SDG 13

CLIMATE ACTION

Institutional Impact Report 2026

Al-Iraqia University

Carbon Management • Renewable Energy • Low-Carbon Mobility • Awareness • Resilience

Al-Iraqia University addresses SDG 13 through greenhouse-gas assessment, renewable-energy deployment, energy efficiency, low-carbon transport, climate-related education and operational programs intended to reduce emissions and strengthen environmental awareness.

Reporting: year 2025–2026



1. Executive Summary

Al-Iraqia University demonstrates a comprehensive institutional commitment to climate action through an integrated framework that combines greenhouse gas assessment, renewable energy deployment, energy efficiency, sustainable low-carbon transportation, climate-related education, and environmentally responsible campus operations. These initiatives are designed to systematically reduce greenhouse gas emissions, improve resource and energy efficiency, promote cleaner mobility solutions, and strengthen environmental awareness across the university community. By integrating environmental considerations into infrastructure development, operational practices, academic activities, and community engagement, the University continues to enhance its institutional capacity to respond effectively to climate-related challenges while supporting the transition toward a more sustainable and low-carbon campus environment.



Institutional Capacity & Impact at a Glance

The figure presents four complementary indicators reflecting the University's institutional approach to climate action. The reported annual carbon footprint of 5,726.98 tCO_2e establishes a quantitative baseline for monitoring greenhouse gas emissions, while 383.8 kW of installed solar photovoltaic capacity generates approximately 560,468 kWh of renewable electricity annually. In parallel, 73% of reported appliances are classified as energy-efficient, demonstrating institutional efforts to reduce energy demand alongside the expansion of renewable energy generation. Collectively, these indicators illustrate an integrated approach that combines emissions measurement, clean-energy deployment, and energy-efficiency improvement to strengthen institutional climate performance.

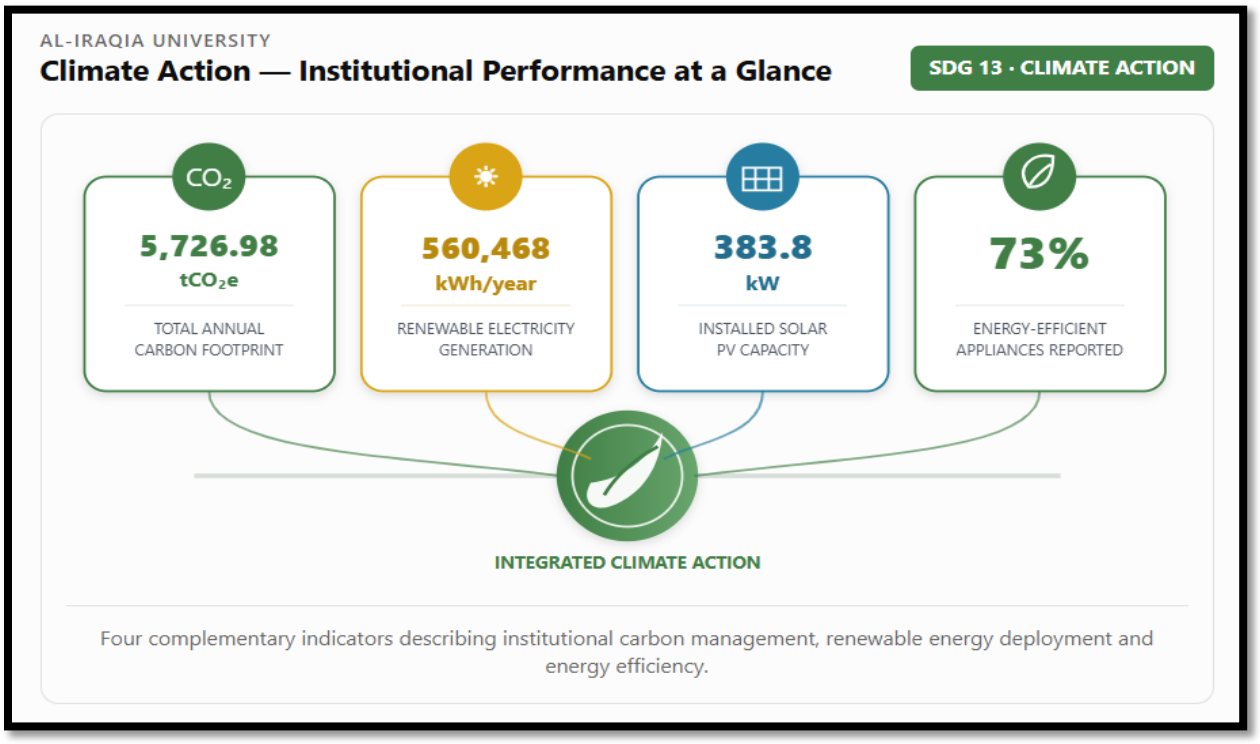

Figure 1. Institutional Climate Action Performance Indicators at Al-Iraqia University.

Greenhouse Gas Emission Reduction and Sustainable Mobility Program

Al-Iraqia University implements an integrated greenhouse gas emission reduction program that combines renewable energy generation, sustainable mobility, shared transportation, and zero-emission commuting practices. The program reflects a comprehensive institutional approach to reducing carbon emissions associated with both electricity consumption and transportation activities across the University's campuses.

A key component of the program is the deployment of **solar photovoltaic (PV) systems** at the Colleges of Engineering, Media, Islamic Sciences, Medicine, and Dentistry. These renewable energy installations generate approximately **560,468 kWh of clean electricity annually**, contributing to the reduction of electricity-related CO_2 emissions and supporting the transition toward a lower-carbon campus energy system.

The University also promotes **sustainable and low-carbon mobility** through several complementary measures. Electric carts are used for internal campus transportation, helping eliminate fuel-based emissions associated with short-distance mobility. In addition, shared transportation services operated by the Colleges of Administration and Media provide collective mobility options for students and staff, thereby reducing dependence on private vehicles and the associated transportation emissions.

Furthermore, the College of Medicine promotes **walking and cycling** through designated pedestrian and mobility areas. These measures encourage zero-emission commuting while supporting a healthier and more environmentally responsible campus environment.

Collectively, these initiatives demonstrate an integrated approach to institutional climate action by combining **renewable energy generation, zero-emission campus transportation, ride-sharing, and active mobility**. The program contributes to reducing the University's operational carbon footprint while strengthening sustainable mobility practices and environmental awareness across the university community.

Key Climate Action Initiatives and Expected Emission-Reduction Impact

Initiative	Institutional Implementation	Contribution to Emission Reduction
Renewable Energy	Solar PV systems generating approximately **560,468 kWh/year**, together with the reported Electricity Reflector, across the Colleges of Engineering, Medicine, Media, Islamic Sciences, and Dentistry.	Reduces dependence on conventional electricity and contributes to lowering electricity-related CO_2 emissions.
Zero-Emission Vehicles	Electric carts are used for internal transportation within university campuses.	Eliminates direct fuel-based emissions from designated internal transportation activities.
Ride-Share Program	Shared buses provide transportation for students and staff, particularly through the Colleges of Administration and Media.	Reduces reliance on private vehicles and contributes to lowering transportation-related emissions.
Cycling and Walking	Dedicated pedestrian and active-mobility areas are promoted at the College of Medicine.	Encourages zero-emission mobility and reduces dependence on motorized transportation for short-distance movement.

Institutional Impact

Through the integration of renewable energy and sustainable transportation measures, Al-Iraqia University is progressively strengthening its capacity to manage and reduce greenhouse gas emissions. Rather than relying on a single intervention, the University adopts a multi-dimensional approach in which **clean energy production reduces electricity-related emissions, shared mobility reduces private vehicle dependence, electric transportation limits direct fuel consumption, and walking and cycling promote zero-emission mobility**. Together, these measures provide a practical institutional framework for advancing climate-responsible campus operations and long-term environmental sustainability.

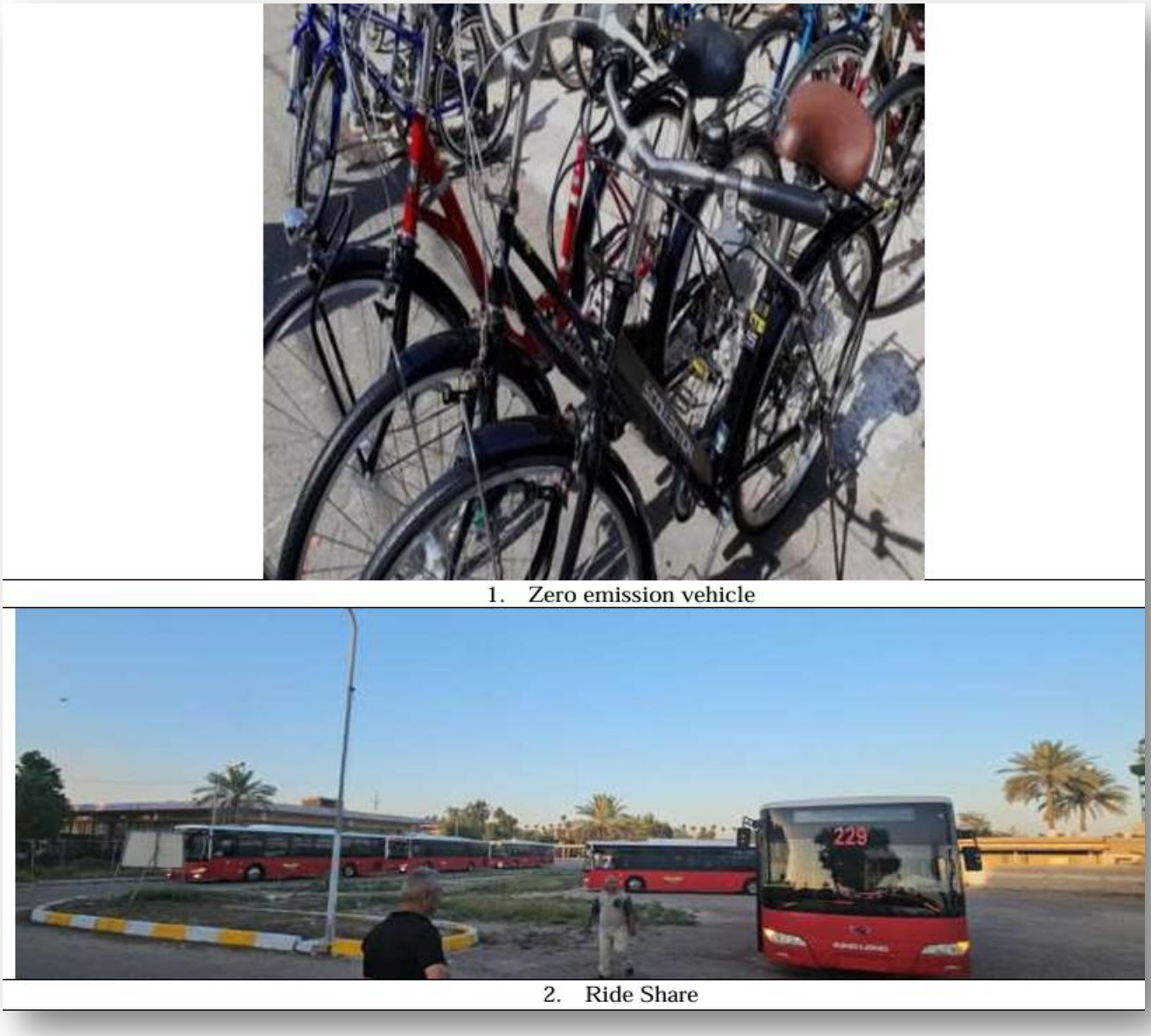

Figure 2. Zero-Emission and Shared Transportation Initiatives at Al-Iraqia University.

Institutional contribution at a glance

• **Carbon Footprint Assessment:** The detailed EC 2.

• **Emission Reduction through Energy Transition:** Solar PV systems generate approximately 560,468 kWh annually from 383.

• **Low-Carbon Mobility:** The university documents shuttle services, bicycle use, carpooling, limited vehicle access, pedestrian pathways and solar-powered EV charging.

• **Climate Education, Innovation and Awareness:** Climate-change and sustainability training, renewable-energy courses, awareness activities and innovative projects such as solar-powered refrigeration connect operational climate action with teaching, research and community engagement.

2. Carbon Footprint Assessment

Al-Iraqia University conducts a comprehensive assessment of its institutional carbon footprint by considering major sources of greenhouse gas emissions, including electricity consumption, transportation, waste management, and refrigerants. The assessment reports a total annual carbon footprint of approximately 5,726.98 tCO_2e, with electricity consumption representing the largest component at approximately 5,372.88 tCO_2.

The assessment provides a quantitative baseline for understanding the University's emissions profile, identifying major emission sources, and supporting the development of targeted measures to improve environmental performance. Regular monitoring of institutional emissions also strengthens evidence-based planning and enables the University to evaluate progress toward lower-carbon and more environmentally responsible campus operations.

3. Emission Reduction through Energy Transition

Al-Iraqia University is progressively strengthening its transition toward cleaner and more efficient energy systems through the expansion of renewable energy generation and energy-efficiency measures. Solar photovoltaic systems installed across university facilities have a combined capacity of approximately 383.8 kW and generate an estimated 560,468 kWh of renewable electricity annually.

These renewable energy initiatives are complemented by a range of energy-efficiency measures, including the use of energy-efficient appliances, LED lighting systems, inverter air-conditioning units, smart-building controls, and environmentally responsive building practices. Together, these measures contribute to reducing conventional electricity demand, improving energy performance, and limiting greenhouse gas emissions associated with university operations.

By integrating renewable energy production with energy-efficiency improvements, the University is developing a more sustainable energy framework that supports long-term emission reduction, responsible resource management, and enhanced institutional climate performance.



Figure 3. Al-Iraqia University Participation in the Green Education Conference.

4. Low-Carbon Mobility

The university documents shuttle services, bicycle use, carpooling, limited vehicle access, pedestrian pathways and solar-powered EV charging. These measures target transport emissions while also improving campus mobility and reducing car dependence.

5. Climate Education, Innovation and Awareness

Climate-change and sustainability training, renewable-energy courses, awareness activities and innovative projects such as solar-powered refrigeration connect operational climate action with teaching, research and community engagement.





Figure 4. Campus greening initiatives at Al-Iraqia University demonstrate practical efforts to expand green spaces and enhance environmental sustainability.

6. SDG 13 Evidence and Impact Matrix

Link:

https://aliraqia.edu.iq/estidamah

https://medic.aliraqia.edu.iq/sustainability-and-environment

https://medic.aliraqia.edu.iq/27337

https://aliraqia.edu.iq/en/events/%D8%A3%D8%B3%D8%A7%D8%B3%D9%8A%D8%A7%D8%AA-

Impact area	Verified university evidence	Contribution to SDG 13
GHG accounting	Detailed total: 5,726.98 tCO_2e	Creates a quantitative baseline for climate management.
Renewable energy	383.8 kW; 560,468 kWh/year	Displaces conventional electricity and associated emissions.
Energy efficiency	73% efficient appliances; smart/green building measures	Reduces energy-related emissions.
Sustainable mobility	Shuttles, cycling, carpool, EV charging and walkability	Targets transport emissions and modal shift.
Climate learning	Courses, training and awareness programs	Builds institutional and community climate capacity.