

DUJA HOTELS



Sustainable Living & Tourism



Sustainability: The Key to Nature and the Future

Sustainability means meeting today's needs without compromising the ability of future generations to meet their own. This concept aims for environmental protection, social equality, and economic well-being to progress in harmony. Sustainability not only focuses on protecting nature, but also serves as a fundamental principle for social justice and economic vitality.



Sustainable Tourism and Its Purpose

Sustainable Tourism is an approach that meets the needs of visitors, the industry, the environment, and host communities while managing all resources responsibly. It aims to minimize the environmental, social, and economic impacts of traditional tourism and provide long-term benefits.

Main Objectives:

- Minimizing environmental impacts and protecting natural resources.
- Contributing to the local economy and creating fair employment opportunities..
- Supporting and preserving local culture and heritage
- Offering visitors authentic and meaningful experiences.
- Ensuring cooperation and unity among all stakeholders.





Main

Criteria of

Sustainable Tourism

. Sustainable Management

Sustainable management refers to the implementation of transparent and responsible policies to monitor, evaluate, and continuously improve the environmental, social, and economic impacts of tourism facilities. This approach includes setting environmental performance goals, employee training, and continuous improvement mechanisms. It provides important steps for the development of tourism and society.



Strategic Planning:

Setting long-term sustainability goals and creating roadmaps to achieve them..



Operational Improvement

Reducing energy and water consumption, adopting sustainable practices in waste management and supply chains.



Stakeholder Engagement:

Involving employees, local communities, and guests in sustainability efforts.

2. Socioeconomic Sustainability

This criterion aims for tourism to contribute positively to the local population and economy. Facilities support local suppliers, pay fair wages, and promote local employment to enhance social welfare. They also prioritize the preservation of cultural heritage and local values.



Local Supply Chain:

Meeting facility needs through local producers to stimulate the regional economy.



Fair Employment:

Offering fair job opportunities to locals and contributing to their well-being.



Community Participation:

Supporting local projects and social enterprises to add value to the community.

3. Cultural Sustainability

Cultural sustainability emphasizes the preservation and support of a destination's cultural heritage, traditions, and artistic expressions. Facilities contribute to cultural richness by supporting local artists, hosting cultural events, and introducing guests to local traditions, helping preserve local identity.



- Participation and support for local cultural events
- Promotion of traditional cuisine and handicrafts
- Informing guests about local history and traditions
- Use of regional elements in architecture

4. Environmental Sustainability

Environmental sustainability includes conserving natural resources, reducing pollution, and ensuring ecosystem health. This approach involves practices such as energy efficiency, water conservation, waste management, and biodiversity protection. Every staff member carries both individual and collective responsibility.

Water Management:

Low-flow faucets, rainwater harvesting systems, and native plants in landscaping.

Energy Efficiency

LED lighting, smart thermostats, investment in renewable energy sources.

Waste Reduction and Recycling:

Reducing single-use plastics, comprehensive recycling programs, composting

Protection of Natural Areas:

Structures that do not harm local ecosystems, respect for natural habitats.

4.1 Water Management and Efficiency

Water efficiency means using water appropriately for its purpose with minimal loss and consumption — doing the same work with less water.

Main Goals:

- Prevent water waste
- Use efficient systems and equipment
- Monitor and control consumption
- Protect natural resources and ensure sustainability
- Raise awareness in society

Why is proper water management important for hospitality facilities?

Lower Costs

Resilience
Against Drought
and Crises

Sustainability
and Reputation

Legal
Requirements



4.1 Water Efficiency

1. Measure and Monitor Water Consumption

Consumption should be tracked using main and sub-meters (e.g., garden irrigation, kitchen, laundry)..

2. Prepare a Water Efficiency Plan

If annual consumption exceeds 500 m³, preparing a water efficiency plan is mandatory.

3. Use Efficient Equipment Prefer low-flow and sensor-operated faucets, water-saving toilets, and efficient washing and dishwashing machines.

4. Optimize Garden Irrigation

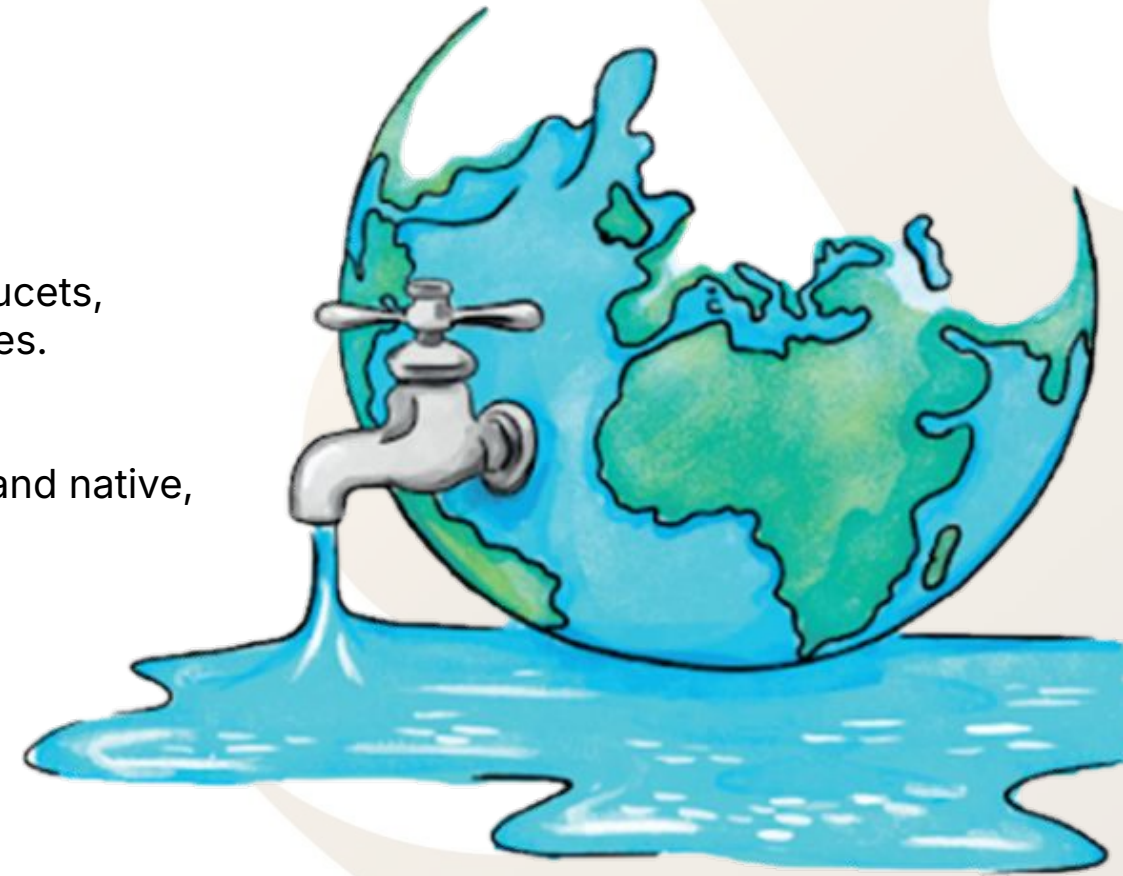
Use greywater or rainwater recovery systems, automatic irrigation, and native, drought-resistant plants.

5. Staff and Guest Awareness

Train staff on water conservation and use informative visuals and warning signs for guests.

6. Prevent Leaks and Perform Maintenance

Conduct periodic leak inspections within the facility and promptly resolve any water leakage issues.



4.2. Energy Efficiency

Energy efficiency is no longer just a choice—it has become a legal obligation. The purpose of the ISO 50001: Energy Management System standard is to enable organizations to establish the necessary systems and processes to continuously improve energy performance, including energy efficiency, energy use, and energy consumption.

Main Objectives

- Systematically manage energy consumption
- Significantly reduce operating costs
- Minimize environmental impacts
- Implement sustainability principles

10–30%
Cost Reduction

Savings rate in energy costs

40%
Carbon Reduction

Potential for reducing environmental impact

85%
Guest Preference

Percentage of guests who prefer eco-friendly hotels



4.2. ISO 50001 Basic Steps

1. Energy Policy

- An energy policy is established with the support of top management..

2. Energy Planning

An energy review is conducted; goals and action plans are defined.

3. Training and Awareness

Staff are trained, and awareness of energy efficiency is raised.

4. Operational Control

Efficient equipment and systems are selected.

5. Monitoring and Measurement

Energy data is collected, analyzed, and performance is tracked.

6. Internal Audit and Review

The system is regularly audited and reviewed by management.

7. Continuous Improvement

Improvements are made based on performance data.



Hourly Electricity Consumption Equivalent of Equipment

Konveksiyon Fırın



1800 Adet



Convection Oven 🕒 1 hour = 1800 energy-saving light bulbs

Deep Fryer 🕒 1 hour = 780 energy-saving light bulbs

Fritöz



780 Adet



Grill 🕒 1 hour = 390 energy-saving light bulbs

Izgara



390 Adet



Every staff member is part of the energy management system. Every saving is our shared success.

4.3. Waste Reduction and Recycling – The 5R Rule

Adopting sustainable living and working practices starts with applying the 5R Rule, which aims to prevent waste and use resources more efficiently. Each “R” should become part of every staff member’s daily routine.

1. Refuse

Say no to unnecessary or unsustainable products.

Example: Choose reusable alternatives instead of single-use plastic straws

2. Reduce

Minimize consumption and waste. Lower electricity and water usage, avoid waste.

Example: Print less, prefer digital solutions.

3. Reuse

Use items multiple times instead of disposable ones.

Example: Use glass bottles instead of plastic ones and refill them..

4. Repurpose

Give items a new purpose.

Example: Turn old sheets into cleaning cloths or repurpose wooden pallets into furniture.

5. Recycle

Convert used materials into new products.

Example: Sort paper, plastic, glass, and metal waste for recycling..

One of the Biggest Dangers in Our Lives...



In 1974, the annual global plastic consumption per person was 2 kilograms. Today, it has risen to 43 kilograms. If plastic consumption continues at this rate, according to National Geographic, by 2050, there will be 12 billion tons of plastic in landfills.



Producing just 1 kg of plastic releases 3.5 kg of CO₂ into the atmosphere.

To produce 1 kg of plastic, 2,000 liters of water are consumed.



The average person consumes 70,000 microplastics per year.

73% of beach litter worldwide is plastic.
Every year, plastic kills over 1.1 million marine birds and animals.



A single plastic bottle can take up to 500 years to decompose in our oceans.
Only 9% of the world's plastic is actually recycled.



In Turkey, 30 million plastic bottles are consumed every day

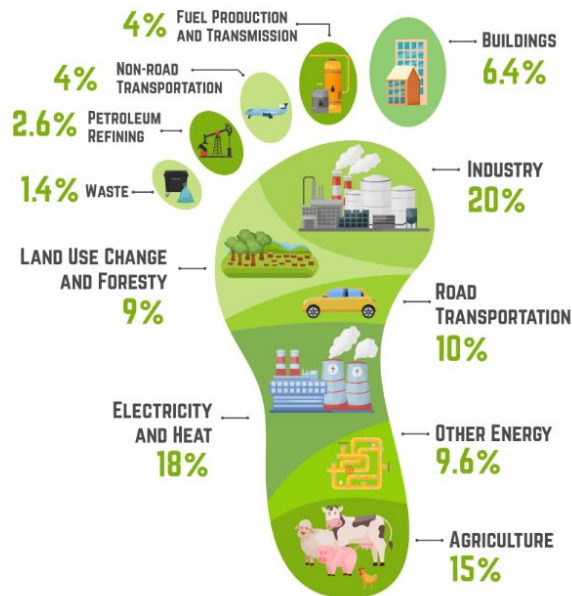


Greenhouse Gas – Carbon Footprint

A greenhouse gas is any gaseous compound in the atmosphere that can absorb infrared radiation and trap heat within the atmosphere. (Examples: carbon dioxide, methane, etc.)

A carbon footprint is the total amount of carbon emissions caused directly or indirectly by an individual's activities—including energy used for transportation and heating.

CARBON FOOTPRINT



Fossil fuel consumption



Raw material or product manufacturing



Other services and general consumer



Food production and consumption



Transportation



Road and building construction

Annual Carbon Emissions (kg) of Household Equipment

Table: Energy use by appliances, estimated usage based on a single person.

Item	Power (W)	Usage per year (h)	Energy use (kWh/ year)	Annual cost (\$)	GHG emissions (kg CO ₂)
Water heater	4000	450	1800	270.00	1260
Electric furnace (home heating)	6000	183	1098	164.70	769
Air Conditioner	3500	200	700	105.00	490
Space heater	1500	200	300	45.00	210
Fridge	180	1500	270	40.50	189
TV, 42", plasma	270	1000	270	40.50	189
Clothes dryer	3000	78	234	35.10	164
Cable TV box on standby	25	7700	193	28.88	135
Oven	2400	73	175	26.28	123
Stove top (hob)	1500	104	156	23.40	109
5 x CFL lightbulbs (18 W)	90	1700	153	22.95	107
TV, 42", LED	130	1000	130	19.50	91
Game console - PS4	115	1000	115	17.25	81
Desktop computer	100	1000	100	15.00	70
Game console - Xbox One	90	1000	90	13.50	63
Hair Dryer	1500	57	86	12.83	60
Kettle	1500	48	72	10.80	50
Toaster Oven	1200	60	72	10.80	50
Toaster	1200	57	68	10.26	48
WiFi router	6	8760	53	7.88	37
Game console - Wii U	30	1000	30	4.50	21
Vacuum cleaner	1400	20	28	4.20	20
Rice Cooker, 1 cup	200	52	10	1.56	7
Laptop - 54 Wh battery*	54	180	10	1.46	7
Cell phone - 10 Wh battery*	10	365	4	0.55	3
Coffee Grinder	75	12	1	0.14	1

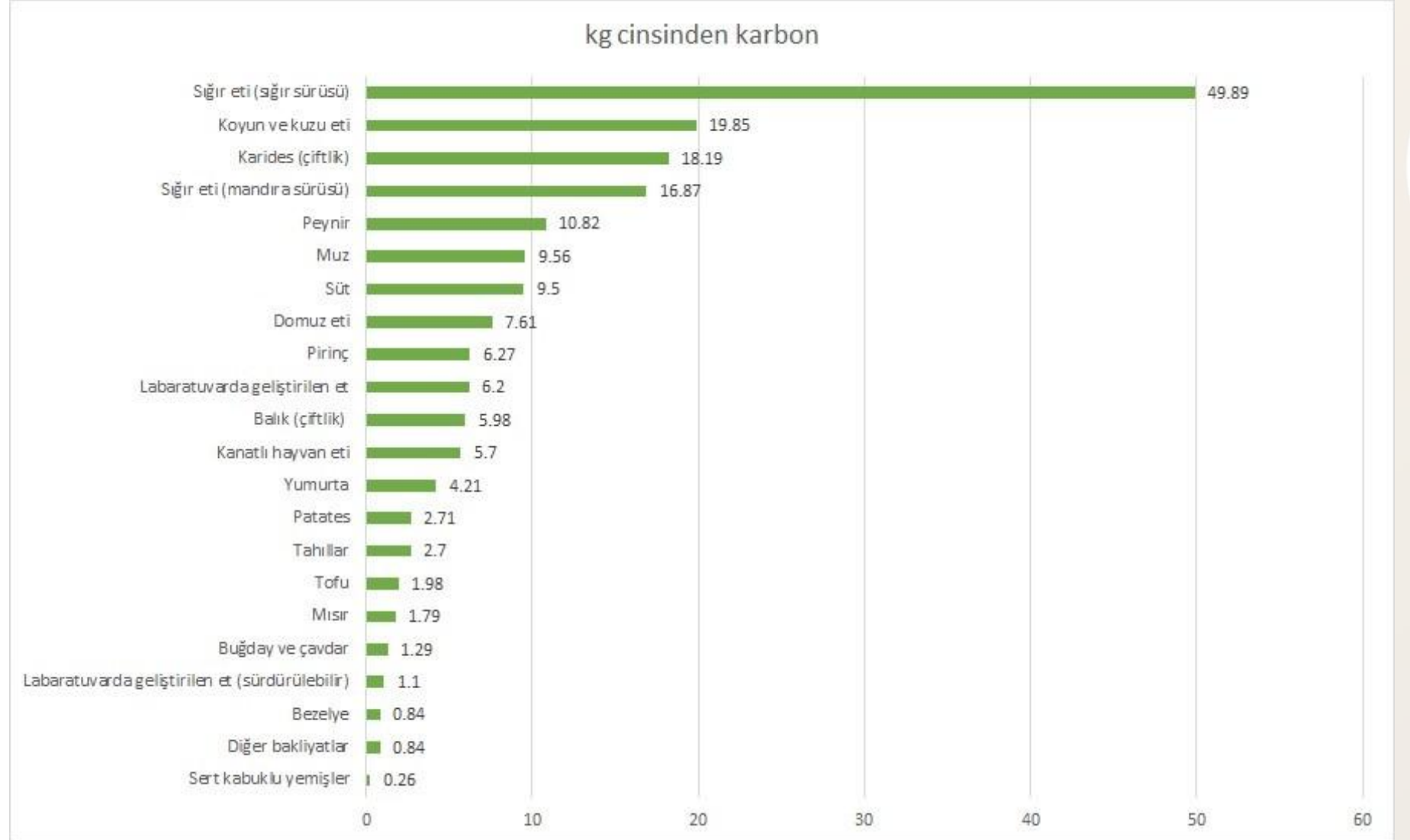
*Laptop and cell phone usage per year is expressed as number of charges rather than number of hours.

According to the International Energy Agency, by 2050, 40% of the required emission reductions will come from industrial transformation. The share of individual behavioral changes in reduction has been calculated as only four percent.

***Equipment with high energy consumption also has a high carbon footprint.

Gıdaların Kg Karbon Üretimi

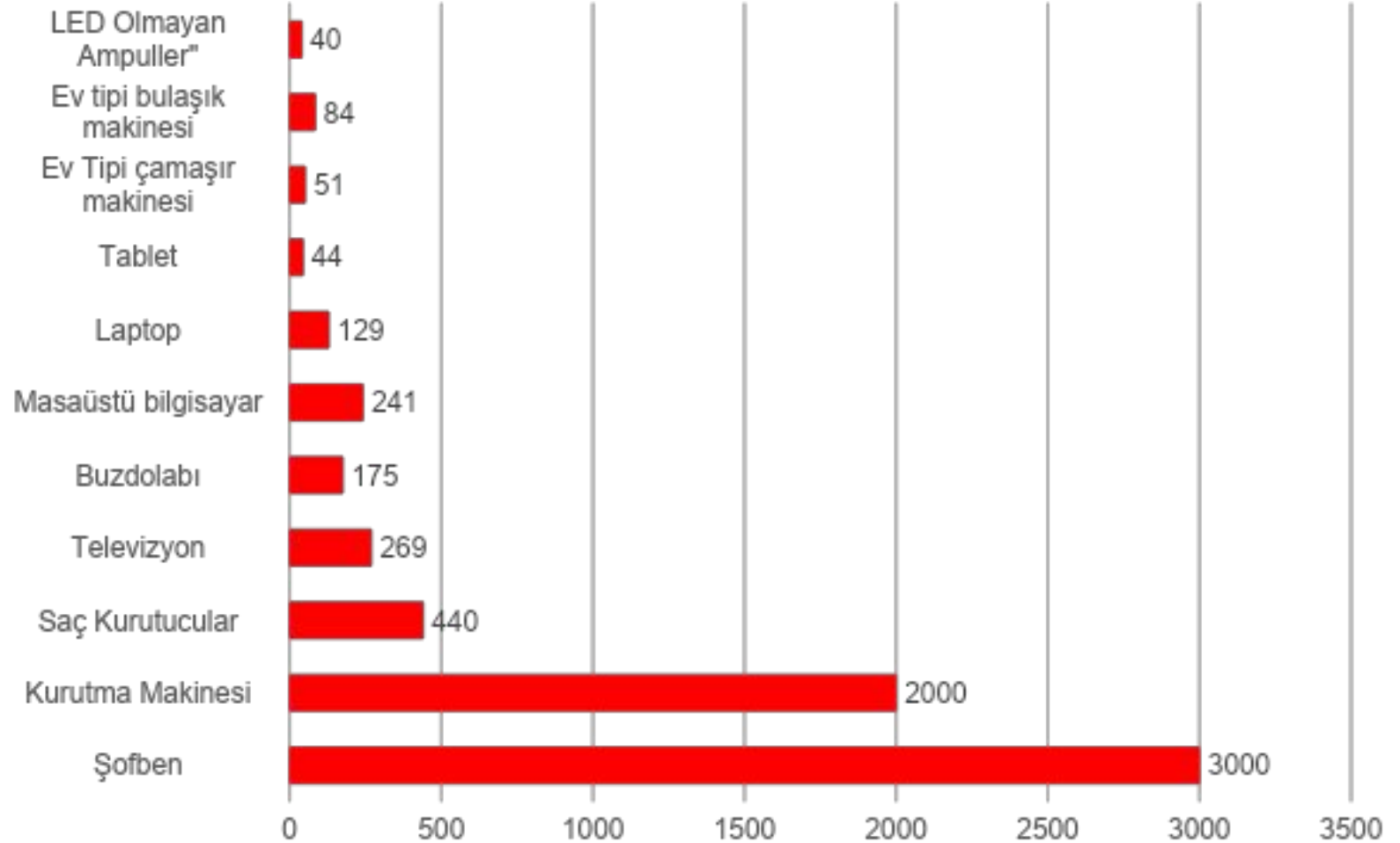
Dünyada insan etkinliklerinin neden olduğu sera gazı salınımının $\frac{1}{4}$ 'ü ile $\frac{1}{3}$ 'ü gıda üretiminden kaynaklanmakta, bunun ise büyük çoğunluğu hayvancılığa dayanmaktadır.



Ev Ekipmanlarının Yıllık Kg Cinsinden Karbon Salınımı Miktarı

Uluslararası Enerji Ajansı'na göre ise 2050 yılına kadar gerçekleşmesi gereken emisyon azaltımlarının yüzde 40'ı endüstriyel dönüşümden kaynaklanacak. Azaltımda bireysel davranış değişikliklerinin payı, yalnızca yüzde dört olarak hesaplanmış.

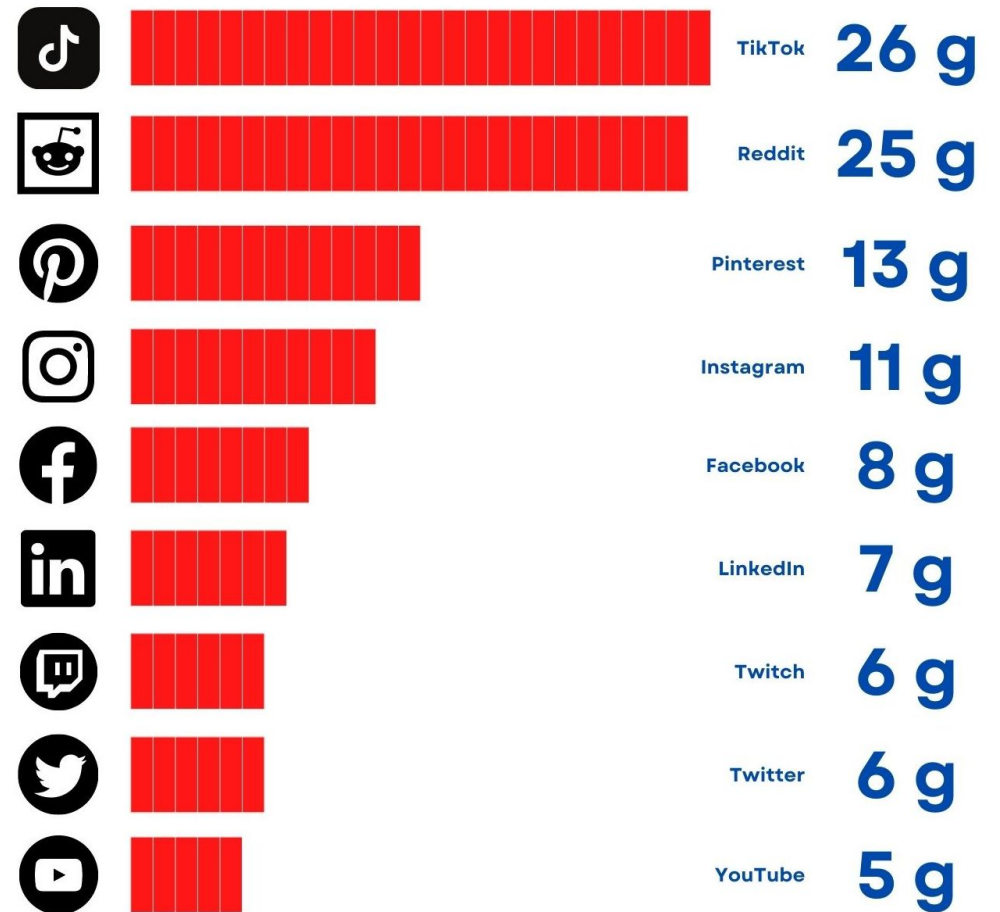
***Enerjisi yüksek olan ekipmanların karbon ayak izi de yüksektir.



Carbon Footprint of 10 Minutes of Social Media Use

Emails should be used correctly; A regular plain text email emits approximately 0.3 grams of carbon dioxide, but when a large file is attached, this number can rise up to 50 grams.

BEWARE OF UNWANTED EMAILS!



4.4. Protection of Natural Areas

Protecting natural areas is one of the most important steps for sustainable living.

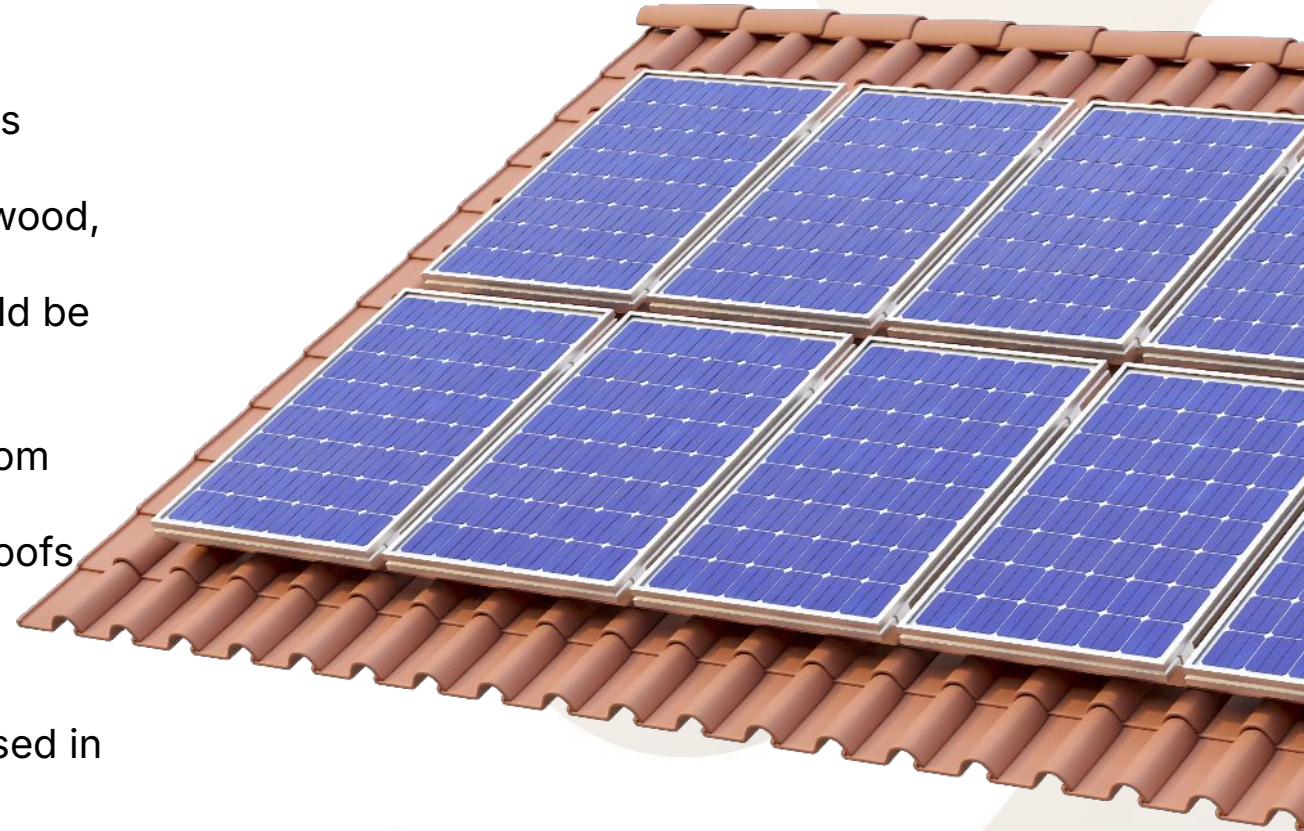
- First, we must raise our own awareness and help educate those around us.
- Forests must be protected against threats such as fires, littering, or careless deforestation.
- The use of single-use and non-recyclable products should be reduced.
- Recycling should be promoted and made widespread.
- Awareness about unnecessary consumption should be increased.
- Sustainable agricultural practices should be supported and expanded.
- Factories and businesses should produce in an environmentally responsible manner.
- The use of harmful fuels for heating should be reduced, and clean energy sources should be preferred.

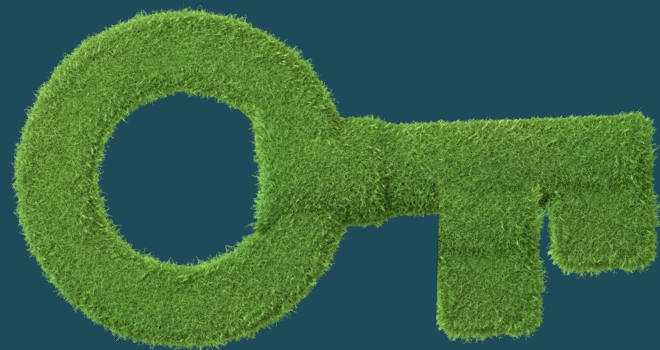


4.4. Protection of Natural Areas

Buildings should be planned and constructed in a sustainable and environmentally conscious manner.

- Structures should comply with green building certifications (e.g., LEED, BREEAM).
- Environmentally friendly materials such as natural stone, wood, glass, and recycled metal should be used.
- Thermal insulation should be ensured, and buildings should be designed to make the most of daylight.
- Energy use should be optimized through smart systems.
- Greywater recycling systems should be installed; water from sinks and showers should be treated and reused.
- Rainwater harvesting systems should collect water from roofs for reuse.
- Local and natural materials should be preferred to reduce carbon emissions from transportation.
- Renewable energy sources (e.g., solar, wind) should be used in buildings.





Green Key

Symbol of Sustainable Tourism; An international certification program that documents the environmental responsibility of accommodation facilities.



What Is the Green Key?

Green Key is a prestigious certification program that evaluates the environmental performance of accommodation facilities and supports sustainable tourism.

Established in Denmark in 1994, the program has become a trusted environmental label awarded to more than 3,200 establishments across 65 countries today.

Competitive Advantage

Becoming a preferred choice for environmentally conscious guests.

Maliyet Tasarrufu

Reduced operating expenses through lower energy and water consumption

Brand Image

A trustworthy and responsible brand image in sustainability.

Green Key Criteria

01

Environmental Management

Establishing an environmental policy and training staff.

02

Water Management

Technologies and practices to reduce water consumption; water-saving systems, greywater recycling, and water quality monitoring programs

03

Energy Efficiency

Use of renewable energy and energy-saving measures; LED lighting and smart energy management systems.

04

Waste Management

Separation and recycling programs, composting of organic waste, and reduction of single-use products.

05

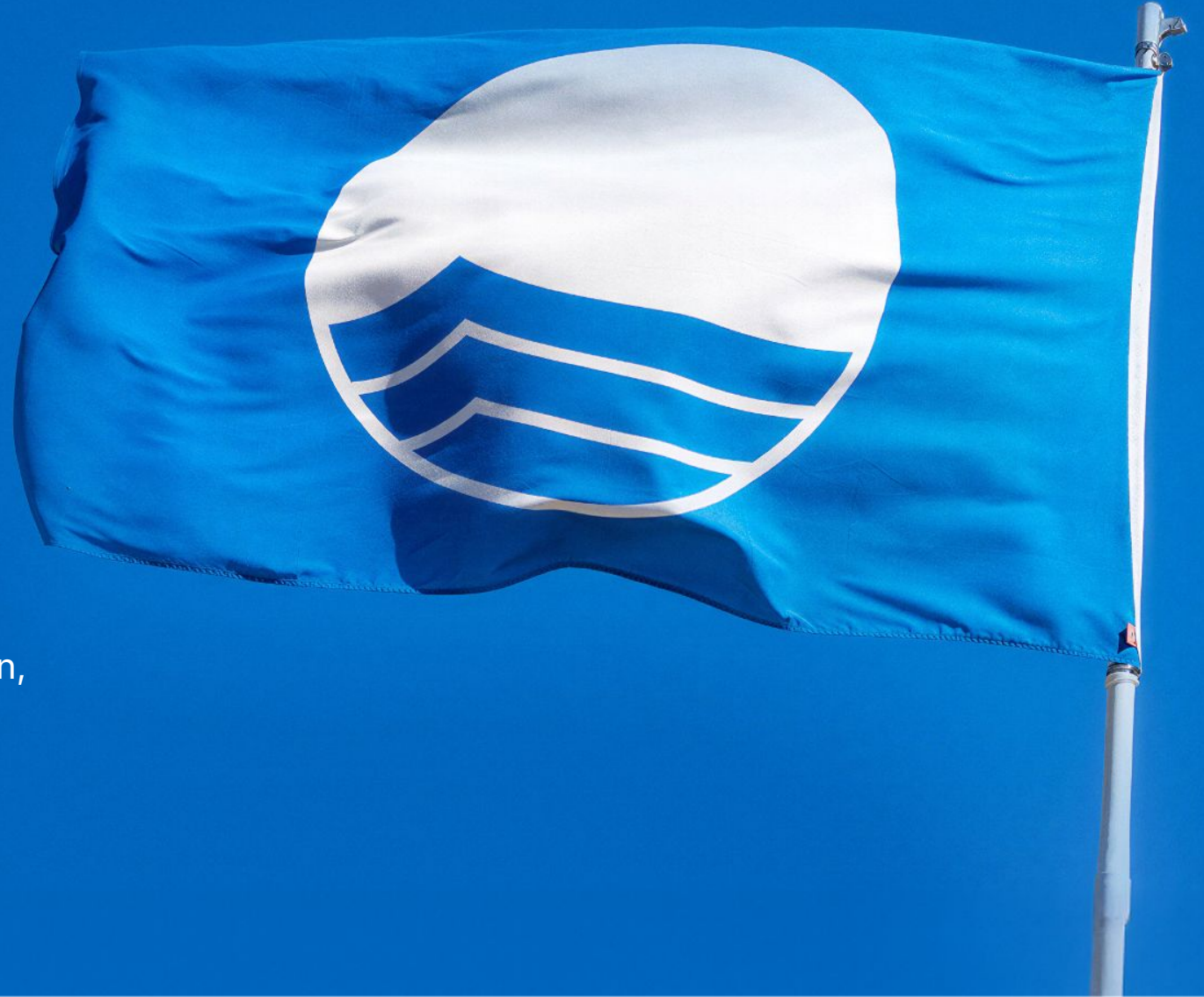
Local Environment

Protection of local ecosystems, support for biodiversity, and use of local products

Blue Flag

A globally recognized and prestigious environmental award.

It is an international quality label granted by the Foundation for Environmental Education (FEE) to clean, safe, and eco-friendly beaches and marinas.



Blue Flag Criteria

Swimming Water Quality

Sea water must be regularly analyzed; bacteriological and chemical parameters must meet strict international standards.

Environmental Management

Waste management, cleanliness, recycling facilities, and protection of natural areas are mandatory requirements..

Environmental Education

Activities that raise environmental awareness should be held on beaches, with informative boards and educational materials available

Safety and Services

Infrastructure such as lifeguards, first aid equipment, clean toilets, and showers must be complete and meet standards.

This prestigious certificate represents one of the highest standards of environmental responsibility and sustainable tourism. It is considered a powerful tool for coastal protection, environmental education, and the development of sustainable tourism.



Sustainability is not a
choice, it is a necessity for
the future..

*Either we become friends
of nature, or witnesses to extinction.*

The Rising Face of Natural Disasters

Climate change and natural disasters increasingly highlight how critical sustainable living has become.

Drought and Water Scarcity: Global warming puts pressure on water resources, threatening agriculture and human life.

Forest Fires: Prolonged drought and high temperatures lead to fires that are difficult to control.

Floods and Storms: Extreme weather events cause major damage to infrastructure and result in loss of life.

Rising Sea Levels: Coastal areas are under threat due to melting glaciers, directly affecting tourism zones.

As an accommodation facility, even small steps like saving energy and water can make a significant difference against these global challenges. Sustainability not only protects the environment but also ensures a livable world for future generations.

As an individual, even turning off a single light may not show its impact today — but you will definitely see it in your future.

WHEN WE DON'T CARE...



Our Goals

- *Protect Your Planet
- * Empower Your Life
- * Transform Your Future





Glorious Experiences