

# SUSTAINABLE DEVELOPMENT GOALS



جامعة البلقاء التطبيقية  
AL-BALQA APPLIED UNIVERSITY



## ***Sustainable Development Goals report\_2023***

Al Balqa Applied University

Development and Quality Assurance Center

Development

<b><u>Contents</u></b>	
	<b>Page</b>
<i>FOREWORD</i>	3
<i>OUR STRATEGIC RESPONSE</i>	4
<i>INTRODUCTION:</i>	6
<i>SDG1: NO POVERTY</i>	7
<i>SDG2: ZERO HUNGER</i>	10
<i>SDG3: GOOD HEALTH AND WELLBEING</i>	13
<i>SDG4: QUALITY EDUCATION</i>	16
<i>SDG5: GENDER EQUALITY</i>	21
<i>SDG6: CLEAN WATER AND SANITATION</i>	24
<i>SDG7: AFFORDABLE CLEAN ENERGY</i>	27
<i>SDG8: DECENT WORK AND ECONOMIC GROWTH</i>	31
<i>SDG9: INDUSTRY, INNOVATION, AND INFRASTRUCTURE</i>	33
<i>SDG10: REDUCED INEQUALITIES</i>	36
<i>SDG11: SUSTAINABLE CITIES AND COMMUNITY</i>	38
<i>SDG12: RESPONSIBLE CONSUMPTION AND PRODUCTION</i>	41
<i>SDG13: CLIMATE ACTION</i>	44
<i>SDG14: LIFE BELOW WATER</i>	48
<i>SDG15: LIFE ON LAND</i>	51
<i>SDG16: PEACE, JUSTICE, AND STRONG INSTITUTIONS</i>	54
<i>SDG17: PARTNERSHIP FOR THE GOALS</i>	57

## Foreword

Al-Balqa Applied University (BAU) is a public university in the Hashemite Kingdom of Jordan. The university has a student population of over 50,000 students and satellite campuses across the country. BAU's vision is to be a globally competing applied university distinguished by creativity, innovation, applied scientific research, and leadership. The university is committed to contributing to the knowledge economy and society in Jordan and beyond, and to delivering quality education that meets its students' aspirations in an ever-evolving world.

The estimated total area of BAU is around (11100000 m<sup>2</sup>). The university campuses include numerous educational, research, medical, sports, and cultural facilities, as well as green spaces and student recreation areas.



*The main Campus located on a mountain at Al Salt City*

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 Balqa’ Applied University in Salt city on the 22<sup>nd</sup> 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

Al-Balqa Applied University provides its services through its distributed campuses in Jordan, covering nearly all climatic regions from the highlands in the mid-west to the very dry governorates in the south and far east of Jordan. This diversity in climatic conditions motivated (BAU) to adopt a wide range of activities related to climate variability and change, with the focus on climate adaptation. (BAU) is an innovative university in terms of water and draught research, capacity development, and pioneer technology transfer initiatives ranging from solar energy to wastewater treatment for reuse, to smart agriculture. Moreover, (BAU) established academic technical programs with the focus on smart agriculture, water treatment, smart buildings, electric and hybrid cars, not to mention the various awareness activities in climate change.

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 \(UNSDSN\).](#)



BAU membership certificate in UNAI  
[Sustainable Development Solutions Network \(unsdsn.org\)](http://unsdsn.org)

## **INTRODUCTION:**

Al-Balqa Applied University has embraced a sustainable approach centered on continual improvement, aiming to embed Sustainable Development Goals (SDGs) within its core strategies and actions. This commitment drives various initiatives, projects, and programs that overhaul the university and its faculties. By effectively managing resources, fostering innovative teaching methods, nurturing scientific research endeavors, and forging national and global partnerships, the institution is reshaping its identity.

To advance its contribution towards the United Nations' sustainable development goals, the university established a dedicated [Sustainability Office](#). It has diligently adopted exemplary practices, evident in its participation in international sustainability rankings. Impressively, in the past year, the university securing the top spot locally and achieving a global rank of **57** in the [UI-GreenMetric Ranking 2022](#).

Aligned with the 17 Sustainable Development Goals, these benchmarks serve as a framework to galvanize action in critical areas for both humanity and the planet. Embracing these goals enables organizations worldwide to assess their work and prioritize future endeavors.

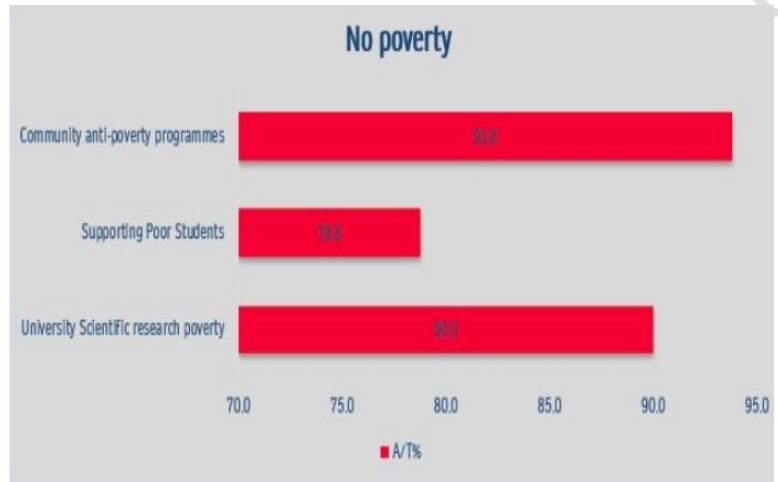
(BAU) remains steadfast in its dedication to empowering students to become catalysts for change, community leaders, and conscientious global citizens. Its faculty and students actively engage in teaching, learning, and delving into sustainability across numerous courses, programs, and research projects.

In line with the [Strategic Plan 2021-2025](#), BAU is pioneering innovative approaches through a spectrum of activities, projects, and programs. These initiatives encompass training, research endeavors, and active involvement in social and public engagement, all directed towards attaining the Sustainable Development Goals (SDGs) outlined in the [UN 2030 Agenda for Sustainable Development](#).

## End All Forms of Poverty Everywhere:



Al- Balqa Applied University is deeply committed to bolstering the local community. To fulfill this commitment, BAU has realigned its strategy, internal policies, and governance to wholeheartedly embrace and implement the Sustainable Development Goals (SDGs). Notably, the university is actively contributing to the realization of **Goal 1: No Poverty**, leveraging its geographical reach to make a substantial impact.



### Strategic Achievement for SDG1 /2023

With our wide geographic presence, BAU actively extends grants and financial aid to students facing economic hardships that might hinder their academic pursuits. These resources, facilitated through partnerships with the Ministry of Higher Education and the Student Support Fund, are further bolstered by collaborations with various donor institutions. To effectively contribute to these goals, Al-Balqa Applied University has delineated a set of sub-goals aligned with the broader aim of sustainable development, particularly targeting Goal 1::

- Dedication to supporting and fostering scientific research to combat poverty.
- Providing assistance to economically disadvantaged students to enable them to successfully complete their university education and navigate difficult circumstances.
- Active contribution and engagement in programs designed to alleviate poverty.

## SUPPORT & FINANCIAL AID

BAU has implemented numerous measures to assist low-income students, both through its internal procedures and collaborations with the Ministry of Higher Education and Scientific Research, as well as local community organizations. The university hosts a dedicated Student Support Fund aimed at aiding financially challenged students.



Moreover, BAU contributes to the "Poor Student Support Fund," benefiting students across all Jordanian universities through MOHE. Notably, approximately 21,000 students have received support in the form of grants and loans, with 60% of these beneficiaries being female students.

### **AFFORDABLE HOUSING AND EDUCATION RESOURCES**

BAU has launched targeted support programs designed specifically for female students facing financial challenges. Alongside this effort, the university has lowered tuition fees for its master's programs and waived fees for English language books, alleviating financial strain for students pursuing higher education. Notably, the university has also endeavored to standardize fees for international students in parallel programs with those of Jordanian students, fostering greater equity across its student body.

### **LOCAL COMMUNITY**

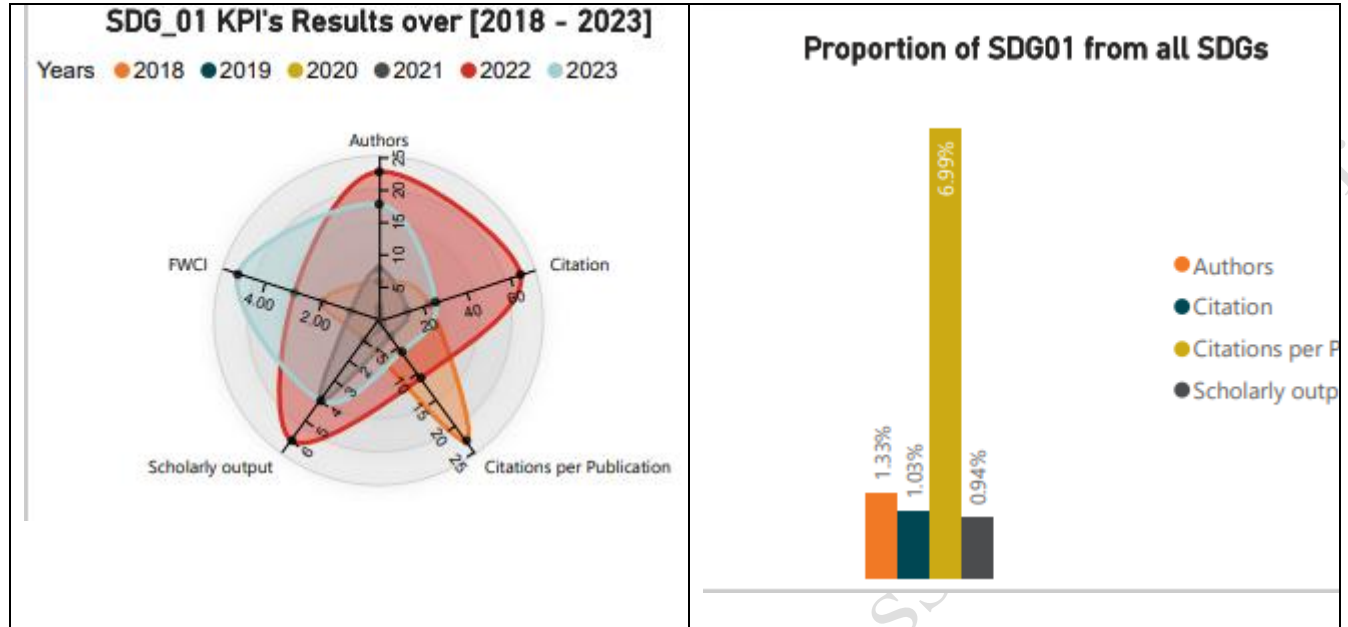
Al-Balqa Applied University actively engages in a diverse array of activities, initiatives, programs, and projects dedicated to empowering local community groups in launching and sustaining their own initiatives. These endeavors encompass logistical support and tailored training programs designed to equip these groups with the skills to effectively market their products and enhance visibility, such as establishing sales points, organizing festivals, and facilitating bazaars serve as platforms to showcase their offerings. Moreover, the university extends extensive assistance, facilitating periodic bazaars across different regions of the country, exemplified by events such as the Pomegranate Festival, the Black Iris Festival, among others.



Additionally, the university demonstrates its commitment to the welfare of all segments of the local community by organizing events specifically tailored for orphans and the underprivileged. These include charitable activities, free medical programs, and various initiatives focused on fulfilling their essential needs.



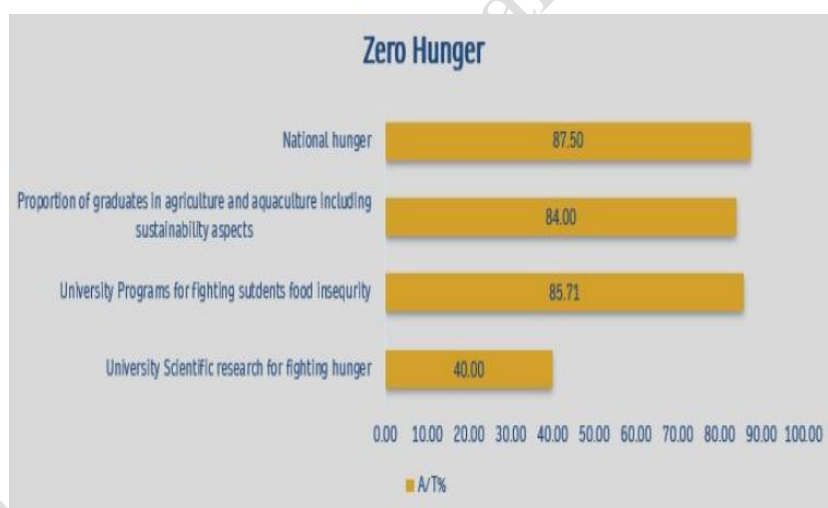
**SCIENTIFIC RESEARCH**



## End Hunger, Achieve Food Security:



(BAU) has committed itself to advancing the management of natural resources, particularly through the execution of diverse research projects centered on food conservation. This emphasis on conservation stands as a critical pathway to ensuring ample food resources for future generations. Through robust academic programs and the facilitation of high-caliber scientific research, BAU actively advocates for and provides integrated technical solutions to bolster the national economy. Furthermore, BAU is dedicated to cultivating an optimal educational milieu that nurtures proficient agricultural engineers poised for the demands of the local and regional job markets. In addition to increasing sustainable food at the university through expanding land cultivation at Princess Tasnim Station and Shobak College and increasing, this commitment adheres staunchly to comprehensive quality benchmarks, encompassing the safeguarding of human and animal health, bolstering agricultural industries, and fortifying food safety.



In alignment with these objectives, BAU has outlined several key goals:

[Strategic Achievement for SDG2 /2023](#)

- Elevating university-backed scientific research to combat hunger.
- Expanding university initiatives aimed at addressing food insecurity.
- Contributing significantly to national food security endeavors

## PRACTICES

BAU is working to achieve the 2<sup>nd</sup> Sustainable development goal (Zero hunger) by development of productive farms stations that include various types of fruit trees, vegetables, livestock, such as (Princess Tasnim Station), then BAU sells farms' products to its population with affordable prices. The university also provides cafeterias and kiosks for selling food products at prices that are controlled and monitored. In this regard, the university opened a main restaurant this year that Provide healthy and affordable food choices for all on campus.



To further this commitment, BAU has set up a Smart Agriculture Unit within the Faculty of Agricultural Technology. This serves as a training hub for students, alumni, and the local community, imparting knowledge on setting up cost-effective units in their own gardens for vegetable cultivation. This initiative not only contributes to supplementing family income but also ensures access to nutritious food for households.

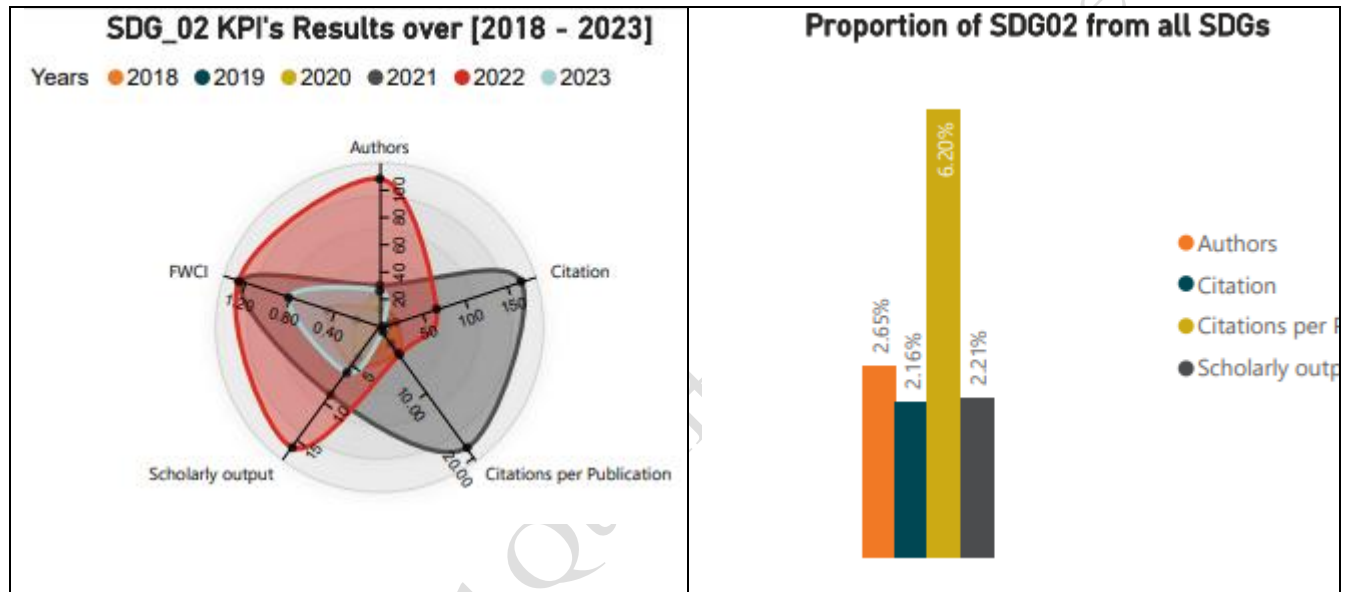
الزراعة التكنولوجية في البلقاء، التطبيقية مباشر بقطاع اولي منتاجاتها الزراعية

( 824 مشاهدات ) ( 0 تعليقات )



## SCIENTIFIC RESEARCH SOLUTIONS

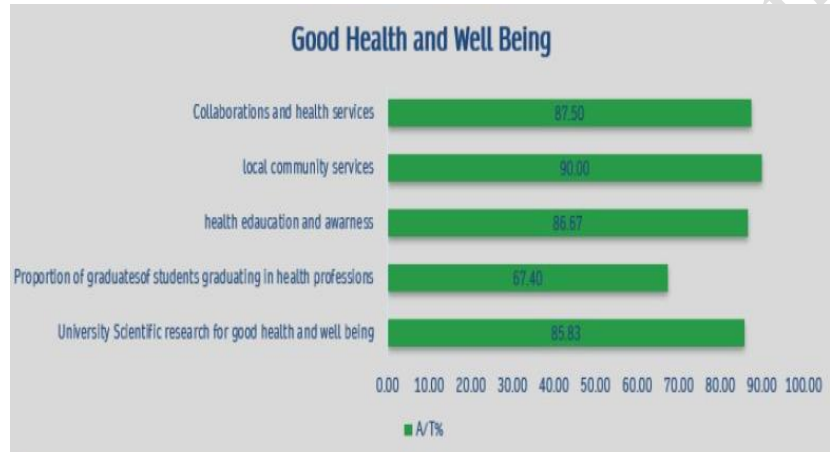
In addition of (Princess Tasnim Station) which allow implementation of local and international projects, transferring international experiences, best practices and research which related to achieving food and agricultural security, the university has large protected natural areas that reserve plants and animal's genetic assets, and has ecosystems contain medical plants, wild animals, and birds' shelters, which are monitored and protected from hunting, interference, aggression, and other types of human intervention.



## Good Health and Well-Being



Al-Balqa Applied University remains steadfast in its commitment to advancing the Sustainable Development Goals, particularly in promoting Good Health and Well-being. In pursuit of this objective, BAU has fostered collaborations with various health institutions, notably partnering with the Ministry of Health to enhance public health services and offer healthcare support to underserved populations. These initiatives encompass a wide array of health and well-being services.



[Strategic Achievement for SDG3 /2023](#)

BAU has delineated several sub-goals aimed at fostering Well-being and Ensuring Healthy Lives in Jordan:

- Supporting scientific research in fields pertinent to good health and well-being.
- Conducting health-focused educational outreach programs for the local community.
- Implementing health outreach services and projects dedicated to local community health and well-being.
- Expanding national and international partnerships in the realm of health and well-being.

## HEALTH OUTREACH PROGRAMMES

Al Balqa Applied University is seeking to achieve 3<sup>rd</sup> sustainable development goal to improving the human health, by deliver health outreach programs and projects in the local community health and wellbeing.

The university has devised tailored volunteering programs aimed at promoting essential health services and well-being initiatives within the community. These programs are meticulously designed to cater to various marginalized groups, including orphans, the elderly, remote communities, and displaced individuals. They encompass a spectrum of activities spanning free medical events, blood donation drives, hygiene campaigns, sports activities, and awareness campaigns on crucial topics like nutrition, family, and healthcare. BAU's focus on addressing pertinent health issues ensures direct relevance and impactful outcomes for the local community, irrespective of resident or refugee status.



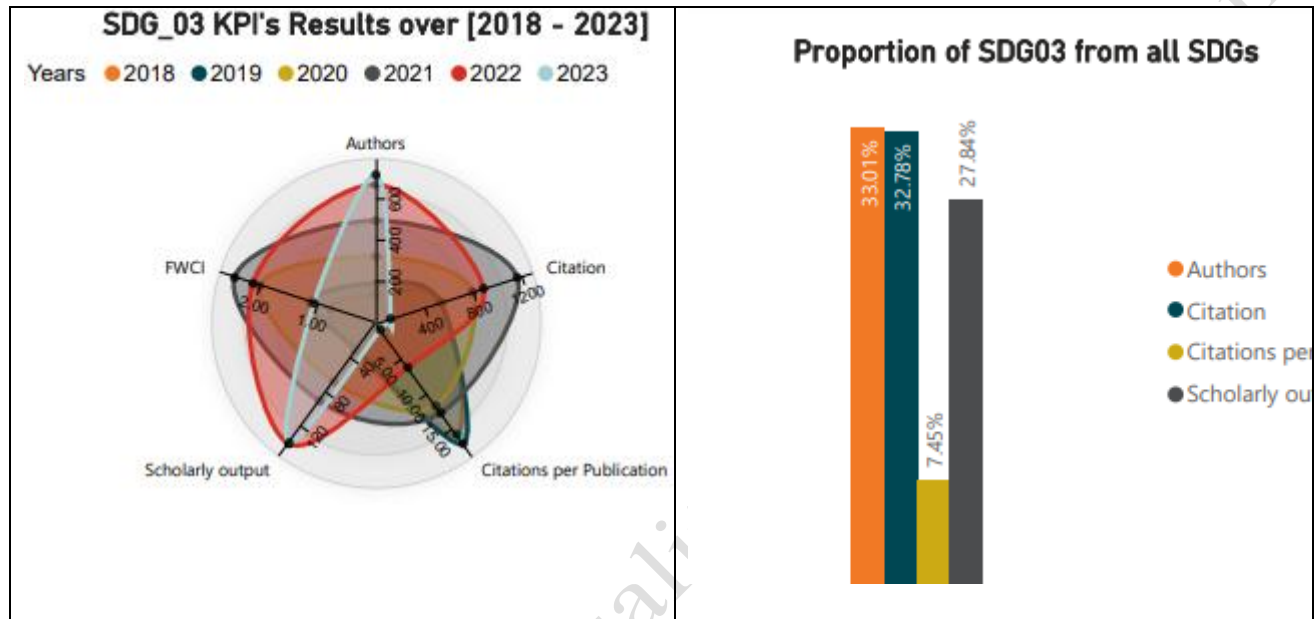
In parallel, BAU takes immense pride in its commitment to community engagement through shared sports facilities. These facilities act as a conduit between the university and the local community, fostering unity and providing invaluable resources for physical activity and recreation. By leveraging these sports facilities, BAU has positively influenced the community, offering a platform for fitness activities, sports events, and community gatherings.

In summary, BAU's commitment to Sustainable Development Goal 3 is exemplified through its multifaceted efforts to promote good health and well-being. Through tailored programs, partnerships, and community engagement initiatives, the university endeavors to create a lasting and meaningful impact on the health and well-being of its community members, ensuring inclusivity and relevance across diverse societal segments.



## SCIENTIFIC RESEARCH SOLUTIONS

BAU is committed to achieving UN-SDG3 (Good Health and Wellbeing), which is evident in a number of ways, including the fact that 1063 faculty staff members produce high-quality research on health issues.



## Ensure Inclusive and Quality Education for All

## and Promote Lifelong Learning:



Al Balqa Applied University is actively pursuing the fulfillment of the 4<sup>th</sup> Sustainable Development Goal (Quality Education) by fostering inclusive learning opportunities. Our aim is to elevate competencies, skills, and abilities across diverse demographics, irrespective of gender, race, or religion. We are dedicated to upholding the principles of accessible education for all, promoting lifelong learning through adaptable and varied learning approaches. Our focus lies in creating an enabling educational environment that surmounts barriers hindering individuals from completing their education, including housewives, persons with disabilities, remote rural residents, and individuals unable to participate in educational programs. To ensure accessibility, BAU provides open educational resources like educational platforms and a global database aligned with international education standards. [Strategic Achievement for SDG4 /2023](#)



Aligned with this goal, BAU has outlined several sub-goals:

- Support for scientific research enhancing the quality of education.
- Provision of educational resources accessible to non-university learners.
- Active participation in vocational training events.
- Engagement in educational outreach initiatives to contribute to educational advancement.

Through these initiatives, BAU aims to broaden access to quality education, empower diverse learners, and foster an inclusive learning environment that transcends traditional barriers, thereby aligning with the principles of the SDGs.



## ACCESS TO GENERAL LECTURES AND EVENTS FOR PUBLIC

The university is committed to providing inclusive education that enhances the competencies, skills, and abilities of learners. It strives to ensure that the principles of learning for all and lifelong learning are achieved through flexible learning options and an enabling educational environment. BAU offers a range of education and training programs, as well as public resources such as libraries, electronic databases, and tutorial materials that are accessible to the public. Additionally, BAU provides certified training opportunities and educational resources for alumni, residents, and the local community.



[Training course: Principles of treatment with bees products](#)



[Skills development training program at Al Hosn Faculty](#)

المركز الوطني للتدريب وتأهيل المدربين يختتم دورة تدريب المدربين بالتعاون مع امانة عمان الكبرى



( 698 مشاهدات ) ( 0 تعليقات )



[Training courses with certificates](#)



[Training courses at the north of Jordan](#)

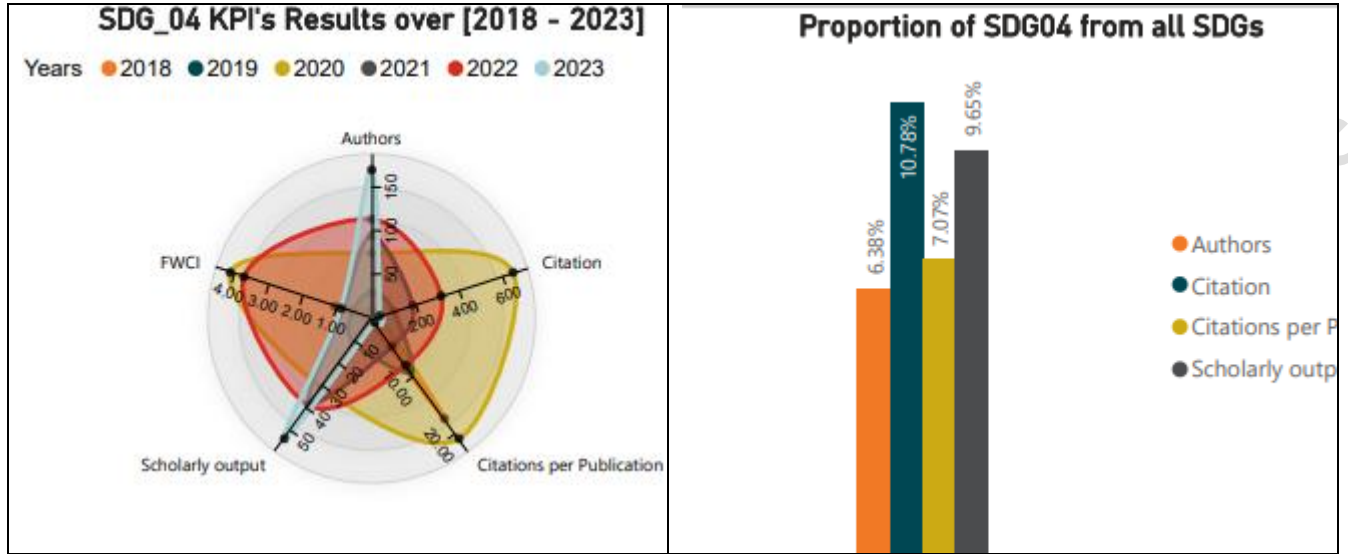
## HOST PUBLIC EVENTS

(BAU) is enhancing outreach by working directly with the communities by hosting and organizing events that are open to the public, such as conferences, ceremonies, seminars, lectures, training programs, awareness sessions, and other types of events.



[International conference in Innovative Agriculture for food security](#)

# SCIENTIFIC RESEARCH



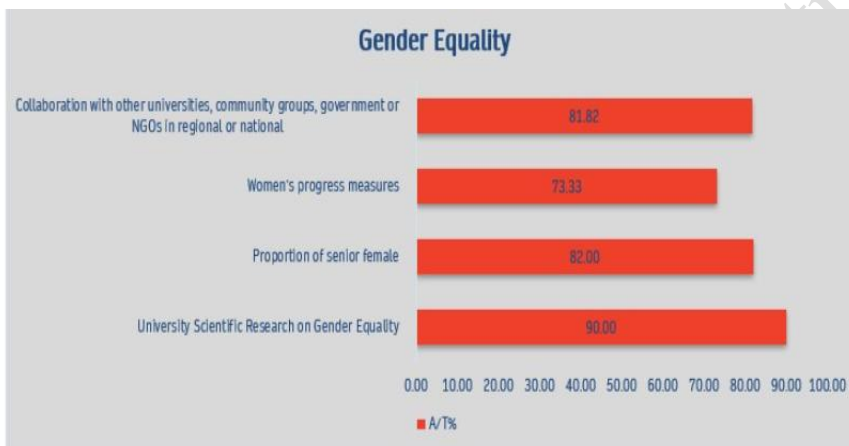
Development and Quality Assurance

## Achieve Gender Equality

### and Employment All Women and Girls:



Al-Balqa Applied University recognizes that achieving equality for women isn't just a basic human right but a vital element for a sustainable future. Empowering women and girls not only drive economic growth but also fosters community development. Despite increased female participation in the workforce, disparities persist in certain regions, denying women equal labor rights compared to men.



[\*Strategic Achievement for SDG5 /2023\*](#)

In response, Balqa Applied University (BAU) has outlined a comprehensive array of targeted goals to propel gender equality initiatives within the university and across Jordan:

- Conducting dedicated research on gender equality and employment.
- Evaluating and enhancing accessibility measures for women within Al-Balqa Applied University.
- Promoting and supporting women's participation in underrepresented areas.
- Forging robust partnerships with universities, community organizations, governmental bodies, and NGOs at regional and national levels to advance gender equality efforts.

These goals underscore BAU's unwavering commitment to narrowing gender disparities, fostering inclusivity, and advocating for equal opportunities across the university and throughout the wider Jordanian community.

## COMMITMENT

Al-Balqa Applied University (BAU) is dedicated to the [empowering women](#), fostering their potential, securing their rights, facilitating their access to available resources and opportunities, and actively involving them in university decision-making processes. This commitment entails improving their living conditions, addressing obstacles and challenges they might encounter, offering tailored training and rehabilitation programs, providing essential career guidance, counseling, and scholarships at esteemed international universities. Our aim is to ensure equal opportunities in recruitment, employment, appointments, and promotions across diverse fields, alongside promoting their representation in governance councils and enabling their ascent to leadership roles. In (BAU), our goal is enhance the women's societal influence and contribute to shaping its economic and social paths.

(BAU) also is committed to [non-discrimination against women](#) in all its forms, whether deliberate or inadvertent. Adhering to the laws and regulations preserving women's rights, as outlined in the constitution and laws of the Hashemite Kingdom of Jordan that unequivocally prohibit any form of discrimination against women, (BAU) enforces stringent penalties against transgressors. The university diligently formulates and upholds regulations and directives in alignment with these laws, ensuring that women receive equitable opportunities across various professional domains.

The University offers specialized training programs designed to empower women in cultivating their personal leadership skills. These programs are tailored with the specific aims of augmenting the representation of women in senior positions, enriching opportunities for their recruitment and sustained presence in traditionally underrepresented spheres, and nurturing both formal and informal learning avenues, alongside dedicated mentorship and career development initiatives exclusively for women.

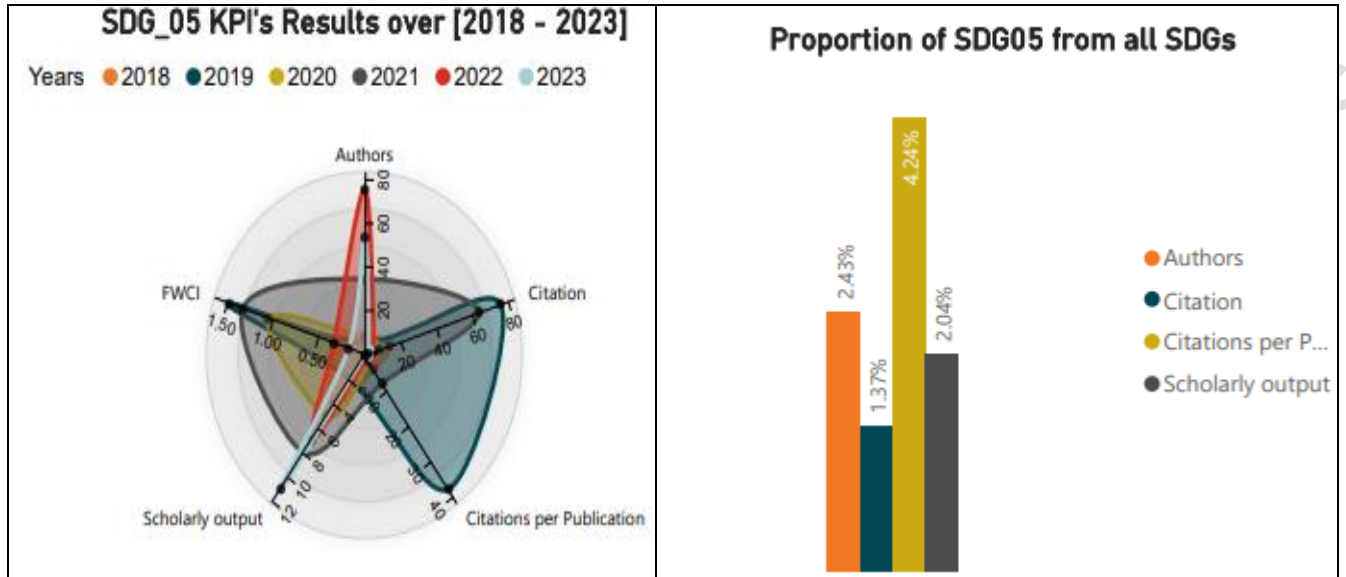
**Dr. Dana K. Mahadin**

CIRU Director



Assistant Professor

## SCIENTIFIC RESEARCH



Development and Quality Assurance

## Ensure Availability and Sustainable Management of Water and Sanitation for All:

6 CLEAN WATER AND SANITATION



Water stands as a cornerstone for sustaining life, the environment, and economic activities. Therefore, informed decision-making rooted in reliable and objective information is essential. However, challenges stemming from climate change, burgeoning populations, and rapid urbanization have escalated worldwide, leading to water-related issues that tragically contribute to fatalities among children under five in certain regions and nations.

At BAU, a series of targeted sub-goals have been set to achieve sustainable water management and sanitation within the university and across Jordan:



[Strategic Achievement for SDG6 /2023](#)

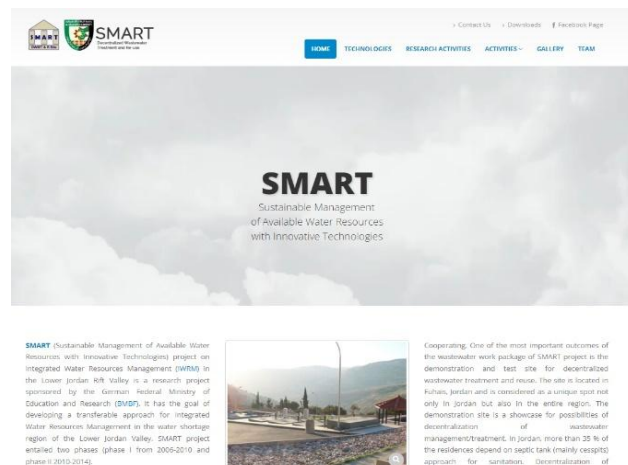
- Fostering and endorsing scientific research dedicated to clean water and sanitation.
- Augmenting reliance on treated water for diverse purposes.
- Enhancing the conservation efforts for both the quality and quantity of water.
- Expanding water education programs to raise awareness.
- Amplifying community-based water initiatives to involve and engage local populations.

These objectives signify BAU's commitment to addressing the critical challenges surrounding water resources, aiming to ensure their sustainable management and sanitation practices within the university and in broader Jordanian communities.



## WATER RE-USE MEASUREMENT

The university acknowledges the significance of wastewater treatment and actively monitors the volumes processed within its treatment plants, notably at the Wastewater Treatment Facility. Consequently, the university meticulously assesses the volumes of water generated from these treatment processes, aiming for ongoing development, enhancement, and an annual increase in the treated water output. Al-Balqa Applied University employs various treatment stations for wastewater, among which the decentralized model facility in Fuheis ([SMART](#)) stands out as a prominent example.



## WATER IN THE COMMUNITY

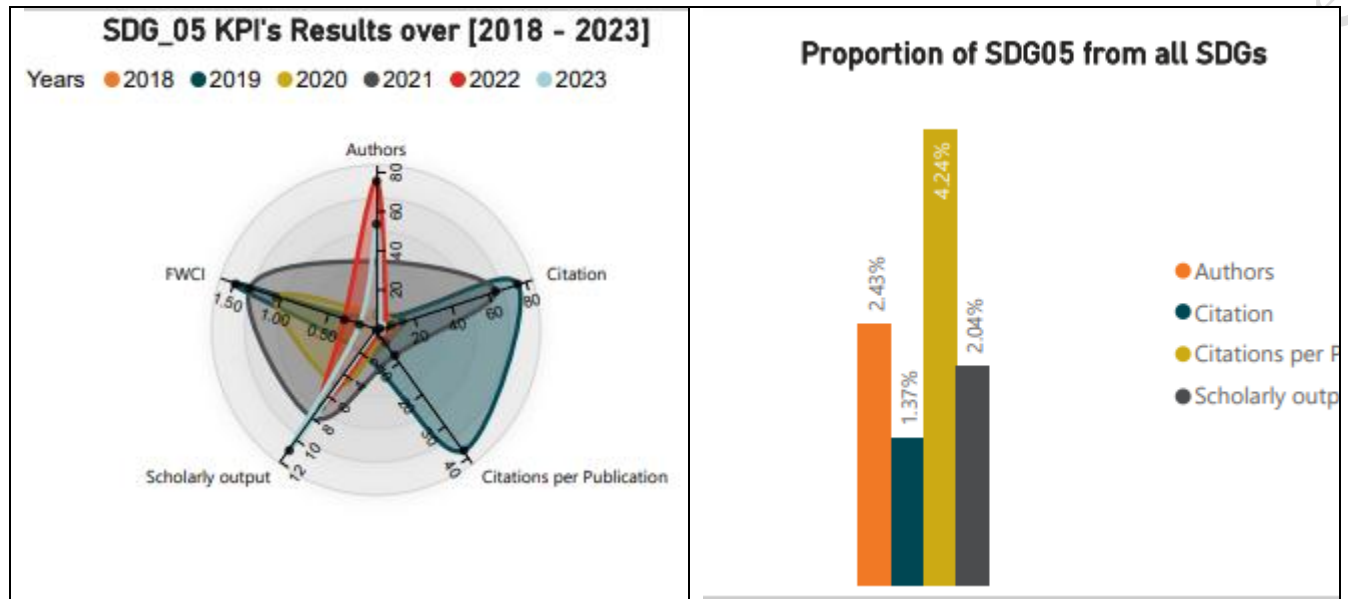
(BAU) is aware of the necessity for skillful water engineers with outstanding competences especially with accelerated technology advancement especially with the traditional techniques in water collection and treatment, operational skills, irrigation, and water conservation measures, so BAU updated core curriculum in water, for example, peer-to-peer curricula development of drinking water treatment, wastewater treatment, and hydrology with experts from IHE-Delft in The Netherlands is currently going on as part of a collaboration project namely [WATRA](#). Further, several awareness campaigns are carried out every year to include women associations, farmers, schools' students, and decision makers. Also Capacity development activities to update and elevate the knowledge of over 72 operators from the private sector to match the new technologies are performed this year as part of [WATRA](#) Project.

## RESEARCH AND INTERNATIONAL COLLABORATION

Water security has emerged as a critical national priority, and its centrality within state universities has become increasingly pronounced. However, the extent of contributions toward water security varies among universities. Al-Balqa Applied University has shown a steadfast commitment to ensuring water security, taking significant strides to achieve this goal. An exemplary instance is BAU's collaboration with UNESCO in 2009 to establish [International Research Center for Water, Environment and Energy](#) (IRCWEE) within the university. Since its inception, this partnership has fostered increased cooperation both nationally and internationally.

BAU has actively engaged in numerous water-related projects, funded at national and international levels, aimed directly or indirectly at bolstering water security. These projects span from minor

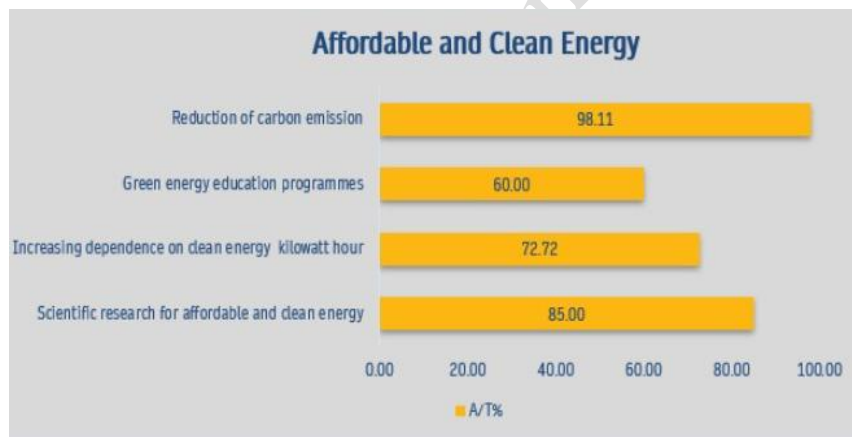
contributions to policy development to substantial interventions on the ground. Presently, BAU boasts a multitude of international partnerships and has successfully executed over 14 completed and ongoing water-related projects. This momentum positions the university as a hub for water scientists in Jordan and the wider Middle East region.



Development and Quality

(BAU) is one of the largest state universities in Jordan, with campuses spread throughout the country, covering nearly all climatic regions from the highlands in the mid-west to the very dry, this diversity in climatic conditions, motivated BAU to adopt wide range of activities related to climate change, so it is seeking to achieve UN SDG7<sup>th</sup> goal (Affordable and Clean Energy) through multi energy-saving policies to reduce its power consumption and converting to renewable energy resources.

Guided by a commitment to clean energy and a zero-emission policy, BAU has launched numerous initiatives, programs, and projects. The primary aim is to significantly curtail its carbon footprint and gas emissions. A significant milestone in this pursuit is the solar energy conversion project, recently launched with a production capacity exceeding 7 megawatts. This project is anticipated to generate more energy than the university requires.



[Strategic Achievement for SDG7 /2023](#)

To ensure accessible, reliable, and sustainable energy within BAU and across Jordan, the university has set specific objectives:

- Supporting and advancing scientific research in competitive low-carbon energy solutions.
- Increasing reliance on clean energy sources.
- Expanding educational programs focused on green energy.
- Leading initiatives to reduce carbon emissions.

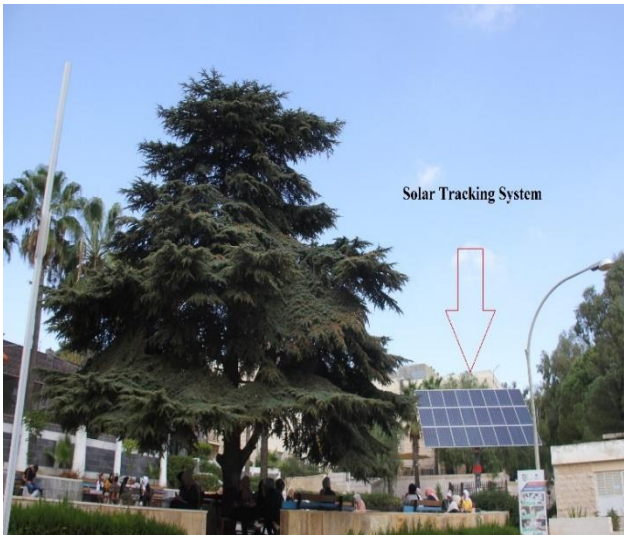
These goals highlight BAU's dedication to promoting eco-friendly practices, spearheading the adoption of renewable energy, and paving the way for a more sustainable energy landscape, both internally and across the broader Jordanian community

## INCREASING DEPENDENCE ON CLEAN ENERGY

BAU has adopted a robust policy focused on energy-efficient building renovations, demonstrating a strong commitment toward transitioning to eco-friendly Green Buildings. This commitment is evident in the recent construction projects that incorporate several features promoting natural illumination, such as centralized glass domes, and an architectural design emphasizing numerous double glass windows. These elements not only maximize natural daylighting but also foster natural ventilation within the university's buildings.



Green Building Implementation



Solar tracking systems



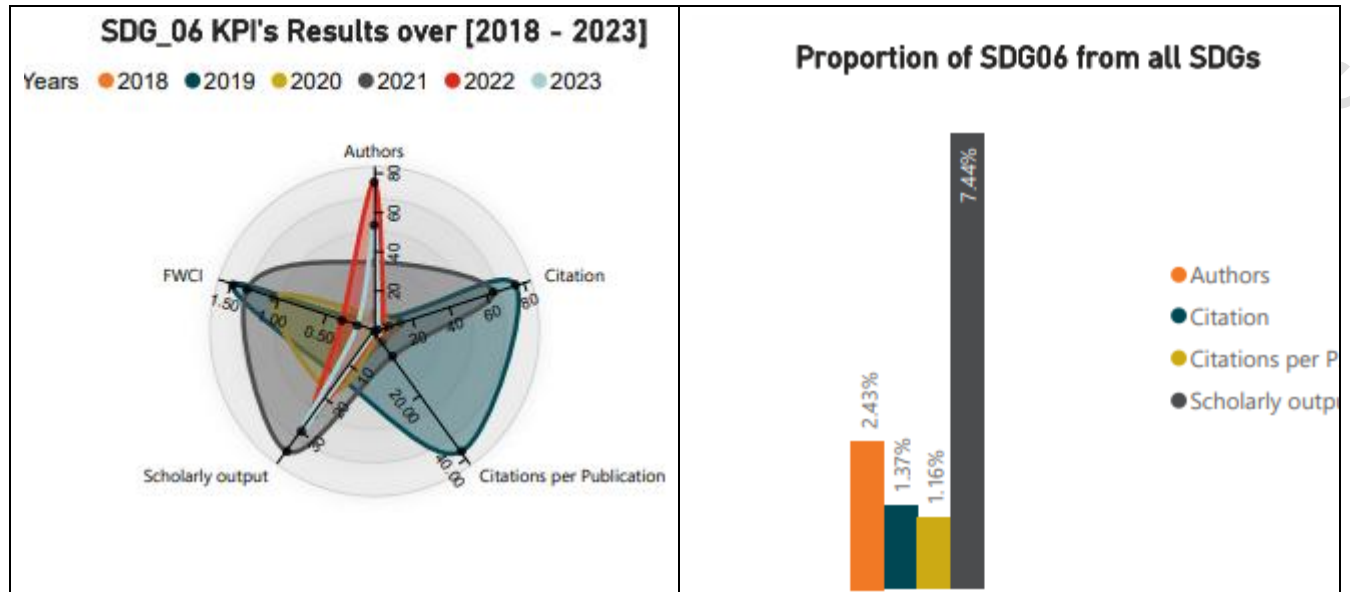
Metal cladding systems

Additionally, BAU is actively championing energy conservation and efficiency by embracing Smart Buildings and implementing a range of multi-faceted energy-saving strategies. These initiatives include the installation of a solar tracking system, utilization of metal cladding systems and energy-preserving stone in construction, a shift from traditional light bulbs to energy-efficient LED lamps, incorporation of specialized transparent solar panels for power generation, and the use of solar heaters to produce hot water for various purposes. Furthermore, BAU employs energy-saving air-conditioning units equipped with inverter technology and environmentally friendly refrigerants, further contributing to its energy reduction efforts.



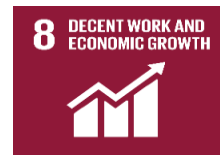
New solar park project with capacity 7MW

# SCIENTIFIC RESEARCH

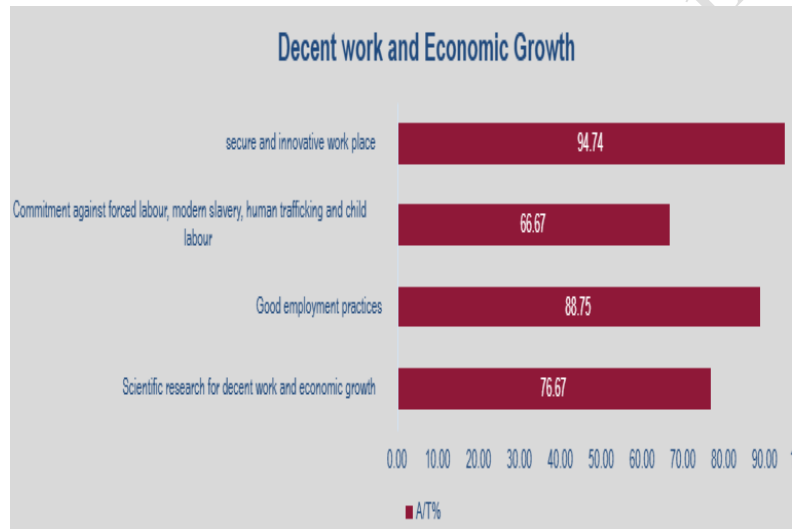


Development and Quality A

Promote Sustained, Inclusive and Sustainable  
Economic Growth, Full and Productive  
Employment and Decent Work for All:



The Sustainable Development Goals (SDGs) strive to foster continual economic growth, enhanced productivity, and technological advancement. Central to these aspirations is the promotion of entrepreneurship and job creation, coupled with effective measures to eradicate forced labor, slavery, and human trafficking. The overarching objective is to attain comprehensive and productive employment, ensuring decent work opportunities for all by 2030. The UN 8<sup>th</sup> SDG specifically emphasizes the need for 'sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for everyone, a goal that BAU wholeheartedly embraces.



[Strategic Achievement for SDG8 /2023](#)

Aligned with this commitment, BAU has established several goals aimed at ensuring decent work opportunities for all and fostering sustained economic growth within both the university and Jordan:

- Supporting scientific research dedicated to promoting decent work and economic growth.
- Implementing good employment practices that prioritize fair and equitable work environments.
- Demonstrating a steadfast commitment against forced labor, modern slavery, human trafficking, and child labor.
- Providing a secure and innovative workplace conducive to continuous growth and development

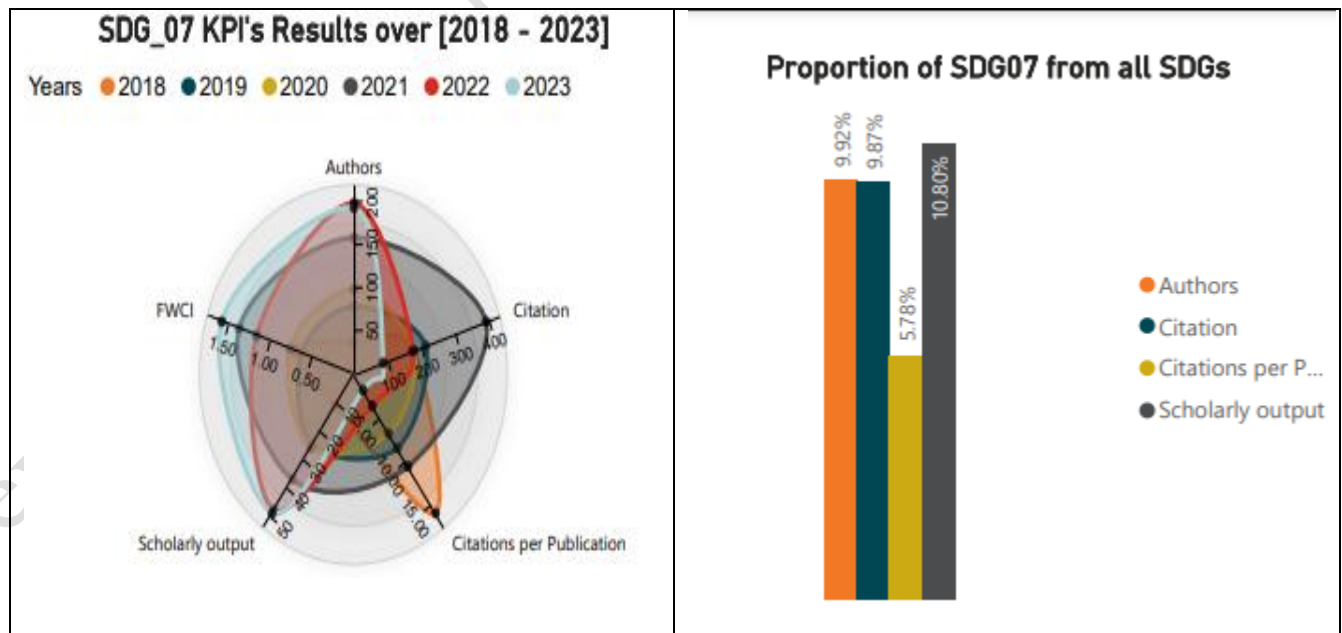
BAU plays significant roles in business structure and job creation in Jordan with a focus on commercializing the research outputs, in line with the launch of Jordan's economic modernization vision under the slogan of "A Better Future," which is based on accelerated growth through unleashing Jordan's full economic potential, improved quality of life for all citizens, and sustainability.

## EMPLOYMENT PRACTICES

The BAUs' employees fall in two categories: academic and non-administrative staff, they collectively strive to uphold the university's commitment to delivering high-quality education and support services in line with its mission. To foster a healthy and competitive work environment, BAU focuses on attracting and retaining both local and international professionals who are qualified in their respective fields. The university endeavors to provide ample opportunities for these professionals to excel while safeguarding their rights and interests.

Adhering to the guidelines set forth by the Jordanian Constitution regarding human rights and duties, BAU complies with the directives pertaining to establishing a minimum wage for its employees. Moreover, the university has implemented a structured salary scale that categorizes remuneration based on managerial levels and grades. This approach enhances transparency and serves to protect the rights of all employees within the organization.

## SCIENTIFIC RESEARCH

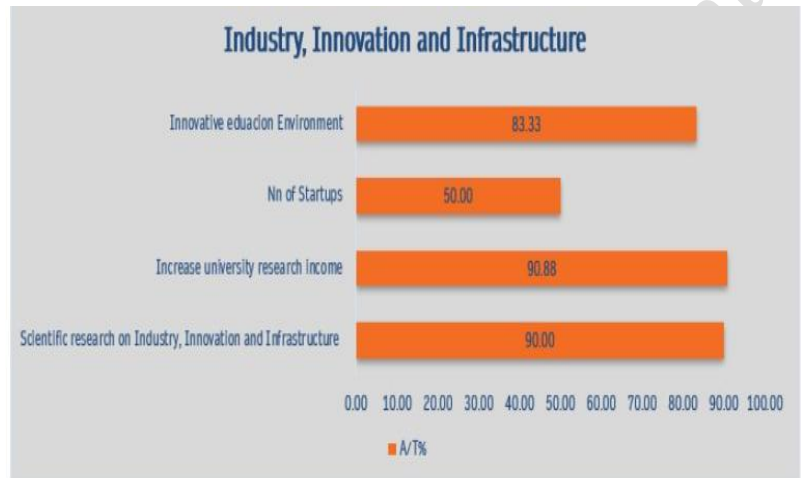




**Build resilient infrastructure, promote inclusive, and sustainable industrialization and foster innovation:**



With the global population increasingly concentrated in urban areas, the significance of mass transportation and renewable energy continues to grow. Simultaneously, the emergence of new industries and advancements in information and communication technologies underscores the importance of investing in infrastructure and innovation as vital catalysts for economic growth and development.



[Strategic Achievement for SDG9 /2023](#)

Nations worldwide are actively seeking enduring solutions to economic and environmental challenges.

These include job creation, energy efficiency promotion, the advancement of sustainable industries, and substantial investment in scientific research and innovation.

In Jordan's recent Economic Modernization Vision, which prioritizes strengthened collaboration with the private sector, BAU has outlined the following objectives to ensure the development of resilient infrastructure, promote sustainable industrialization, and encourage innovation:

- Supporting and sustaining scientific research focused on resilient infrastructure, sustainable industrialization, and innovation.
- Augmenting the university's research income.
- Increasing the number of startups fostered by the university.
- Creating an innovative educational environment conducive to fostering creativity and innovation.

This revised version emphasizes the importance of these initiatives in response to global trends and aligns them with Jordan's Economic Modernization Vision

## PRACTICES

The University actively engages in multiple partnerships aimed at cultivating a dynamic and forward-thinking environment. This collaborative effort supports students, faculty, researchers, and the local community, empowering them to navigate the challenges of this using cutting-edge knowledge tools and modern technological resources. These resources fuel innovative and pioneering thinking, foster scientific research, and inspire the establishment and implementation of private entrepreneurial endeavors.

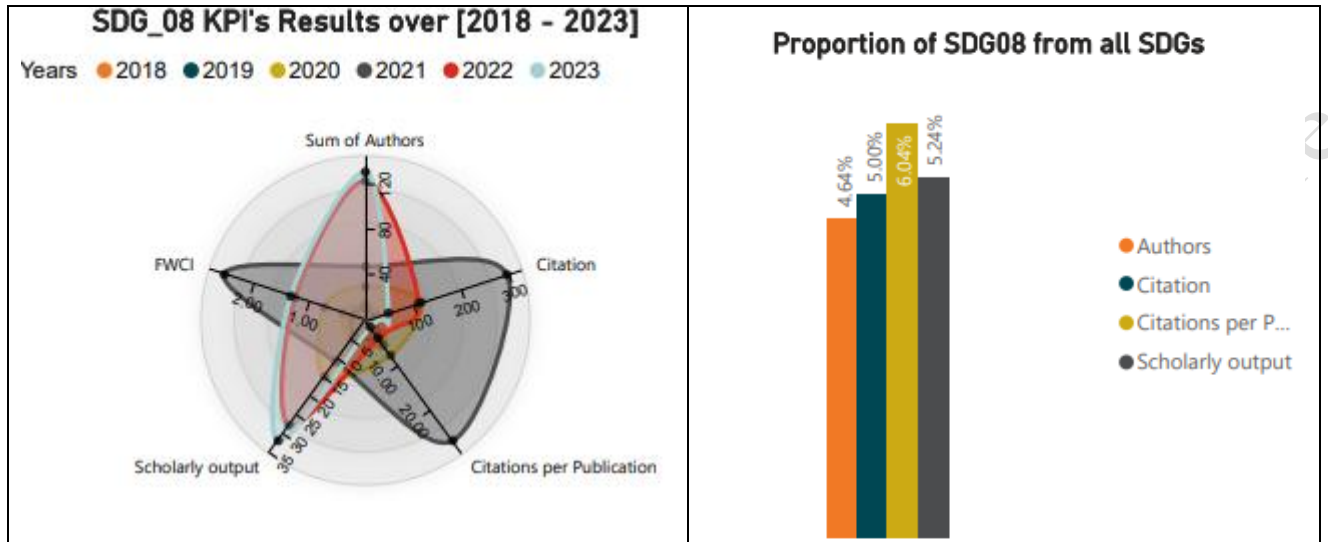
(BAU) has many center centers such as the Center for Innovation and Entrepreneurship, for offering an array of programs focused on entrepreneurship, innovation, and commercialization. These programs play a pivotal role in nurturing entrepreneurial skills and mindsets among BAU students and staff. Notably, the Center's efforts have significantly increased student participation in entrepreneurship programs.

Furthermore, (BAU) acts as a bridge, connecting governments and industries with leading researchers from BAU. Together, they collaboratively develop practical and successful solutions that address real-world challenges. These initiatives aim to assist companies in innovating and creating new services and products that respond to market demands and align with the needs of sustainable industrialization.



[Sample of IEEE AI-Balqa Applied University Student Branch](#)

SCIENTIFIC RESEARCH

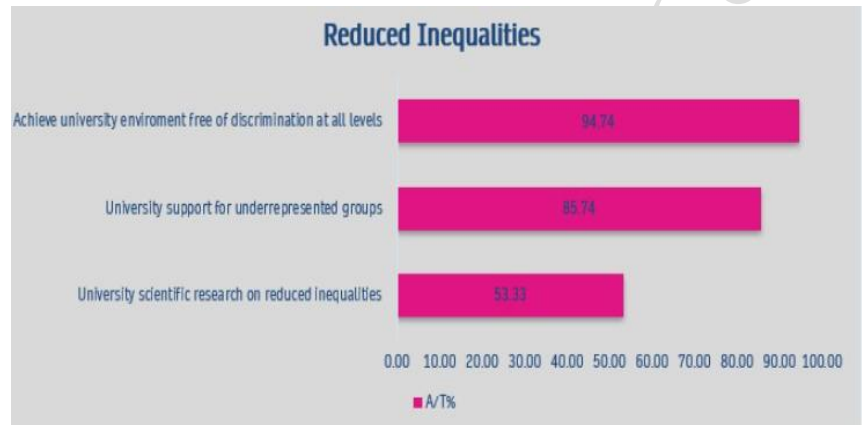


Development and Quality Assurance

## Reduce Inequality Within and Among Countries:



As societies and economies advance, the 10th Sustainable Development Goal (SDG) aims to champion inclusivity, ensuring that no one is left behind. At BAU, our commitment extends to providing equal opportunities for every student. Through the implementation of robust policies, procedures, and guidelines, we endeavor to seamlessly support and integrate all students. Additionally, our staunch dedication to combating gender discrimination ensures parity in education and employment opportunities. In our pursuit of reducing inequality globally, BAU has established the following objectives:



[Strategic Achievement for SDG10 /2023](#)

- Advancing scientific research to address and mitigate inequalities.
- Empowering marginalized groups.
- Cultivating a university culture that champions inclusivity and eradicates discrimination at every level.

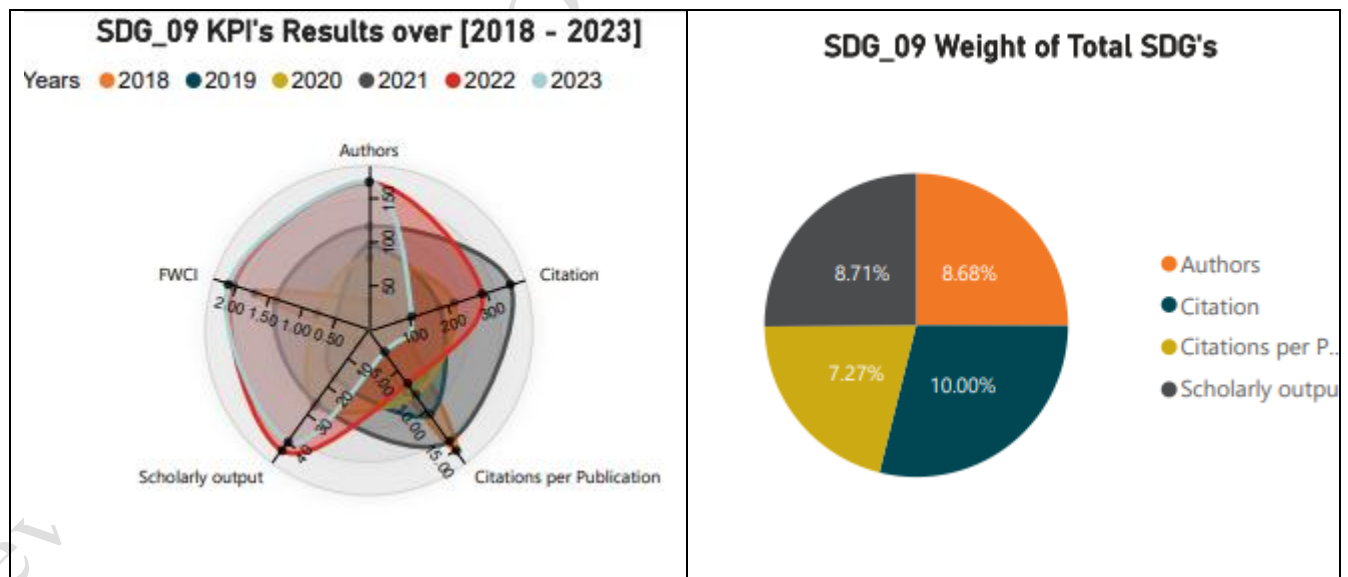
## APPROACH

BAU has instituted legislation and protocols designed to swiftly address any reported incidents of discrimination. These measures are devoted to fostering a secure, supportive, and inclusive environment for learning and work, ensuring equal opportunities across diverse fields of work and educational pathways. In line with this commitment, BAU provides specialized facilities tailored to accommodate the needs of individuals with disabilities, special requirements, and maternity care, underscoring its dedication to inclusivity and comprehensive support for diverse needs.

BAU has formulated a strategy that embodies an approach aimed at cultivating an inclusive and pioneering academic environment. This setting not only champions respect and support for individuals but also serves as a fertile ground for nurturing innovation, creativity, and impactful research.

BAU's dedication to Diversity, Equity, and Inclusion (DEI) is evident through this proactive strategy, which aim to enhance various aspects of university life, including recruitment processes, research endeavors, teaching methodologies, and the overall campus environment. The objective is to embed equity and inclusivity in the experiences of academic, administrative, and student communities alike.

## SCIENTIFIC RESEARCH



## Make Cities and Human Settlements

### Inclusive, Safe, Resilient and Sustainable:



Al-Balqa Applied University is firmly committed to global initiatives aimed at fostering progress, peace, and prosperity worldwide, while also prioritizing the preservation and sustenance of community heritage, particularly where the context of its main campus is located in Al-Salt city.

Consequently, BAU is actively transitioning towards green buildings. This commitment is evident in the recent construction of new buildings boasting several features designed to maximize sustainability. These

structures incorporate characteristics such as glass domes centralized within the buildings to harness natural lighting, LED lighting systems, and an architectural style that emphasizes a high number of double glass windows.

This architectural approach not only facilitates ample natural daylight but also promotes natural ventilation within university buildings.



*[Strategic Achievement for SDG11 /2023](#)*

BAU's aspirations toward creating Inclusive, Safe, Resilient, and Sustainable Cities and Human Settlements are outlined as follows:

- Fostering scientific research dedicated to sustainable cities and communities.
- Implementing sustainable practices, particularly in affordable housing initiatives.
- Collaborating with local authorities on planning and development issues.

## IMPLEMENTATION

The implementation of SDG No 11 at BAU aligns closely with its commitment to sustainable practices and community-oriented development. The university adheres to guidelines set by the Ministry of Public Works and Housing, emphasizing the construction of green buildings designed to reduce dependency on artificial conditioning. Renovations across multiple buildings include key sustainability features like natural ventilation, LED lighting, water-saving faucets, smart building systems, and metal cladding, demonstrating BAU's proactive approach to environmental responsibility and energy efficiency, in addition to that, BAU's collaboration with the Jordanian Green Building Council signifies a commitment to continually improve existing structures and construct new buildings following best practices in sustainability and eco-friendly methodologies. This partnership aims to transfer and adopt sustainable building techniques, benefiting both the university and the broader community.



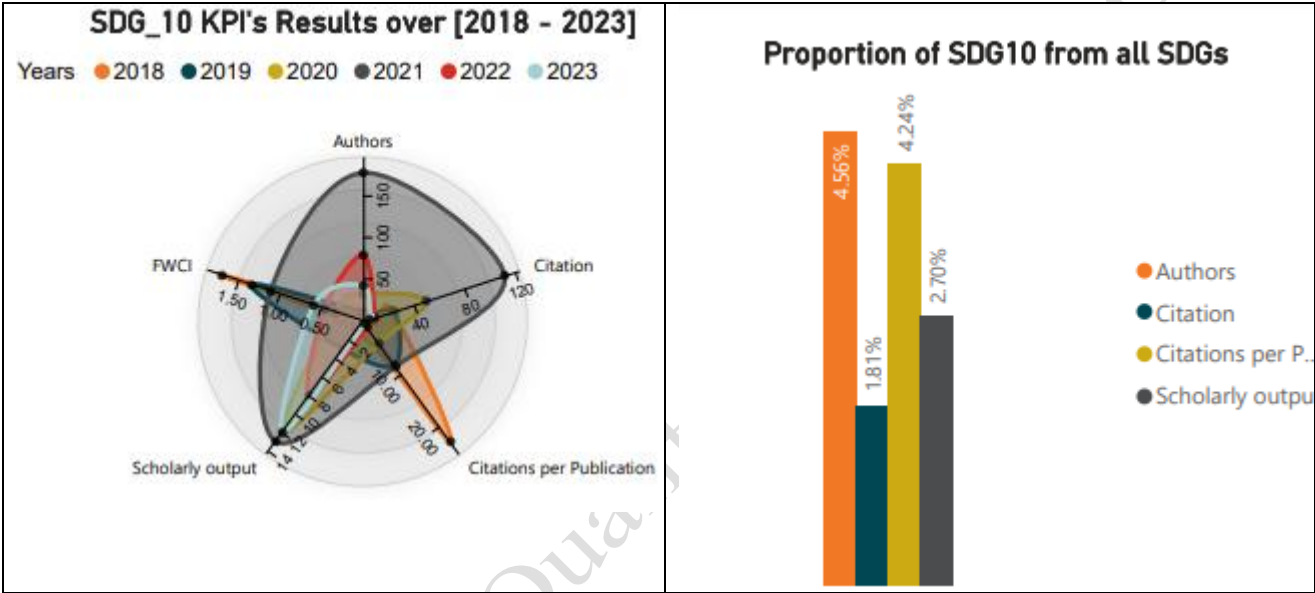
The student-led initiatives in As-Salt further exemplify BAU's dedication to SDG 11. Repurposing and revitalizing abandoned heritage structures not only contribute to the preservation of cultural heritage but also align with sustainable urban development goals. The planned transformation of these buildings into spaces for educational institutions, libraries, and community centers showcases BAU's commitment to sustainable infrastructure and community engagement.

Overall, BAU's initiatives encompass a holistic approach to sustainable development within its campus and the surrounding communities, reflecting its commitment to SDG 11 by promoting sustainable infrastructure, community engagement, and innovative solutions for a sustainable future, (BAU ) is committed to follow the guidelines of the ministry of public works and housing, regarding the implementation of green buildings metrics, which built in such manner that reduces the need for artificial conditioning (presence of extended concrete surfaces which make shadows over parts of the building), so (BAU) also renovated many buildings, the renovation includes natural ventilation, LED lighting, Water savings faucets, Smart building (automatic door & fingerprint), and metal cladding



BAU also signed a cooperation agreement with the Jordanian Green Building Council, with the aim of transferring best practices in the maintenance and restoration of existing university buildings and the construction of new buildings.

**SCIENTIFIC RESEARCH**



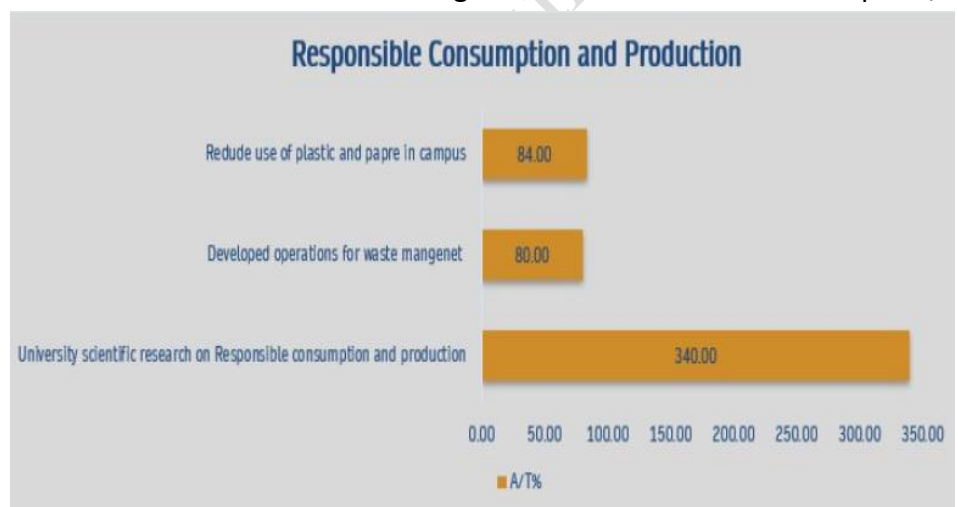


## Ensure Sustainable Consumption and Production Patterns:

To achieve economic growth and sustainable development, urgent action is needed to reduce our ecological footprint. Sustainable Consumption and Production (SCP) play a pivotal role by advocating resource and energy efficiency, sustainable infrastructure, access to essential services, creation of green and dignified jobs, and an improved quality of life for all. Implementation of SCP aligns with overall development plans, curtails future economic, environmental, and social costs, bolsters economic competitiveness, and alleviates poverty.

Jordan has encountered significant demographic, agricultural, and industrial expansion, resulting in challenges in waste management across various forms. To mitigate adverse environmental impacts,

BAU has established a waste management protocol driven by regulatory legislation and responsibilities. The primary objective is to minimize landfill waste by focusing on the principles of the 4R's: Reduce, Reuse, Recycle, and Recovery.



[\*Strategic Achievement for SDG12 /2023\*](#)

Effective management of natural resources and responsible disposal of toxic waste and pollutants are crucial in this pursuit. Encouraging industries, businesses, and consumers to embrace recycling and waste reduction is paramount. Similarly, supporting developing nations in transitioning to more sustainable consumption patterns by 2030 is a key objective. Accordingly, BAU has set specific goals to ensure sustainability:

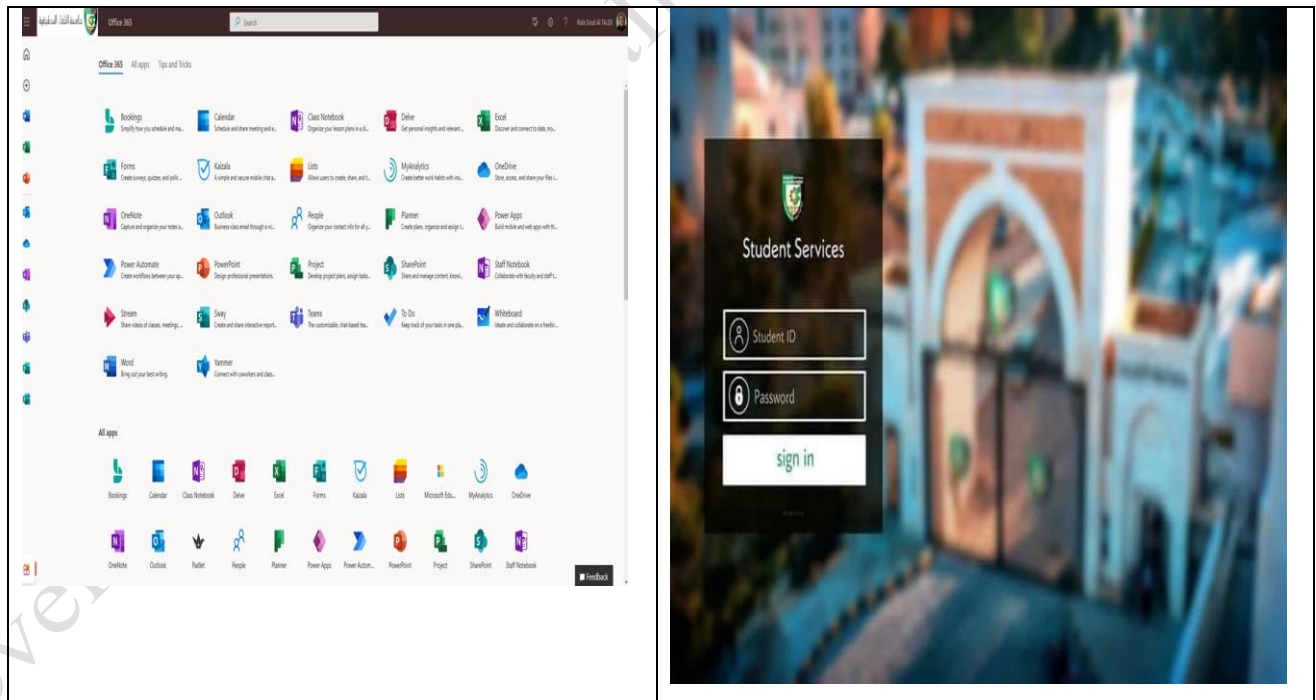
- Conducting university scientific research focused on Responsible Consumption and Production.
- Developing waste management strategies and practices.
- Reducing the campus's use of plastic and paper

## IMPLEMENTATION

BAU's commitment to sustainability shines through in its architectural endeavors, notably exemplified by the library and the Prince Abdullah Ben Ghazi faculty building. These structures stand as prime examples of outstanding sustainable design, featuring state-of-the-art facades with double glazing and advanced energy-efficient heating and cooling systems. These innovations notably reduce the energy demands for heating and cooling, supported by meticulous metering that optimizes the use of energy and water resources. Moreover, BAU is gradually transitioning to clean energy sources for heating, steering away from traditional fuel dependency, thanks to the expansive solar energy project at Hamrat Al Sahn.

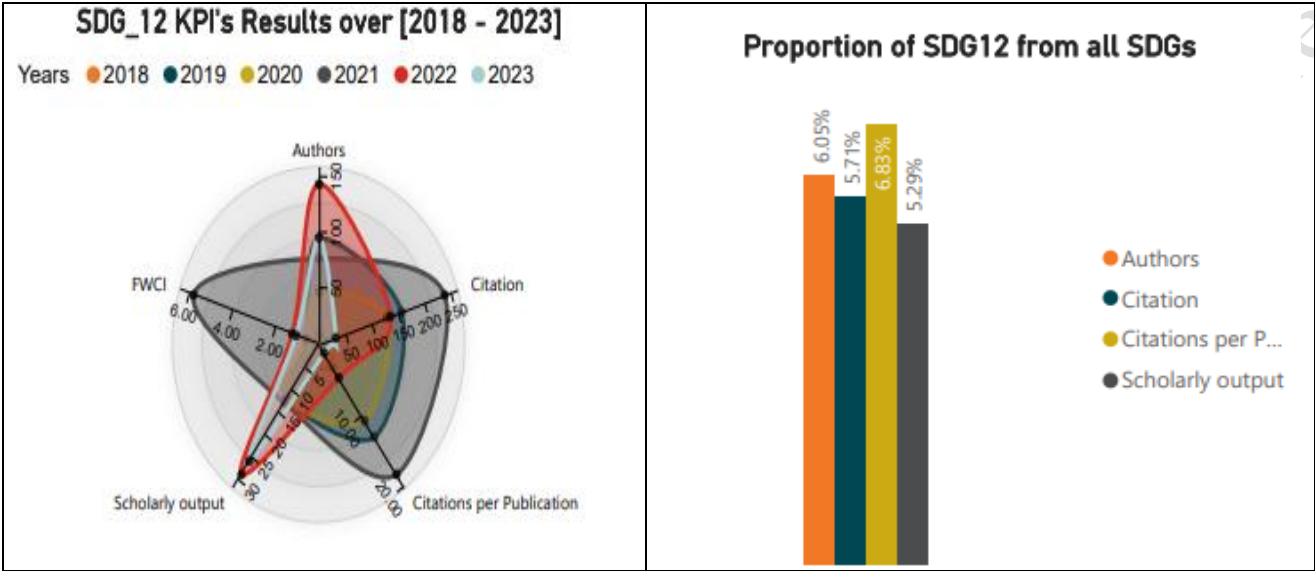
BAU is actively targeting a reduction in campus waste, particularly focusing on paper, cardboard, and plastics. The goal is to diminish the consumption and production of these materials. By decreasing greenhouse gas emissions and minimizing landfill use, BAU aims to prolong the lifespan of landfills and mitigate environmental impacts on air, soil, and water. This commitment is upheld through a blend of short- and long-term policies, which include:

- Activation of Electronic Correspondence: Establishing an email and electronic correspondence system, striving towards a paperless university.
- Introduction of E-learning Systems and Electronic Testing.
- Phasing out the use of paper cups and bottled water



*Go Paperless*

**SCIENTIFIC RESEARCH**

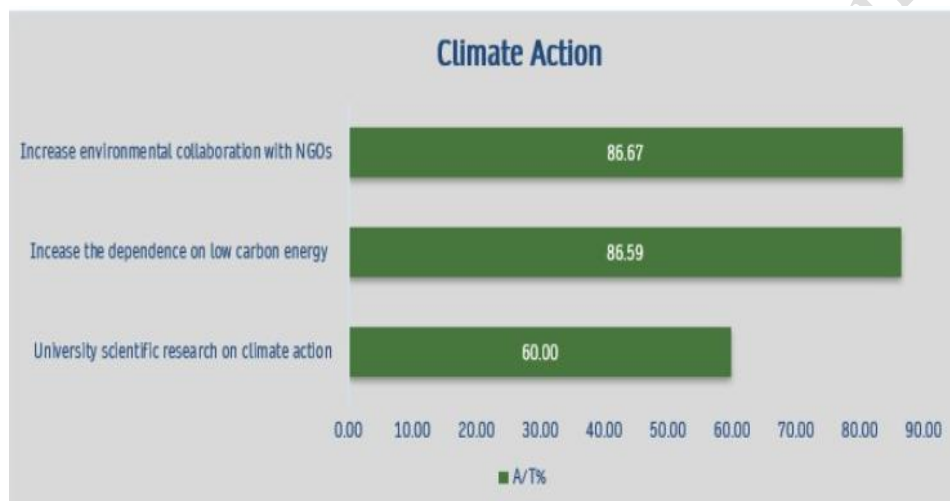


Development and Quality ↑

## Take Urgent Action to Combat Climate Change and Its Impacts:



Al-Balqa Applied University operates across diverse climatic regions in Jordan, prompting proactive measures in addressing climate variability and change, particularly in climate adaptation. The university stands at the forefront of innovation, notably in water conservation, draught research, capacity building, and technology transfer initiatives spanning from solar energy advancements to wastewater treatment for reuse and smart agricultural practices.



### [Strategic Achievement for SDG13 /2023](#)

(BAU) has developed specialized academic programs focused on smart agriculture, water treatment, smart infrastructure, and electric/hybrid vehicle technology. Additionally, the university actively engages in awareness campaigns on climate change.

BAU's commitment toward Urgent Action to Combat Climate Change is outlined through specific goals:

- Facilitating university scientific research dedicated to climate change.
- Expanding reliance on low-carbon energy sources.
- Strengthening environmental collaboration with governmental and non-governmental organizations.

## EDUCATION AND OUTREACH

BAU takes an active role in nurturing environmental and climate literacy among its students, preparing them to comprehend the profound impact of climate change while acquiring essential skills in mitigation and adaptation. A wide array of academic programs, spanning both undergraduate and postgraduate levels, has fully integrated concepts surrounding climate variability and change. Disciplines such as civil engineering, water resources management, water treatment engineering, smart buildings, renewable energy technologies, environmental management, and disaster management have robustly adjusted their curricula to encompass these critical aspects. These adjustments resonate clearly within the course materials of these programs.



Moreover, the university houses specialized research labs and groups dedicated to delving into renewable energy technologies and strategic management tools. Their joint focus on technology and effective management strategies aims to combat greenhouse gas emissions and tackle climate challenges head-on.

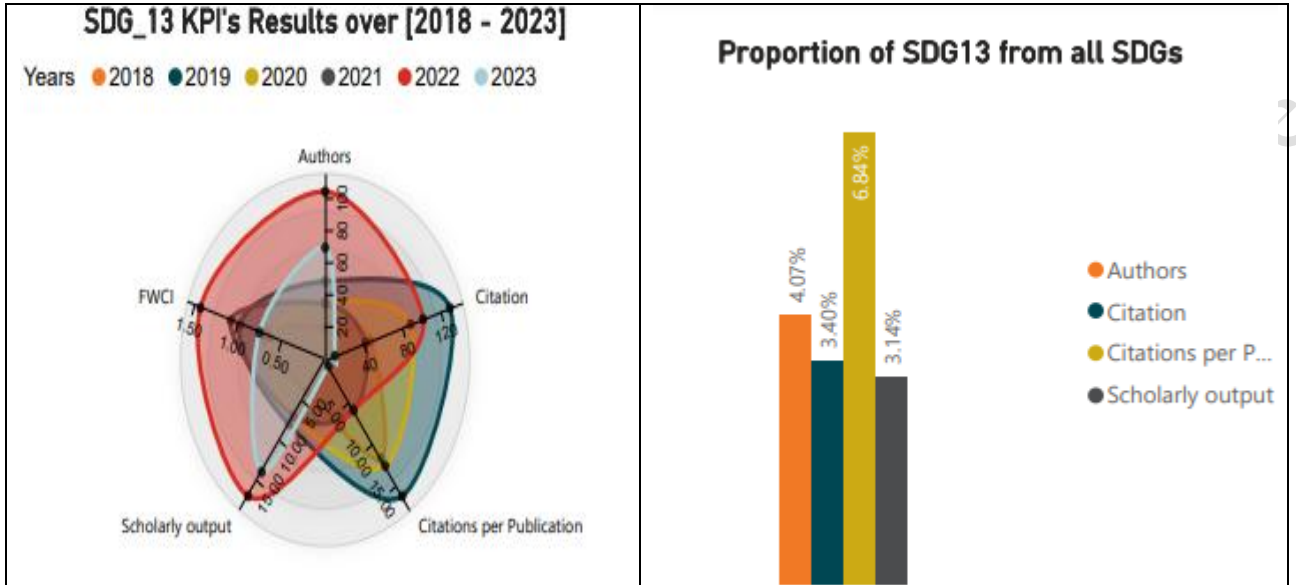
## PRACTICES

BAU is fighting against climate change issues, by reducing carbon footprint and reduce gas emissions, so it has a many procedures and practices such as applying green buildings elements and smart buildings requirements, progressive transition to renewable energy, organic composting, planting more drought tolerant plants, applying cloud computing applications, signing national and international agreements.



*Planting more trees*

## SCIENTIFIC RESEARCH



Development and Quality Assurance

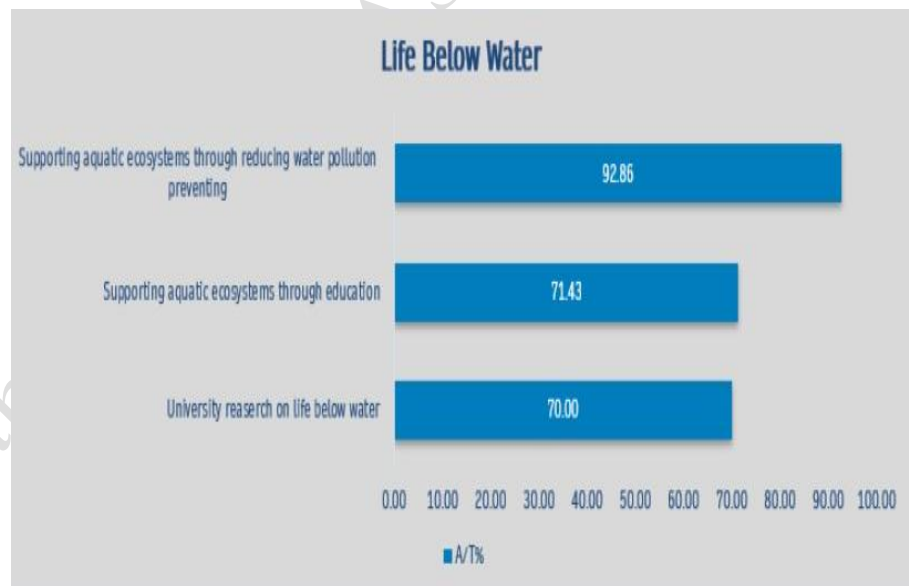
## Conserve and Sustainably Use the Oceans, Sea and Marine Resources for Sustainable Development:



The dependence of many nations on marine and coastal biodiversity for sustenance is undeniable. Presently, we witness a distressing reality: 30% of the world's fish stocks are overexploited, descending below sustainable yield levels. Oceans, absorbing around 30% of human-produced carbon dioxide, exhibit a concerning 26% increase in acidification since the onset of the industrial revolution. The escalation of marine pollution, predominantly stemming from land-based sources, is staggering, with an average of 13,000 pieces of plastic litter per square kilometer of ocean.

Looking ahead to a burgeoning global population projected to reach 9.1 billion by 2050 and intensifying impacts of climate change, BAU recognize very well the sustainable use of water and ecosystems for food security poses a monumental challenge. Understanding the intricate dynamics between terrestrial and aquatic ecosystems and their profound connection to water availability and quality becomes imperative.

The uncertain ramifications of climate change on ecosystems and subsequently on water and food security raise significant concerns. Forecasting scenarios paint a picture of heightened vulnerability to damage, diminishing ecosystem services, and compromised resilience.



*Strategic Achievement for SDG14 /2023*

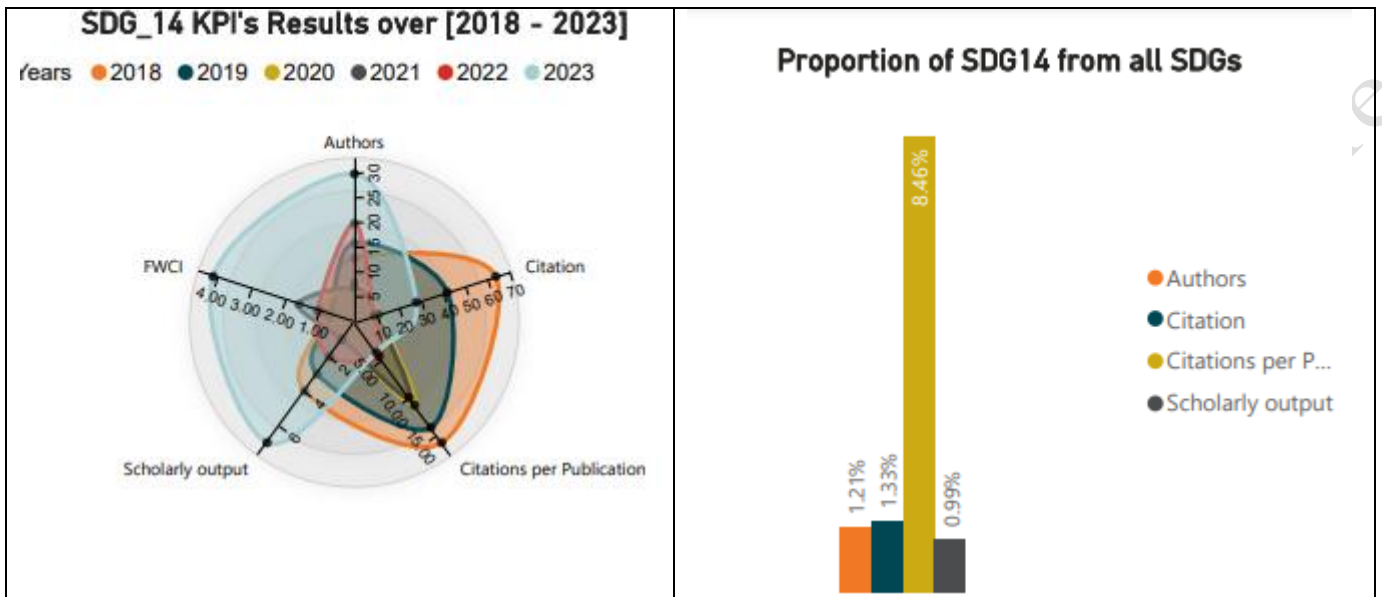


## PRACTICES

BAU has adopted its own policy for Food from Aquatic Ecosystems which has the objective to provide food at university without compromising the ability of the future generations to meet their needs. Also, it aims to save biodiversity which will help in maintaining marine sustainability, so BAU has set goals to show its commitment toward Conserving and Sustainably Use the Oceans, Sea and Marine Resources for Sustainable Development and these goals can be shortlisted as follow:

1. Supporting scientific research in the fields of life below water
2. Supporting aquatic ecosystems through education
3. Supporting aquatic ecosystems through reducing water pollution prevention.

SCIENTIFIC RESEARCH



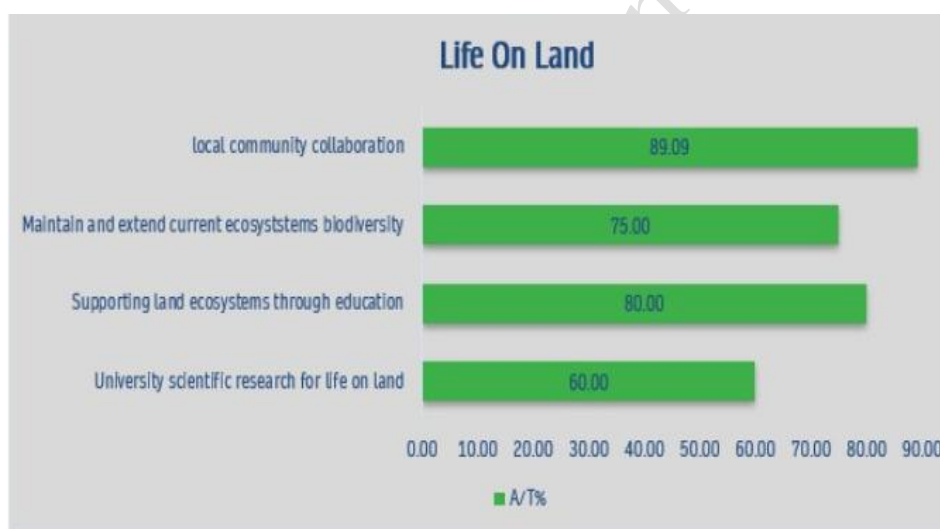
Development and Quality A

## Protect, restore, and promote sustainable use of terrestrial ecosystems:



The university is dedicated to realizing the 15th Sustainable Development Goal (life on land) through the focus on scientific research, educational program development, and responsible resource management. The aim is to preserve and rejuvenate terrestrial ecosystems, prevent deforestation, and actively restore degraded forests. Efforts extend to combating desertification and revitalizing degraded lands, ensuring the conservation of ecosystems, safeguarding biodiversity and natural diversity, securing access to genetic resources, and equitably sharing their benefits.

Initiatives also encompass curbing poaching and trafficking of protected species, preventing the introduction of invasive alien species into ecosystems, and integrating the values of ecosystems and biodiversity into governmental planning.



### [Strategic Achievement for SDG15/ 2023](#)

BAU has outlined specific

goals, demonstrating its commitment to Protect, Restore, and Promote Sustainable Use of Terrestrial Ecosystems, Sustainably Manage Forests, Combat Desertification, Halt and Reverse Land Degradation, and Stop Biodiversity Loss. These goals are summarized as follows:

- Conducting university-based scientific research dedicated to fostering life on land.
- Supporting land ecosystems through educational endeavors.
- Upholding and expanding the biodiversity of existing ecosystems.
- Strengthening collaborations with the local community.

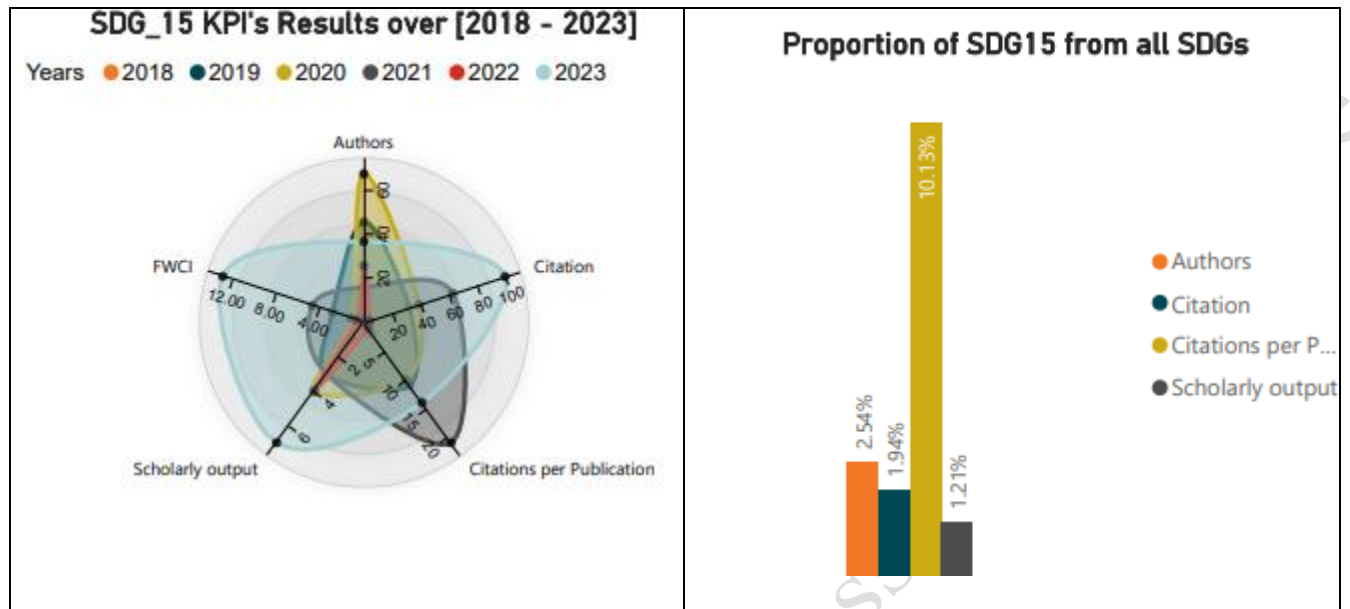
## EDUCATION AND RESEARCH STATIONS

Al-Balqa Applied University (BAU) stands as a beacon of progressive sustainability, with robust policies in place to ensure that the food served on campus resonates with the principles of sustainable farming. Embracing a conscientious approach toward nourishment, BAU has implemented stringent guidelines and practices to source and cultivate food in a manner that prioritizes environmental conservation, ethical farming, and the well-being of its community. Through these dedicated policies, BAU exemplifies a profound commitment to fostering not only a nourishing dining experience but also a responsible stewardship of the land and its resources.

At the Agricultural Research Station, Al-Balqa Applied University (BAU) has embraced a steadfast commitment to sustainable practices in food production. Within its precincts, ten greenhouses flourish with an array of crops including tomatoes, cucumbers, and bell peppers, cultivated using methods that prioritize environmental harmony. Alongside these staples, the station proudly nurtures tropical delights such as dragon fruit, emblematic of its dedication to diversifying produce sustainably. Notably, the station has shunned chemical fertilizers, opting instead for an eco-conscious approach by implementing on-site composting, enriching the soil while minimizing environmental impact. A bustling community of 160 honeybee hives thrives, symbolizing the station's dedication to holistic agriculture. These hives collectively yield approximately 500 kilograms of honey, 300 grams of royal jelly, and 100 kilograms of pollen grains, showcasing a harmonious coexistence between the agricultural practices and the ecosystem they inhabit. This resounding success at BAU's Agricultural Research Station serves as a testament to their unwavering commitment to sustainable, ethical, and fruitful farming practices



## SCIENTIFIC RESEARCH



## Peace, Justice and Strong institutions:

Achieving sustainable development hinges upon peace, stability, human rights, and effective governance grounded in the rule of law. Sadly, our world is increasingly fragmented. While some regions thrive in peace, security, and prosperity, others endure relentless cycles of conflict and violence. This disparity is not inevitable; it demands urgent attention.

The Sustainable Development Goals (SDGs) strive to notably diminish all forms of violence and collaborate with governments and communities to terminate

conflicts and insecurity. Central to this effort is the promotion of the rule of law and human rights, coupled with curbing the illicit flow of arms and bolstering the involvement of developing nations in global governance structures.



[Strategic Achievement for SDG16 /2023](#)

Jordan is committed to enhancing its regional and international standing by combating corruption across various sectors, eradicating all forms of abuse and violence, advancing the rule of law, and ensuring equitable access to justice for everyone. These measures are crucial steps toward fostering a more peaceful and just world.

BAU is committed to promoting inclusive and peaceful societies for sustainable development, ensuring everyone has access to justice, and creating inclusive institutions at all levels. it has established several objectives, some of which are listed below:

1. Scientific research on peace, justice, and strong institutions.
2. Supporting freedom for the university community.
3. University commitment against corruption.

## PRACTICES

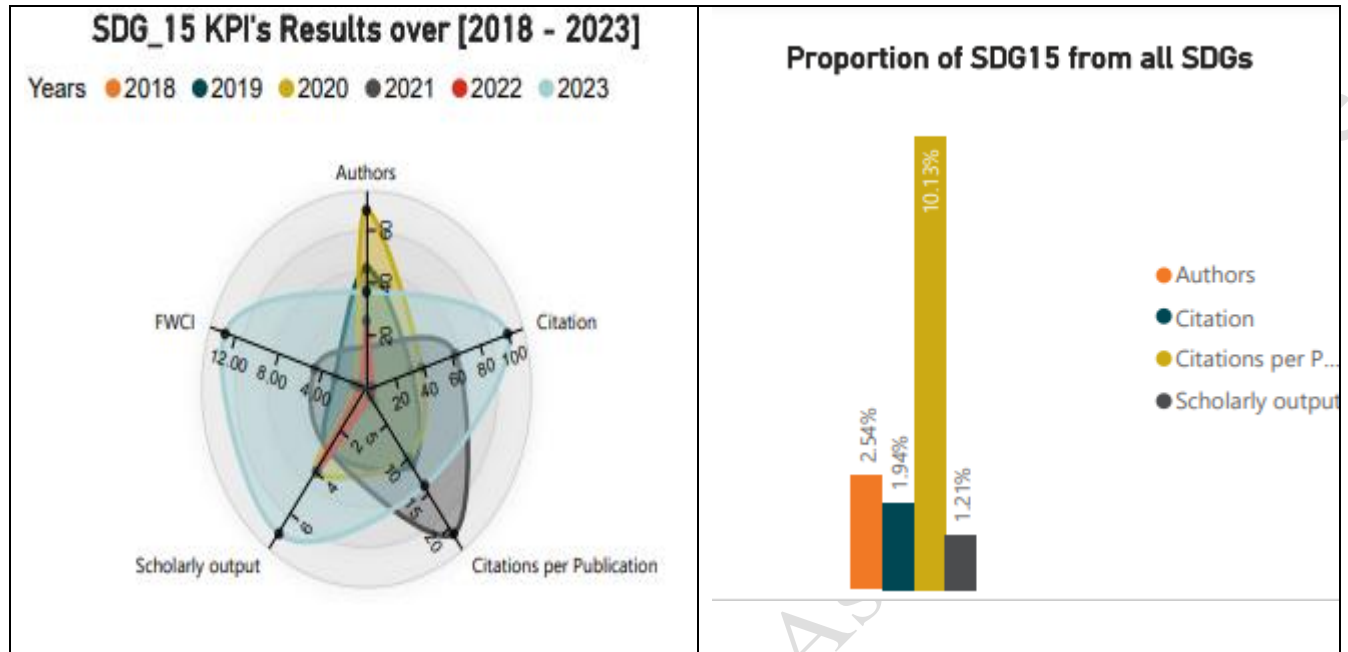
Al-Balqa Applied University takes pride in fostering diversity and equity among all members of its community while championing the principles of peace and justice. This acknowledgment encompasses acknowledging past pain and loss while also looking forward to the emergence of hope and new opportunities for growth, primarily benefiting others and eventually ourselves.

BAU's governance model is characterized by the acknowledgment of student unions and their representation on university councils. Embracing academic freedom and advocating for diversity and equity within the community, the university actively engages local stakeholders and upholds the ideals of peace and justice

أثر خطاب الكراهية على السلم المجتمعي ندوة في البلقاء التطبيقية  
( 0 تعليقات ) ( 1067 مشاهدات )



SCIENTIFIC RESEARCH



Development and Quality Assurance

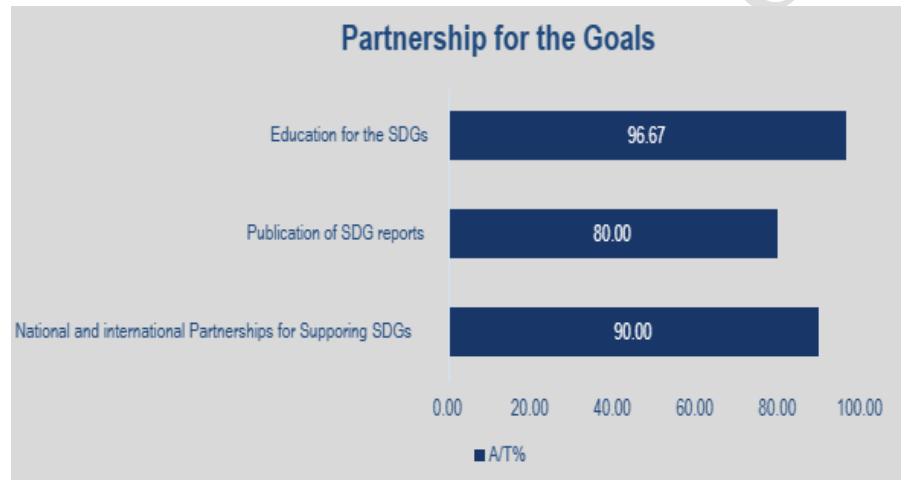


## Partnership for the Goals:



Al-Balqa Applied University is deeply committed to propelling the United Nations Sustainable Development Goals (UN-SDGs) by embracing a resolute dedication to sustainable advancement. Our methodology revolves around seamlessly integrating SDGs into every facet of our strategic and operational plans and in its initiatives, projects, and programs.

At (BAU), our bedrock rests upon effective institutional resource management, pioneering teaching methodologies, research-driven learning, and national and global partnerships. Actively participating in higher education committees, facilitating sectoral dialogues, and spearheading the development of SDG-related policies underscore our proactive involvement.



### [Strategic achievement for SDG17/2023](#)

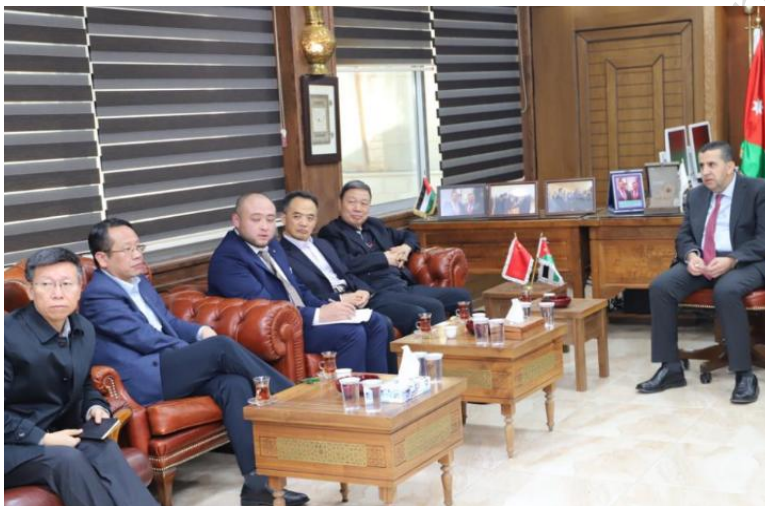
Establishing a dedicated sustainability office, aligning every faculty, program, and course with pertinent SDGs, and executing sustainability-oriented initiatives showcase our proactive stance.

Our objectives at (BAU) are designed to amplify implementation capabilities and reinvigorate the Global Partnership for Sustainable Development. These objectives encompass:

- Fostering national and international partnerships to fortify SDG support.
- Enhancing international collaboration to comprehensively gather SDG-related data.
- Promoting publications focused on advancing SDGs.
- Committing wholeheartedly to comprehensive SDG-centered education throughout our university community.

## PRACTICES

The university's global engagement seamlessly aligns with its strategic plan and objectives. (BAU) boasts an expanding network of local and global partners, fortified through academic, developmental, and research agreements, alongside mobility initiatives. Focusing on addressing the UN Sustainable Development Goals and global challenges, BAU's partnerships in research and curriculum development are dedicated to mitigating inequalities. Additionally, the university facilitates staff and student mobility, fostering capacity building and providing diverse collaborative prospects that ensure lifelong learning, professional growth, and academic advancement.



Through these mobility partnerships, BAU empowers students to interact with diverse cultures, nurturing them as global citizens. These invaluable opportunities play a pivotal role in preparing students to thrive in a multicultural world, equipping them to create positive impacts globally, BAU actively supports SDGs through its membership in the United Nations Academic Impact (UNAI) and the United Nations Sustainable Development Solution Network (UNSDSN). In tandem, the university embraces a sustainable continuous improvement policy, prioritizing the integration of SDGs into all strategic and operational plans.



Managed by the Cooperation and International Relations unit, BAU fosters and manages its local and international engagements in alignment with the university's strategic objectives. Its business model supports a stakeholder engagement strategy, ensuring widespread participation from government bodies, non-governmental organizations, and the private sector in SDG implementation.



Moreover, BAU significantly contributes to policy development by collaborating with governmental and non-governmental entities through representation in various steering committees at national, regional, and international levels, directly associated with UN-adopted SDGs. Active participation in conferences, dialogues, workshops, and the preparation and publication of comprehensive joint reports, including analyzed data, serve as valuable resources for governments and leaders. This data-driven approach aids in making informed decisions pertaining to community development encompassing economic, social, and environmental dimensions, and facilitating effective problem-solving.

## ***Sustainable Development Goals report\_2023***

**Al Balqa Applied University**

Published by:

**Development and Quality Assurance Center**

(DQAC\_2023)