept of grey water is directly proportional to population and industrial growth. Because the more the amount of population and industry in a place increases, the more the amount of polluted water there will increase and the more fresh water will be used to clean those polluted waters. Contrary to popular belief, the Grey Water Footprint is not the volume of dirty water resulting from the production of a product, but rather the volume of clean water consumed to reduce that pollution.

#### HOW TO CALCULATE WATER FOOTPRINT

A Water Footprint assessment consists of approximately 4 separate steps. Firstly, the target is set, then the water footprint is calculated, then the sustainability assessment of the water footprint is made and finally the process is completed by formulating a water footprint intervention. Water Footprint is the total volume of water consumed and polluted to produce a product. The Water Footprint of a product is equal to the sum of Green, Blue and Grey Water footprints.

#### SALE OF THE PERSON NAMED IN

#### **DID YOU KNOW THESE?**



Serving Türkiye's largest geographical distribution area, Aksa Natural Gas improves the quality of life in all the regions where it delivers natural gas. Thanks to its investments, Aksa Natural Gas contributes to millions of people starting each new day by breathing cleaner air. The use of the environmentally friendly fuel natural gas instead of coal in distribution regions resulted in 9.3 million tonnes less carbon emissions in just one year. This is equivalent to the amount that a forest of 392 million trees can clear.



- While an apartment heated with coal causes an average of 4.5 tonnes of carbon emissions per year, a household using natural gas causes an average of 2.1 tonnes less carbon emissions, thus 50 percent less carbon emissions are released into the atmosphere.
- Approximately 42 thousand people die every year in Türkiye due to air pollution-related diseases. Deaths caused by air pollution are eight times higher than deaths in traffic accidents.
- The carbon emission reduction achieved by Aksa Natural Gas in its distribution regions neutralises the annual average carbon production of approximately 1 million people.
- The distribution regions of Aksa Natural Gas have reduced their carbon emissions by about the same amount as 4.5 million electric car emissions.