



جامعة عجمان
AJMAN UNIVERSITY

2022-2030

AU Climate & Sustainability Strategy

Carbon Neutral by 2030





Ajman University is committed to be part of the global action to address climate change challenges to secure a sustainable future for the upcoming generations.





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MESSAGE FROM THE CHANCELLOR

2020 and 2021 will likely be remembered as the years of unprecedented crisis and disruption. We all have to rethink the concept of running business as usual, and to develop resilient and proactive approaches to mitigate the impacts imposed by uncharted risks and challenges.

Ajman University's Climate & Sustainability Strategy 2022-2030 highlights its commitment to drive climate action goals in line with the UAE Green Agenda, Net Zero by 2050 Strategy, the National Climate Change Plan of the UAE 2017–2050, as well as Goal 13 of the UN Sustainable Development Goals.

Universities from various parts of the world have shown their willingness to become carbon neutral in the future. Ajman University successfully accomplished important milestones in recent years, and I firmly believe in the University dream team that can achieve carbon neutral by 2030 and net zero by 2050. That will be an exponential achievement in our contribution to the national and global efforts to tackle climate change.

Climate action is a collective action that involves all members of Ajman University. You have a chance to be part of the driving force that will reshape our future, ensure sustainability and resilience, and preserve our environment and earth for future generations.

Karim Seghir, Ph.D.
Chancellor



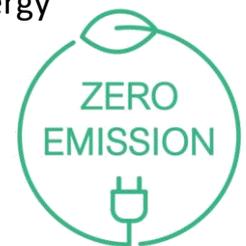
INTRODUCTION

Ajman University is pleased to launch the **AU Climate & Sustainability Strategy 2022-2030** which outlines the roadmap and actionable targets to address the climate change.

Climate change is a global challenge that needs collaboration and support from all members of the Community, whether you're a student, faculty or staff member, external organization, contractor or a member of the public.

This document is written in line with the UAE Green Agenda 2015-2030, the National Climate Change Plan of the United Arab Emirates by the Ministry of Climate Change and the Environment (MOCCA), as well as the Sustainable Development Goals (SDGs) of the United Nations; mainly SDG 13 which aims to “take urgent action to combat climate change and its impacts”.

The AU Climate and Sustainability Strategy 2022-2030 is a practical guide on how the University will deliver key climate commitments, such as reducing greenhouse gas emissions, supporting a carbon neutral campus, reducing energy consumption, investing in energy optimization solutions and renewable energy, exploring new ways to decrease direct and indirect CO₂ emissions, minimizing the environmental impact rating of the University activities and processes, and creating awareness on taking action for climate change.



The strategy considers how to achieve resilience to the impacts of climate change across University operations and supports a smooth and fair transition to a low and eventually zero carbon future.

Chief Operating Officer

And Office of Environmental Health and Safety



DRIVING FACTORS

Ajman University is committed to actively contribute to the global and national efforts in tackling climate change. The main driving factors behind this commitment can be summarized as follows:



GLOBAL

The most challenging current issue is Climate Change. As per the scientific research and reports of The Intergovernmental Panel on Climate Change (IPCC), which is an intergovernmental body of the United Nations responsible for advancing knowledge on human-induced climate change, greenhouse gas emissions from human activities are the dominant cause of global warming since the mid-20th century.

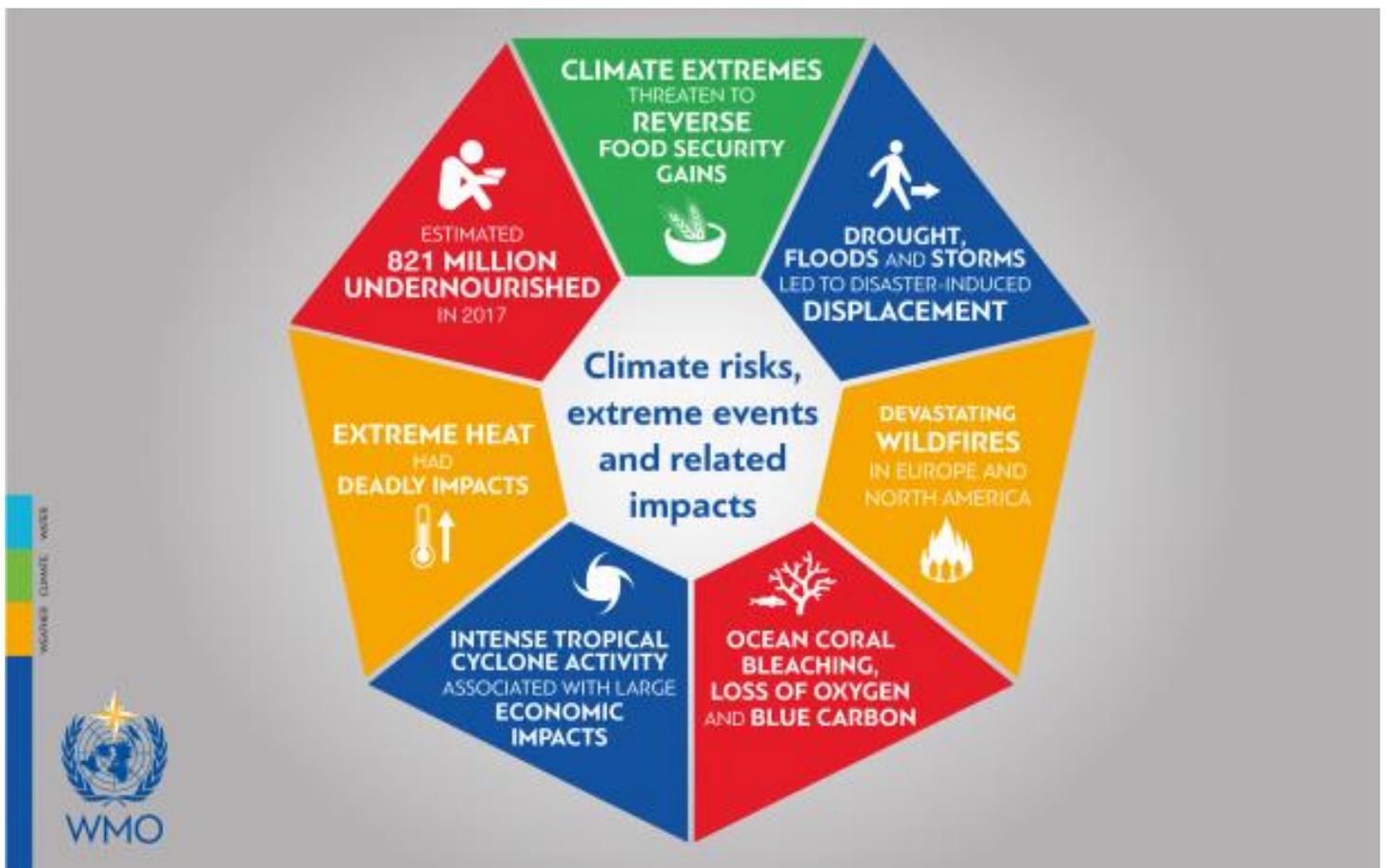
The 21st session of the UN Framework Convention on Climate Change Conference of Parties (COP21), resulted in the Paris Agreement which aims to strengthen the global response to the impacts of climate change by maintaining the global temperature rise below 2°C. The UAE along with 175 countries, have committed to achieving this goal by officially signing the Paris Agreement on April 22nd, 2016.

The impacts of climate change are global in scope and unprecedented in scale. Increased heat, drought and insect outbreaks, increased wildfires, declining water supplies, reduced agricultural supply, health impacts in cities due to heat, and flooding and erosion in coastal areas are major concerns.

According to the Global Risks Report 2022, “Extreme weather” and “climate action failure” are among the top five short term risks, but the five most menacing long-term threats are all environmental. “Climate action failure”, “extreme weather” and “biodiversity loss” also rank as the three most potentially severe risks for the next decade.

Experts believe that the negative impacts of climate change on the different sectors of the society; mainly energy, water, transportation, wildlife, agriculture and human health, can be reduced by limiting global warming, reducing carbon emissions to zero as fast as possible, investing in green technology and infrastructure, creating a nation-wide awareness on climate change, and others.

Infographic 1: Global Climate Impact Assessment



Source: [World Meteorological Organization](#)

Infographic 2: Global Risks 2022



Source: [Global Risks Report 2022](#)



NATIONAL

The United Arab Emirates has listed Climate Change as one of its top priorities to maintain long-term economic stability, growth and sustainability. This was evidenced in many national initiatives that serve this goal such as renaming the Ministry of Environment and Water to Ministry of Climate Change and Environment, and winning the bid to host the 28th Conference of the Parties (COP28) in 2023.

Formation of the UAE Council for Climate Change and Environment, mandated to develop the country's policies and strategies on climate change, environmental issues, and sustainable development, as well as to set plans towards achieving these strategies and to represent the UAE in regional and international negotiations related to the Ministry of Climate Change and Environment.

The UAE launched an initiative called Net Zero by 2050 Strategy: a committed national drive to achieve net-zero carbon emissions by 2050. The UAE pledged to reduce its greenhouse gas emissions for the year 2030 by 23.5%, amounting in an emission reduction of about 70 million tons. The country has also pledged to invest AED 600 billion (US\$163 billion) in clean and renewable energy sources by 2050.

Formation of the UAE Circular Economy Council mandated to monitor the implementation strategy for the UAE Circular Economy Policy 2021-2031 that targets the application of the circular economy concept in four priority areas as follows: green infrastructure, sustainable transportation, sustainable manufacturing, and sustainable food production and consumption.

The UAE is developing many programs and initiatives to involve the youth in climate action, and highlight the importance of youth involvement in tackling climate change and green economy, accelerating social entrepreneurship and innovation as well as youth inclusion in climate solutions and decision making.

Overview of climate change risks to 12 sectors in the UAE



- By 2050, the UAE will, as a result of climate change ...

See a temperature increase of

2 degrees Celsius



See an increase in humidity levels of

10%



An increase in energy consumption by

11%



Costs to the building sector could increase

\$834m

by year



Energy required to meet extra electricity demand will be equivalent to

18

Masdar Shams solar power plants



New demand for energy would produce CO2 emissions equivalent to one car making

17,455

round trips to the moon



Infographic 4: UAE's Nationally Determined Contribution

UNITED ARAB EMIRATES
MINISTRY OF CLIMATE CHANGE
& ENVIRONMENT



الإمارات العربية المتحدة
وزارة التغير المناخي
والبيئة

أبرز النقاط في المساهمات المحددة وطنياً الثانية لدولة الإمارات Highlights of the UAE's second Nationally Determined Contribution (NDC)

- * Reduce GHG emissions by

23.5% ↓

compared to business as usual for the year 2030, with absolute emission reduction of about 70 million tons



- * خفض انبعاثات غازات الدفيئة بنسبة

↓ 23.5%

مقارنة بسيناريو العمل كالمعتاد لعام 2030، ما يعادل خفض الانبعاثات بحوالي 70 مليون طن

- * Increase installed clean power capacity, including solar and nuclear, to

14 GW ↑



- * زيادة قدرة الطاقة النظيفة بما في ذلك الطاقة الشمسية والنووية، إلى

14 جيجاوات ↑

- * Plant

30 million

mangrove seedlings to enhance carbon sinks and natural barriers against sea level rise



- * زراعة

30 مليون

شتلة لأشجار القرم لتعزيز مصارف الكربون والحواجز الطبيعية ضد ارتفاع مستوى سطح البحر

- * Strengthen climate resilience of priority sectors, including energy, infrastructure, health & environment, informed by a scientific assessment of climate risks



- * تعزيز المرونة المناخية للقطاعات ذات الأولوية، بما في ذلك الطاقة والبنية التحتية والصحة والبيئة، استناداً إلى تقييم علمي لمخاطر المناخ

@MOCCAUEAE
www.moccae.gov.ae

Source: [Ministry of Climate Change and Environment](https://www.moccae.gov.ae)

GOALS



Ajman University acknowledges the fact that the constant release of greenhouse gases (GHG) and the subsequent increases in global concentrations in the atmosphere will cause significant climate changes around the world. The impacts of global climate change are already evident in the form of increased health risks caused by extreme weather, decrease in both aquatic and terrestrial species numbers, increased frequency of extreme events such as wild fires, flooding and droughts, and food scarcity.

The role of higher education institutions in facing the severe impacts of climate change sets an essential role model for the youth and future generations to be actively involved in climate action. It is important to create awareness on how to build resilience and sustainability in a very turbulent and changing world.

Support and endorsement from the higher management of the University are essential for the success of this bold environmental commitment. In addition to the vital role of students, faculty, and staff members who play an important role in providing new, creative, and innovative strategies for environmental sustainability, support for the sustainability initiatives that are financially viable and in line with the climate action goals can make a major difference in the success of this strategy. The involvement of the top management in promoting and communicating the importance of sustainability sends clear and powerful messages about the institution's commitment to sustainability.

The long-term objectives of the University are to achieve carbon neutral, zero waste campus, a Gold Sustainability rating in [STARS®](#) system by 2030 and zero carbon by 2050. To achieve these objectives, the University shall continue working towards achieving the following goals:

- 1- Adoption of sustainable practices to decrease GHG emissions,
- 2- Sourcing sustainable procurement contracts and products,
- 3- Promoting renewable energy solutions on-campus,
- 4- Developing sustainable investment plans necessary to support approved, viable strategies to attain climate neutrality, using environmental, social and governance criteria (ESG).



PLANNING TIMELINE

To be able to achieve these goals, the following timeline is carefully set to help in the planning process that needs to be adopted across the whole University Community:



GREENHOUSE GAS PROTOCOL



Ajman University will apply the Greenhouse Gas Protocol ([GHG PROTOCOL](#)) to report emission sources. The GHG Protocol Corporate Accounting and Reporting Standard provides requirements and guidance for companies and other organizations preparing a GHG emissions inventory. The GHG Protocol is the internationally recognized standard for greenhouse gas accounting on the corporate level. It was developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD).

Gases that trap heat in the atmosphere are called greenhouse gases (GHG). Since these gases get trapped in the atmospheric layer instead of being released into space, they cause global warming. The present Corporate Carbon Footprint discloses all emissions as CO₂ equivalents (CO₂e) and includes six other greenhouse gases that are regulated by the Kyoto Protocol:

- METHANE (CH₄)
- NITROUS OXIDE (N₂O)
- SULFUR HEXAFLUORIDE (SF₆)
- HYDROFLOUROCARBONS (HFCS)
- PERFLOUROCARBONS (PFCS)
- NITROGEN TRIFLOURIDE (NF₃)

The United States Environmental Protection Agency ([EPA](#)) has defined GHG Emissions into three scopes:

Scope 1 – direct, reporting company

Scope 2 – indirect, upstream activities

Scope 3 – indirect, upstream and downstream activities



EMISSION SCOPES



Scope 1 Emissions

Direct greenhouse (GHG) emissions that occur from sources that are controlled or owned by an organization (e.g., emissions associated with fuel combustion in boilers, furnaces, vehicles).



Scope 2 Emissions

Indirect GHG emissions associated with the purchase of electricity, steam, heat, or cooling and are a result of the organization's energy use.



Scope 3 Emissions

All indirect emissions (not included in Scope 2) that occur in the value chain of the organization, including both upstream and downstream emissions.

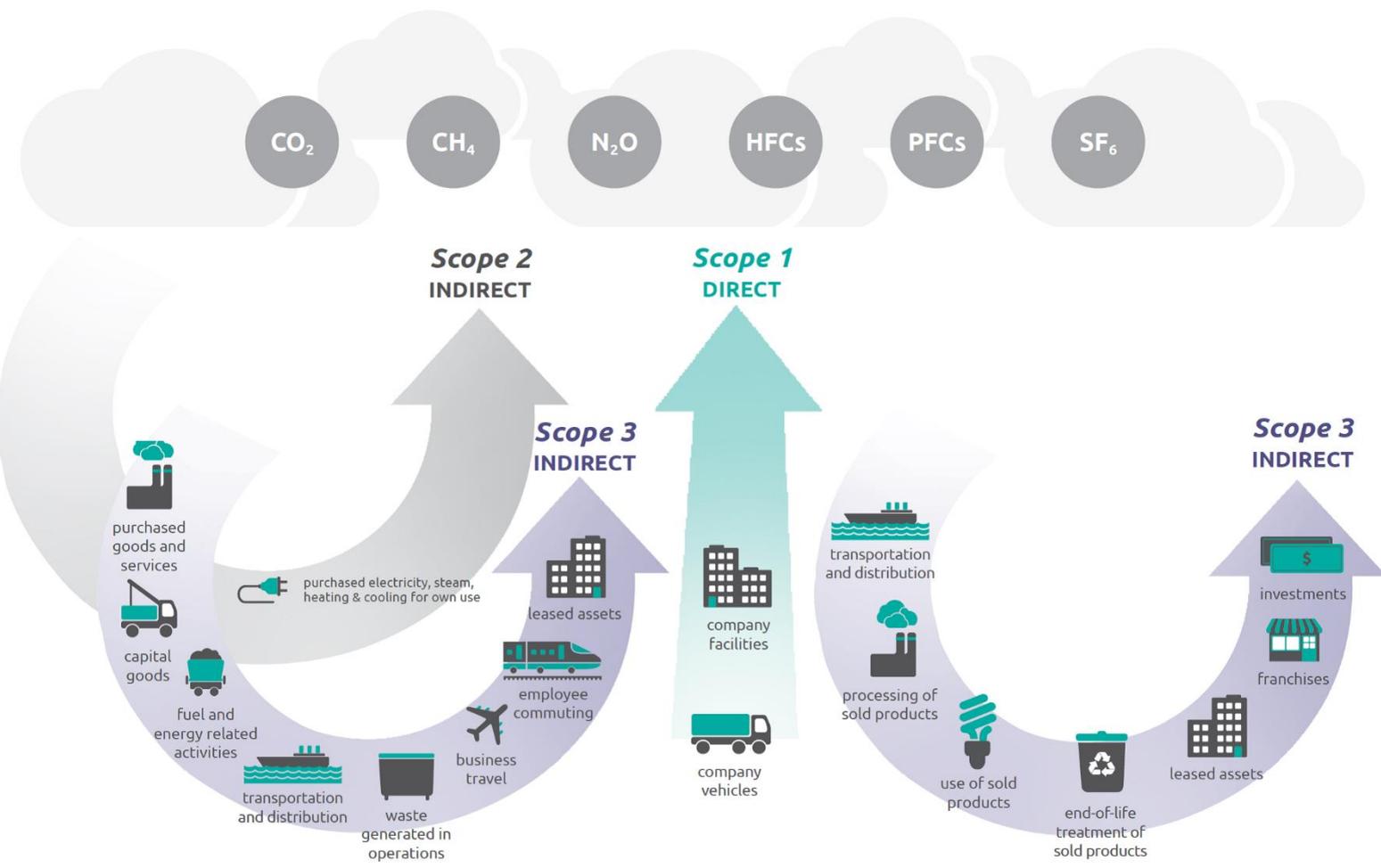
Examples

Scope 1: on-site electricity generation, heating, cooling, university owned vehicles, fugitive emissions (e.g. refrigerants and chemicals), agricultural emissions.

Scope 2: imported electricity, steam, chilled water.

Scope 3: purchased goods and services, employee commuting, business travel, upstream emissions from fuel extraction, waste management

Infographic 5: Overview of GHG Protocol scopes and emissions across the value chain



Source: [Greenhouse Gas Protocol](#)



CLIMATE ACTION PLAN



Formation of Focus Groups

Climate action is the responsibility of the whole University. To ensure involvement of all AU Community members, we will form focus groups from students, faculty and staff members to reflect on the potential objectives and actions that could be part of this strategy, and how these would help achieve the University's long-term environmental targets.

The following areas of interest will be assigned to various focus groups:

- 1- Recycling and waste reduction programs
- 2- Green Campus Audit
- 3- Zero Waste Campus
- 4- Local and plant-based food/ Food sustainability
- 5- Composting food waste and using it to feed green areas on campus
- 6- Sustainable campus initiative
- 7- Environmental and climate justice
- 8- Renewable energy solutions
- 9- Water and circular economy
- 10- Healthy buildings in collaboration with the on-campus research center



Formation of Sustainability Committee

Sustainability Committee shall be formed with a diversified membership from AU Community such as students, alumni, faculty and staff members. The environmental mandate of the committee shall be as follows:

- 1- To provide strategic oversight on matters relating to environmental sustainability and to recommend action to improve environmental performance.

- 2- To recommend for approval strategies, policies and action plans in support of the University's environmental sustainability goals and commitments, and to review strategies, policies, plans, and procedures in connection with environmental sustainability whenever needed.
- 3- To oversee the delivery of Climate and Sustainability Strategy 2022-2030, policy and action plans, monitoring and reviewing environmental sustainability performance, advising on resources to enable delivery and making recommendations if necessary.
- 4- To lead and deliver on environmental sustainability matters at the University.

Development of Relevant Policies and Procedures

To ensure proper implementation of AU Climate & Sustainability Strategy 2022-2030, and to foster a culture of commitment within AU Community to achieve the ambitious environmental goals, the following set of policies, plans and procedures shall be developed; in addition to the existing related policies:

- 1- Energy Management Plan
- 2- Sustainability Policy and Procedures
- 3- Zero Waste Campus Plan
- 4- Waste Reduction Strategy
- 5- Green Campus Plan

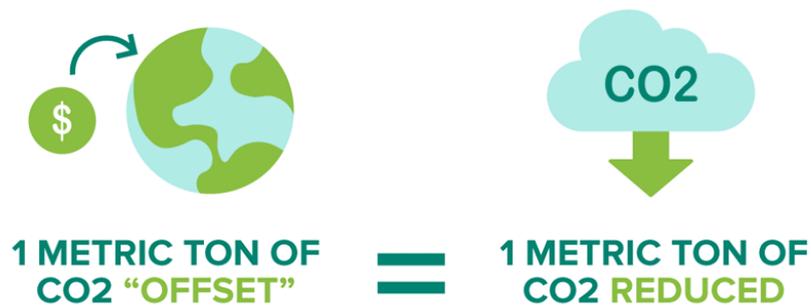


Calculation of Carbon Footprint

After identifying all the activities and processes that generate GHG including CO₂ and its related gases from emission sources 1, 2 and 3, the carbon footprint of Ajman University shall be calculated. The calculation methodology shall be applied in accordance with "The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard".

Carbon Offsetting Programs

Some carbon emissions can't be completely eliminated or reduced due to their complexity or effect on continuity of University operations. Therefore, Ajman University shall engage in Carbon Offsetting Programs such as tree planting, beach/ desert cleanups, mangrove planting, and others. A carbon offset is a reduction or removal of emissions of carbon dioxide or other greenhouse gases generated by the University in order to compensate for emissions made elsewhere. The calculation of CO₂ and CO₂e (CO₂ equivalents) offset is based on the absorptions of CO₂ by tree species included in a reforestation project.



Research and Education

Ajman University aims to identify and implement plans to incorporate climate and sustainability matters in learning and research activities by 2030. The following actions shall be taken to fulfill this objective:

- 1- Increase the number of awareness sessions offered to AU Community members and the general public on environmental and sustainability topics.
- 2- Collaborate with speakers from the national and global pool of talent to present training sessions and workshops.
- 3- Partner with national and global entities, NGOs, governmental agencies, environmental groups, sustainability advocates, and others on common projects and initiatives. Target entities include, but are not limited to:
 - a. [Azraq](#): For mangrove planting, and creating awareness for our oceans.
 - b. [Terraloop](#): For recycling food waste.
 - c. [Surge](#): For collaborations on local education programs on water preservation.

- 4- Partner with national and global research centers to develop joint papers on environmental and sustainability topics.
- 5- Use the campus as a living lab for applied student research in climate and sustainability.
- 6- Develop a Sustainable Lab Guide to be applied in all University labs, clinics, studios and workshops with a mandate to include sustainability considerations in lab processes. These considerations include efficient use of equipment and resources, green chemistry, recycling and proper disposal of hazardous and non-hazardous waste, using environmental-friendly products sourced from suppliers who use sustainable raw material, and others.
- 7- Encourage students to incorporate climate and sustainability matters in their research papers.
- 8- Become a member of [Emirates Environmental Group](#).

Improving Environmental Performance of Buildings and Energy

Ajman University aims to increase the environmental performance of buildings while reducing their carbon footprint by 2030. All buildings or renovated infrastructures on campus shall be constructed using sustainable resources and energy saving solutions, along with an integrated Building Management Systems (BMS's) to manage the internal environmental condition of the building and make it more secure and energy-efficient. This practice will be effective in reducing the carbon emissions from the usage of electrical equipment, HVAC systems, ventilation, elevators, plumbing and water usage monitoring, lighting and fire alarm systems. The following actions shall be taken to fulfill this objective:

- 1- Obtain LEED Gold certification for new buildings.
- 2- Integrate health, well-being, and accessibility standards in line with the WELL certification.
- 3- Include social and environmental (ESG) requirements in contracts related to construction, architecture, and renovation projects.
- 4- Apply natural ventilation methods to reduce HVAC energy consumption and improve well-being.

- 5- Develop a strategy for energy optimization by planning for future energy conversion projects, geothermal exchange projects, smart energy grids, and peak power demand management.

Improving Efficiency of Transportation and Commuting

Ajman University aims to reduce business-related transportation and commuting emissions by following the below steps:

- 1- Encourage the usage of electrical cars by adding charging outlets on-campus.
- 2- Expand the number of charging stations for electric vehicles.
- 3- Introduce a biking and electrical scooter infrastructure.
- 4- Develop plans to encourage the use of sustainable and accessible transportation.
- 5- Encourage the usage of online meeting options to replace/ avoid air travel whenever possible.
- 6- Switch to hybrid or electrical buses/ vehicles by 2050.

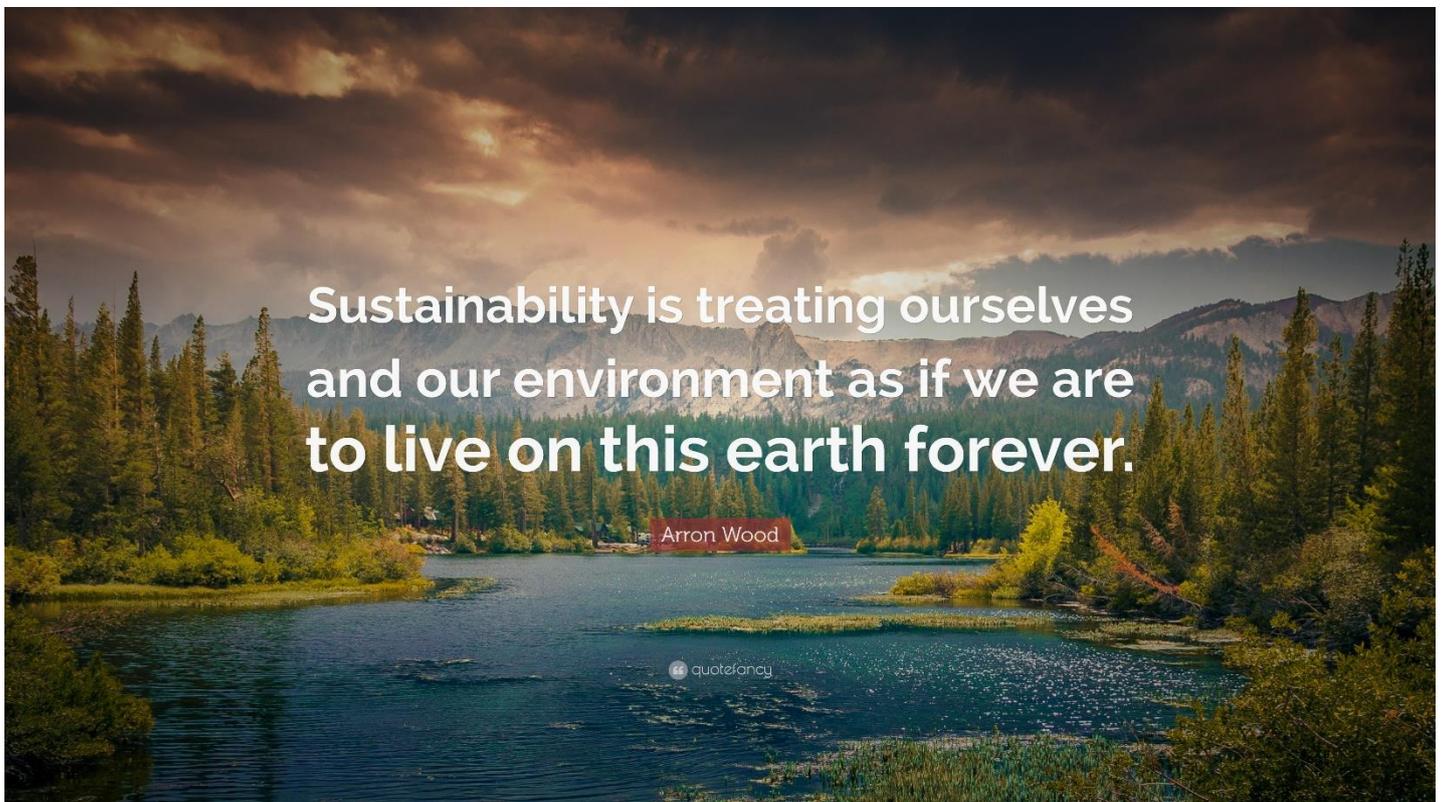


Sustainable Procurement

Ajman University aims to consider social, environmental, and economic sustainability factors while performing contracting, buying, or tendering activities. This can be achieved by applying the following steps:

- 1- Raise awareness on sustainable procurement practices and circular economy.
- 2- Request suppliers to provide information about the environmental and climate footprint of their products.
- 3- Purchase goods and services that are in line with the University's carbon reduction target.

- 4- Facilitate the sharing and reuse of University assets across colleges and offices.
- 5- Collaborate with other universities to support asset reuse programs whenever possible.
- 6- Develop a supplier code of conduct that includes climate and sustainability criteria.
- 7- Become a member of the [Sustainable Purchasing Leadership Council](#).





LONG TERM OBJECTIVES

1

Gold Sustainability Rating by 2030

Using the sustainability rating system provided by the Association for the Advancement of Sustainability in Higher Education. [Sustainability Tracking, Assessment & Rating System™ (STARS®)]

2

Carbon Neutral by 2030

This is achieved when the amount of greenhouse gases released from on campus activities is equivalent to the amount offset.

3

Zero Carbon by 2050

This is achieved when all on campus activities release net-zero carbon emissions into the atmosphere.

4

Zero Waste by 2030

This is achieved by reaching a diversion rate of 90%



Ajman University, Jan. 2022
Office of Environmental Health and Safety