AUS | الجامعة الأميركية في الشارقة
American University of Sharjah

THE GLOBAL GOALS

2025

SDG 13

CLIMATE ACTION

Climate change is a crisis that will affect every part of society, and every country. Universities need to be at the forefront of action to reduce the impact of climate change, especially amongst the poorest who will be the most affected. Universities are critical in addressing climate issues through research, low carbon use and education.

13.2 Low-carbon energy use

13.2.1 Indicator: Low-carbon energy tracking

AUS works with a Sharjah entity: Sharjah Electricity, Water and Gas Authority (SEWA) to track the low carbon energy used across the university. This low carbon energy is received from The Emirates Water and Electricity Company (EWEC), Sharjah Waste-to-Energy plant and SEWA's SANA 60 MW solar PV plant. These sources all feed into the SEWA grid. AUS then purchases this electricity from SEWA.

Sharjah Waste-to Energy Plant
"The Sharjah Waste-to-Energy plant closes the loop on waste that is deemed non-recyclable, contributing to a zero-waste future while also producing clean energy. Complementing integrated, digitally enabled recycling at BEEAH's award-winning waste management complex, the Sharjah Waste to Energy plant receives and processes 300,000 tonnes of waste annually while producing a 30 MW as output, enough power for the equivalent of 28,000 homes. The Sharjah Waste to Energy plant has contributed to a 90% landfill waste diversion rate in Sharjah, the highest in the Middle East, moving closer to achieving total waste diversion." https://emirateswte.ae/projects/sharjah-waste-to-energy-facility/

Sharjah National Oil Corporation (SNOC) Solar Plant
"SANA, a 60MW plant sets record as Emirate of Sharjah's first utility-scale solar photovoltaic (PV) facility. It is one of the world's first large-scale oil & gas processing facilities to meet its own electrical needs and export surplus power using on-site solar generation. The plant will offset 66,000 tons of CO_2 emissions annually – equivalent to the yearly electricity consumption of 13,780 homes. It will power SNOC's operations while exporting surplus electricity to the Sharjah Electricity, Water and Gas Authority (SEWA) during the day" https://www.snoc.ae/news/snoc-emerge-inaugurate-first-utility-scale-solar-plant-in-sharjah/

Based on the latest available statistics and incorporating a 5% increase in demand, the 2024 estimates (derived from 2023 data) are as follows:

SEWA generation: 8,460 GWh
Imports from EWEC: 5,405 GWh
Total supply: 13,866 GWh

The SEWA SANA 60 MW solar PV plant is estimated to have generated approximately **126 GWh in 2024,** assuming a capacity factor of 0.24. The Sharjah Waste-to-Energy plant, with a capacity of about 30 MW, is estimated to have produced around **197 GWh** of electricity during the year, assuming a capacity factor of 0.75. Currently, there are no verified figures for rooftop PV installations in Sharjah, so these are excluded from the estimate.

Electricity imported from EWEC includes about 46.38% non-fossil sources (nuclear and solar), corresponding to **2,506.8 GWh** of clean energy. Adding SEWA's own solar generation (126 GWh) and waste-to-energy output (197 GWh), the total non-fossil electricity supplied through SEWA amounts to 2,829.8 GWh, representing roughly **20.4%** of the total 13,866 GWh supply.

This clean-energy share is assumed to apply uniformly across all SEWA customers in Sharjah, including AUS.

More information can be found here:

1. UAE Ministry of Energy and Infrastructure Statistical book 2023:: https://www.moei.gov.ae/en/knowledge-center/annual-statistical-book
2. EWEC Statistical Report 2024: https://www.ewec.ae/media-kit/statistical-reports

13.2.2 Indicator: Low-carbon energy use

Data Collected	Data 2024 (Jan to Dec)
Total energy used in Gigajoule (GJ)	196,197 GJ
Total energy used from low-carbon sources (GJ)	40,024 GJ

13.3 Environmental education measures

13.3.1 Local education programmes on climate

AUS provides local education programs, campaigns on climate change risks ,impacts, mitigation, adaptation, impact reduction and early warning. Some of the main programs are as follows:

EcoRep Program

The EcoRep Program at AUS is a co-curricular initiative led by the Office of Sustainability that empowers students to champion promoting sustainable practices on campus. As paid student workers, EcoReps serve as sustainability ambassadors, engaging in peer-to-peer education, campaign development and event implementation.

Through this hands-on experience, they develop key competencies in systems thinking, critical thinking, collaboration and self-awareness. The program encourages students to foster personal connections to sustainability values that lead to practical action, while deepening their understanding of the interconnectedness between environment, social and economic systems. As a result, EcoReps not only support institutional sustainability, but develop their own skills and confidence to become changemakers beyond the university setting.

Cook for Change Program

The Cook for Change program, a hands-on approach to learning sustainability through cooking, enables students to gain practical life skills and increase food literacy skills while underscoring the vital connection between personal health and environmental wellbeing. This program is offered to incoming first-year resident students during orientation week.

It is guided by Nathalie Montoya Curabba, AUS Sustainability Manager and accomplished Clinical Nutritionist and Chef, the cooking classes are part of the university's efforts to instill in students the importance of a sustainable lifestyle while also offering them the opportunity to learn how to cook delicious recipes. Held as part of the AUS' Week of Welcome student activities, the cooking classes were especially helpful for students, who are developing their independent living skills, raising their awareness about the relationship between food, climate change and sustainability. The Cook for Change classes are part of Eating with Intent, a larger, ongoing campaign on campus.

University Climate Network (UCN) Decarbonization Academy

The AUS Office of Sustainability partnered with Ajman University and New York University Abu Dhabi to launch the UAE's first online Campus Decarbonization Academy dedicated to empowering higher education institutions to advance campus carbon neutrality. This initiative marks a sector wide effort to support the country's climate goals and aligns with the priorities of the Universities Climate Network.

AUS has played a central role in developing the academy's curriculum and delivering sessions on key topics such as climate action planning, GHG accounting and energy efficiency. The program is designed to build capacity among sustainability officers, faculty and administrators from across the UAE's higher education sector, while also welcoming public participants to raise nationwide climate awareness.

This pioneering effort underscores AUS' commitment to sector-wide collaboration and knowledge-sharing in support of the UAE's national climate goals and its landmark Federal Decree-Law No.11 (2024) on the Reduction of Climate Change Effects, which came into effect in May 2025.

AUS Green Living Challenge

AUS residential halls participated in the Green Living Guide Challenge, a year-long sustainability competition led by the Office of Sustainability's EcoReps in collaboration with the Student Residential Life Department. With themes ranging from energy conservation and sustainable diets to eco-friendly travel and recycling, student residents engaged in monthly challenges that encouraged greener living.

They envisioned what it might look like if resident students were to truly integrate sustainability into the spaces they call home and carefully designed the various initiatives to align with the United Nations' Sustainable Development Goals. Notably, SDG 11 (Sustainable Cities and Communities) and SDG 12 (Responsible Consumption and Production), to ensure each challenge had both a direction and purpose.

The team also devised a gamified point system, rewarding students for actions like conserving electricity, minimizing plastic use, attending workshops and participating in awareness events. Throughout the campaign, the Green Living Guide served as a practical resource students could easily consult for ideas on how to live more sustainably.

Sharakah Environmental Day

AUS continues to promote environmental awareness among youth through its annual Sharakah Environmental Day (ENV Day)---flagship outreach initiative that engages high school students in hands-on sustainability education. ENV Day 2025 was held on the AUS campus by the Department of Biology, Chemistry and Environmental Sciences and Sustainability in the College of Arts and Sciences, in collaboration with the Office of Enrollment Management through the Sharakah Program. The theme was "Deep Blue: Industrial Challenges and Scientific Solutions."

The event welcomed over 500 high school students and teachers from more than 25 UAE schools, offering them an immersive experience in environmental science and sustainability. Participants engaged in experimental demonstrations, lab tours and interactive educational games–activities designed to deepen their understanding of environmental issues and scientific inquiry. Sharakah ENV Day reflects AUS' broader mission to empower future generations with the knowledge, curiosity and motivation to become environmental stewards, while showcasing the university's leadership in sustainability education and community engagement.

Empowering Ocean Stewards Project with Goumbook

The Empowering Ocean Stewards project, in partnership with Goumbook and Atlantis Dubai, engaged high school and university students in marine conservation efforts across the UAE. Through hands-on field trips and laboratory analysis, students were trained in ocean literacy, plastic pollution awareness and scientific research methods. Mentored by AUS students, high school participants developed environmental skills and a strong sense of responsibility for sustainability. The data collected by the students will contribute to global ocean pollution databases, supporting ongoing conservation efforts in the UAE and beyond.

During these trips, students collected plastic waste and learned more about fieldwork and research techniques related to environmental conservation. After the trip, the high school students visited AUS' College of Arts and Sciences to analyze the plastic samples in the laboratories of the Department of Biology, Chemistry and Environmental Sciences. They learned how to use density separation and Fourier Transform Infrared Spectroscopy to analyze and identify different types of plastics polluting the coastline. The data collected will be shared with global ocean pollution databases in collaboration with the Partnership for Observation of the Global Ocean and Ocean Conservancy.

Future 17 SDG Challenge with QS

AUS has been a proud partner of the Future17 SDG Challenge, a global initiative led by QS Quacquarelli Symonds and the University of Exeter. Multi-institutional and multi-disciplinary student teams mentored by selected faculty were matched with international corporations to work on an identified sustainability challenge.

To date, the program has brought together over 300 students from nine universities to collaborate with 31 international organizations on real-world projects aligned with the UN SDGs. Through this experience, students apply academic knowledge to practical problems, enhancing their SDG literacy and developing their professional skills. The initiative reflects the university's broader commitment to sustainability through education, research and campus engagement.

Higher Education Climate Dialogues

The Higher Education Climate Dialogues (HECD) Conference is a student-led conference on sustainability which provides a platform for interdisciplinary, intergenerational and inter-institutional dialogue and empowers the youth to lead the charge against climate change. In 2024 the American University of Sharjah (AUS) hosted the fifth annual HECD under the theme "Collaborating for Climate Resilience: Sustaining the Legacy of COP28" in collaboration with New York University Abu Dhabi.

University students from across the UAE benefited from a debrief by the Youth Climate Champion (YCC) Team on the "UAE Consensus," the historic outcome of COP28 to transition away from fossil fuels. The United Nations Framework Convention on Climate Change then delivered a workshop later in the day, offering practical insights and actionable steps to involve youth in climate advocacy.

Another highlight of the event was a panel discussion on "Making Sustainability Accessible to the Youth," which explored innovative strategies to engage and empower young leaders in the fight against climate change. There were also hands-on workshops, facilitated by esteemed partners such as Ernst & Young, Canon, Goumbook and Ecyclex. These provided participants with practical solutions and innovative approaches to address climate challenges in various sectors. Ernst & Young also hosted a student competition to pitch sustainable solutions, inspiring creativity and entrepreneurship among participants.

The event culminated in a vibrant Climate Art Gallery where attendees were treated to a rich tapestry of creative expressions, showcasing activism and raising awareness about climate issues. By intertwining art and sustainability, this gallery offered a platform for youth to engage and express themselves in yet another impactful form.

13.3.2 Climate Action Plan

AUS's Climate Action Plan was publicly published in 2022 on our website and is shared with the local government and local community groups.

13.3.3 Co-operative planning for climate change disasters

AUS participates in co-operative planning for climate change disasters, that may include the displacement of people both within a country and across borders, working with the Government both locally and regionally.

Local participation:

UAE Alliance for Climate Action (UACA)
AUS is a founding member of the UAE Alliance for Climate Action (UACA), a national coalition led by Emirates Nature–WWF whose mission is to conserve nature and reduce the most pressing threats to the environment for the benefit of society and achieve science-based solutions to combat climate change and safeguard the seas, the land and their associated biodiversity.

AUS was the first university to join the alliance and currently represents the higher education sector on the UACA Advisory Committee, reinforcing its role as a leading advocate for climate action within academia. The alliance's priorities include supporting non-state actors in implementing and raising their net zero targets at any stage of their decarbonization journey, and engaging policy makers to address key gaps in the policy environment.

Membership of UACA will help to ensure that AUS research is transferred to organizations and governments seeking to reduce emissions and realize other sustainability commitments. Joining UACA will also allow members of the AUS community to learn more about the best practices for decarbonization and to align research efforts with industry needs.

Regional Participation:

MENA Climate Solutions Research Network
MENA Climate Solutions Research Network, is a UCN initiative supported by the Climate Champions Team. This research network aims to address critical climate challenges within the MENA region by implementing solutions aligned with the "2030 Climate Solutions - Implementation Roadmap." This roadmap, launched at COP28, identifies several thematic priorities:

- Energy: Accelerate the shift to clean energy, aiming to triple renewable capacity by 2030 while doubling energy efficiency.
- Transport: Continue electrifying all land transport modes and shift global aviation and maritime shipping to sustainable, zero-emission fuels.
- Industry: Encourage breakthroughs in clean energy and zero-carbon products.
- Land Use: Implement sustainable agricultural practices, involve marginalized groups in nature management, utilize nature-based solutions, and shift to nature-friendly farming.
- Oceans & Costal Zones: Implement science-based emissions reduction targets, build coastal communities' resilience, and restore marine ecosystems.
- Water: Address the water crisis, improve water management collaboratively, and integrate water system improvements for resilience and sustainable development.

- Human Settlement: Drive climate action in cities, aim for near-zero emissions in new buildings and collaborate for sustainable, low-emission, and resilient development.
- Finance: Mobilize finance and catalyze investment into climate adaptation and resilience for economic imperative.

This network is dedicated to addressing these areas through:

- A multidisciplinary approach
- Encompassing technological innovations: harnessing cutting-edge technology to provide sustainable and scalable climate solutions.,
- Policy frameworks: crafting and advocating for policies that support climate resilience and sustainability.
- Capacity-building efforts: Empowering communities and stakeholders with the knowledge and skills needed to implement effective climate solutions.

By being part of the MENA Climate Solutions Research Network AUS will be able to:

- Connect with leading experts, researchers, and policymakers in the field of climate solutions.
- Contribute to initiatives that directly address the unique climate challenges of the MENA region.
- Participate in projects with the potential to drive real-world change.
- Access a wealth of resources, research, and best practices to enhance its work.

13.3.4 Inform and support government

AUS informs and supports the local government in climate change disasters or risks early warning and monitoring through several initiatives; such as the Climate Change Research Network(CCRN) and the Sidr research initiative.

UAE Ministry of Climate Change and Environment (MOCCAE)

AUS is a Co-Chair of the UAE Climate Change Research Network (CCRN, established by the Ministry of Climate Change and Environment (MOCCAE), which aims to facilitate dissemination of knowledge, advance research collaborations on climate change and bring together committed climate scientists and researchers to inform local climate policy.

CCRN was formed to establish a collaborative system to evaluate the impact of climate change on the environment, economy, and society to define appropriate adaptation measures and propose sustainable solutions. The outcomes of its work, such as The UAE State of Climate Report, play an integral role in informing the Ministry’s climate policies, strategies, and action plans, and help position our country as a regional leader in climate knowledge.

This Governance in the CCRN allows AUS to collaborate closely with the Ministry of Climate Change and Environment to identify knowledge and data gaps, and advocate for a relevant climate science agenda for the country.

Emirates Environmental Group (EEG)

Since 2007 Emirates Environmental Group (EEG) have been focused on the large-scale plantation of indigenous tree species—such as Ghaf, Samar, Sidr, and Date Palm—across various emirates to combat desertification, enhance biodiversity, increase carbon capture, and contribute to national greening efforts. To date, they have planted over 2,147,392 native trees across the country.

Current estimates of carbon sequestration are based on internationally recognized data sources such as myclimate, therefore the need for accurate, locally generated data that reflects the unique resilience and ecological behavior of UAE's indigenous flora is crucial. In light of this, and in support of national sustainability and climate action goals, they have launched a scientifically rigorous study that will produce UAE-specific carbon sequestration metrics for native species. A collaboration between AUS, EEG, and the Ministry of Climate Change and Environment (MOCCAE) on a landmark national study focusing on the carbon sequestration potential of the UAE's indigenous trees.

AUS will take a pivotal role in this national effort by contributing its scientific expertise to the research design, field methodology, data collection, and analysis.

As part of this partnership, AUS will take the lead on studying the Sidr trees reserve in southern Ras Al Khaimah, where over 20,000 Sidr trees have been planted by EEG. The research will integrate field-based ecological measurements with geospatial and analytical modeling techniques which include: Field Biomass Measurements, Soil Carbon Analysis, Remote Sensing and GIS Mapping, Statistical and Carbon Modeling.

This collaboration not only supports critical national objectives but also offers substantial academic and professional value. It will provide opportunities for faculty leadership, student engagement in real-world environmental research, and the positioning of AUS at the forefront of climate action in the UAE.

Additionally through the UAE Alliance for Climate Action (UACA) AUS was engaged in the preparation of the new climate action law: the UAE Federal Decree Law No.11 of 2024: Reduction of Climate Change Effects which came into effect in May 2025. The Law includes the following:

- Federal Decree Law No. 11 introduces legally binding climate obligations across the UAE and applies to all UAE public and private entities (including universities).

- Emissions Reporting: MOCCAE is launching a National MRV (Measurement, Reporting and Verification) System in October 2025. All UAE entities will be required to report their scope 1 and scope 2 emissions in the National MRV system by April 2026. The ministry is requesting annual emissions data for 2023, 2024 and 2025 by this date.
- Climate Risk Planning: Entities are required to assess and disclose both physical and transition climate risks.

13.3.5 Environmental education collaborate with NGO

AUS collaborates with NGOs on climate adaptation such as:

UNESCO's Greening with STI Bootcamp

AUS completed a pilot of the Greening with Science, Technology and Innovation (STI) Bootcamp, an interactive program designed to empower students as key change agents for climate action. Over 16 weeks, multidisciplinary student teams participated in a series of virtual capacity-building masterclasses and coaching sessions hosted by The United Nations Educational, Scientific and Cultural Organization (UNESCO) that helped them gain a comprehensive understanding of sustainable development.

Alongside this accelerated learning, the teams were guided by their university professors or researchers as well as coaches and experts from other Global South regions, who worked alongside them to co-design solutions in line with the UN's SDGs, notably SDG 4 (Quality Education), SDG 7 (Affordable and Clean Energy), SDG 9 (Industry, Innovation, and Infrastructure), SDG 11 (Sustainable Cities and Communities), SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action), and SDG 17 (Partnership for the Goals).

The bootcamp has proven to be a transformative learning experience for both professors and students, resulting in student research projects that are relevant, innovative and commercially viable. Through its innovative educational approach, the bootcamp facilitated interdisciplinary, intergenerational and intercultural learning for sustainable development. The finalized curriculum will serve as a blueprint for implementation at other institutions with the goal to foster creative, science-driven solutions for addressing climate challenges effectively through collaboration.

13.4 Commitment to carbon neutral university

13.4.1 Commitment to carbon neutral university

AUS is deeply committed to supporting the UAE's Net Zero 2050 vision and empowering the higher education sector in the UAE to support the country's decarbonization journey. AUS's target date for which it will become carbon neutral according to the Greenhouse Gas Protocol is 2050. This target covers Scopes 1, 2 and 3. AUS releases annual sustainability and GHG reports. It has also released a campus-level Climate Action Plan. These reports are all published on its website.