Sustainable Development Goal_13 (Climate Action) Report

Al-Balqa Applied University

2025

Foreword

Al-Balqa Applied University (BAU) is a prominent public university in the Hashemite Kingdom of Jordan, with a student body of over 60,000 and multiple satellite campuses across the country. BAU's vision is to excel as a globally competitive applied university, renowned for creativity, innovation, applied scientific research, and leadership. The university is dedicated to fostering Jordan's knowledge economy and society, delivering high-quality education that equips students to thrive in a rapidly changing world.

Spanning an estimated **11,100,000 m^2**, BAU's campuses are home to a wide array of educational, research, medical, sports, and cultural facilities. Additionally, the campuses feature extensive green spaces and recreational areas, creating a vibrant, supportive environment for student development and engagement.

BAU's main campus is located in the ancient city of As-Salt, in Al-Balqa' Governorate, home to a number of important cultural and historical sites, and a UNESCO world heritage site. Built by Macedonians, As-Salt occupied an important trading position by Roman, Byzantine, and Mamelukes. Along with its historical value, As-Salt city is located 20 minutes from the lowest point on earth, the Dead Sea and is very close to the holy baptism site of Jesus Christ on the East bank of the Jordan River. A sunny day at As-Salt rewards visitors with a breathtaking view of the holy lands.

Alongside BAU's main campus, the university's satellite campuses are hubs for quality education and research and offer students the opportunity to explore Jordan's rich cultural heritage. For example, Aqaba University College located in Jordan's only port, offers maritime transport technology programs as well as easy access to the golden triangle of Petra, Wadi Rum and Aqaba. And Shoubak University College, which is located close to the stunning Dana Biosphere Reserve. and Huson University College in the north, which closest to Jerash which is the second to Petra

on the list of favorite destinations in Jordan

Al-Balqa Governorate is a province of intellectual heritage and folklore, and it is popular for recreational and religious tourism; traveler may visit many ruins and sacred shrines for Prophet Shu'ayb (Maqam Nabi Shu'ayb), Prophet Joshua Ben-nun, Prophet Gad Ben Jacob, Prophet Ayub, Prophet Hazir, and Prophet Gilad (May Peace Be Upon Them), as well as the shrines of two of Prophet Mohammad (Peace Be Upon Him) Companions: Abu Obeida Al-Jarah and Dirar Ibn Azwar.

Such an integral role along with other cities of the Kingdom was deeply rooted during the establishment of the Emirate of Jordan in 1921 moving towards developing the country. Salt City was prominent with its scientific and educational legacy, which was marked by the founding of Salt School, inaugurated by His Majesty King Abdullah the First – may God rest his soul – (Prince at that time) in 1923, to be the first school in the kingdom having its graduates as great officials and leaders of the nation.

Upon firmly acknowledging the educational and scientific long history of Salt City along with its leading role in the field of education by the Hashemite leadership, Late King Hussein Bin Talal – May God rest his soul – honored Balqa' governorate by the issuance of the royal decree to establish Al Balqa Applied University in Salt city on the 22nd of August 1996. This has enhanced the city's role, commemorated the pioneers of its early graduates, and scientifically empowered its legacy which we hope to continually flourish.

Our Strategic Response

BAU operates through a network of campuses across Jordan, covering diverse climatic regions—from the highlands in the mid-west to the arid governorates in the south and far east. This geographical diversity has driven BAU to undertake extensive initiatives in climate variability and adaptation, establishing itself as a leader in climate resilience.

BAU is at the forefront of research and innovation in areas such as water conservation, drought management, capacity building, and technology transfer. Its initiatives span solar energy, wastewater treatment and reuse, and smart agriculture. The university has also introduced specialized academic programs in fields like smart agriculture, water treatment, smart buildings, and electric and hybrid vehicles, alongside conducting numerous climate change awareness activities.

On another hand (BAU) adopts the United Nations Sustainable Development Goals (UN SDGs), and Paris Agreement goals which are adopted by all nations as a universal call to protect the planet and ensure that all people enjoy peace and prosperity by 2030 through ethical management of resources, openness to societies and contributing to their development and solving their problems, and creating a conscious generation of its students who adopt the dimensions of sustainable development in their lives, directing scientific research to contribute to achieving sustainable development, and strengthening national and international partnerships, also (BAU) became a member of United Nations Academic Impact (UNAI), and United Nation - Sustainable Development Solution Network (UNSDSN).

INTRODUCTION:

BAU has adopted a sustainability-driven approach rooted in continuous improvement, with a mission to fully integrate the United Nations Sustainable Development Goals (SDGs) into its core strategies, policies, and daily operations. This commitment has inspired transformative initiatives, projects, and programs across all faculties and campuses. Through responsible resource management, innovative teaching, impactful research, and strong national and international partnerships, BAU continues to redefine its institutional identity as a leader in sustainability.

To strengthen its contribution to the SDGs, BAU established a **dedicated Sustainability Office** and implemented best practices that have earned international recognition. Remarkably, the university ranked **first nationally and 2nd in the Arab region**, and **53rd globally** in the **2023 UI GreenMetric World University Rankings**.

These accomplishments align with the **17 Sustainable Development Goals**, which serve as a guiding framework for meaningful action toward people and the planet. By embracing these

goals, BAU continuously assesses its progress and sets clear priorities for future advancement.

BAU remains steadfast in empowering students as agents of change, community leaders, and responsible global citizens. Faculty and students actively engage in sustainability-oriented education through diverse courses, academic programs, and research projects that advance SDG principles in teaching, learning, and innovation.

In alignment with its Strategic Plan 2021-2025, BAU continues to pioneer innovative approaches through training programs, applied research, and community engagement initiatives—all designed to contribute effectively to the realization of the UN 2030 Agenda for Sustainable Development.

Climate change affects every person on Earth and is driven primarily by human activities such as burning fossil fuels. Rising greenhouse gas emissions are accelerating extreme weather events, sea-level rise, and resource conflicts. The planet is already 1.2°C warmer than in the late 1800s, and 2024 was the hottest year on record at 1.55°C above pre-industrial levels. To limit warming to 1.5°C, emissions must be cut by nearly half by 2030. Solutions exist—transitioning to renewable energy, adopting sustainable practices, and financing climate action—but urgent global cooperation is needed to protect lives, livelihoods, and ecosystems.

BAU is also prioritizing waste reduction across its campus, with a particular focus on minimizing the use of paper, cardboard, and plastics. The university aims to decrease greenhouse gas emissions, reduce landfill dependency, and extend landfill lifespans, mitigating negative environmental impacts on air, soil, and water. This commitment is underpinned by a comprehensive mix of short- and long-term policies, including:

Activation of Electronic Correspondence: Implementing a robust email and digital communication system to advance the university's vision of becoming paperless.

Adoption of E-learning Systems and Digital Testing: Transitioning educational practices to electronic platforms, reducing paper dependency.

Phasing Out Disposable Items: Gradually eliminating the use of paper cups and bottled water on campus.

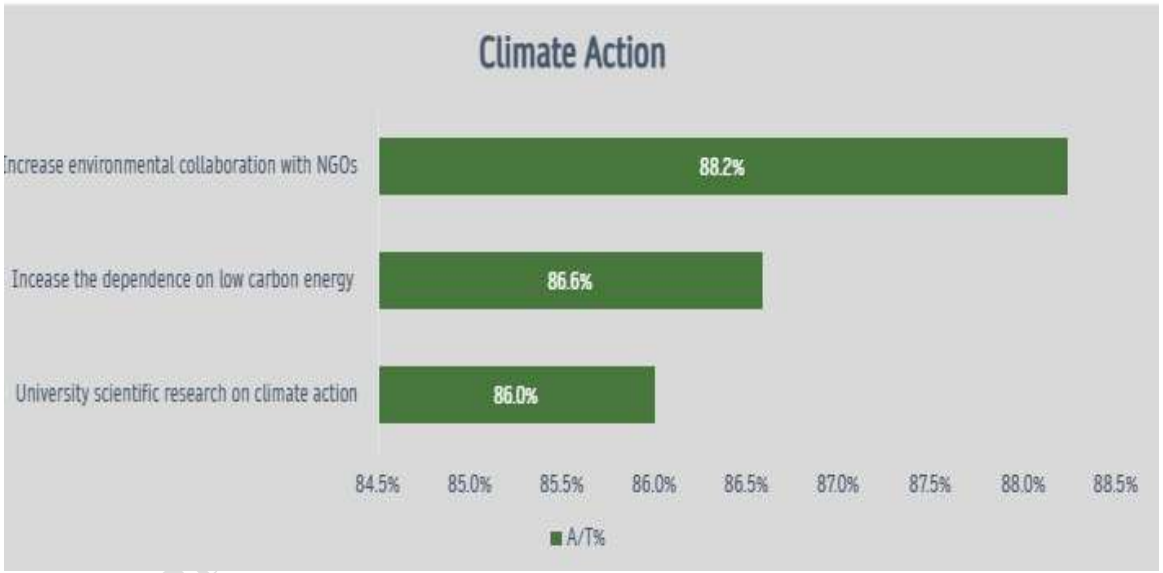
Through these strategic initiatives, BAU not only fosters a more sustainable campus environment but also sets a benchmark for environmentally responsible practices in higher education.

Al-Balqa Applied University (BAU) operates across Jordan's diverse climatic regions, driving its proactive approach to addressing climate variability and fostering climate adaptation. BAU plays a pivotal role in advancing innovative solutions, including water conservation, drought research, capacity-building programs, and technology transfer initiatives. These efforts encompass solar energy advancements, wastewater treatment for reuse, and the adoption of smart agricultural practices.

BAU has developed specialized academic programs in fields such as smart agriculture, water treatment, smart infrastructure, and electric and hybrid vehicle technologies. Complementing these efforts, the university actively conducts awareness campaigns to educate the community on climate change and its implications.

BAU's commitment to Action to Combat Climate Change is reflected in the following key objectives:

- **Advancing University-Led Scientific Research**: Focusing on climate change mitigation and adaptation.
- **Promoting Low-Carbon Energy Solutions**: Expanding the use of renewable and sustainable energy sources.
- **Enhancing Environmental Collaboration**: Strengthening partnerships with governmental and non-governmental organizations to drive climate action initiatives.



Strategic Achievement for SDG13/2025

EDUCATION AND OUTREACH

BAU actively fosters environmental and climate literacy among its students, equipping them with the knowledge and skills needed to understand the far-reaching effects of climate change and to develop effective mitigation and adaptation strategies. A diverse range of academic programs at both undergraduate and postgraduate levels has seamlessly integrated climate variability and change into their curricula. Fields such as civil engineering, water resources management, water treatment engineering, smart buildings, renewable energy technologies, environmental management, and disaster management have been thoughtfully adapted to include these vital topics, ensuring they are deeply embedded in course content.In addition, BAU is home to advanced research laboratories and specialized research groups that focus on renewable energy technologies and strategic management tools. These initiatives aim to address greenhouse gas emissions and other climate-related challenges, blending technological innovation with strategic solutions to drive impactful climate action.

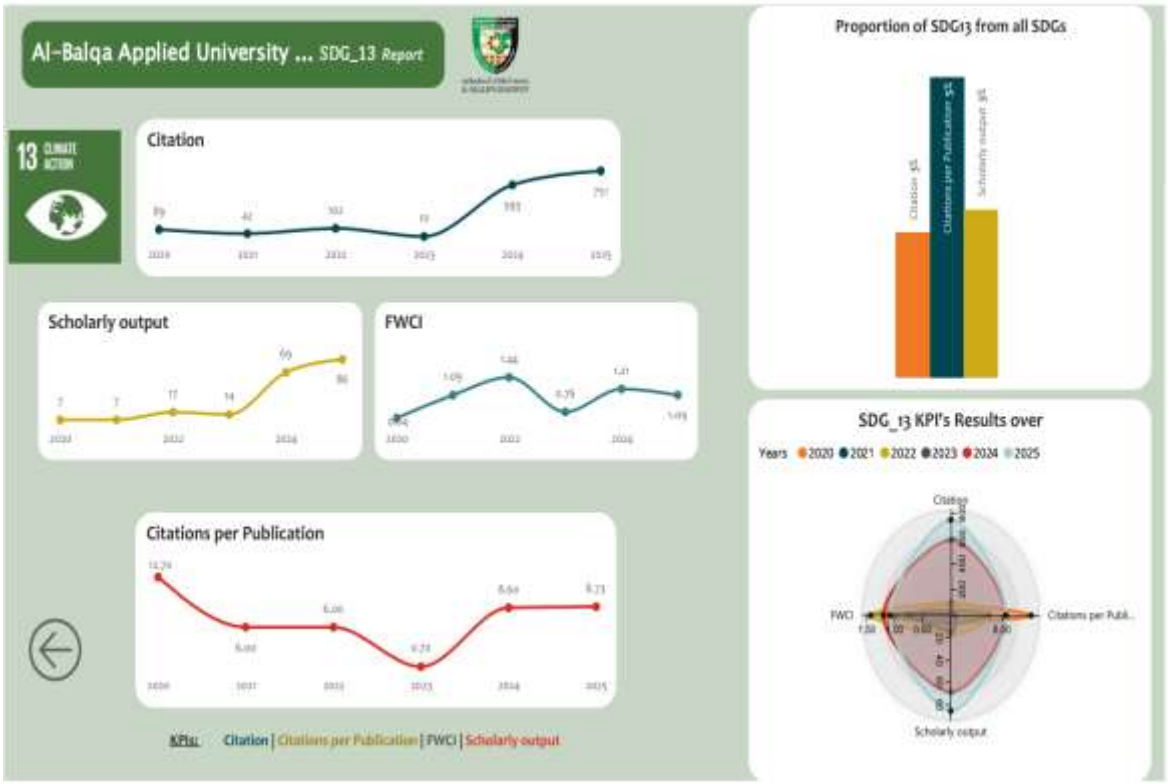
PRACTICES

BAU is actively combating climate change by implementing a range of measures to reduce its carbon footprint and greenhouse gas emissions. These efforts include incorporating green building principles and smart building technologies, transitioning progressively to renewable energy sources, promoting organic composting, and increasing the cultivation of drought-tolerant plants. Additionally, BAU leverages cloud computing applications to enhance efficiency and sustainability and strengthens its commitment through national and international agreements aimed at advancing climate action and environmental stewardship.

BAU participated in the Regional Conference on Climate Justice

BAU's Governmental Partner (Water Energy Environment Climate Action)

SCIENTIFIC RESEARCH



Publications at Al-Balqa Applied University within SDG 13: Climate Action 2021 to 2025

The reliance of many nations on marine and coastal biodiversity for sustenance is indisputable. However, we are facing a sobering reality: 30% of the world's fish stocks are overexploited, falling below sustainable yield levels. Oceans, which absorb approximately 30% of human-produced carbon dioxide, have experienced a troubling 26% increase in acidification since the industrial revolution. Additionally, marine pollution predominantly from land-based sources has escalated alarmingly, with an average of 13,000 pieces of plastic litter per square kilometer of ocean.

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