



جامعة الزهراء للعلوم والتقنية
Al-Zahraa University for Women

University Contribution Report: Advancing Sustainable Development Goals 2025-2024

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Foreword by Prof. Dr. Zainab Abdul-Hussein Al-Mulla Al-Sultani**President of Al-Zahra University for Women**

In the name of Allah, the Most Gracious, the Most Merciful

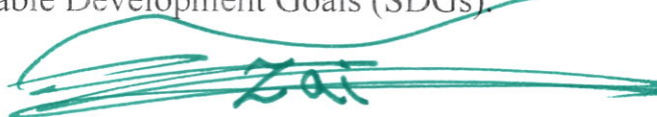
"And say, 'Do [as you will], for Allah will see your deeds, and [so, will] His Messenger and the believers.'"

Sustainable development is not merely a set of global goals to which we are committed; rather, it is a moral and humanitarian mission deeply rooted in the core values we have inherited from the legacy of Al-Siddiqah Al-Tahirah Al-Zahra (peace be upon her). At Al-Zahra University for Women, we firmly believe that the scientific and intellectual empowerment of women is the fundamental key to achieving a sustainable environmental, social, and economic equilibrium.

The academic year (2024–2025) marked an exceptional milestone in our journey, where our ambitions culminated into tangible achievements. This is evidenced by our significant ascent in the UI GreenMetric World University Rankings and our formal induction into the United Nations Academic Impact (UNAI). These milestones would not have been possible without the seamless integration of rigorous scientific research, innovative educational curricula, and the management of our campus with a green and responsible ethos.

This report does more than just showcase figures and successes; it documents our unwavering commitment to nurturing a generation of researchers and innovators capable of navigating future challenges and contributing to the construction of a "Sustainable Iraq." We do not merely equip our students with academic skills; we instill in them a sense of profound responsibility toward both humanity and the planet.

In conclusion, we highly value the continuous support from the Senior Management of the General Secretariat of the Imam Hussain Holy Shrine and the strategic guidance of the Ministry of Higher Education and Scientific Research. We pledge to our academic community to persevere in our pursuit of excellence, ensuring that Al-Zahra University (peace be upon her) remains a beacon of knowledge and a pioneer in realizing the Sustainable Development Goals (SDGs).



Prof. Dr. Zainab Abdul-Hussein Al-Mulla Al-Sultani

President of the University

1. Introduction

Universities perform a pivotal role as the fundamental bedrock of academic institutions in constructing a sustainable future for forthcoming generations. Within this context, Al-Zahra University maintains a steadfast conviction in the active role it must assume to realize the seventeen Sustainable Development Goals (SDGs), which represent the global framework for inclusive and sustainable growth. The University adopts these goals as a governing strategic framework across all educational, research, and operational activities.

2. Report Objectives

This report aims to examine and analyze the most prominent contributions, initiatives, and milestones achieved by Al-Zahra University during the 2024–2025 period. It highlights the University's progress in supporting the Sustainable Development Goals, with a specialized focus on the following core pillars.

3. Educational and Academic Pillar (SDG 4: Quality Education)

The Educational and Academic Pillar serves as an essential foundation for achieving comprehensive sustainability. It centers on integrating the concepts and objectives of sustainable development within the institution's educational and research framework. This pillar focuses specifically on Goal 4 “Ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all.”

3.1. Integration of Sustainability Concepts

Sustainability, climate change, and human rights concepts have been incorporated into the curricula of various faculties, including the Faculty of Pharmacy, Faculty of Health and Medical Technologies, Faculty of Education, and the Faculty of Information Technology Engineering. By embedding these themes into course syllabi, theoretical lectures, and academic discourse, the University enhances student awareness of contemporary global issues and fosters responsible, sustainable thinking.

This initiative aims to:

- Cultivate environmental and humanitarian consciousness among the student body.
- Correlate academic knowledge with contemporary global challenges.
- Develop educational outcomes (graduates) equipped to contribute to sustainable development.
- Support the University's commitment to responsible and sustainable education.

3.2. Supporting Documentation

3.2.1. Human Rights Curriculum

The Human Rights curriculum is designed to provide a comprehensive cognitive and ethical framework that aligns with both international standards and national requirements. The scientific content transcends theoretical discourse, serving as a functional instrument for the implementation of the United Nations 2030 Agenda for Sustainable Development. The course contributes directly to the advancement of Goal 4 (Quality Education) by disseminating awareness of fundamental rights and responsibilities, and Goal 16 (Peace, Justice, and Strong Institutions) by reinforcing the principles of the rule of law and inclusive citizenship. By correlating human rights concepts with societal realities, the curriculum empowers students to adopt practices that champion equality, combat discrimination, and realize social justice—the essential pillars of sustainable development.



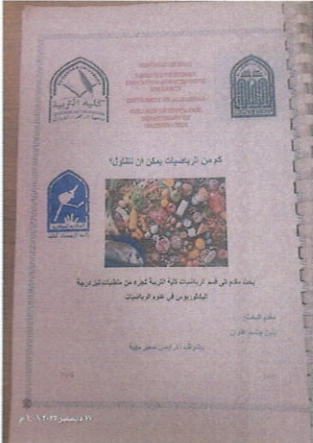
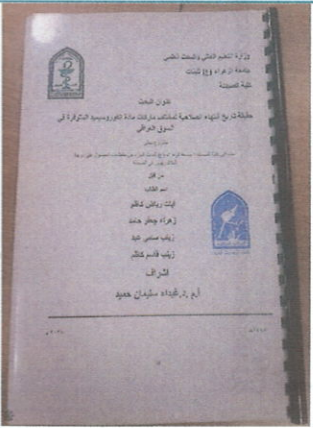
Figure 1: The official cover of the Human Rights curriculum, as approved by the Ministry of Higher Education and Scientific Research.

3.2.2. Undergraduate Student Research

Empowering students through scientific inquiry stems from the firm conviction that qualitative education is the primary catalyst for sustainable development. This section serves to showcase the intellectual output of our students.

Engaging students in scientific research extends beyond the mere acquiring of knowledge; it aims to transform them into active problem-solvers and innovators who contribute to the construction of a "Knowledge Society". This approach aligns with the global objectives of ensuring inclusive and equitable education for all, fostering a generation capable of translating academic theory into sustainable societal solutions.

Table 1: Select Undergraduate Graduation Research Projects Aligned with Sustainable Development Goals.

Research Cover	Alignment with SDG 4 (Quality Education)	Research Title	Researcher Name
	This research contributes to the advancement of SDG 4 by enhancing the quality of specialized higher education and cultivating students' mathematical and logical reasoning. It further simplifies complex mathematical concepts and correlates them with practical applications, thereby supporting "numerical literacy" and the principle of lifelong learning.	How Much Mathematics Can We Consume?	Banin Jassim Alwan
	This study advances higher education and scientific inquiry (Target 4.3) through the application of academic pharmaceutical skills to address real-world challenges. It also supports technical and professional proficiency (Target 4.4) by training students in pharmaceutical quality and public safety, thereby elevating the educational outcomes of the Faculty of Pharmacy.	The Validity of Expiry Dates for Various Brands of Furosemide in the Iraqi Market	Ayat Riyadh Kadhim Zahra Jaafar Hamed Zainab Sami Abd Zainab Qassim Kadhim

	This research contributes to the development of high-quality technical higher education by providing a specialized study in radiological techniques. It enhances the efficiency of educational outcomes and students' technical competencies, which is central to Target 4.3, aimed at ensuring equal access to high-quality technical and vocational education.	The Role of Diffusion-Weighted Magnetic Resonance Imaging in Detecting Brain Lesions	Fatima Abdullah Shadawi
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The following are select reports and activities published on the university's official website, documenting the strategic efforts to integrate sustainability concepts into the pedagogical process:



These efforts underscore the University's steadfast commitment to integrating sustainable development concepts within its curricula and pedagogical processes. Such initiatives reflect the institution's dedication to its academic and social responsibilities, contributing effectively to the realization of the Sustainable Development Goals (SDGs) at both national and international levels.

3.2.3. Specialized Academic Programs

Specialized academic programs represent the driving force and the fundamental pillar for embedding sustainable development concepts into the core of the educational and research processes. Driven by our institutional and social responsibility, the University is committed to developing and offering contemporary academic pathways that transcend traditional frameworks. These include pioneering engineering and technical disciplines such as Sustainable Architecture, Artificial Intelligence (AI), and Cybersecurity.

These programs are designed to cultivate a generation of highly skilled national professionals capable of innovating technical and engineering solutions to address environmental and economic challenges. This ensures that educational outcomes are strategically aligned with the Sustainable Development Goals (SDGs) and the requirements of the emerging "Green Labor Market." Through this strategic direction, the University seeks to foster innovation in infrastructure, safeguard resources, and construct smart, secure communities that reflect international sustainability standards.

Table 2: Sustainable Development Programs within the Faculty of Engineering by Academic Department.

Expected Outcomes	Sustainable Development Goal (SDG)	Sustainable Specialization Pathway	Academic Department
Designing energy-efficient and eco-friendly urban environments utilizing sustainable materials.	Goal 11: Sustainable Cities and Communities	Green Architecture and Zero-Energy Buildings (ZEB)	Architecture Dept.
Developing intelligent solutions to optimize resource consumption and predict climatic shifts.	Goal 9: Industry, Innovation, and Infrastructure	Sustainability Algorithms and Environmental Modeling	Artificial Intelligence Dept.
Ensuring the continuity and security of national digital services and systems against cyber threats.	Goal 16: Peace, Justice, and Strong Institutions	Protection of Critical Infrastructure and Smart Cities	Cybersecurity Dept.

These programs are built upon a Project-Based Learning (PBL) methodology, where students are tasked with developing graduation projects that address real-world challenges in the fields of energy, secure digital transformation, and sustainable urban planning. This approach reinforces the University's role as an innovation hub that actively supports national strategic directives.

3.2.4. Project-Based Learning (PBL) and Sustainability Implementation

The recognition of the Central Library with the Iraqi Science Day Award transcends a mere administrative achievement; it is a profound embodiment of our commitment to SDG 4: Quality Education. Through the adoption of the Project-Based Learning (PBL) methodology, the Library has successfully evolved from a traditional resource provider into an active facilitator of knowledge. By offering an interactive platform, it has empowered researchers to translate raw data into tangible innovations. This milestone supports the sustainability of knowledge by integrating digital transformation with scientific inquiry, ensuring an inclusive, equitable, and future-ready educational environment.



Figure 2: His Excellency, the Minister of Higher Education and Scientific Research, presenting the Iraqi Science Day Award trophy to the Director of the Central Library.

4. Research and Innovation Pillar (SDGs)

Al-Zahra University for Women dedicates its research resources to providing innovative solutions that address the pressing challenges of sustainable development by supporting and directing applied scientific research toward priority SDGs. In alignment with Goal 3: Good Health and Well-being, a research team from the University has published a peer-reviewed study titled: **"Genetic Programming for Malignancy Diagnosis Based on Breast Cancer Histopathology Images: A Feature Learning-Based Approach."**

The study was published in the prestigious journal **IEEE Transactions on Emerging Topics in Computational Intelligence**, indexed within the Scopus database for the year 2025. This research focuses on employing Artificial Intelligence (AI) and Genetic Programming to analyze histological images, significantly enhancing the accuracy of breast cancer diagnosis. Such advancements contribute to early disease detection, improve the efficiency of healthcare systems, and elevate the overall quality of patient care.

4.1 Innovation and Applied Research (SDG 9)

This research reflects the University's commitment to supporting innovation and applied research grounded in advanced technologies, particularly in the fields of artificial intelligence and smart computing, thereby strengthening the role of scientific research in developing sustainable technological solutions that serve the healthcare sector.

5. Community Engagement and Partnerships

Al-Zahraa University for Women has achieved a new academic milestone at the international level by joining the United Nations Academic Impact (UNAI) programme, which brings together more than 1,500 academic institutions from 120 countries worldwide. This achievement represents a significant step in strengthening the University's global standing, as it reflects its commitment to the programme's core principles, including the advancement of higher education, scientific research, sustainable development, and human rights.

Prof. Dr Zainab Al-Mulla Al-Sultani, the University President, affirmed that this membership would open new horizons for academic and research collaboration with international universities and institutions, thereby contributing to the exchange of expertise and the enhancement of the quality of education and scientific research at the University. She further commended the efforts of the academic and administrative staff who have played a pivotal role in establishing this pioneering educational institution for

women in Iraq and positioning it among universities that provide an integrated learning environment, mobilising all available resources to achieve excellence and distinguished success.

It is noteworthy that the programme seeks to connect higher education institutions with the United Nations in support of achieving the Sustainable Development Goals, by promoting intellectual dialogue and innovation in the fields of education and scientific research. This objective aligns with one of the key goals of the Iraqi Ministry of Higher Education and Scientific Research and is strongly supported by Imam Hussein Holy Shrine, which continues to reinforce the importance of higher education in Iraq.

Moreover, Al-Zahraa University has signed a joint scientific Memorandum of Understanding (MoU) with the International Medical Initiative (IMI), aimed at activating frameworks for cooperation in the fields of scientific research, specialised training, and the exchange of academic expertise. This agreement has been concluded in parallel with ongoing preparations for the International Medical Conference to be held in the Holy City of Karbala in December, which will feature joint scientific sessions showcasing the latest developments in medical sciences.

This partnership forms part of the University's strategic vision, which seeks to:

- develop specialised skills among female medical professionals.
- broaden opportunities for postgraduate studies and scientific research at both local and regional levels.
- enhance international engagement with institutions in support of the educational and clinical environment within the University's medical faculties.

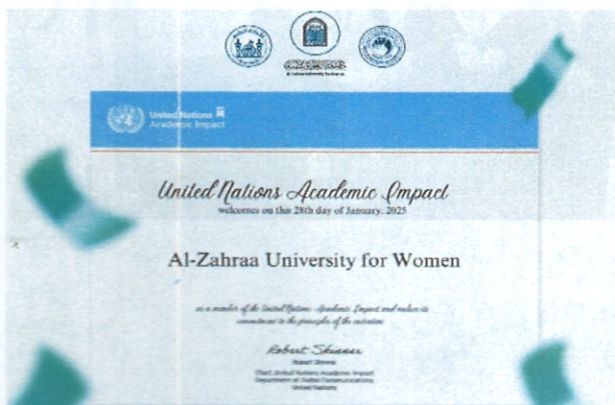


Figure 3:

The Vice President of the University for Academic Affairs signed the Memorandum of Understanding with the International Medical Initiative (IMI), with an image of the signed agreement displayed on the left-hand side.

5.1 Voluntary Initiatives

Within the framework of the University's commitment to promoting voluntary work as a fundamental pillar of sustainable development, the University participated in the First National Conference on Voluntary Work, organised by the Ministry of Higher Education and Scientific Research at the University of Baghdad, with the participation of Iraqi universities and academic institutions. The University was awarded a special commemorative shield in recognition of its pioneering role in fostering a culture of volunteerism and implementing community-based initiatives.

This contribution supports Sustainable Development Goal 4 (Quality Education) through enhancing awareness and social responsibility among female students, Goal 11 (Sustainable Cities and Communities) by strengthening community engagement, and Goal 17 (Partnerships for the Goals) through institutional cooperation with the Ministry of Higher Education and Iraqi universities. This initiative underscores the University's dedication to integrating voluntary work into its student activities and institutional policies, thereby reinforcing its role in community service and in preparing a socially responsible and informed academic generation that contributes effectively to the achievement of sustainable development.





Figure 4:

Participation of female students from Al-Zahraa University in the First National Conference on Voluntary Work, organised by the Ministry of Higher Education and Scientific Research.

Moreover, under the auspices of Prof. Dr. Zainab Al-Mulla Al-Sultani, the University President, the Department of Student Activities, under the supervision of the Head of the Department, Lect. Dr. A'ida Aboud, organised a voluntary tree-planting campaign under the slogan "Together for a Sustainable University Environment", to enhance green spaces within the University campus.

The campaign was implemented in cooperation with the Faculty of Health and Medical Technologies and its departments (Therapeutic Nutrition and Radiology), with the participation of the Women's Affairs Division. Additionally, it sought to promote environmental awareness among female students, support a sustainable educational environment, and strengthen a culture of environmental conservation. This initiative affirms the University's commitment to its environmental responsibility and its support for voluntary activities with positive social and environmental impact.



Figure 5:

Administrative and academic staff from the Faculty of Health and Medical Technologies, together with the Women's Affairs Division, are participating in the voluntary tree-planting campaign.

6. Green Campus Management

Our University represents a modern architectural model that integrates technological advancement with sustainable environmental standards. It has been designed as a comprehensive educational environment that balances functional academic facilities with recreational and green spaces.

6.1. Infrastructure and Buildings

The University features a contemporary architectural design extending across spacious grounds, and its facilities include:

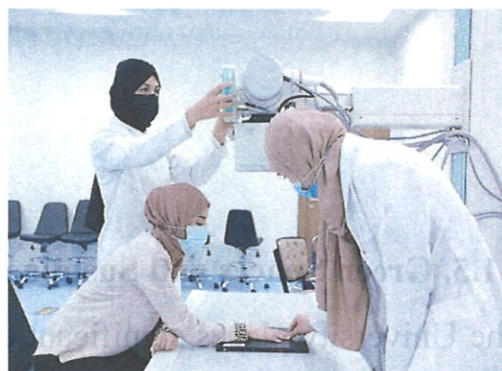
6.1.1. Main Building

The main building extends over a substantial built-up area of approximately 36,000 square metres. It comprises six storeys and combines modern architectural design with refined traditional elements.



6.1.2. Lecture Halls and Laboratories

The University includes lecture halls equipped with the latest educational technologies, as well as advanced scientific laboratories serving the Faculties of Pharmacy, Health Technologies, and Engineering.



6.1.3. Student Accommodation

The University provides modern on-campus accommodation comprising several residential buildings that collectively accommodate hundreds of female students. The facilities are equipped with central air-conditioning, internet access, and contemporary kitchen amenities, while adhering to established safety and security standards.



6.1.4. Service Facilities

The University comprises fourteen designated lounge areas distributed across its buildings, in addition to a fully equipped theatre (main auditorium) fitted with advanced sound systems and large-scale display screens for hosting international conferences and major academic events.



6.1.5. Green Spaces and Sustainability

The University places significant emphasis on enhancing and expanding green spaces within its campus, recognising them as a fundamental pillar in achieving environmental sustainability and improving the overall quality of the University environment. This commitment is reflected in the expansion of landscaped gardens and planted areas, the implementation of regular tree-planting campaigns, and the adoption of sustainable practices in vegetation management.

The University's attainment of the international UI GreenMetric ranking serves as clear evidence of its commitment to implementing environmental sustainability standards, particularly within the infrastructure and green spaces category, which assesses the proportion of green coverage and the efficiency of open-space management across campus.

These efforts contribute directly to the advancement of the Sustainable Development Goals, notably SDG 11 (Sustainable Cities and Communities), SDG 13 (Climate Action), and SDG 15 (Life on Land), reflecting the University's role in fostering an environmentally responsible and sustainable educational setting.

Furthermore, quantitative indicators further demonstrate a significant qualitative leap in global sustainability standards, as the University improved its position in the UI GreenMetric ranking from 933rd place in 2021 to 418th place in 2025. This sustained progress representing an overall advancement of 515 positions highlights the effectiveness of the University's strategic plans in enhancing infrastructure, energy management, and sustainability-oriented education and research.



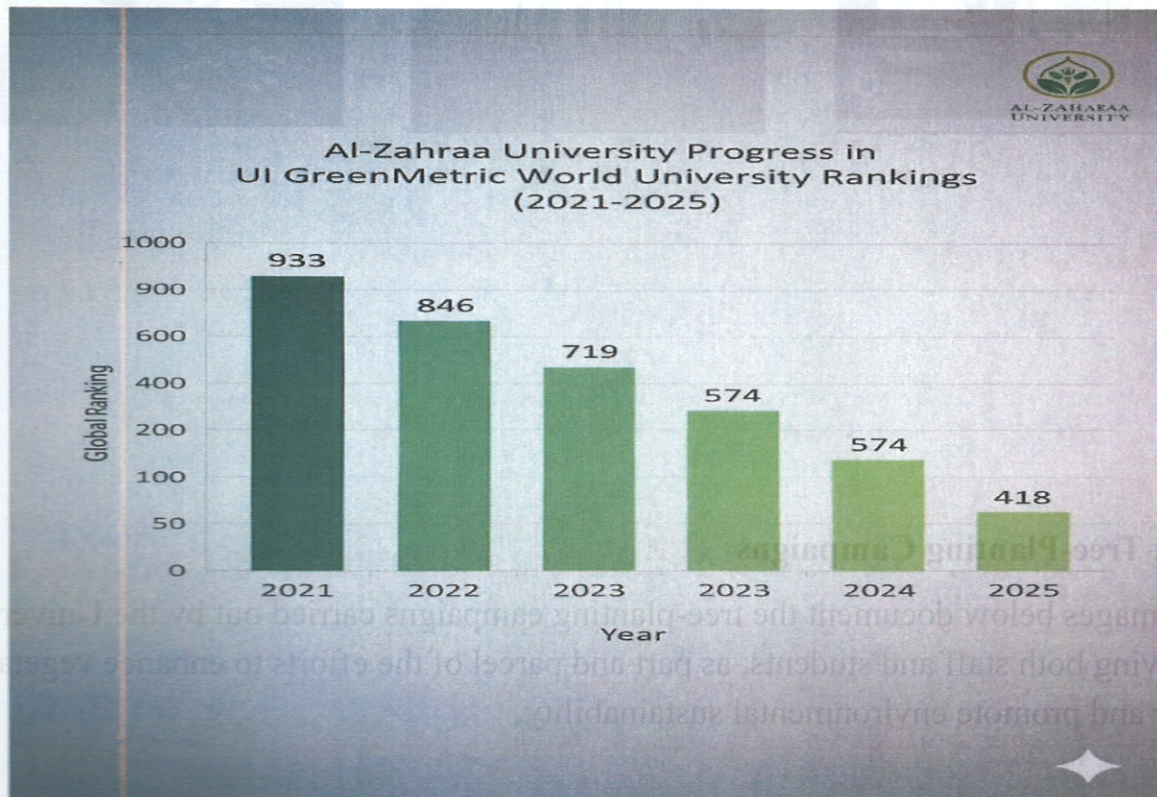
CERTIFICATE

This certificate is awarded to
Al-Zahraa University for Women
 as The 418th World's Most Sustainable University
 in 2025 UI GreenMetric World University Rankings

5 December 2025



Dr. Vishnu Juwono, S.E., MIA
 Chairperson of UI GreenMetric



6.2. Supporting Evidence

6.2.1. Green Spaces within the Campus

The images below illustrate the campus's green areas, featuring trees and planted vegetation, reflecting the University's commitment to providing an environmentally friendly environment.



6.2.2. Tree-Planting Campaigns

The images below document the tree-planting campaigns carried out by the University, involving both staff and students, as part and parcel of the efforts to enhance vegetation cover and promote environmental sustainability.



6.2.3. Maintenance and Care of Green Spaces

The images below illustrate the regular maintenance activities and attention given to the gardens and landscaped areas, ensuring their sustainability and the preservation of plant diversity.



In conclusion, the University affirms its ongoing commitment to integrating the Sustainable Development Goals across its academic, research, and community-oriented initiatives. The University is advancing its research policies and prioritising issues related to environmental protection and climate change, aiming to increase the proportion of specialised research in these areas to approximately 20% by 2030, under the guidance and supervision of the Ministry of Higher Education and Scientific Research.

Furthermore, the University seeks to strengthen institutional coordination with the Ministry of Environment and reputable national academic institutions, thereby maximising both scientific and societal impact, while enhancing its standing in national and international rankings related to sustainable development.

Translated by Zahra' Ala', Zahra' Salman, revised by Asst. Lect. Safa' Al-Sadi