



SUSTAINABLE DEVELOPMENT

REPORT



2024



introduction

The University of Martyr Hama Lakhdar of El Oued is a dynamic institution dedicated to excellence, innovation, and collaboration with stakeholders, including government bodies, private enterprises, educational institutions, and the global community, to advance the United Nations' Sustainable Development Goals (SDGs). Supported by a committed team of researchers, academics, faculty, students, and staff, and bolstered by governmental backing, the university is at the forefront of achieving these ambitious objectives. Its 2024 Sustainable Development Report highlights the strategic initiatives



About UE

The University of Martyr Hama Lakhdar of El Oued was established in 1995 as a center affiliated with the National Institute of Commerce. It went through several stages of development, expanding in both academic programs and facilities, until it became an independent university center in 2001 and was officially recognized as a university in 2012. Since 2014, it has carried its current name. Today, the university comprises eight faculties and a medical annex, with over 25,000 students and 1,118 faculty members. It also hosts a research unit focused on renewable energy in desert regions, a business incubator, and an artificial intelligence center.

Vision

The University of Martyr Hama Lakhdar of El Oued aspires to be a leading public university in Algeria and the Arab region, providing distinguished education aligned with the highest global standards.

Mission

The University of Martyr Hama Lakhdar of El Oued aims to deliver high-quality education in line with international standards, promoting lifelong learning with responsibility and efficiency. It integrates advanced technology, innovative academic curricula, and human values to advance scientific research, productivity, and leadership, enriching societal life. The university is committed to the effective management of its resources to enhance its role as a catalyst for innovative learning opportunities, local and international partnerships, professional development, community service, and academic diversity for the benefit of society and humanity.



SDGs at UE

The University of Martyr Hama Lakhdar of El Oued is committed to the United Nations' Sustainable Development Goals (SDGs) through effective institutional resource management, innovative education, scientific research, local and international partnerships, continuous studies, and community service. The university will undertake the following activities: forming high-level and steering committees, assessing each SDG, developing related policies, organizing awareness campaigns within the university community, establishing a sustainability office, identifying relevant goals for each faculty, program, course, and research center, and implementing sustainability-related initiatives.

Vision

The University of Martyr Hama Lakhdar of El Oued aims to support the United Nations' Sustainable Development Goals and Algeria's 2030 Vision by paving the way for distinguished higher education in Algeria and the Arab region.

Mission

In alignment with Algeria's 2030 Vision and the strategic directions of the University of Martyr Hama Lakhdar in El Oued, the university's mission aligns with the SDGs by providing high-quality education, sustainability initiatives, lifelong learning, scientific research, and community service.



UNIVERSITY OF EL-OUED

Report on the United Nations
Sustainable Development Goal 1:
No Poverty



This report highlights the University of El Oued's commitment to addressing SDG 1, which aims to eradicating poverty

SDG 1

NO POVERTY



Introduction

The University of El Oued affirms its fundamental commitment to achieving Sustainable Development Goal 1 (SDG 1): No Poverty, with a strategic focus on Target 1.1—eradicating extreme poverty for all people everywhere by 2030. Situated in Algeria’s southeastern region, the University recognizes its vital role as a catalyst for sustainable economic growth and social transformation. Our approach to poverty alleviation is uniquely multidimensional, integrating rigorous academic research, inclusive teaching methodologies, and a robust institutional policy framework designed to build human capital and create equitable pathways to success. This report details the University’s concerted efforts, demonstrating how its core missions—spanning pioneering research into Islamic finance and entrepreneurship, providing comprehensive social safety nets for students, and fostering community resilience—collectively contribute to breaking the cycle of poverty at both the local and national levels.

Research

Research laboratories across all university faculties prioritize the eradication of poverty and its impact on Algerian society. Key research themes include Public Policies and Improving Public Services. For example, the Laboratory of Islamic Sciences conducts activities focusing on Islamic charity and donation, key mechanisms for poverty reduction. The University's research agenda for this SDG is advanced through numerous publications and organized conferences, which specifically address issues affecting low-income categories among both university members and the wider society. The University of El Oued seeks to eliminate all forms of extreme poverty, which includes addressing the absence of basic needs such as food, clean drinking water, and sanitation. Achieving this goal also necessitates addressing emerging challenges stemming from climate change and conflict. Beyond direct support for individuals in poverty, the University of El



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Oued emphasizes strengthening essential services and social policies that are crucial for reducing (or preventing the perpetuation of) poverty.



Teaching

The University of El Oued is deeply committed to integrating the principles of poverty eradication and social responsibility into its teaching and learning processes. Across all faculties, the University offers a variety of undergraduate and postgraduate programs that address poverty-related themes through both theoretical and practical approaches. Several departments, such as the Faculty of Islamic Sciences, emphasize concepts like Islamic charitable giving (Zakat and Waqf) as essential mechanisms for supporting the poor and reducing inequality within society. These courses not only provide a spiritual and ethical foundation but also link directly to modern social and economic development strategies.



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In addition, students engage in tutorials, workshops, and research discussions related to national aid programs, food security initiatives, and sustainable development policies. Through these learning activities, students gain the knowledge and motivation needed to contribute to national poverty reduction efforts. Many degree programs also include modules and service-learning components that encourage volunteerism, community service, and civic engagement helping students understand their role as active contributors to achieving: No Poverty. Beyond formal coursework, the culture of giving and community support is embedded in university life. Rooted in the values of solidarity and compassion, which reflect both Algerian traditions and the ethical foundations of Islam, students and faculty regularly participate in national and international associations addressing issues such as social justice, humanitarian aid, and sustainable development. The University of El Oued regularly organizes and hosts tutorials, seminars, and conferences on topics related to poverty reduction, sustainable livelihoods, and inclusive economic growth, fostering dialogue and knowledge-sharing among students, researchers, and community stakeholders.

University Research

El Oued University plays a pivotal role in advancing Sustainable Development Goal 1 (No Poverty), particularly Target 1.1, which seeks to eradicate extreme poverty for all people everywhere by 2030. As an institution of higher learning situated in one of Algeria's developing regions, the University is uniquely positioned to drive poverty reduction through its integrated approach to education, research, community engagement, and social innovation.

Through inclusive educational policies, entrepreneurship support, community-based initiatives, and evidence-driven research, El Oued University actively contributes to building human capital, empowering marginalized populations, and fostering sustainable livelihoods. Its programs and partnerships not only expand access to higher education but also promote economic empowerment, social equity, and community resilience key foundations for breaking the cycle of poverty at the local and national levels.



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The following sections highlight the University’s major contributions and initiatives that align with SDG 1.1, illustrating how its diverse operations and strategic interventions collectively support the eradication of extreme poverty.

SDG 1: No Poverty : El Oued University’s Commitment to Eradicating Extreme Poverty

(Indicator 1.1.1: Proportion of population below the international poverty line, by sex, age, employment status, and geographical location (urban/rural)).



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1. Overview

El Oued University plays a transformative role in addressing poverty and promoting social and economic inclusion in Algeria's southeastern region. Through its multidimensional programs :spanning education, research, community engagement, innovation, and sustainable development, the University contributes actively to the achievement of SDG 1.1, targeting the eradication of extreme poverty.

Its contributions are particularly significant in building human capital, creating employment pathways, and strengthening community resilience. The University's research and outreach initiatives reflect a deep commitment to empowering marginalized populations, reducing inequality, and promoting sustainable livelihoods.

2. Research Evidence Supporting SDG 1.1

El Oued University's research has provided crucial insights into local and national poverty alleviation mechanisms:

Entrepreneurship and Local Development

A study on the **National Agency for the Support and Development of Entrepreneurship (ANADE)** revealed that **technical, organizational, and legislative support** significantly impact the **social and environmental dimensions of local development**. This confirms that entrepreneurship and small business promotion supported by educational institutions that can enhance employment opportunities and contribute to poverty reduction.

Research Link:

<https://dspace.univ-eloued.dz/items/c1d0b965-f573-43d9-a0da-d7231b57d411>



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Human Capital and Education Quality

Research exploring the link between human capital and the quality of higher education demonstrated that skills, creativity, and innovation drive economic growth and reduce dependency on natural resources. By investing in knowledge and innovation, El Oued University strengthens the region's economic resilience and supports upward mobility for individuals from low-income backgrounds.

Waqf and Islamic Financial Solutions

Islamic jurisprudence studies conducted at the University highlight the role of Waqf funds in supporting scientific research and education. These funds serve as sustainable financial mechanisms for promoting social welfare, education, and research, ultimately contributing to long-term poverty alleviation.

Research Link:

<https://dspace.univ-eloued.dz/items/b2c7e517-262d-4287-ba3c-99e25a1a41de>



3. Institutional Contributions to Poverty Reduction

El Oued University integrates poverty eradication strategies across its educational, social, and research missions. Its initiatives are grouped below into ten interrelated domains:

3.1 Access to Education and Scholarships

Need-Based Scholarships: The University provides financial aid and scholarships for students from low-income families to ensure equitable access to higher education.

Fee Waivers and Subsidized Tuition: Targeted tuition assistance programs support economically disadvantaged students.



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Outreach and Bridge Programs: El Oued University's outreach initiatives identify talented students from marginalized communities, offering them laptops, digital resources, and access to paid educational platforms to bridge digital and social gaps.

Research Link:

<https://dspace.univ-eloued.dz/browse/dateissued?scope=44aa79ca-b18c-40a9-8a3e-6debdf833bcd&bbm.page=6&startsWith=2024>

3.2 Community Engagement and Service Learning

Community Development Projects: Students and faculty collaborate with local communities to improve infrastructure and social services in underprivileged areas.

Service-Learning Integration: Academic programs incorporate real-world community service, fostering student empathy and problem-solving around poverty-related challenges.

Student-Led Initiatives: Student associations actively engage in campaigns addressing food insecurity, homelessness, and healthcare access.

Research link:

<https://dspace.univ-eloued.dz/items/3e87e8ad-05b8-4b27-8d47-7c97eddd5c0a>

3.3 Research on Poverty and Inequality

Poverty Research Centers: The University hosts research units dedicated to analyzing poverty, inequality, and development interventions.

Collaborations with NGOs and Government: Joint projects develop evidence-based approaches to social protection and economic empowerment.

Research link: <https://dspace.univ-eloued.dz/browse/dateissued?scope=44aa79ca-b18c-40a9-8a3e-6debdf833bcd&bbm.page=6&startsWith=2024>



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3.4 Entrepreneurship and Innovation Programs

Social Innovation Incubators: The University supports start-ups that address social challenges, encouraging innovation-driven poverty solutions.

Microfinance and Business Development: Entrepreneurship training and access to microfinance are extended to individuals in rural and underserved communities.

Partnerships with Local Businesses: Cooperative projects generate employment and promote small-scale enterprise growth.

Link:

<https://www.univ-eloued.dz/ar/%d8%a7%d9%86%d8%b7%d9%84%d8%a7%d9%82-%d8%a7%d9%84%d8%af%d9%88%d8%b1%d8%a9-%d8%a7%d9%84%d8%ab%d8%a7%d9%86%d9%8a%d8%a9-%d9%84%d8%aa%d8%af%d8%b1%d9%8a%d8%a8-%d8%ad%d9%85%d9%84%d8%a9-%d9%85%d8%b4%d8%a7/>

3.5 Vocational and Skills Development

Technical Training: Programs in agriculture, IT, and healthcare equip low-income individuals with employable skills.

Workforce Development: Training initiatives align with local industry demands, facilitating upward mobility and stable employment.

Lifelong Learning: Continuing education opportunities allow workers from disadvantaged backgrounds to enhance their qualifications and income potential.

Link:

<https://www.univ-eloued.dz/ar/the-university-of-el-oued-inaugurates-a-job-search-club/>



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3.6 Health and Well-Being Initiatives

Healthcare Access: The University's clinics and health programs offer free or subsidized medical services to vulnerable populations.

Mental Health Support: Counselling and wellness programs address psychological well-being among

Public Health Outreach: Research and campaigns focus on health education, disease prevention, and addressing disparities affecting impoverished groups.

Research link: <https://dspace.univ-eloued.dz/items/08fc5236-5d15-4fad-bbd2-3305fe22b253>

3.7 Sustainable Development and Environmental Resilience

Sustainable Agriculture: Extension programs train farmers in eco-friendly techniques that enhance productivity and food security.

Research link: <https://dspace.univ-eloued.dz/items/598bf77f-b479-4880-a24e-0ee938036076>

Environmental Projects: The University conducts conservation initiatives linking poverty reduction with climate adaptation and resilience-building.

Research link: <https://dspace.univ-eloued.dz/items/949a4d75-897a-455c-8d93-5a561b09678f>

3.8 Collaboration with Governments and International Organizations

Poverty Alleviation Partnerships: Joint programs with public and international organizations address poverty through education, housing, and employment projects.

Capacity Building: Training and consultancy services strengthen local governance and NGO effectiveness in poverty reduction.

Research link: <https://dspace.univ-eloued.dz/items/b52c5cda-ad30-4a69-b176-6cac22032a85>



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3.9 Public Policy and Advocacy Training

Policy Fellowships: Students gain experience in governance and policy-making related to social justice and poverty alleviation.

Advocacy Campaigns: Faculty and student groups engage in evidence-based advocacy to influence systemic change in education, health, and welfare policy.

3.10 Sustainable Housing and Urban Development

Affordable Housing Design: Architecture programs develop low-cost housing models for low-income families.

Urban Revitalization: Collaborative projects with municipalities improve infrastructure and living standards in marginalized urban areas.

link: <https://dspace.univ-eloued.dz/items/b1ce6726-f23d-4cf6-8c04-b2a26f7da656>

Through research, teaching, and social engagement, **El Oued University** demonstrates a holistic approach to poverty eradication aligned with **SDG 1.1**.

The University's initiatives from **scholarships and entrepreneurship training** to **community projects and sustainable agriculture** collectively enhance economic inclusion, human development, and social justice.

By empowering individuals with education, skills, and opportunities, El Oued University not only contributes to **reducing extreme poverty** but also lays the foundation for a more **equitable and resilient society**, both locally and globally.



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Policies

Goal 1.1: ERADICATE EXTREME POVERTY POLICIES

As part of its commitment to the **United Nations Sustainable Development Goal 1 (SDG 1): No Poverty**, El-Oued University actively contributes to eradicating extreme poverty by active plan, defined as people living on less than the international poverty threshold.

In accordance with the **National Higher Education Policy of Algeria**, El-Oued University ensures **equal access to quality education** for all students who have obtained the Baccalaureate diploma, without distinction of economic or social status. The university's approach emphasizes inclusivity, social responsibility, and the reduction of inequalities through comprehensive support mechanisms.

To achieve these objectives, El-Oued University has implemented the following measures:

Free meals(Breakfast, Lunch and Dinner) provided to all students;

Free transportation services: inter-cities and inter-universities intuition for affording access between university facilities and student residences;

Free access to learning materials, libraries, and digital platforms;

Equal opportunities in academic programs, research participation, and extracurricular activities;

Free accommodation and meals for students coming from remote or underprivileged areas;
Stipend each month for every students.

These policies reflect the university's long-term strategy to **combat poverty through education, empower youth, and build an inclusive academic community** where every student has the means to succeed. As national strategy, reduce by at least **half the proportion of men, women, and children** of all ages living in poverty in all its dimensions, as defined by **national standards and indicators**.



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Empowering Policies and Frameworks

1. National Frameworks (Algeria)

El-Oued University's poverty reduction initiatives are aligned with Algeria's national strategies and social policies, including:

National Strategy for Poverty Reduction and Social Inclusion (SNPSI):

Developed under the Ministry of Solidarity, Family, and Women's Affairs, this strategy focuses on expanding social protection systems, empowering vulnerable groups, and integrating educational institutions as drivers of equitable development.

Law on the Orientation of Higher Education (Law No. 99-05):

This law guarantees ****equal access to higher education**** for all students who pass the Baccalaureate examination, ensuring that financial or social status does not impede academic advancement.

National Development Plan

A comprehensive policy promoting sustainable economic growth and human development, with education and innovation recognized as core pillars for reducing multidimensional poverty.



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2. Institutional Commitment (El-Oued University)

El-Oued University directly supports these national frameworks through:

Free access to higher education for all admitted students;

Social support programs (meals, accommodation, transportation) for low-income and distant students;

Scholarships and merit-based grants to promote academic excellence and social mobility;

Inclusive learning environments that address the needs of students with disabilities or special conditions;

Through these measures, El-Oued University actively contributes to achieving SDG 1.2 by addressing the **root causes of poverty** as lack of access to education, social inequality, and limited economic opportunity. The university's policy framework aligns with national priorities and reinforces Algeria's collective commitment to **reducing poverty by 50% before 2030**.

SDG 1.3: IMPLEMENT SOCIAL PROTECTION SYSTEMS

Objective:

Implement **nationally appropriate social protection systems and measures** for all citizens, including basic social protection floors. As a national plan, achieve **substantial coverage** of the poor and vulnerable populations, ensuring equitable access to essential services and opportunities.

National Policy Framework (Algeria)

El-Oued University's initiatives in social welfare and student support are aligned with Algeria's national social protection policies, which aim to reduce inequality and strengthen social inclusion.

Key frameworks include:



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National Social Protection Policy (PNPS):

Overseen by the Ministry of Solidarity, Family, and Women's Affairs, this policy seeks to extend social protection coverage to vulnerable groups, promote income security, and improve access to essential social services such as education, health, and housing.

National Strategy for Poverty Reduction and Social Inclusion (SNPSI):

This strategy integrates higher education institutions as active partners in combating poverty through social programs, equitable access to education, and local community engagement.

National Development Plan: Recognizes education and innovation as key levers for achieving sustainable social protection, emphasizing inclusive growth and the empowerment of youth and marginalized groups.

Workshops, Teaching Courses, Trainings, and Programs

The University actively addresses SDG Target 1.1 by implementing a comprehensive set of programs, training, and support systems across ten key operational domains. These established initiatives directly contribute to eradicating extreme poverty and improving conditions for people living in underprivileged circumstances, reflecting the University's ongoing commitment.



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Conclusion

The University of El Oued demonstrates a holistic and impactful commitment to the eradication of extreme poverty, aligning its entire institutional infrastructure with the mandates of SDG 1. The evidence presented confirms that the University serves not only as an educational center but as a pivotal social and economic actor in the region. Success is rooted in a three-pronged strategy: Research that generates actionable insights into local poverty determinants and financial solutions (such as Waqf and entrepreneurship); Policy that ensures comprehensive social protection (including free meals, accommodation, and stipends) for all admitted students, effectively eradicating extreme poverty within the academic community; and Engagement through an array of vocational, entrepreneurial, and community development programs designed to empower marginalized populations. By continuously expanding access to quality education, fostering innovation, and linking academic expertise directly to community needs, the University of El Oued is actively building economic resilience, promoting social equity, and laying a durable foundation for a more prosperous and equitable society in line with Algeria's national development goals and the global 2030 Agenda.





UNIVERSITY OF EL-OUED

Report on the United Nations
Sustainable Development Goal 2:
Zero Hunger



This report details the University of El Oued's contributions to SDG 2, which aims to achieve zero hunger

SDG 2

ZERO HUNGER



Introduction

The **University of El Oued**, located in the southeast of Algeria, stands as a regional hub of innovation, sustainability, and agricultural research. Situated in a region recognized as a national pole of agricultural production (dates, potatoes, and nuts), the University plays a leading role in promoting food security, sustainable agriculture, and nutritional well-being. Guided by the objectives of the United Nations Sustainable Development Goal 2 (Zero Hunger), the University aligns its teaching, research, and community engagement with the goal to end hunger, achieve food security and improved nutrition, and promote sustainable agriculture.

The University's strategy for "Zero Hunger" is built on four key pillars:

1. **Sustainable Agricultural Development:** Advancing innovative agricultural research tailored to desert and semi-arid ecosystems, promoting smart agriculture, sustainable irrigation, and soil fertility restoration through organic and local solutions.

Link: <https://dspace.univ-eloued.dz/items/5214feb8-738f-4efd-972b-425aeba109f3>

2. **Food Security and Nutrition:** Supporting initiatives that ensure access to safe and nutritious food, such as the free meal program for students, community food drives, and research on nutrient-rich local crops to reduce hunger and malnutrition among vulnerable populations.

Link: <https://dspace.univ-eloued.dz/items/46ca4bac-1c5c-4aa4-a900-346786a97782>

3. **Education, Research, and Innovation:** Integrating hunger-related themes into academic curricula, developing applied research projects on sustainable food production, and fostering innovation through the extraction of composites that help defeat diseases, which connects students, engineers, and farmers for knowledge-sharing and problem-solving.

Link: <https://dspace.univ-eloued.dz/items/1dc2a986-d517-4114-b766-27e07eb2e31c>

4. **Community Engagement and Capacity Building:** Empowering local farmers, students, and rural communities through workshops, vocational training, and outreach programs that



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ZERO HUNGER



promote sustainable agricultural practices, equitable food access, and environmental resilience.

Through this integrated approach, the University of El Oued supports Algeria's national agricultural strategies and contributes actively to global efforts to eradicate hunger.

I. Ensuring Access to Safe and Nutritious Food (Target 2.1)

1.1 Free Meal Program for Students (National Directive Policy)

The University of El Oued guarantees free daily meals through its on-campus cafeterias and canteens, controlling the quality of meals for all students. This national directive ensures that every student, regardless of socioeconomic status, has access to nutritious and balanced food throughout the academic year. The meals are prepared under strict health and safety regulations, supporting academic performance and overall well-being.

1.2 Community Food Aid Campaigns

In collaboration with student associations and local charities, the University organizes seasonal food distribution campaigns, especially during Ramadan and other humanitarian periods, providing food packages to families in need.

II. Ending Malnutrition and Promoting Nutritional Research

2.1 Research on Nutrient-Rich Local Crops

The University's research on pearl millet (*Pennisetum glaucum L.*), cultivated in the El-Ragouba (Mih Athia) region, highlights its nutritional, phytochemical, and biological properties:

- High in carbohydrates (71.27 g/100 g) and minerals (Ca, Mg, Fe).
- Contains bioactive compounds such as polyphenols and flavonoids with antioxidant properties.



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- Demonstrated significant biological activity in DPPH radical scavenging and hemolysis inhibition tests.

This research supports the cultivation and consumption of millet as a local, sustainable, and nutrient-rich crop, reducing dependency on imported cereals and helping combat hidden hunger and malnutrition in the region.

Link: <https://dspace.univ-eloued.dz/items/32b05af2-7910-4e5a-a48f-651fcdc0cfa6>

2.2 Nutrition Education

Through its Faculty of Natural and Life Sciences, the University conducts seminars, awareness workshops, and outreach programs that promote:

- Balanced nutrition for children and adolescents.
- Healthy eating habits among university students.
- Nutritional projects focused on women's health. Link: <https://dspace.univ-eloued.dz/items/023b520f-9999-4022-8f43-ed901efc8bf9>

III. Sustainable Agriculture and Smart Farming

3.1 Smart Agriculture and Sustainable Practices

The **University of El Oued** promotes smart agriculture techniques to improve yield and environmental sustainability. Researchers and students experiment with precision farming, automated irrigation systems, and data-driven soil monitoring. The Faculty of Sciences and Technology collaborates with agricultural cooperatives to introduce sustainable farming practices adapted to desert ecosystems.

3.2 Fertilizer Innovation for Soil Regeneration

A field study in Debila (El Oued) tested an organic fertilizer composed of **eggshells and orange peels** applied to potato crops.



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- Results showed improved soil moisture, organic matter content, and electrical conductivity, with reduced soil pH and enhanced crop growth.
- The fertilizer demonstrated strong potential as a low-cost, eco-friendly agricultural solution for resource-poor farmers in arid environments.

This research contributes to enhancing soil fertility, increasing yields, and reducing the environmental footprint of synthetic fertilizers, directly supporting a sustainable and resilient agricultural system.

Link: <https://dspace.univ-eloued.dz/items/5bc2337f-b73d-49b0-a296-80fa8f9f0f6e>

IV. Agricultural Innovation and Research Infrastructure

4.1 AI Agriculture Digital Learning Platform

Recognizing that Algeria's agricultural sector faces obstacles such as limited access to technical knowledge and climate change impacts, the University developed **AI-farming**, a digital platform designed to enhance agricultural education, knowledge exchange, and extension services.

Platform Features and Objectives:

- **AI-Powered Diagnostics:** Uses image recognition to identify crop diseases, pests, and nutrient deficiencies with precision.
- **Customized Solutions:** Provides tailored recommendations for treatment, prevention, irrigation, and fertilization, adapted to local environmental conditions.
- **Expert Connectivity:** Links farmers directly with agricultural specialists and university researchers for guidance and real-time support.
- **Strategic Impact:** This platform bridges the gap between academia and the farming community, fostering innovation, practical training, and technology transfer, essential for building rural capacity and food system resilience.



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Link: <https://dspace.univ-eloued.dz/items/5306ddeb-1b77-4821-8c5a-0cf3b5940103>

4.2 Investment in Agricultural Research and Training

The University continues to invest in:

- Research laboratories dedicated to soil science, plant physiology, and biotechnology.
- Workshops and training programs on sustainable farming, composting, and climate-resilient crops.
- Partnerships with local and national agricultural institutions to improve research infrastructure and field outreach.

V. Genetic Diversity and Bio-innovation (Target 2.5)

5.1 Bioplastic Development from Potato Starch

Researchers from El Oued conducted an innovative study on the production of biodegradable bioplastics from potato starch, an abundant local crop.

- The study demonstrated high biodegradability and bacterial decomposition within 48 hours in liquid environments.

This project contributes to sustainable agricultural waste management, value-added processing of local crops, and environmental protection, while promoting circular economy principles within food production systems.

Link: <https://dspace.univ-eloued.dz/items/78cd27ca-1009-45dd-adc7-0daa1d2ba8f4>



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5.2 Community Engagement and Social Innovation

The University's extension activities bring together students, researchers, and local farmers for hands-on field experiments, awareness sessions, and solution-sharing workshops addressing local agricultural challenges. Public seminars raise awareness about sustainable water management in desert agriculture and nutritional security in Southern Algeria.

Conclusion

The University of El Oued demonstrates a strong and holistic commitment to SDG 2 – Zero Hunger, combining academic excellence, research innovation, and community service to address local and national food security challenges. Through initiatives such as the guarantee of free, high-quality meals for all students, pioneering research into bioplastics and organic fertilizers, development of the AI-farming digital platform, and nutritional studies on local crops, the University contributes directly to: eradicating hunger and malnutrition, enhancing agricultural productivity and sustainability and empowering rural communities through knowledge and technology.





UNIVERSITY OF EL-OUED

Report on the United Nations
Sustainable Development Goal 3:
Good Health and Well-being



This report presents the University of El Oued's dedication to advancing SDG 3, prioritizing health and well-being through medical education, mental health support, and community health programs.



SDG 3

GOOD HEALTH AND WELL-BEING

Introduction

The University of El Oued is dedicated to enhancing health and well-being through various initiatives aligned with SDG 3, which targets good health and well-being for all. This report details the university's efforts in fostering collaboration with health institutions, providing health outreach programs, facilitating mental health support, promoting sports and wellness, and upholding smoke-free policies. Through these actions, the university supports the health and welfare of its students, faculty, and the broader community, contributing to the United Nations' Sustainable Development Goals.

Current Collaborations with Health Institutions

In a world where global health challenges require collaborative solutions, the University of El Oued has partnered with renowned health experts and academic institutions to enrich its medical education programs:

Scientific Symposium on Occupational Anxiety among People with Special Needs

As part of its continuous scientific initiatives, the Psychological Assistance Center organized on 9 May 2024 a symposium addressing occupational anxiety among people with special needs. The event was held in collaboration with the “Basmat Amal” Club, the University of Blida 2, and the vocational training sector in both Blida and El Oued. A judicial expert in sign language translated all interventions, ensuring inclusive participation. On the sidelines, a cooperation agreement was signed between the Universities of Blida and El Oued to strengthen joint health and educational partnerships.



SDG 3

GOOD HEALTH AND WELL-BEING



National Scientific Exhibition and Workshop on Professional Inclusion and Braille Learning

On 8 May 2024, the Faculty of Social and Human Sciences inaugurated a national scientific exhibition addressing professional inclusion for people with disabilities to reduce anxiety about their professional future. The event showcased psychological assessment tools, artistic works illustrating mental health issues, and Braille writing instruments. In the afternoon, a training workshop on Braille learning was launched by the Psychological Assistance Center in collaboration with the “Basmat Amal” Club. The activity promoted inclusive education and mental well-being among psychology students and participants.



National Conference on Professional Inclusion and Anxiety Reduction for People with Disabilities

On 8–9 May 2024, the Psychological Assistance Center at the University of El Oued, in partnership with the “Basmat Amal” Club and the INSIDE Center of Blida 2 University, organized a two-day national scientific conference on professional inclusion for people with disabilities. The event brought together academics, health professionals, and institutional representatives to discuss pathways for integrating people with disabilities into the job market and reducing professional anxiety. It featured exhibitions of psychological assessment tools, Braille workshops, and sports activities. The conference concluded with a cooperation agreement between the University of El Oued and the INSIDE Center to strengthen academic and psychological support collaboration.

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GOOD HEALTH AND WELL-BEING



Training Seminar on Network-Based Therapeutic Work for Clinical Psychology Students

On 14 November 2024, the Faculty of Social and Human Sciences at the University of El Oued organized a training seminar for clinical psychology students on network-based therapeutic work. The session was led by Professor Saleh Khashkhosh from the University of El Oued and Professor Sabrine Madoui from the Higher School for Deaf-Mute Teachers in Algiers. The seminar provided students with practical insights into collaborative therapeutic methods and mental health interventions. It received high engagement from both students and faculty, reflecting its strong impact on academic and professional development.





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GOOD HEALTH AND WELL-BEING

Scientific Symposium on Language Disorders among Hearing-Impaired Individuals: Diagnosis, Evaluation, and Rehabilitation

On 15 May 2024, the Cognitive and Social Neuropsychology Laboratory at the University of El Oued, in collaboration with the Faculty of Social and Human Sciences and the “Amal” Association for Cochlear Implant and Hearing-Impaired Individuals, organized the second scientific symposium on language disorders in hearing-impaired persons. The event featured presentations by specialists from various universities on diagnostic and rehabilitation methods, including practical experiences from local health and educational institutions. The symposium encouraged active participation from students and professionals, enhancing cooperation between academia and health services to promote inclusive mental and linguistic health support.



Announcement of the Second Scientific Symposium on Language Disorders in Hearing-Impaired Individuals

The Cognitive and Social Neuropsychology Laboratory at the University of El Oued announced the organization of the second scientific symposium on language disorders among hearing-impaired individuals, focusing on diagnosis, evaluation, and rehabilitation. The event, scheduled for 15 May 2024 at the Faculty of Humanities and Social Sciences, targeted psychology and educational sciences students (Bachelor, Master, PhD) as well as professionals in the field. This announcement formed part of the university’s outreach efforts to promote participation in specialized mental and linguistic health activities and to strengthen collaboration between academic and health-related actors.

SDG 3

GOOD HEALTH AND WELL-BEING



جامعة الشهيد حمه لخضر الوادي - الجزائر
كلية العلوم الاجتماعية والإنسانية
مخبر علم النفس المعرفي والعصبي والاجتماعي بالوادي
فرقة الاضطرابات اللغوية وعلم النفس العصبي للتعلم
بالتنسيق مع كلية العلوم الاجتماعية والإنسانية (قسم علم النفس وعلوم التربية)
وجمعية أمل لزراعي القوقعة وضعيفي السمع بالوادي
ينظرون

الندوة العلمية الثانية حول:
الاضطرابات اللغوية لدى ذوي الإعاقة السمعية
التقييم - التشخيص وإعادة التأهيل

رئيس الندوة: د. البشير جاري
منسق الندوة: د. جعلاب محمد الصالح

على الساعة التاسعة صباحا
الأربعاء، 15 ماي 2024
وقاعة المناقشات
كلية العلوم الاجتماعية والإنسانية

Comprehensive Evaluation of the Faculty of Medicine Annex at the University of El Oued

Over two consecutive days, the Annex of the Faculty of Medicine at the University of El Oued underwent a comprehensive evaluation conducted by a delegation from the Faculty of Medicine of Batna under the supervision of the Ministry of Higher Education and Scientific Research. The assessment focused on pedagogical infrastructure, academic resources, and field visits to regional healthcare institutions. This initiative strengthened inter-university and institutional cooperation aimed at improving medical education quality and enhancing health service integration in the province.



SDG 3

GOOD HEALTH AND WELL-BEING



Launch of the 2024–2025 Academic Year at the Faculty of Medicine Annex

The 2024–2025 academic year commenced at the Faculty of Medicine Annex of the University of El Oued in an atmosphere of enthusiasm and strong student participation. The courses were conducted under the supervision of distinguished professors from the Faculty of Medicine of Batna and the University of El Oued, with contributions from specialized physicians across the province. This collaboration reflects a sustained effort to ensure high-quality medical training and strengthen partnerships between academic and healthcare institutions for improved medical education and public health outcomes.



Participation of the Faculty of Medicine Annex in the Scientific Conference on Algerian Competencies and Local Development

On 6 May 2024, the Faculty of Medicine Annex of the University of El Oued took part in the scientific conference on “The Role of Algerian Competencies in Advancing Scientific Research and Local Development,” organized by the Provincial People’s Council of Touggourt under the patronage of the Governor. Professor Samir Drouiche, Director of the Medicine Annex, presented the university’s achievements and challenges in medical research. The participation of El Oued’s medical students enriched the event, fostering collaboration with national researchers and healthcare professionals to strengthen medical education and research excellence.

SDG 3

GOOD HEALTH AND WELL-BEING



Announcement of the International Conference on Law and Medical Sciences

The University of El Oued announced the organization of an International Conference on Law and Medical Sciences, bringing together legal experts, medical professionals, and academic researchers. The event aims to explore the intersection between medical practice and legal frameworks, addressing ethical standards, patient rights, and health governance. This initiative supports SDG 3 by promoting multidisciplinary collaboration that enhances healthcare quality, institutional transparency, and the protection of public well-being.



SDG 3

GOOD HEALTH AND WELL-BEING



First Field Training Visit of Medical Students to the Cancer

Treatment Center

On 14 March 2024, medical students from the University of El Oued conducted their first field training visit to the Cancer Treatment Center as part of the university's applied medical education program. The visit provided students with practical exposure to clinical environments, cancer diagnosis, and patient care procedures. This initiative reinforces collaboration between the

university and the healthcare sector, enhancing students' professional competencies and aligning academic training with real-world health challenges.



First Practical Anatomy Session for Medical Students

On 5 March 2024, medical students at the University of El Oued began their first practical anatomy sessions in the newly equipped anatomy laboratory. The training aimed to strengthen students' understanding of human anatomy through hands-on experience under the supervision of specialized instructors. This initiative marks a key step in advancing medical education quality by combining theoretical learning with practical skill development in alignment with national health training standards.

SDG 3

GOOD HEALTH AND WELL-BEING



Scientific Symposium on Implementing Outcomes of the Training Workshop on Drug Abuse Risks and Psychological Treatment Methods

On 25 April 2024, the Psychological Assistance Center at the University of El Oued organized a scientific symposium to operationalize the outcomes of the training workshop on “Drug Abuse Risks and Psychological Treatment Methods.” The event gathered university leaders, security officials, addiction treatment specialists, and students to develop an integrated action plan for combating addiction. By promoting awareness, prevention, and therapeutic strategies, the symposium contributed directly to improving community mental health and advancing SDG 3 goals related to substance abuse prevention and treatment.



SDG 3

GOOD HEALTH AND WELL-BEING



Health Outreach Programmes

Awareness Day on Breast Cancer Prevention and Early Detection

On 23 October 2024, the Faculty of Social and Human Sciences at the University of El Oued organized an awareness day on breast cancer prevention and early detection. The event, led by the Dean and supported by the university's cultural and sports department in coordination with medical services, included educational sessions and free medical examinations. The campaign aimed to raise awareness among female students about early screening and healthy practices, reinforcing SDG 3 objectives related to disease prevention and community health promotion.



Study Day on Health and Psychological Well-being

On 21 October 2024, the Faculty of Medicine Annex, in collaboration with the Faculty of Social and Human Sciences, organized a study day featuring lectures and interactive sessions by the University Psychological Support Center and the Raheel Medical Club. The event addressed topics related to mental health, preventive healthcare, and student well-being. By combining academic dialogue with community engagement, the initiative supported SDG 3 through promoting health education, awareness, and preventive care among the university community.

SDG 3

GOOD HEALTH AND WELL-BEING



First Field Visit of Medical Students to the Cancer Treatment Center

On 14 March 2024, medical students from the University of El Oued carried out their first field visit to the Cancer Treatment Center as part of their practical medical training program. The visit provided students with valuable exposure to real clinical settings and raised their awareness of cancer prevention and patient care. This activity fostered collaboration between the university and the healthcare sector, contributing to SDG 3 by promoting health outreach and the practical education of future medical



SDG 3

GOOD HEALTH AND WELL-BEING



professionals.

Shared Sports Facilities

Goalball Sports Activity for Students with Disabilities

On 8 May 2024, as part of the scientific symposium program, the University of El Oued organized a goalball sports activity for students with disabilities, coordinated by the “Basmat Amal” Club. The event took place at the university residence sports hall “Mujahid Moussaoui Mabrouk,” with the opening led by the Director of the Psychological Assistance Center and Professor Belkacem Aouine. The initiative promoted inclusion, teamwork, and physical well-being while showcasing the university’s commitment to providing shared sports facilities that enhance accessibility and support the health of all students.



National Audiobook Competition for Visually Impaired Students

The “Basmat Amal” Club, in collaboration with the Faculty of Social and Human Sciences at the University of El Oued, organized a national audiobook competition for visually impaired students. The initiative encouraged inclusion and equal participation in cultural and educational activities by providing accessible digital platforms for learning and creativity. By fostering engagement and empowerment through shared academic and recreational resources, this event contributed to SDG 3 by promoting well-being and social integration for students with disabilities.

SDG 3

GOOD HEALTH AND WELL-BEING



الجمهورية الجزائرية الديمقراطية الشعبية
جامعة الشهيد حمه لخضر بالوادي
كلية العلوم الإجتماعية والإنسانية

نادي بصمة أمل بالتنسيق مع كلية العلوم الإجتماعية والإنسانية ينظم:
المسابقة الوطنية للكتب الصوتية للمكفوفين

NEW

بداية التسجيلات:
2024-12-05 الي غاية 2024-12-15

التسجيل يكون عبر الرابط في المرفقات

مصلحة الأنشطة العلمية والثقافية والرياضية

Awareness and Sports Day for Students with Disabilities – National Day of High Determination

On 10 March 2024, the “Basmat Amal” Club, in collaboration with the Faculty of Social and Human Sciences, organized an awareness and sports day to celebrate the National Day for People with Disabilities. The event included exhibitions on reading and writing tools for the visually impaired, sports achievements of university athletes, and cultural and educational competitions. With strong participation from faculty leaders and students, the initiative fostered inclusion, accessibility, and community engagement through shared sports and cultural facilities, advancing SDG 3 by promoting health and well-being for all.



SDG 3

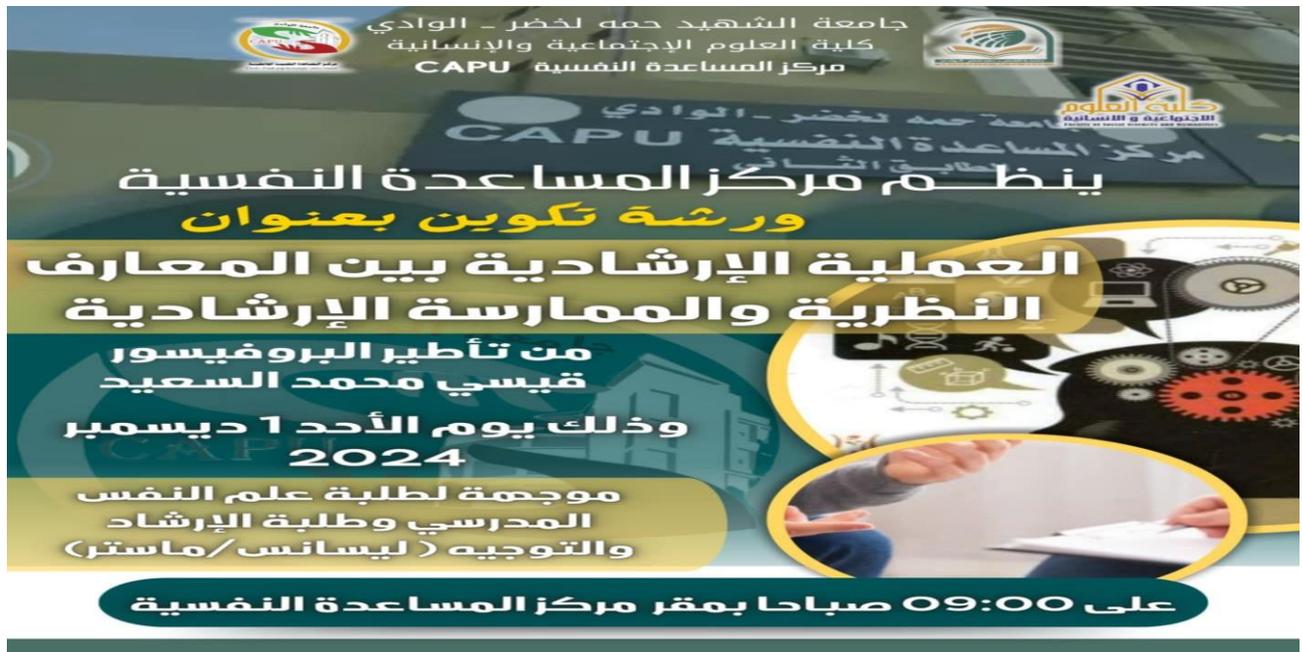
GOOD HEALTH AND WELL-BEING



Students' Mental Health Support

Training Workshop on the Counseling Process: From Theoretical Knowledge to Practical Application

Center at the University of El Oued organized a training workshop titled “*The Counseling Process: From Theoretical Knowledge to Practical Application*,” supervised by Professor Mohamed El Said Qaisi. Aimed at students in school psychology and guidance counseling (undergraduate and master’s levels), the workshop sought to bridge academic learning with real-world counseling practice. This initiative strengthened students’ capacity to provide psychological support and promoted mental health awareness, aligning with SDG 3 objectives for student well-being.



Training Workshop on Nonviolent Communication

On 7 November 2024, the Psychological Assistance Center at the University of El Oued organized a training workshop on *Nonviolent Communication*. The session aimed to enhance students’ interpersonal and emotional skills by promoting empathy, active listening, and peaceful conflict resolution. This activity contributed to strengthening psychological resilience and fostering a supportive academic environment, directly advancing SDG 3 by promoting mental well-being among university students.

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GOOD HEALTH AND WELL-BEING



جامعة الشهيد حمه لخضر- الوادي
كلية العلوم الانسانية والاجتماعية
مركز المساعدة النفسية



ينظم

ورشة تدريبية حول:
الاتصال غير العنيف
من تقديم المكون: د. صالح فشفوش



7 نوفمبر 2024



9 صباحا



مركز المساعدة النفسية

خاص بطلبة علم
النفس العيادي فقط
(ليسانس- ماستر)
تسجيل عبر الرابط

Training Course on the Columbia Mental Maturity Scale

On 14 March 2024, the Psychological Assistance Center at the University of El Oued organized a training course on the *Columbia Mental Maturity Scale*. The program aimed to provide psychology students with practical skills in assessing cognitive and emotional development. By integrating psychological evaluation methods into academic training, this initiative enhanced students' competencies in mental health assessment and supported SDG 3 by promoting professional preparedness in psychological care.



جامعة الشهيد حمه لخضر الوادي
كلية العلوم الاجتماعية والانسانية
مركز المساعدة النفسية الجامعي
بالتنسيق
مخبر التنمية الاجتماعية وخدمة المجتمع
بنظام
دورة تكوينية



تكوين نظري وتطبيقي حول اختبار كولومبيا للنضج العقلي

CMMS ÉCHELLE DE MATURITÉ MENTALE DE COLUMBI

الخميس 14 مارس 2024

على الساعة
التاسعة صباحا 9:00

من تأطير:
الاخصائي والممارس



السيد: غرايبي محمد الطيب



موجهة لطلبة السنة الثالثة ليسانس علم النفس العيادي

المكان: جناح مكتبة كلية العلوم الاجتماعية والانسانية الطابق الثاني

Seminar on the Risks of Drugs and Addiction

On 15 April 2024, the University of El Oued organized a seminar on *The Risks of Drugs and Addiction* as part of its mental health awareness programs. The event discussed the psychological, social, and physiological consequences of substance abuse and highlighted effective therapeutic and preventive approaches. This initiative aimed to educate students on

SDG 3

GOOD HEALTH AND WELL-BEING



addiction prevention and treatment, contributing to SDG 3 by promoting mental health awareness and reducing substance abuse within the academic community.



جامعة الشهيد حمه لخضر - الوادي
كلية العلوم الاجتماعية والانسانية
مركز المساعدة النفسية الجامعي

ندوة علمية
تفعيل مخرجات الملتقى التكويني حول

مخاطر المخدرات والإدمان
في ظل اساليب العلاجات النفسية قراءة عيادية

الهدف: وضع خطة عملية منهجية بمساهمة جميع الفاعلين في مكافحة الإدمان على المخدرات كل بحسب تخصصه
من تأطير:
ا.د.قيسي محمد السعيد
د. غراب رحمة



المتدخلون: مديرية الخدمات الجامعية لولاية الوادي
- مركز الإدمان على المخدرات ولاية الوادي
- مديرية النشاط الاجتماعي لولاية الوادي
- مديرية التعليم والتكوين المهنيين
- مديرية الشباب والرياضة
- مديرية الأمن لولاية الوادي
- الكتيبة الإقليمية للدرك الوطني ولاية الوادي

الخميس
25 أفريل 2024
9:00 صباحا
قاعة المناقشات والمحاضرات بالكلية

المستفيدون من النشاط: الطلبة بجميع تخصصاتهم و المهنيون العاملون في الميدان

SDG 3

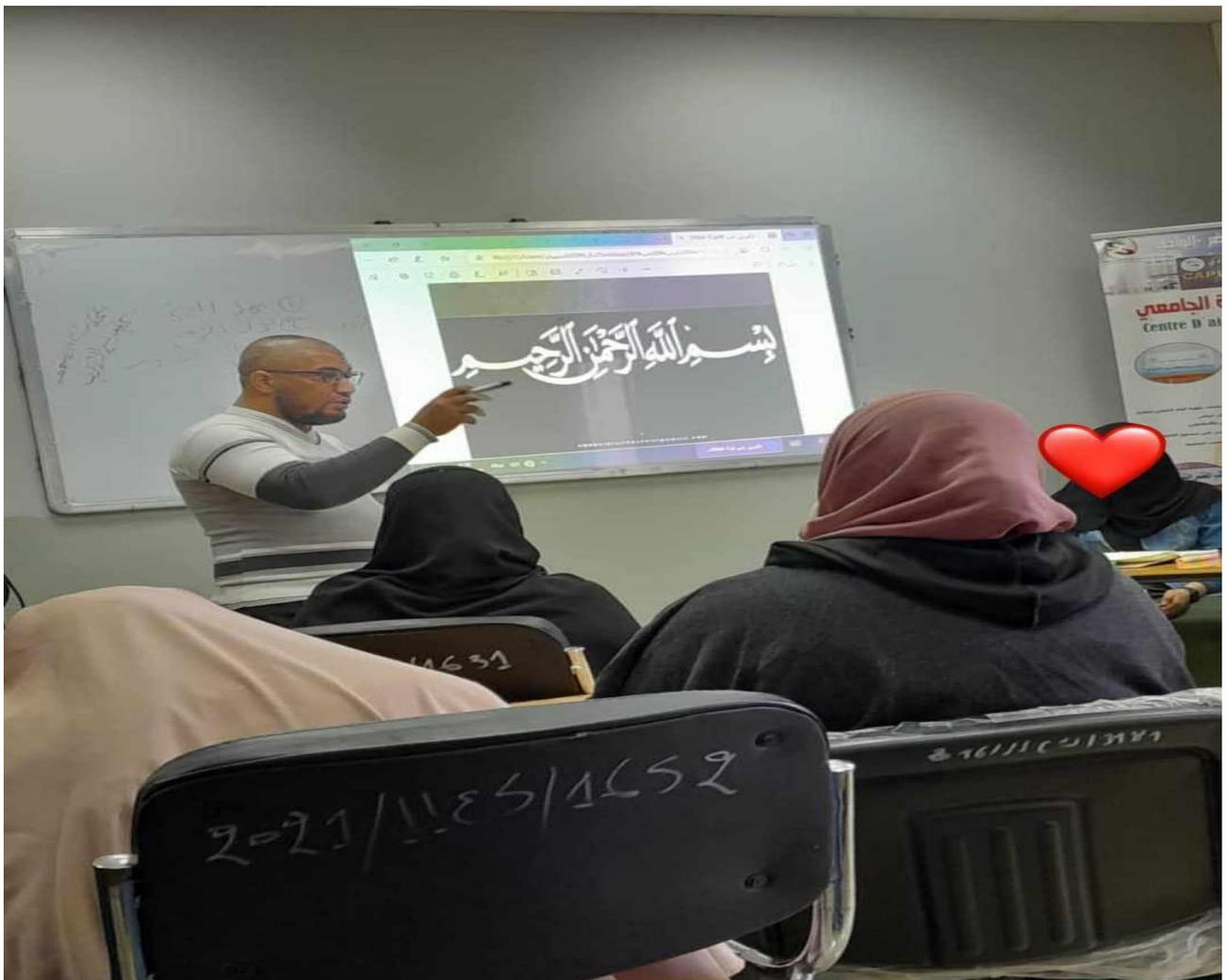
GOOD HEALTH AND WELL-BEING



Completion of the Second Training Session on the Big Five Personality

Traits Test

On 30 November 2023, the Psychological Assistance Center at the University of El Oued completed the second training session on the *Big Five Personality Traits Test*, led by practitioner Mohamed Tayeb Ghaybia. The workshop offered psychology students practical experience in assessing personality dimensions and understanding behavioral patterns. Through hands-on training and active participation, the initiative enhanced students' psychological assessment skills and supported SDG 3 by promoting mental health literacy and professional competence.



Training Seminar on Behavioral Therapies for Clinical Psychology Students

On 12 December 2024, the Faculty of Social and Human Sciences at the University of El Oued organized a training seminar on *Behavioral Therapies*, presented by Professor Youssef Adwan with the participation of Professor Saleh Khechkouch. The event gathered clinical psychology students and professionals, including guests from the University of Batna, for an interactive learning experience. The seminar enhanced students' understanding of behavioral treatment

SDG 3

GOOD HEALTH AND WELL-BEING



methods, contributing to SDG 3 by promoting mental health education and strengthening future practitioners' therapeutic skills.

Interactive Seminar on the Quality of University Life for Students with Disabilities

On 3 December 2024, the Psychological Assistance Center, in collaboration with the Faculty of Social and Human Sciences and the *Basmat Amal* Club, organized an interactive seminar titled *Quality of University Life for Students with Disabilities* to mark the International Day of Persons with Disabilities. The event, attended by faculty members and inspiring students such as Khamissi Achab, emphasized inclusion and psychological well-being in academic settings. This initiative supported SDG 3 by promoting mental health, resilience, and equal participation for students with special needs.



SDG 3

GOOD HEALTH AND WELL-BEING



Conclusion

The University of El Oued has demonstrated a comprehensive and deeply integrated commitment to advancing SDG 3: Good Health and Well-being through a multifaceted strategy focused on institutional capacity, clinical partnership, and psychological inclusion. The University's efforts extend beyond traditional academic boundaries to ensure a holistic approach to student and community welfare.

Key institutional advancements include the successful establishment, rigorous evaluation, and functional integration of the Faculty of Medicine Annex. Through sustained collaboration with institutions like the Faculty of Medicine of Batna and the region's healthcare providers, the University is actively strengthening the quality of medical training, ensuring that future practitioners are clinically competent and aligned with local health needs, as exemplified by the practical anatomy sessions and field training at the Cancer Treatment Center.

Crucially, the Psychological Assistance Center has evolved into a vital hub for specialized mental health support and prevention. The focus on vulnerable populations—particularly students with disabilities—through major events like the national conferences on professional inclusion and specialized training (e.g., Braille workshops, Goalball activities) affirms the University's dedication to equity and resilience. Furthermore, targeted intervention programs, such as seminars on drug abuse risks and specialized training in network-based therapeutic work, ensure that the University is proactive in addressing critical public health challenges and enhancing the professional skills of its psychology students.

In summation, the University of El Oued effectively utilizes scientific exchange, inter-institutional partnership, and grassroots outreach to translate the goals of SDG 3 into tangible results. By building robust medical education infrastructure and nurturing a supportive, inclusive environment for mental and physical well-being, the University stands as a vital regional contributor to ensuring healthy lives and promoting well-being for all ages.



UNIVERSITY OF EL-OUED

Report on the United Nations
Sustainable Development Goal 4:
Quality Education



This report presents the University of El Oued's initiatives in pursuit of SDG 4, which advocates for quality education

SDG 4

QUALITY EDUCATION



Introduction

The University of El Oued is deeply committed to ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all, which is the core mandate of Sustainable Development Goal 4 (SDG 4). Our strategy goes beyond formal degree programs, focusing on integrating advanced technology, fostering entrepreneurial skills, and extending educational access to the wider community. This report highlights key institutional initiatives designed to improve educational quality and expand access to specialized training and knowledge.

1. Enhancing Educational Infrastructure and Digital Access

The University invests strategically in infrastructure and technology to support advanced learning, research, and technical proficiency.

1.1 High-Performance Computing Center (Target 4.4)

On February 21, 2024, the University Director, Professor Omar Ferhati, inaugurated the High-Performance Computing (HPC) Center at the Central Library. This facility is the first of its kind nationally in terms of equipment and features, linking high-performance computer devices to the HPC server.



SDG 4

QUALITY EDUCATION



Impact and Contribution:

- **Advanced Research:** The center supports doctoral students and faculty in solving complex technical problems, conducting advanced research through modeling and intricate computational analysis, and developing AI algorithms.
- **Digital Skills:** The center directly addresses **Target 4.4** by equipping students and researchers with specialized skills in advanced computing and Artificial Intelligence (AI), which are essential for future employability.

1.2 Training on Open Source Systems

In line with the Ministry of Higher Education's drive, the University launched a training session on Linux Open Source System and Libre Office software, targeting chief engineers and state engineers in IT. This initiative ensures that university technical staff are proficient in cost-effective, open-source digital tools.



SDG 4

QUALITY EDUCATION



2.Promoting Lifelong Learning and Vocational Skills

The University actively hosts professional and vocational training programs open to staff and the broader community, ensuring continuous skill development.

2.1 Entrepreneurship and Financial Literacy Training

The University places a high value on developing entrepreneurship and financial inclusion skills:

- **Trainer Development:** A **Training of Trainers (TOT)** course for Entrepreneurship Development Center coaches was launched on February 6, 2024, in coordination with the National Agency for Entrepreneurship Support (NESDA). This structured, programmed training aims to create a sustainable pool of experts to guide student-led projects.
- **Financial Inclusion Outreach:** The University hosted **Open Doors Days** organized by the Professional Association of Banks and Financial Institutions (ABEF) on



SDG 4

QUALITY EDUCATION



- **Financial Education and Inclusion.** The event promoted awareness of electronic payment benefits and financial literacy among the university community.
- **Startup Development:** The launch of the **Second Training Course for Micro-Project Holders** further supports students and graduates seeking to realize their business ideas.

2.2 Specialized Skill Workshops

The University organizes specialized, hands-on workshops that enhance practical and professional competencies:

- **First Aid Training:** A **First Aid Training Course** was organized at Saudi Bashir University Residence in coordination with a national student association, providing essential life skills.



SDG 4

QUALITY EDUCATION



- **AI and Research:** A workshop on Artificial Intelligence and its uses in Software and Scientific Research was organized, catering to faculty and students to integrate cutting-edge technology into academic work.



3. Extending Educational Outreach to the Community (Target 4.3.4)

The University actively engages with its educational and social environment to extend learning opportunities beyond the campus perimeter.

3.1 Outreach to Secondary School Students

The University hosted secondary school students from several municipalities to learn about **Applications of Artificial Intelligence (AI)**. These lectures, part of the AI House series, introduced students to AI programs, programming languages, and the strategic importance of AI in physics, mathematics, and future careers. This is a crucial outreach effort to prepare high school students for higher education and future skills.

SDG 4

QUALITY EDUCATION



3.2 Off-Campus Training and Community Engagement

The University participated in the Souf Youth Forum, organized by the Supreme Council for Youth. The University Director, along with deans and faculty, presented training workshops on topics including desert agriculture, programming, and AI. This direct involvement in an off-campus, community-focused forum provides vocational training and knowledge sharing to local youth.



4. Promoting Health Education and Historical Awareness

The University integrates health and cultural education into student life to support holistic development.

4.1 Health Awareness and Nutrition

In line with the Maghreb University Health Week, the University organized several health activities for female students:

- **Health Seminar:** An activity on **Healthy Nutrition** was conducted by Dr. Fawzi Rakh.

SDG 4

QUALITY EDUCATION



- **Open Dialogue:** An open, engaging dialogue on Combating Obesity and Weight Gain in the University Environment was organized at Hadhaa Saleh Residence, featuring a specialized nutritionist from a Brussels university. These initiatives enhance student well-being and life skills.



SDG 4

QUALITY EDUCATION



4.2 Cultural and Historical Education

To commemorate Knowledge Day (April 16, 2024), the University Residence Moussaoui Mabrouk organized a screening of a film detailing the life of the scholar Abdelhamid Ben Badis, a pioneer of the modern Algerian renaissance. This initiative promotes historical literacy, role modeling, and cultural identity among the ascending generation.



5. Ensuring Equitable Access and Inclusivity

The University demonstrates its commitment to equitable access through support for vulnerable groups and international students.

5.1 Support for Students with High Determination (Disabilities)

The university operates the "Basmat Amal" (Hope's Imprint) Club for Students with High Determination, which, in collaboration with the Psychological Assistance Center, organized a national scientific seminar on Professional Integration in the Job Market. This active support

SDG 4

QUALITY EDUCATION



ensures that educational and career opportunities are fully accessible to students with disabilities.

5.2 International Academic Cooperation

The University actively implements its twinning agreement with Uzbekistan State University of World Languages, including a formal ceremony honoring Uzbek students upon completion of their Arabic language training. This initiative highlights the university's dedication to supporting international students and fostering cross-cultural educational exchange.

Conclusion

The University of El Oued has strategically advanced SDG 4 by prioritizing access, quality, and relevance in its educational provision. Through significant investment in the High-Performance Computing Center and robust training programs on entrepreneurship and digital tools, the University is actively preparing its students and staff for the demands of the 4th Industrial Revolution. Crucially, by extending its knowledge resources beyond the campus—such as providing AI workshops to secondary school students and vocational training in the Souf Youth Forum—the University fulfills its role as a key driver of lifelong learning and equitable education for the entire community, laying a strong foundation for future human capital development in the region.



UNIVERSITY OF EL-OUED

Report on the United Nations
Sustainable Development Goal 5:
Gender Equality



This report outlines the University
of El Oued's commitment to SDG 5,
promoting gender equality

SDG 5

GENDER EQUALITY



Introduction

Sustainable Development Goal 5 (SDG 5) – Gender Equality – is centered on achieving gender parity and empowering all women and girls. The University of El Oued is deeply committed to upholding this global objective by actively working to eliminate gender-based disparities and foster equal opportunities across its educational, research, and administrative domains. Through strategic initiatives and targeted support mechanisms, the university has cultivated an inclusive environment where female students, staff, and faculty are equipped with the resources necessary to excel.

Research Contribution to SDG 5

The university's research output directly contributes to the conceptual advancement of gender equality, specifically focusing on economic empowerment.

Publication: Chikh-Amnache, S., & Mekhzoumi, L. (2024). *The influence of socioeconomic factors on female entrepreneurship in Southeast Asian countries*. Journal of Entrepreneurship in Emerging Economies.

This study investigates the socioeconomic conditions that shape female entrepreneurship in Southeast Asian nations, identifying critical barriers and enablers influencing women's participation in business creation. By rigorously analyzing regional data, the research clarifies how educational attainment, income stability, and robust institutional support mechanisms enhance women's economic independence. This publication directly supports SDG Target 5.1 by deepening the global understanding of gender disparities in entrepreneurship and providing evidence-based policy recommendations for inclusive and sustainable economic growth.

Promoting Women's Access and Empowerment Schemes

The University of El Oued actively promotes equal access to cultural, leadership, and personal development opportunities for female students, reinforcing their skill development and recognition.

National Recognition in Arts and Leadership: On December 4, 2024, student Aya Sabaa achieved first place nationally in the prestigious University Stage Performance Competition, representing the Directorate of University Services. Competing against finalists from nine universities, including participants with special needs, Ms. Sabaa's success showcased female creativity and leadership in

SDG 5

GENDER EQUALITY



cultural expression. This achievement underscores the university's commitment to providing female students with equitable access to national platforms and opportunities for artistic and leadership development.



Holistic Student Development and Recognition: The University Residence Saoudi Bachir organized a formal ceremony honoring female residents who successfully completed the memorization of the Holy Qur'an. The event, which recognized three students with Umrah trips and ten others with valuable prizes, was attended by senior university service directors, faculty members, local officials, and community leaders.



SDG 5

GENDER EQUALITY



Similarly, the Hadhaa Saleh University Residence honored 34 female students for the same achievement, with fifteen Umrah trips generously donated by benefactors. These initiatives highlight the institution's dedication to empowering women through spiritual education, mentorship, and community-wide appreciation for female excellence and moral achievement within the student body.



Policy of Non-Discrimination and Equitable Staff Recognition

The university maintains and enforces a strict policy of non-discrimination, ensuring equitable recognition and appreciation for all members of its staff regardless of gender.

Equitable Staff Appreciation: On the occasion of International Workers' Day (May 1), the University Residence organized an appreciation ceremony honoring both male and female staff members for their dedication and service. This event, attended by the Director of University Services and department heads, demonstrated the university's commitment to providing equal professional recognition of workers' contributions regardless of gender, reinforcing an inclusive and equitable workplace culture.

SDG 5

GENDER EQUALITY



Celebration of Women’s Contributions: On March 6, 2024, the University of El Oued marked International Women’s Day with a celebratory ceremony honoring female faculty members, students, administrators, and staff. Held under the supervision of the University President and the Social Services Committee, the event highlighted women’s increasing and vital roles in academia and administration. This formal recognition reaffirms the university’s dedication to gender equality and to actively empowering women as essential contributors to academic and societal progress.



SDG 5

GENDER EQUALITY



Conclusion

The University of El Oued demonstrates a comprehensive and multi-faceted commitment to achieving SDG 5, integrating gender equality principles across its core functions. The evidence shows a strategic focus on three key areas: advancing the global discourse through high-level research on economic empowerment; promoting equal opportunity and holistic development for female students through academic, cultural, and spiritual recognition; and enforcing policies of non-discrimination and equitable appreciation within the workplace. The sustained efforts to honor and recognize the contributions of female students and staff, from national competitions to administrative roles, solidify the university's role as a leading institution in fostering an environment where gender parity is not merely a goal, but a lived reality. Moving forward, the university will continue to monitor the impact of these initiatives and seek new avenues to deepen empowerment and ensure lasting gender equality.



UNIVERSITY OF EL-OUED

Report on the United Nations
Sustainable Development Goal 6:
Clean Water and Sanitation



This report showcases the University of
El Oued's efforts toward SDG 6,
focusing on clean water and sanitation

SDG 6

CLEAN WATER AND SANITATION



Introduction

The University of El Oued is actively and effectively committed to advancing Sustainable Development Goal 6 (SDG 6), which focuses on sustainable water management and ensuring the availability of sanitation services for all. Given the university's location in a desert environment characterized by water scarcity, its efforts are intensified to adopt sustainable and innovative practices in infrastructure, direct scientific research toward practical solutions, and enhance community awareness. This report provides a detailed overview of the university's key efforts and achievements in this domain.

1. Research Contribution to Water Security

The university utilizes its research expertise to generate sustainable solutions that align with regional water challenges.

A. Water Desalination and Solar Distillation Research

In 2024, researchers at the University of El Oued produced high-impact studies focusing on sustainable water desalination technologies. Their work explored innovations in solar still design—such as the use of nanocoatings, evacuated tube systems, and thermal energy storage—to enhance freshwater yield and efficiency under arid Saharan conditions. This research contributes to the development of low-cost, renewable-energy-based solutions to global water scarcity challenges.

B. Wastewater Treatment and Pollution Control

The University of El Oued also contributed to applied research in wastewater treatment and pollution mitigation. Studies focused on the removal of organic dyes and heavy metals from industrial effluents using nanocomposites (such as $\text{Ag@Fe}_3\text{O}_4$ and MgO@SnO_2), as well as assessing the performance of wastewater-garden systems in Southern Algeria. These investigations directly support SDG Target 6.3 by developing eco-friendly technologies for clean water recovery and environmental protection.

C. Groundwater Quality and Sustainable Management

Complementary research involved assessing groundwater quality and its sustainable extraction in the Oued Souf region. Scientists used pollution indices and geochemical analysis to evaluate

SDG 6

CLEAN WATER AND SANITATION



the balance between rising groundwater levels and agricultural practices, highlighting sustainable water management strategies in semi-arid zones. This research contributes to evidence-based policy formulation and regional planning for safe and equitable access to clean water.

2. Infrastructure Practices and Conscious Water Use

The university is taking practical steps to rationalize water consumption across its infrastructure and aesthetic landscaping.

A. Wastewater Management and Pollution Prevention

The university emphasizes wastewater management by providing students with practical exposure through field trips to local treatment facilities (such as Kouinine and Touggourt stations). These visits allow students from the Hydraulics Department to gain practical insights into every stage of water treatment. Furthermore, in collaboration with regional authorities, the university establishes protocols for handling laboratory waste and maintenance procedures to ensure that activities do not affect water quality, and provides spill response training. The Hydraulics Department offers specialized consultation to local water institutions on pollution prevention strategies.

B. Water-Conscious Building Standards (6.3.4)

The university's continuous program for rehabilitating university residences, supervised by the Head of the Monitoring and Coordination Department (Mouladi Chouchani), includes close monitoring of work to ensure timely completion. The university assumes that these rehabilitation projects involve implementing standards aimed at minimizing water use in buildings through the installation of water-saving fixtures, as part of its efforts to reduce the operational water footprint.

C. Water-Conscious Landscaping

The university is committed to landscaping practices that significantly reduce water consumption, which is vital in the desert climate:

- **Artificial Turf Installation:** In a direct and practical water-saving measure, the decision was made to cover the stadium at Moussaoui Mabrouk University Residence with artificial turf, completely eliminating the need for regular irrigation and water maintenance.

SDG 6

CLEAN WATER AND SANITATION



- Drought-Tolerant Tree Planting Campaigns: The University Director, Professor Omar Ferhati, oversaw a tree planting operation at the Faculty of Arts and Languages, which involved planting saplings of ornamental, drought-tolerant species such as Turkish Jasmine, Vinca, Bougainvillea, Tecoma, and Dodonaea. This effort ensures the campaign proceeds within the University Environment Improvement Program with minimal irrigation requirements.



SDG 6

CLEAN WATER AND SANITATION



D. Free Drinking Water Provision

To promote health and sustainability, the university provides free drinking water for students, staff, and visitors through dispensers and water fountains distributed across campus facilities. This initiative supports hydration and contributes to reducing the use of disposable plastic bottles, aligning with sustainable water consumption practices.

3. Community Collaboration and Awareness

The university acts as an expertise hub and a strategic partner to strengthen regional water security.

3.1 Cooperation on Water Security and Promoting Conscious Use

The university hosted a crucial event linking scientific research with community development and water security:

- The TIMSA'24 International Forum on Technology and Innovation for Modernizing Desert Agriculture: The Governor of El Oued Province (Larbi Bahloul) opened this forum, organized by the Higher School of Desert Agriculture. This forum serves as strong evidence of multi-level cooperation (local, regional, and national) on water security, bringing together government representatives (the Governor and former ministers) and leaders, researchers, farmers, and economic partners.
- Thematic Focus: The forum addressed key issues, notably soil and water management and solar-powered irrigation methods, crucial for modernizing agriculture in desert regions.
- Sustainable Extraction and Awareness: By focusing on "Innovation for Modernizing Desert Agriculture," the forum effectively promotes technologies that ensure sustainable water extraction in farms and encourages conscious water usage among the broader community, especially the agricultural sector.

SDG 6

CLEAN WATER AND SANITATION



Conclusion

The University of El Oued demonstrates a comprehensive and multi-faceted commitment to achieving SDG 6. By linking pioneering scientific research in desalination and wastewater treatment with tangible operational measures (such as artificial turf installation and building rehabilitation), the university is taking significant steps toward reducing its water footprint. Furthermore, the pivotal role of the Hydraulics Department as a center of expertise, coupled with the organization of major international forums like TIMSA '24, reinforces the university's role as a key partner for government and the private sector in enhancing regional water security and developing sustainable solutions that serve both the campus and the wider community in a resource-scarce region.



UNIVERSITY OF EL-OUED

Report on the United Nations
Sustainable Development Goal 7:
Affordable and Clean Energy



This report details the University of El Oued's progress on SDG 7, emphasizing affordable and clean energy solutions

SDG 7

Affordable and Clean Energy



Introduction

The University of El Oued has demonstrated a robust, institution-wide commitment to Sustainable Development Goal 7 (SDG 7) in 2024, translating high-level policy into active infrastructure projects, cutting-edge research, and broad community outreach. The cornerstone of this commitment is the formal institutional pledge to achieve net-zero carbon emissions by 2040, a strategic policy that governs all energy-related initiatives across the university body.

1. Strategic Focus: Energy Efficiency and Infrastructure

The university has an established, long-term plan to significantly reduce overall energy consumption and improve efficiency across its campus. This plan is actively managed through two key processes:

Energy Efficiency Plan and Goal Setting

The high-level Rector's Statement on Commitment to Net-Zero Carbon Emissions by 2040 serves as the institutional energy efficiency plan. This plan mandates action across three strategic areas: optimising energy use, integrating renewable sources, and enhancing efficiency through building upgrades.

Identifying and Addressing Energy Wastage

To execute this plan, the university addresses its highest areas of energy wastage—the aging residential buildings. The evidence confirms an active, monitored process of rehabilitation: an administrative report details the On-Site Visit to Monitor Rehabilitation Works of University Residences in 2024. This action is the direct result of an underlying review process that identified these facilities as priority areas for comprehensive energy upgrades, which include improved insulation and the integration of modern, efficient systems.

2. Research and Innovation in Clean Energy

The University of El Oued makes a significant contribution to global and regional clean energy solutions through specialized, high-impact research, particularly in the critical areas of solar energy and water desalination. This work is led by distinguished faculty, including Professor Mohammed El Hadi Attia.

SDG 7

Affordable and Clean Energy



The research portfolio for 2024 demonstrates practical innovations aimed at enhancing the efficiency of clean water production and energy storage:

Innovation in Solar Distillation Productivity

Research focused on "Enhancing conical solar stills with aluminum ball energy storage: Optimal distance for improved performance" provided crucial data for improving solar energy use. The investigation found that integrating aluminum spheres as a cost-efficient energy storage medium resulted in optimal distillation productivity of 8400 g/m^2 , representing a significant 46.08% enhancement over traditional methods. This work offers a highly relevant and economical solution for clean water provision in arid zones.

Enhancing Solar Desalination Efficiency

Further research, titled "Effect of charcoal balls on distillation productivity in hemispherical solar stills," developed an innovative, low-cost method to enhance solar still performance. The study demonstrated that integrating charcoal balls significantly augmented heat transfer and solar absorption. This method resulted in an improved cumulative return rate of $6.20 \text{ L/m}^2/\text{day}$, achieving a performance improvement rate of 29.16%. This research directly contributes to improving the efficiency of solar desalination systems, a key aspect of clean energy utilisation for sustainable development.

3. Community Engagement and Advocacy

The university utilises its research capacity and official status to actively engage the public and industry, promoting the transition to clean energy.

Direct Services to Local Industry

The university provides essential technical services to the local economy through its dedicated Research Unit for the Development of Renewable Energy in Arid Zones. Evidence confirms the active resource planning of this body: a Meeting of the Council of the Research Unit for Renewable Energy Development (January 17, 2024) finalised the 2024 operating budget and mandated the extension of research laboratory working hours. This action ensures the Unit has the financial and operational capacity to continuously provide research, analysis, and consultations (direct services) to local industry on energy efficiency and renewable energy options.

SDG 7

Affordable and Clean Energy



Promotion and Advocacy

The strategic planning and funding confirmed in the Unit's meeting also underpin the university's continuous promotion and advocacy for renewable energy beyond the campus. By maximising research output through extended lab hours, the university actively generates the knowledge and technical justification required to advocate for and advise on the adoption of clean energy solutions within the regional public and private sectors.

Programmes for Community Learning

The university formally supports a robust set of educational programs for the public: official documents confirm that the university regularly organises training sessions and seminars that educate the public on the benefits of energy efficiency and renewable energy. These efforts, combined with outreach programs and educational materials, demonstrate a structured approach to raising community awareness and promoting the adoption of sustainable practices in daily life.

4. Start-up Support for Clean Energy

The university uses its entrepreneurial ecosystem to foster the commercialisation of low-carbon technology. The University Business Incubator actively tracks and supports start-ups in key low-carbon sectors.

Evidence confirms that the incubator's portfolio has a specialised focus on the Renewable Energies sector. Furthermore, the university facilitates high-level technical assistance, such as the Slovakian Research Delegation Visit (March 14, 2024), which provided expert consultation and promised collaboration on a high-tech prototype for Cold Plasma production, demonstrating institutional commitment to supporting the development of advanced low-carbon technologies.



UNIVERSITY OF EL-OUED

Report on the United Nations
Sustainable Development Goal 8:
Decent Work and Economic Growth



This report highlights the University of El Oued's dedication to SDG 8, which supports decent work and economic growth.

SDG 8

DECENT WORK AND ECONOMIC GROWTH



Introduction

The University of El Oued understands that Decent Work and Economic Growth (SDG 8) is not merely an institutional goal; it is the bedrock of a stable and prosperous future for the region. Our mission extends beyond the classroom to actively cultivating a sustainable economic ecosystem. This annual report outlines our deliberate, strategic actions this year—from ensuring fair labor practices and fostering robust social dialogue among all staff, to championing an entrepreneurial mindset among our students that will drive future job creation and economic diversification in the Algerian South. The University is fundamentally committed to integrating national economic strategy with our operational and academic mandate.

Fostering Decent Work Conditions and Social Dialogue

The University of El Oued is committed to ensuring a fair, productive, and harmonious working environment for all its faculty and staff, recognizing that social dialogue is foundational to economic sustainability. A key element of this commitment is the proactive engagement with employee representatives. On November 11, 2024, the University Director held a formal meeting with representatives of the General Union of Algerian Workers (UGTA) branch at the University. The discussion, which included the University's General Secretary and relevant sub-directors, focused on critical issues impacting employee well-being, including career advancement files, housing needs, and general staff requirements. The Director affirmed that collaborative efforts and continuous integration of the University community are essential for achieving the institution's educational, research, and developmental strategies.

SDG 8

DECENT WORK AND ECONOMIC GROWTH



Furthermore, the University ensures the recognition of labor contributions and milestones. On April 30, a celebratory ceremony was organized for Labor Day (May 1st) to honor faculty and staff. The event recognized 41 professors who achieved professorship status and honored a total of 67 distinguished individuals, including former and current vice-directors and senior officials. This ceremony, attended by international guests, reinforces the institutional culture of appreciation and motivates continuous professional excellence, which underpins the quality of the national workforce.

Promoting Inclusive Employment and Equality

A central tenet of the University's work is promoting full and productive employment for all, especially for marginalised groups, thereby ensuring economic participation is both decent and inclusive. The University celebrates the role of all members of the academic community through dedicated events that underscore equality in the workplace.

In honor of International Women's Day on March 6, 2024, the University, supported by the Social Services Committee, hosted a ceremony celebrating female faculty, students, and administrative staff. The University Director praised the pivotal role of women in the Algerian

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DECENT WORK AND ECONOMIC GROWTH



administration, their contribution to national values, and their crucial influence on production, work, and the national economy. This focus supports Target 8.5 on equal pay for work of equal value and economic participation.



The University also maintains an unwavering commitment to students with disabilities. On April 16, 2024, the "Basmat Amal" Club for Students with High Determination organised a special celebration for the Day of Knowledge. The Director personally participated, affirming that all University resources are dedicated to serving these students, whom he recognised as a "symbol of challenge and dedication." This targeted support fosters inclusive education and development, ensuring that this category of students is prepared for decent work opportunities.

Cultivating Entrepreneurship and Innovation

The University actively fosters an entrepreneurial ecosystem to drive job creation and support economic diversification, aligning with Target 8.3 on encouraging formalisation and growth of micro, small, and medium-sized enterprises.

On March 9, 2024, the University facilitated the participation of its students who had received the "Innovative Project" label (representing ten students with six project labels) in an

SDG 8

DECENT WORK AND ECONOMIC GROWTH



informational meeting on the Algerian Fund for Financing Startups (ASF). Conducted remotely, the session was attended by the Business Incubator manager and the Vice Director for External Relations. This initiative provided students with essential details on accessing funding and methods for establishing their own startup enterprises, directly linking academic innovation to national economic growth and job creation.



Institutional Commitments: Ensuring Decent Work for All

The University of El Oued maintains an institutional commitment to upholding fundamental labor standards and promoting economic security for all its personnel, aligning explicitly with Algerian Labour Law and national regulations. The institution ensures Fair Compensation and Labor Rights by operating under a strict Living Wage commitment, verifying through continuous payroll monitoring that all faculty and staff compensation meets or exceeds the local legal minimum of 20,000 Algerian dinars for a standard work week. This compensation is crucial for economic security across the university community. Furthermore, the University fully supports and formalizes the **Recognition of Unions and Labor Rights** for all employees,

SDG 8

DECENT WORK AND ECONOMIC GROWTH



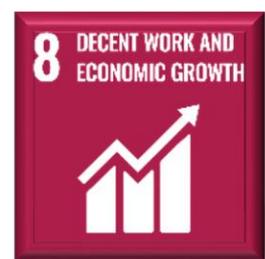
including women and international staff, adhering strictly to national legislation—specifically Law No. 22-06—which guarantees the right to collective bargaining and association. Regular, structured dialogue between administration and union representatives is fundamental to fostering a cooperative, transparent, and responsive workplace environment.

To secure an equitable and ethical workplace, the University enforces a robust **Employment Policy on Ending Workplace Discrimination**, which prohibits unfair treatment based on religion, gender, age, sexuality, or refugee status. This policy, which was reviewed in 2023, is reinforced by a zero-tolerance approach and mandates regular awareness and training programs to prevent discriminatory behavior. Simultaneously, the institution adheres to the highest ethical standards through its **Employment Policy Against Modern Slavery and Forced Labor**, applying stringent measures to eliminate human trafficking, child labor, and all forms of exploitation, in full compliance with international conventions and Algerian national laws. Extending this ethical oversight, the University ensures **Equivalent Rights for Outsourced Workers** by incorporating clauses in all third-party contracts that mandate fair labor practices, equal pay, and access to worker rights, thereby guaranteeing consistent labor standards across all employment arrangements.

Accountability and fairness in compensation are ensured through dedicated policies focused on equity and transparency. The **Employment Policy on Pay Scale Equity and Gender Pay Gap** requires a thorough annual review of all salaries to identify and eliminate any gender or role-based wage disparities, reinforcing the University’s commitment to **Wage Equality**. This systematic tracking provides actionable insights that inform HR policies and lead to immediate corrective actions where discrepancies are identified. Finally, the institution protects all employees through an established and accessible **Appeal Process for Employee Rights and Pay**. This supportive mechanism ensures that staff can voice grievances or concerns regarding their rights, pay, or advancement opportunities without fear of retaliation, maintaining a transparent and merit-based environment for all promotion evaluations.

SDG 8

DECENT WORK AND ECONOMIC GROWTH



Conclusion

The evidence presented confirms that the University of El Oued views SDG 8 as an integrated commitment—not a series of isolated initiatives. By combining **structured social dialogue** with robust, legally compliant labor policies, we ensure fairness, equity, and stability for every member of our workforce. Crucially, our investment in **entrepreneurship**, seen in the support provided to students with the "Innovative Project" label, directly links academic output to the national priority of economic diversification and job creation. Moving forward, the University remains strategically focused on scaling these efforts, guaranteeing that our institutional practices and our graduating talent continue to serve as powerful engines for sustainable and inclusive economic development in Algeria



UNIVERSITY OF EL-OUED

Report on the United Nations
Sustainable Development Goal 9:
Industry, Innovation and Infrastructure



This report illustrates the University of El Oued's progress on SDG 9, focusing on building resilient infrastructure, fostering innovation, and promoting sustainable industrialization that drives regional development

SDG 9

INDUSTRY, INNOVATION AND INFRASTRUCTURE



Introduction

El-Oued University demonstrates a strong institutional commitment to achieving Sustainable Development Goal 9 (SDG 9): Industry, Innovation, and Infrastructure, through a holistic and strategic approach that integrates research, education, community engagement, and innovation. The university recognizes that sustainable industrialization and resilient infrastructure are key drivers of long-term economic growth, social inclusion, and environmental balance. Guided by this vision, it strives to align its academic programs, research priorities, and institutional policies with the global sustainability agenda.

Research, Seminars, Teaching, Training, Partnership Policies and Workshops:

The university's initiatives focus on building a **knowledge-based economy** that leverages science, technology, and innovation to address both local and national development challenges. It aims to empower students, researchers, and entrepreneurs to contribute meaningfully to the creation of sustainable industries that are environmentally responsible and socially equitable. Through strong partnerships with the **public and private sectors**, El-Oued University acts as a bridge between academic research and industrial application, promoting innovation-driven solutions that respond to real-world needs.



SDG 9

INDUSTRY, INNOVATION AND INFRASTRUCTURE



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TARGET 9.1



Furthermore, the institution prioritizes **inclusive development**, ensuring that communities in remote and underserved areas of southern Algeria benefit from technological and industrial advancements. It promotes an academic environment that nurtures creativity, critical thinking, and collaboration (essential elements for advancing innovation and sustainable infrastructure). By fostering interdisciplinary research and encouraging eco-friendly technologies, El-Oued University contributes not only to local progress but also to the **broader regional and national efforts** aimed at realizing the ambitions of SDG 9.

Ultimately, the El-Oued University envisions itself as a **catalyst for transformation**, cultivating the next generation of innovators, engineers, and researchers who will shape a more resilient, sustainable, and inclusive industrial future for Algeria and beyond.

El-Oued University aims to develop **high-quality, reliable, sustainable, and resilient infrastructure** that takes into account the region's specific challenges such as **sand conditions and extreme heat** as well as the need for **cross-border connectivity**. These efforts are directed toward **promoting economic growth and enhancing human well-being**, while ensuring that infrastructure remains **affordable and accessible to all members of society**.

1- Sustainable Infrastructure Development in Developing Regions

Developing **sustainable infrastructure** in **economically disadvantaged regions** requires ensuring both **affordability and equitable access**. This can be achieved through **cost-effective designs**, use of **local materials****, and adoption of **renewable energy technologies** that reduce long-term expenses.

SDG 9

INDUSTRY, INNOVATION AND INFRASTRUCTURE



Community participation is essential to align projects with local needs and promote social ownership. Partnerships between **governments, private sectors, and academic institutions** can mobilize financial and technical resources. Prioritizing **essential services** such as clean water, energy, and digital connectivity helps bridge inequality gaps. Ultimately, sustainability depends on combining **economic inclusion, innovation, and environmental responsibility** to build resilient and inclusive communities.

1.1 Quality and Reliable Infrastructure Development

- **Objective:** Ensure the construction and maintenance of infrastructure that meets high quality and reliability standards.
- **Key Actions:**
 - Implement rigorous quality control measures throughout the infrastructure lifecycle.

Research Link:

<https://dspace.univ-eloued.dz/browse/dateissued?scope=44aa79ca-b18c-40a9-8a3e-6debd833bcd&bbm.page=7&startsWith=2024>

- Establish standards for materials and construction practices that enhance durability and reliability.

Research Link:

<https://dspace.univ-eloued.dz/browse/dateissued?scope=44aa79ca-b18c-40a9-8a3e-6debd833bcd&bbm.page=6&startsWith=2024>

1.2 Sustainable Infrastructure Practices

- **Objective:** Promote sustainability in all infrastructure projects to minimize environmental impact.
- **Key Actions:**
 - Incorporate renewable energy technologies in infrastructure design (e.g., solar panels, wind energy, green energy, ...).

Seminar Link: <https://dspace.univ-eloued.dz/items/31094b1a-2501-42b3-8d27-a99da5de6865>

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INDUSTRY, INNOVATION AND INFRASTRUCTURE



- Use eco-friendly materials and construction methods to reduce carbon footprints.

Research Link: <https://dspace.univ-eloued.dz/items/c7286a8f-e7a8-48e1-871b-bc056ab9df1c>

- Implement waste reduction strategies in construction and operation phases.

Research Link: <https://dspace.univ-eloued.dz/items/4a38ce04-75b3-4a45-8e64-ae953aa9f173>

1.3 Resilient Infrastructure against Climate Change

- **Objective:** Design infrastructure that can withstand climate impacts and natural disasters.

- **Key Actions:**

- Conduct vulnerability assessments to identify risks and develop adaptive solutions.

Research Link: <https://dspace.univ-eloued.dz/browse/dateissued?scope=8229b941-a72b-40bd-a99a-3beb026347b9&bbm.page=1&startsWith=2024>

- Create infrastructure that incorporates climate-resilient designs (e.g., flood barriers, heat-resistant materials, Chemical depollution and environmental protection).

Seminar Link: <https://dspace.univ-eloued.dz/browse/dateissued?scope=f37b6e5e-7c24-49b0-9e95-83b4bf18fe7a&bbm.page=1&startsWith=2024>

- Develop emergency response plans that include infrastructure recovery strategies.

Research Link: <https://dspace.univ-eloued.dz/items/0a7acd90-d5e5-4e5d-a459-b98d71aee376>

1.4 Inclusive Access to Infrastructure

- **Objective:** Ensure that all populations, including marginalized and vulnerable groups, have equitable access to infrastructure services.

- **Key Actions:**

- Conduct needs assessments to identify barriers to access for different demographics (e.g., women, elderly, disabled).



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INDUSTRY, INNOVATION AND INFRASTRUCTURE



Research Link: <https://dspace.univ-eloued.dz/browse/dateissued?scope=44aa79ca-b18c-40a9-8a3e-6debd833bcd&bbm.page=4&startsWith=2024>

- Design public transportation and facilities that are accessible and user-friendly for all.
- Implement policies that prioritize equitable distribution of infrastructure resources.

Policy directive: Free public transportation for students between university's centers and their cities.

2- Regional and Trans-border Infrastructure Development

- **Objective:** Enhance connectivity through regional and trans-border infrastructure projects that facilitate trade and mobility.

- **Key Actions:**

- Foster regional cooperation and partnerships for cross-border infrastructure initiatives.

Research Link: <https://dspace.univ-eloued.dz/browse/dateissued?bbm.page=10&startsWith=2024>

- Develop transportation and communication networks that enhance economic integration.
- Ensure that regional infrastructure projects promote local economic development and job creation.

Research Link: <https://dspace.univ-eloued.dz/items/f3c17031-1020-45e5-a4a0-5a4b73881252>

SDG 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



Investment in Infrastructure Financing

- **Objective:** Mobilize financial resources to support infrastructure development, especially in underserved regions.



- Key Actions:

- Explore innovative financing models (e.g., public-private partnerships, green bonds).
- Engage international organizations and donors to support funding for infrastructure projects.
- Promote local investment initiatives to encourage community participation and ownership.

SDG 9

INDUSTRY, INNOVATION AND INFRASTRUCTURE

9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE



Research Link: <https://dspace.univ-eloued.dz/browse/dateissued?scope=44aa79ca-b18c-40a9-8a3e-6debd833bcd&bbm.page=5&startsWith=2024>



1. Technology and Innovation in Infrastructure

- **Objective:** Leverage technology and innovation to improve infrastructure efficiency and effectiveness.
- **Key Actions:**
 - Implement smart technologies (e.g., IoT, AI) for infrastructure monitoring and management.

Research Link: <https://dspace.univ-eloued.dz/browse/dateissued?scope=44aa79ca-b18c-40a9-8a3e-6debd833bcd&bbm.page=7&startsWith=2024>

SDG 9

INDUSTRY, INNOVATION AND INFRASTRUCTURE



- Promote research and development of innovative infrastructure solutions.

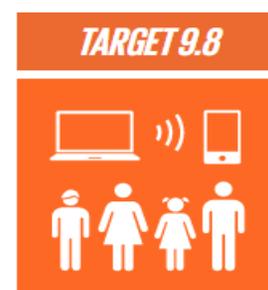
Research Link : <https://dspace.univ-eloued.dz/browse/dateissued?scope=44aa79ca-b18c-40a9-8a3e-6debd833bcd&bbm.page=6&startsWith=2024>

- Encourage collaboration between government, academia, and the private sector to drive infrastructure innovation.

Research Link : <https://dspace.univ-eloued.dz/browse/dateissued?scope=44aa79ca-b18c-40a9-8a3e-6debd833bcd&bbm.page=6&startsWith=2024>

2. Enhancing Research and Upgrading Industrial Technologies

El-Oued University actively contributes to strengthening research and industrial innovation through its continuous efforts to **enhance scientific research capacity** and **upgrade technological expertise**. The university's participation in **awareness days on dissertation projects**, including those registered under **Ministerial Decision 1275 at Ouargla University**, demonstrates its commitment to promoting high-quality academic research aligned with national priorities for technological advancement. These events provide a platform for postgraduate students and researchers to present innovative ideas, share knowledge, and develop partnerships with industry and other academic institutions. By encouraging young researchers to explore applied sciences and industrial technologies, El-Oued University contributes to increasing the number of **research and development (R&D) professionals**, supporting the national goal of a knowledge-based economy.



SDG 9

INDUSTRY, INNOVATION AND INFRASTRUCTURE



In the future perspective of El-Oued University aims to modernize infrastructure and revamp industries to ensure sustainability, enhancing resource efficiency and promoting the use of clean and environmentally friendly technologies and industrial practices, with each faculty taking action based on its own departments.

Link: <https://www.univ-eloued.dz/en/sensitization-days-on-resolution-1275/>

INDUSTRIAL TECHNOLOGIES: Start-ups and innovative projects

Enhance scientific research and upgrade the technological capabilities of industrial sectors in all countries particularly in developing nations. By future horizon, the goal is to encourage innovation and substantially increase the number of research and development (R&D) workers per one million people, along with raising both public and private R&D spending.

Start-ups Supported by El -Oued University

Elirfaan.com

A collaborative platform that enables participants to translate books, edit publications, and contribute to Encyclopedic content.

ASF Project

A start-up consisting of six sub-groups that have received an official label from local authority for their innovative contributions.

Bernaoui Aicha's Innovative Project

A project designed to assist individuals preparing for marriage by offering educational and preparatory courses.

First Start-up from Students with Special Needs

A student-led initiative focused on developing tools and solutions to assist deaf individuals in communication and learning.

SDG 9

INDUSTRY, INNOVATION AND INFRASTRUCTURE



Start-ups and Patents visualize to revolutionizing infrastructure and renovating industries to ensure sustainability, cultivating resource efficiency and intensifying the use of clean, environmentally friendly technologies and industrial processes, with both students and lecturers acting according to its competences.

Link: https://www.univ-eloued.dz/ar/crea_institu/

Start-ups and Patents

Start-ups and patents play a vital role in **revolutionizing infrastructure** and **modernizing industries** to ensure sustainability. They focus on promoting **resource efficiency** and expanding the use of **clean, environmentally friendly technologies** and industrial processes. Both students and lecturers contribute actively according to their respective areas of expertise.

Conclusion

El-Oued University is committed to strengthening scientific research and enhancing the technological capacities of industrial sectors: both within and beyond the university. The institution particularly emphasizes supporting researchers and achieving higher standings in international academic rankings. By next year, El-Oued University aims to foster innovation, significantly increase the number of research and development (R&D) projects, and expand both **public and private investment** in R&D to drive sustainable technological progress.



UNIVERSITY OF EL-OUED

Report on the United Nations
Sustainable Development Goal 10:
Reduced Inequalities



This report addresses the University of El Oued's commitment to SDG 10, dedicated to reducing inequalities.

SDG10

REDUCED INEQUALITIES



Introduction

Sustainable Development Goal 10 (SDG 10) advocates for comprehensive measures to reduce discrimination and promote the inclusion and equal opportunity for all individuals. The University of El Oued stands dedicated to advancing the reduction of inequalities, extending its focus beyond income disparity to include socio-economic, political, and institutional inequalities. This report highlights the university's contributions to SDG 10, emphasizing the propagation of an equitable society via research, inclusive practices, and ongoing support for marginalized students and community members.

1. Research Addressing Socio-Economic Disparities

The research conducted at the University of El Oued reflects an increasing emphasis on Sustainable Development Goal (SDG) 10: Reduced Inequalities, by examining critical socioeconomic factors stemming from disparities that impact both national and international settings. One study analyzes how socioeconomic factors impede or facilitate female entrepreneurship, contributing to policies for women's economic inclusion ([Chikh-Amnache & Mekhzoumi, 2024](#)). A second paper investigates youth marginalization as seen through illegal immigration, linking this phenomenon to a lack of opportunities and its impact on local development ([Yakoub et al., 2024](#)). These studies demonstrate the university's growing focus on structural inequalities and their visible consequences.

SDG10

Reduced Inequalities



2. Integration and Non-Discrimination Policies

The University of El Oued is dedicated to fostering egalitarian policies for higher education, reflecting efforts of reducing socioeconomic disparities across all of its organizational functions. The **Code of Ethics** ensures free education, equitable practices in recruitment and admission processes, fostering equal opportunities for all individuals. These policies are assessed through a critical dimension of inclusiveness; incorporating individuals with disabilities into varied educational settings.

2.1. Equity in Admissions & Recruitment

The university's stance on the admission and recruitment of individuals with disabilities reflects adherence to policies against discrimination and strengthens the monitoring of institutional regulation structures.

- **Students with Disabilities:** In the current reporting year, the University provided support to a total of 60 students with documented disabilities, indicating a commitment to ensuring equitable access to higher education. The university endorses the representation and visibility of students with special needs, especially within student dormitories and organizations. **The Lodging—Directorate of University Services, El Oued State** sponsors the activities of the group nationally. **The Basmat Amal club (Imprint of Hope)** offers skill development through the organization of workshops and boosts member participation in essential fields such as biology and medicine.

SDG10

Reduced Inequalities



SDG10

Reduced Inequalities



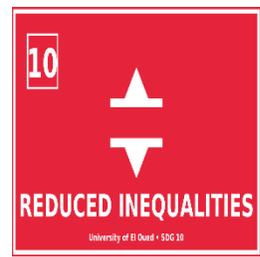
- **Employees with Disabilities:** the university's non-discriminatory employment policies have led to a total of 14 employees with documented disabilities in 2024, including both academic instructors and administrative staff, indicating measurable progress toward equity in hiring practices.

2.2. Inclusivity and Awareness

The University of El Oued, in tandem with its efforts to accommodate marginalized groups, initiated a continuous audiovisual program in 2024 through its printing and audiovisual center. Titled "**My Willpower,**" The program, titled "My Willpower," aims to integrate individuals with disabilities into various projects, including economic, social, and sports initiatives. It also celebrates the activities and achievements of the students and educators with disabilities while promoting awareness and understanding of disability issues. [This program, featuring students and educators with disabilities as presenters and guests](#), is disseminated through social media platforms including Facebook and YouTube.

SDG10

Reduced Inequalities



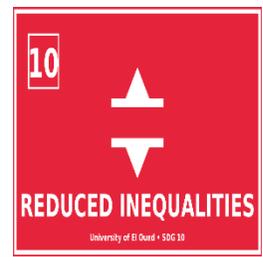
2.3. Institutional Endorsement of Creativity

The university contributes to startup opportunities for students with disabilities through collaborations with national innovation organizations and economic initiatives, particularly through the adoption of **the Label project innovant and patent accreditation for startup enterprises**. Collaborations provide students with customized mentoring, and application assistance, as well as accessible networks, incubators, funding opportunities.



SDG10

Reduced Inequalities



3. Towards Inclusivity and Sustainable educational services

El Oued University prioritizes the establishment of a welcoming environment for all students through the implementation of formal support systems and ensuring direct engagement between administration and the student body. This approach addresses systemic barriers and offers equitable access to opportunities. The commitment to sustainable educational services is made evident by **the university's focus on providing services, mainly Lodging**, which involves the maintenance of essential resources like student accommodation. This is a primary objective for universities to ensure long-term educational access and success for all learners



SDG10

Reduced Inequalities



Conclusion

The university's practices demonstrate a commitment to SDG 10: Reduced Inequalities through the integration of equity in its fundamental operations. This commitment is achieved by the means of [research to tackle socio-economic disparities](#) and to guarantee [equitable admissions and recruitment processes for all groups](#), including staff and students with disabilities. The institution promotes inclusivity and awareness, offering [institutional support for creativity](#) in various domains. The commitment to [sustainable educational services](#), with a focus on essential resources such as student accommodation, ensures that high-quality learning is accessible to both current and future generations of diverse students, positioning the university as a significant contributor to the development of a more just and equitable society.



UNIVERSITY OF EL-OUED

Report on the United Nations
Sustainable Development Goal **11:**
Sustainable Cities and Communities



This report details the University of El Oued's initiatives supporting SDG 11, aimed at creating sustainable cities and communities.



Introduction

In its commitment to the principles of Sustainable Development Goal 11, the University of El Oued advances the development of sustainable urban environments through initiatives that promote cultural access, safeguard heritage, and implement sustainable campus practices, thereby making a substantial contribution to national and regional sustainability efforts.

Research

Assessing drinking water quality in Eloued, south-East Algeria, using the groundwater pollution index (GPI) and the synthetic pollution index (SPI) model

The degradation of groundwater quality is a critical global issue, especially in arid, developing regions reliant on this resource. This study evaluates the potability of groundwater from the Terminal Complex aquifer in Eloued, southeastern Algeria, a region experiencing rapid, unplanned urbanization. We employed the Groundwater Pollution Index (GPI) and Synthetic Pollution Index (SPI), supported by multivariate statistics and GIS, on data from 22 deep wells. Results indicate the groundwater is saline, with a dominant chemical facies of Na^+ - Ca^{2+} - Cl^- - SO_4^{2-} and ion concentrations surpassing WHO drinking water standards. Principal Component Analysis suggests water chemistry is primarily controlled by carbonate and evaporite dissolution, silicate alteration, and evaporation. The GPI classified 27.27% of samples as heavily polluted, while the SPI classified 18.18% as seriously polluted. Spatially, both indices show that safe drinking water is restricted to the northeastern part of the study area. These findings highlight a severe water quality crisis and the imperative for immediate management interventions.

Long-term performance of wastewater gardens: follow-up on the status of the wastewater garden in Temacine – Algeria

This work presents a long-term performance analysis of a small Wastewater Garden (WWG) system with a Horizontal Subsurface Flow (HFCW) that has been operational since 2007, treating 15 m³/day of municipal wastewater. Over 15 years, the system achieved high average removal efficiencies: 90.76% (TSS), 85.12% (COD), 89.43% (BOD₅), 66.87% (NO₂⁻), 94.74% (NO₃⁻), and 94.74% (PO₄³⁻). A key finding is the enhanced performance during 2018-2022, where removal rates for BOD₅, NO₂⁻, NO₃⁻, and PO₄³⁻ were significantly higher than in the initial years, while COD removal



remained stable. The study confirms the system's long-term viability and recommends it as an efficient, nature-based solution for small communities, particularly in arid areas.

Design and Performance Evaluation of a Novel Solar Dryer for Drying Potatoes in the Eastern Algerian Sahara

This study presents the experimental testing of a novel solar crop dryer featuring an inverted absorber perforated collector with forced airflow. The system was constructed and evaluated under the climatic conditions of El Oued, eastern Algeria, for drying potatoes. The dryer achieved an average chamber temperature of 50°C, reducing the moisture content of potatoes from 84.17% to 12.5% within six hours. Performance metrics included a maximum specific moisture extraction rate of 1.074 g water/kWh, drying efficiencies of 20.37–34.01%, and exergy efficiencies of 58.48–93.22%. An economic analysis revealed a payback period of 1.39 years, with total savings of approximately \$13.92 over the dryer's lifespan. Compared to an electric oven, the solar dryer offers savings of \$11.69 in electricity costs and avoids \$2.235 in CO₂ emission penalties, demonstrating its economic and environmental viability.

Environmental resilience through artificial intelligence: innovations in monitoring and management

This review explores the transformative role of Artificial Intelligence (AI) in environmental monitoring and preservation. It traces the evolution of AI technology before delving into its specific applications for analyzing remote sensing imagery, covering challenges and solutions in pixel-level analysis, object detection, and semantic interpretation. The paper further examines AI's impact on environmental control processes, including wastewater treatment and solid waste management, and highlights its value in developing early-warning systems for proactive threat mitigation. The analysis concludes that AI significantly enhances accuracy, adaptability, and real-time decision-making, establishing it as a cornerstone for a sustainable and resilient future.

Strength and Limitation of Nature-Based Solutions Towards Adaptation and Mitigation of Climate Change in Developing Countries

Nature-based solutions (NbS) offer significant potential to reduce urban susceptibility to climate change and enhance resilience by expanding blue and green infrastructure. These solutions can mitigate the worst climate impacts while providing municipalities with proactive adaptation opportunities. This chapter examines the diverse applications of NbS for climate change adaptation and mitigation in urban settings, identifying metrics to gauge their efficacy and corresponding

SDG 11

SUSTAINABLE CITIES AND COMMUNITIES



knowledge gaps. We also analyze current obstacles and future opportunities for scaling up NbS implementation. We emphasize three priorities for future scientific and policy agendas: (1) generating more compelling evidence for NbS to raise awareness and drive implementation; (2) employing reflexive governance techniques that forge new networks among citizens, practitioners, and NbS champions; and (3) ensuring socio-environmental justice and societal cohesion through integrated, transdisciplinary governance. When these requirements are met, NbS can serve as powerful tools for climate action that simultaneously enhance societal well-being, making them excellent investments for sustainable urban development.

Under the Banner of Sustainability and Giving: University of El Oued Launches Afforestation and Irrigation Rehabilitation Projects

In a direct contribution to **Sustainable Development Goal 11 (Sustainable Cities and Communities)**, the University of El Oued, under the direction of its Rector, launched two ambitious environmental initiatives on February 26, 2024. These projects aim to enhance green spaces and rationalize water usage within the university campus.

The first initiative, "**A Tree for Each Professor**," was launched with the participation of newly recruited faculty, administrative staff, and university personnel. The collaborative tree-planting event was a practical step towards expanding green coverage and improving the quality of the university environment, transforming it into a more vibrant and sustainable space.

In a complementary move, the Rector, alongside the Vice-Rector for Development and Foresight, gave the official signal to commence the second project: **the rehabilitation of the university's internal irrigation network**. This vital project is designed to improve water resource efficiency, ensure optimal irrigation for green spaces, and reduce waste, in line with the principles of responsible environmental management.

Together, these initiatives represent a qualitative leap in the university's environmental policy and a practical embodiment of its commitment to building sustainable and resilient infrastructure, creating a healthy and productive campus environment for future generations.



University of El Oued Hosts National Forum on Cybersecurity as a Cornerstone for Resilient Communities

In a significant initiative supporting Sustainable Development Goal 11 (Sustainable Cities and Communities), the University of El Oued convened a major national forum on "Cybersecurity and the Stakes of Comprehensive Security in Algeria" on May 13, 2024.

The forum, inaugurated by the State Inspector representing the Governor of El Oued and presided over by University Rector Professor Omar Ferhati, was organized by the Faculty of Social and Human Sciences and the Research Laboratory for Social Development and Community Service. It brought together a high-level assembly of civil and security authorities, national parliamentary members, academics, researchers, students, and media representatives.

This gathering directly addresses Target 11.a, which calls for supporting positive economic, social, and environmental links between urban, peri-urban, and rural areas by strengthening national and regional development planning. In the modern era, such planning is inextricably linked to digital resilience. The forum's core mission was to fortify the nation's social and institutional fabric against cyber threats that target critical infrastructure, public services, and social cohesion.

The forum's objectives were strategically designed to build a safer, more secure society:

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Raising Public Awareness: Focusing on preserving national security from the unsafe use of social media, thereby safeguarding the community from digital harms that can disrupt public order.

Building Technical Capacity: Providing specialized training workshops for PhD students in cybersecurity techniques, fostering a new generation of experts to protect national digital infrastructure.

Fostering Collaborative Governance: Encouraging civil society organizations to unite with state institutions to achieve comprehensive security, a key principle of inclusive and resilient urban governance.

Advancing Knowledge: Directing academic research to frame and address cybersecurity challenges, with findings published in ranked journals to contribute to global knowledge on securing digital cities.

By translating academic research into actionable recommendations and fostering collaboration between security institutions, academia, and civil society, this forum served as a critical platform. It underscored the University of El Oued's pivotal role in building a resilient and secure digital environment, which is a fundamental prerequisite for the sustainable and safe communities envisioned by SDG 11.





Preserving and documenting the national intellectual and cultural heritage

On May 6, 2024, Professor Mohamed Laqab, the Minister of Communication, commenced his participation in the National Forum on Algerian Journalism and Journalists during the Colonial Era by visiting a special exhibition at the University of El Oued.

The exhibition, hosted at the Faculty of Social Sciences and Humanities, featured a collection of historical photographs and newspapers documenting the colonial period in Algeria. Its primary aim was to highlight the key themes and issues addressed during the national movement and the liberation revolution.

During his tour, the Minister also visited the faculty's audiovisual studio, where he was a guest on a program produced by the university.

The Minister's visit to the faculty was accompanied by a distinguished delegation including the Governor of the province, Mr. El-Saïd Akhrouf, the President of the Provincial People's Council, Mr. Azzedine Houssani, along with civil and security authorities, members of the revolutionary family, and National People's Assembly members.

The delegation was received by the University Rector, Professor Omar Ferhati, the Dean of the Faculty of Social Sciences and Humanities, along with university officials and faculty members.





Contributing to the promotion and protection of the cultural and natural heritage associated with the desert region

In a significant step towards aligning tourism with global sustainability goals, the University of El Oued hosted a major scientific symposium on November 16, 2024. The event, titled “**Desert Tourism in Algeria: International Dimension, Prospects and Challenges,**” was a key component of the International Desert Tourism Festival and was held at the university’s “Abu Al-Qasim Saadallah” main lecture hall.

The opening ceremony was presided over by Mr. Moussa Ben Thamer, Inspector General of the Ministry of Tourism and Traditional Industry, representing the Minister, alongside the Inspector General of El Oued Province and the University Rector, Professor Omar Ferhati.

In his opening address, Rector Ferhati welcomed the distinguished guests, including national and local authorities, elected officials, and media representatives. He highlighted the vast natural, economic, and cultural potential of Algeria's tourism sector and underscored the state's commitment, as per the President's directives, to supporting tourism as a vital economic resource. **Professor Ferhati positioned the university as a crucial partner and engine for sustainable development across all sectors, with tourism being a key priority.**

The Inspector General of the Province, speaking on behalf of the Governor, emphasized the unique appeal of desert tourism and the rich offerings of the "City of a Thousand Domes." Mr. Ben Thamer, representing the Minister of Tourism, then thanked the university leadership and community, outlining the festival's activities and the symposium's ambitious agenda.



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SUSTAINABLE CITIES AND COMMUNITIES



Conclusion

The diverse activities implemented by University of El Oued exemplify its unwavering commitment to achieving Sustainable Development Goal 11, "Sustainable Cities and Communities." This commitment is embodied in ambitious, practical initiatives aimed at transforming the campus and surrounding area into more inclusive and resilient spaces. These integrated efforts position the university as a key partner in building sustainable cities and communities, and as a center for promoting a culture of sustainability at all levels.



UNIVERSITY OF EL-OUED

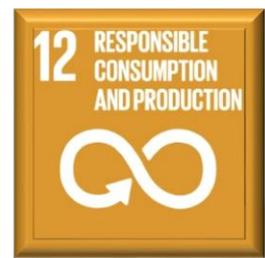
Report on the United Nations
Sustainable Development Goal 12:
Responsible Consumption and Production



This report examines the University of El Oued's contributions to SDG 12, which promotes responsible consumption and production.

SDG 12

RESPONSIBLE CONSUMPTION AND PRODUCTION



Introduction

Sustainable Development Goal 12 (SDG 12), which aims to ensure sustainable consumption and production patterns, has become a national priority for Algeria. This commitment is demonstrated through strategic frameworks such as the National Action Plan for Environment and Sustainable Development 2035 (PNAE-DD) and the Sustainable Consumption and Production National Action Plan (SCP-NAP). Within this national context, the University of El Oued emerges as a key contributor, actively advancing SDG 12 through comprehensive policies on ethical sourcing, waste management, and campus sustainability. These efforts are further amplified by the university's community outreach and dedicated research initiatives. This report details the specific strategies and achievements undertaken by the University of El Oued in support of this critical global goal.

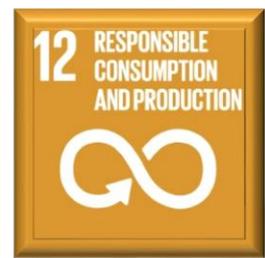
Research

1- Salt stress responses in *Chenopodium quinoa* Willd.: A comparative analysis of germination and early seedling growth across cultivars

This study evaluated the effects of salt stress on seed germination and early seedling growth across five quinoa (*Chenopodium quinoa* Willd.) cultivars. The seeds were exposed to varying concentrations of sodium chloride (NaCl), ranging from 0 to 205 mM. Among the cultivars tested, Blanca de Junin demonstrated the highest salt tolerance, achieving 100% germination even at 205 mM NaCl. In contrast, Amarilla Sacaca exhibited the lowest germination rate, at 63.75% under the same saline conditions. Germination energy at the highest salt concentration ranged from 92.5% in Blanca de Junin to 56.25% in Amarilla Sacaca. Salt stress also led to significant reductions in seedling and radicle length, with decreases ranging from 44.76% to 71.29% and 31.68% to 73.16%, respectively. The findings reveal considerable genotypic variation in salt tolerance among the quinoa cultivars, with Blanca de Junin showing notable resilience during both germination and early growth stages. These results offer important implications for developing salt-tolerant quinoa varieties and promoting their cultivation in saline-affected areas, thereby supporting sustainable agricultural practices and enhancing food security in marginal environments.

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RESPONSIBLE CONSUMPTION AND PRODUCTION



2-Clays-based geopolymers: a sustainable application as adsorbent of cytostatic drugs for water purification

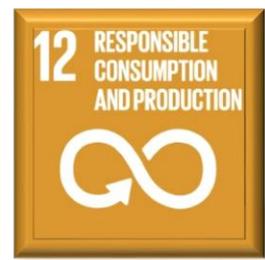
The increasing use of cytostatic drugs in chemotherapy poses a growing environmental threat, underscoring the critical need for effective methods to remove these hazardous pollutants from wastewater before they enter aquatic ecosystems. Adsorption is a prominent technique for water treatment, valued for its effectiveness, cost-efficiency, and operational simplicity. This study investigates a novel, cost-effective foamed geopolymer—synthesized from illito-kaolinitic clay (Douiret, Tunisia) and industrial waste (silica fume, phosphogypsum)—for removing the cytostatic drugs paclitaxel (PCX) and irinotecan (IRI) from water. The geopolymer was characterized before and after adsorption using XRD, FTIR, SEM, and TGA. Batch adsorption tests under varying conditions demonstrated exceptional removal efficiencies of nearly 100% for PCX and 89% for IRI using 20 mg of adsorbent and an initial drug concentration of 2.5 mg/L. Characterization analyses revealed that adsorption occurred through physical interactions, pore filling, electrostatic attraction, and hydrogen bonding. With a specific surface area of 82.23 m²/g and a pore volume of 0.19 cm³/g, the geopolymer also proved highly effective in treating contaminated natural water samples, including influent, effluent, and surface water. These findings highlight its significant potential for practical, cost-effective water purification.

3 - Assessment of anticoagulant potential of *Halocnemum strobilaceum* (Pall.) against black rat (*Rattus rattus* Lin.) from Algeria

This study evaluates the anticoagulant potential of *Halocnemum strobilaceum* (Pall.) as a natural rodenticide against black rats (*Rattus rattus* Lin.) in Algeria. The results demonstrate that extracts from this plant possess significant blood anticoagulation properties in rats, leading to internal bleeding and substantial mortality rates. This effect was confirmed through laboratory and field tests monitoring coagulation parameters and mortality rates. These findings highlight the potential of using this plant as an environmentally friendly alternative to conventional chemical rodenticides, opening new avenues for developing sustainable pest control strategies in Algerian regions while minimizing negative impacts on the ecosystem.

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RESPONSIBLE CONSUMPTION AND PRODUCTION



4- Valorizing date palm spikelets into activated carbon-derived composite for methyl orange adsorption: advancing circular bioeconomy in wastewater treatment—a comprehensive study on its equilibrium, kinetics, thermodynamics, and mechanisms

This study valorizes date palm spikelets (DPS), an agricultural waste, to synthesize a novel ZnO-functionalized activated carbon composite (ZnO@DPS-AC) for water treatment. Synthesized via ZnCl₂ activation and pyrolysis at 600°C, the composite was characterized as highly carbonaceous (>74% C) and porous. It demonstrated exceptional efficiency in adsorbing methyl orange (MO), removing over 99% of the dye under optimized conditions with a rapid 45% reduction within the first 10 minutes. The adsorption process, well-described by the Langmuir model, showed a maximum capacity of 226.81 mg/g at 20°C, primarily through hydrogen bonding, π - π interactions, and pore filling. The composite's efficacy in treating real wastewater and other pollutants underscores its potential as a sustainable, high-performance adsorbent, aligning with circular bioeconomy principles

5- Oued Souf (Algerian Sahara): balancing rising groundwater and agricultural sustainability

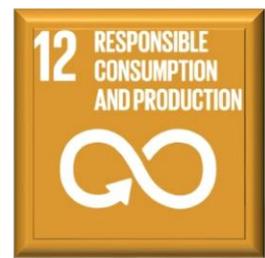
This research examines the paradoxical phenomenon of rising groundwater levels in the Algerian Sahara, a region typically associated with aridity. This environmental challenge is primarily driven by the recharge of aquifers with wastewater from local activities, a consequence of poor water resource management. The resulting overexploitation in areas like Oued Souf threatens the environment and has led to significant agricultural losses in the Ghouts. To address this, the study emphasizes the critical need for a sustainable management system that engages all relevant stakeholders. Key strategies include preventing aquifer overuse and excessive pumping, implementing artificial recharge techniques to replenish reserves, and regulating watershed flows to mitigate the rising water levels.

6- Environmental resilience through artificial intelligence: innovations in monitoring and management

The rapid advancement of artificial intelligence (AI) is now being directed toward critical environmental challenges. This review comprehensively examines AI's transformative role in environmental monitoring and preservation. It traces the technology's evolution before delving into its specific applications for analyzing remote sensing imagery, addressing key tasks such

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RESPONSIBLE CONSUMPTION AND PRODUCTION



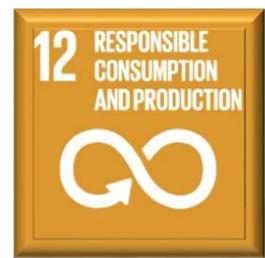
as per-pixel analysis, object detection, and semantic understanding. The review further explores AI's implementation in environmental control systems, including wastewater treatment, solid waste management, and early-warning systems. The analysis underscores that AI significantly enhances accuracy, adaptability, and real-time decision-making, establishing it as a cornerstone for building a sustainable and resilient future.

Healthy nutrition is an activity under the title "Your medicine is in your food"

Under the slogan "Your Medicine in Your Food," the University of El Oued successfully organized an international forum championing responsible consumption and production (SDG 12). The event, orchestrated by the "Bassmat Amal" club for individuals with determination in coordination with the Faculty of Natural and Life Sciences' medical annex and in partnership with the "Raïel" club and the Celiac Disease Association, featured a distinguished gathering. Attendees included the University President, Professor Omar Ferhati, faculty deans, civil society representatives, and a delegation from Tunisia. The program featured scientific seminars focused on sustainable and healthy nutritional patterns, with specialized lectures on adapting these for people with disabilities. A concurrent exhibition showcased sustainable food products for celiac patients and highlighted the scientific achievements of university clubs. The event further fostered knowledge exchange through cultural and athletic competitions, collectively raising awareness for sustainable consumption and production. The forum culminated in an honoring ceremony for all participants and contributors, standing as a tangible model for advancing the principles of SDG 12.

SDG 12

RESPONSIBLE CONSUMPTION AND PRODUCTION

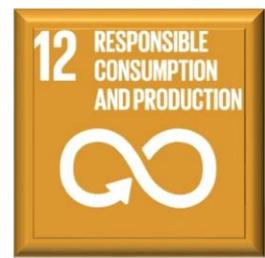


The Absar Club participated in a reading festival celebrating migratory birds and the environment.

On the occasion of World Children's Day, the "Ibsar" Club for Sustainable Development at the University of El Oued partnered with the local cultural festival "Reading in Celebration" to organize an educational environmental activity. The event focused on introducing children to the migratory birds of the Souf Valley region and their role in maintaining ecological balance, while emphasizing the importance of preserving natural resources and biodiversity. Through interactive workshops, members of the club educated children on practical ways to protect local wildlife and minimize their environmental impact, highlighting the principles of sustainable consumption and responsible interaction with ecosystems. This initiative directly supports SDG 12 (Responsible Consumption and Production) by promoting awareness of sustainable resource use, reducing ecological footprints, and encouraging environmentally conscious behaviors from an early age. The activity also reinforced the importance of community partnerships in advancing sustainable development goals, demonstrating how local actions can contribute to global sustainability efforts.

SDG 12

RESPONSIBLE CONSUMPTION AND PRODUCTION



The rector of El Oued University oversees the “A Tree for Every Professor” initiative for newly hired professors.

In fulfillment of its commitment to achieving Sustainable Development Goal 12 (Responsible Consumption and Production), Professor Omar Ferhati, President of University of El Oued, along with the Vice President for Development and Foresight, launched two integrated environmental initiatives that embody the university's vision for environmental sustainability.

Initiative 1: "A Tree for Each Professor"

This initiative was implemented with the participation of newly appointed faculty members and university staff, aiming to:

- Expand green spaces within the university campus
- Enhance environmental responsibility culture among faculty members
- Contribute to ecological balance and mitigate climate change impacts

Initiative 2: Rehabilitation of Internal Irrigation Networks

The launch of the irrigation network rehabilitation project includes:

- Installation of smart water-saving irrigation systems

SDG 12

RESPONSIBLE CONSUMPTION AND PRODUCTION

- Improvement of water consumption efficiency by up to 40%
- Implementation of modern technologies adapted to desert climate conditions

These two initiatives represent a practical model of the university's commitment to achieving sustainable development goals and reflect its dedication to being an incubator for environmental innovation and a beacon of sustainability in the region.



Conclusion

The University of El Oued translates its commitment to SDG 12 into tangible action through a series of targeted initiatives that champion responsible consumption and production. This is evidenced by the implementation of smart irrigation systems and the "Tree for Each Professor" campaign, which promote the sustainable management of water and green resources on campus. Furthermore, the development of a geopolymer from industrial waste for water treatment, research into salt-tolerant quinoa to secure food production on marginal lands, and the hosting of forums on sustainable desert agriculture demonstrate a deep commitment to innovative and sustainable production cycles. Through this integrated approach of operational greening, cutting-edge research, and community engagement, the University of El Oued is not only aligning with Algeria's SCP-NAP but is actively constructing a model for a sustainable future in the Sahara region.



UNIVERSITY OF EL-OUED

Report on the United Nations
Sustainable Development Goal 13:
Climate Action



This report outlines the University of El Oued's efforts toward SDG 13, dedicated to climate action.

SDG 13

CLIMATE ACTION



Introduction

The University of El Oued recognizes that its regional context, characterized by desert ecology and water scarcity, makes it highly vulnerable to the impacts of climate change. Consequently, the University is deeply committed to Sustainable Development Goal 13 (SDG 13)—taking urgent action to combat climate change and its impacts. Our strategy integrates research, institutional practices, and community education to enhance climate resilience, promote mitigation efforts, and build regional adaptive capacity.

1. Climate Adaptation and Co-operative Planning

The University serves as a crucial hub for developing evidence-based strategies for climate adaptation, particularly within the water-intensive agricultural sector.

1.1 International Forum on Desert Agriculture (TIMSA'24)

On November 20, 2024, the University hosted the TIMSA'24 International Forum on Technology and Innovation for Modernizing Desert Agriculture. This event was opened by the Governor of El Oued Province and involved high-level participation from various government officials, researchers, farmers, and economic partners.

Impact and Contribution:

- **Co-operative Planning:** The forum directly addresses **climate change adaptation** by convening local government and regional stakeholders to co-design resilient agricultural systems capable of withstanding climate-driven risks like drought and heat.
- **Informing Government:** Through dedicated sessions, such as those on Soil and Water Management and Solar-Powered Irrigation, the University informs regional policy with innovative, low-emission technologies and practices essential for sustaining food security under severe climate stress.
- **Sustainable Solutions:** The forum focuses on exploring "sustainable solutions that enhance agricultural development, provide food, and minimize environmental risks," positioning the University as a leader in climate-resilient economic growth.

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CLIMATE ACTION



2. Mitigation and Carbon Footprint Reduction

The University demonstrates a strong institutional commitment to reducing its carbon footprint through sustainable infrastructure and active mitigation programs.

2.1 National Leadership in Environmental Sustainability (UI GreenMetric)

On August 3, 2025, the University celebrated achieving first place nationally in the 2024 UI GreenMetric World University Ranking, a global assessment of sustainability performance. This achievement reflects the institution's commitment to continuous environmental improvement.

Evidence of Mitigation and Tracking:

- **Low-Carbon Energy:** The University confirmed its ongoing plan to expand the use of renewable energy sources and develop sustainable transport methods, demonstrating active measures to track and reduce Scope 1 and 2 carbon emissions.
- **Commitment to Carbon Reduction:** Achieving and maintaining the top position in this comprehensive sustainability ranking indicates an institutional commitment to achieving carbon-reduction goals through developing eco-friendly infrastructure and resource management.

2.2 Carbon Sequestration through Afforestation

On November 14, 2024, the University Director, Professor Omar Ferhati, launched a Tree Planting Operation at the Faculty of Arts and Languages, in coordination with the Directorate of Forests.

Impact and Contribution:

- **Mitigation:** This initiative contributes directly to climate change mitigation by enhancing the campus's green cover and increasing its capacity for CO₂ absorption (natural carbon sequestration).
- **Sustainable Landscaping:** The planting includes drought-tolerant species (e.g., Turkish Jasmine, Vinca, Dodonaea), linking mitigation efforts with practical adaptation strategies suitable for the desert climate.

SDG 13

CLIMATE ACTION



2.3 Advanced Research on Low-Carbon Energy and CO2

Mitigation

The University of El Oued's academic research is focused on developing and optimizing clean energy technologies and novel carbon capture strategies, providing critical scientific support for national mitigation goals.

Low-Carbon Energy Optimization (Thermal Efficiency and CO2 Reduction): Research staff investigated the thermal and environmental efficiency of solar air collectors by experimenting with corrugated and wavy absorber shapes. The experimental study found that switching from a flat plate to a **corrugated absorber** resulted in a significant **40.56% improvement in daily thermal efficiency** and a 44.83% increase in exergy efficiency. This optimization directly supports the use of low-carbon energy sources by maximizing system performance and leading to quantifiable **monthly CO2 reduction** and cost savings. (Paper Title: *Effect of absorber shape on energy, exergy efficiency and enviro-economic analysis of solar air collector: An experimental study*).

Optimizing CO2 Sequestration: In the field of carbon capture and storage (CCS), a meso-scale analysis explored methods for **optimizing CO2 sequestration within the Vapor Extraction (VAPEX) process**. This study modeled the dissolution of CO2 into crude oil to enhance recovery while simultaneously storing the gas. Findings highlight that reduced oil viscosity, increased permeability, and mobile oil angle accelerate CO2 dissolution and the growth of density fingers, offering novel insights into **maximizing the amount of sequestered CO2** during petroleum operations. (Paper Title: *Optimizing CO2 sequestration in Vapor Extraction Process: A Meso-Scale analysis of oil Viscosity, Permeability, and mobile oil orientation effects*).

3. Climate Education and Capacity Building

The University ensures that climate literacy and sustainability principles are integrated into academic life and shared with the broader community, fulfilling the core need for human and institutional capacity building.

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CLIMATE ACTION



3.1 Integrating Sustainability into Curricula

A core component of the University's strategy, confirmed during the GreenMetric celebration, is the ongoing integration of sustainability topics into educational curricula. This effort directly contributes to promoting climate change literacy across all academic disciplines.

3.2 Targeted Climate Education for Children

On June 6, 2024, the Ibsar Club for Sustainable Development organized a Scientific Workshop for Children on Sustainable Development.

- **Local Education Programmes:** The workshop used videos and interactive activities to simplify concepts related to climate change mitigation and adaptation, ensuring that the younger generation is aware of their role in achieving the SDGs.
- **Building Future Capacity:** By targeting children, the University is investing in long-term societal resilience and fostering a culture of environmental responsibility from an early age.

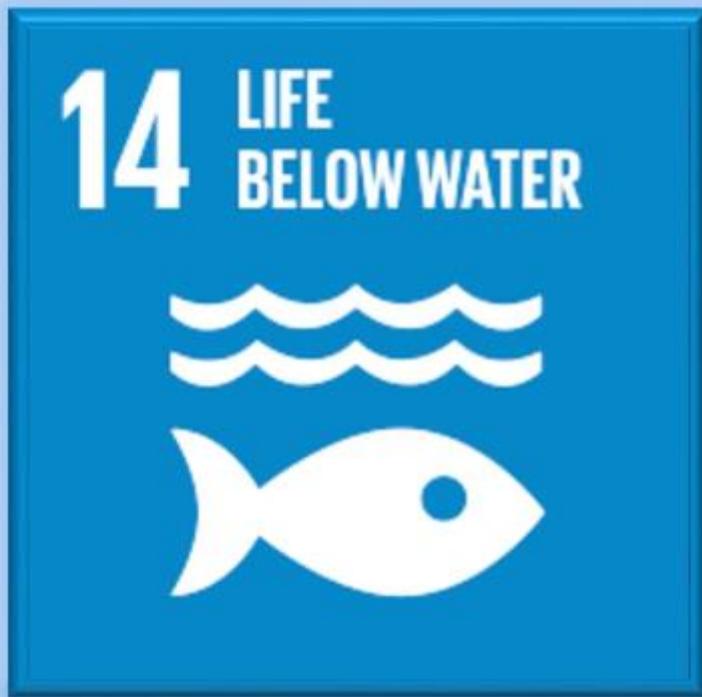
Conclusion

The University of El Oued demonstrates a strategic, evidence-based commitment to SDG 13, establishing itself as a national leader in integrated Climate Action. The University successfully links advanced research—as showcased by the TIMSA'24 Forum—to necessary institutional changes, confirmed by its top ranking in UI GreenMetric. These efforts span both core Mitigation activities (expanding renewable energy, afforestation) and crucial Adaptation strategies (developing climate-resilient agriculture). By actively educating future generations and collaborating with government and regional partners, the University is building the human and institutional capacity required to face the unique climate challenges of the region and secure a sustainable future.



UNIVERSITY OF EL-OUED

Report on the United Nations
Sustainable Development Goal 14:
Life Below Water



This report highlights the University of El Oued's support for SDG 14, focused on conserving marine ecosystems.

SDG 14

LIFE BELOW WATER



Introduction

The University of El Oued, Algeria, demonstrates a sustained institutional commitment to environmental sustainability, actively contributing to the global objectives of Sustainable Development Goal 14 (SDG 14), "Life Below Water." This report details the key academic, research, and strategic initiatives implemented by the University, establishing a robust framework for environmental scientific research and community engagement, despite the institution's inland location.

Research: Strategic Addressing of Aquatic Pollution

The University's faculty members have made significant contributions to SDG 14 through two recent scientific publications that address pollution across the ecosystem—from land-based origins to the ultimate impact on marine resources.

The first research, titled "**Phosphate adsorption on dried alum sludge: Modeling and application to treatment of dairy effluents,**" directly supports **SDG 14.1** by focusing on the prevention of marine pollution derived from land-based activities. This research addresses the critical challenge of removing phosphate from industrial liquid waste, such as dairy effluents. Phosphate is a leading cause of eutrophication—a process resulting in excessive algae growth and oxygen depletion—which severely compromises aquatic life and creates harmful 'Dead Zones' that eventually affect the marine environment. The study innovatively developed a sustainable and cost-effective wastewater treatment solution using alum sludge, an industrial byproduct, as an adsorbent. This methodology not only ensures the effective removal of a key pollutant but also champions waste reduction and the principles of a circular economy in water resource management, thereby safeguarding the quality of coastal and marine waters through proactive, inland prevention.

The second publication, "**Analysis and Risk Assessment of Essential and Toxic Elements in Algerian Canned Tuna Fish,**" serves as an essential monitoring and impact assessment effort, relating to SDG 14.1 and supporting the sustainable use of marine resources under SDG 14.7. This research addresses the problem of toxic elements, such as heavy metals, which accumulate and biomagnify in the marine food chain, particularly in apex predators like tuna. The analysis and risk assessment contribute to three critical areas: evaluating the quality of

SDG 14

LIFE BELOW WATER



marine food resources, protecting consumer health by ensuring the safety of local marine products, and providing scientific data that can inform national policy for setting more stringent standards on fish quality. Ultimately, this work encourages the reduction of marine pollution sources to maintain the integrity of economically vital resources.

Infrastructure and Capacity Building: The Scientific Analysis Center

To reinforce national scientific capabilities, the University has inaugurated the new Physico-Chemical Research and Analysis Center. This center represents a significant scientific asset, providing specialised facilities essential for the analytical needs of SDG 14. Housed within this center is the Agri-Biology and Environmental Sciences Laboratory, which directly contributes to water conservation goals. This laboratory enables precise analysis of surface and groundwater, studying their biological and chemical properties, which is foundational for maintaining sustainable aquatic ecosystems. Its advanced capabilities permit the continuous monitoring and analysis of pollutants in water environments, assisting researchers in developing effective mitigation strategies. Furthermore, the laboratory supports specialised research focused on the biodiversity of surrounding wetland and semi-arid areas, offering the scientific basis required for the protection of these crucial local ecosystems. This investment in research infrastructure is fundamental to building the national capacity necessary for achieving all targets under SDG 14.

Education and Policy Engagement: Fostering Environmental Stewardship

The University strategically integrates the principles of SDG 14 into its educational mandate to emphasise the critical nexus between land-based activities and the health of the marine environment, preparing the next generation of environmental leaders. Curriculum integration, particularly within the Faculty of Technology includes educational programmes in Water Resource Management, focusing on pollutant tracing, advanced wastewater treatment, and non-conventional water reuse to minimise discharge into natural systems. Furthermore, modules address Desert Biodiversity and Wetlands, highlighting the role of local oases and wadis as sensitive aquatic ecosystems and natural pollution filters.

In terms of Policy and Advocacy, the University actively leverages its research findings to influence local and regional environmental governance.

SDG 14

LIFE BELOW WATER



Community Engagement and Awareness: Action at the Source

Recognising that marine protection originates inland, the University has implemented practical community actions in collaboration with key partners. As a proactive measure in environmental education, the University's Ibsar Club for Sustainable Development participated in the local Cultural Festival's 'Reading in Celebration' event on the International Day of the Child. Club members engaged young audiences by raising awareness about the migratory birds of the Oued Souf region, defining the child's essential role in protecting wildlife, and detailing practical methods for environmental preservation. This initiative is crucial for cultivating future generations of environmental stewards who understand and act upon the interconnectedness of all ecosystems, including the essential aquatic resources.



SDG 14

LIFE BELOW WATER



Conclusion

The research and activities detailed herein demonstrate a committed and growing environmental stewardship by the University of El Oued. Overcoming the geographical challenge of its inland location, the University employs a strategic and effective approach centered on three pillars: Preventive Action, founded on the understanding that marine health is intrinsically linked to inland pollution control; Capacity Building, achieved through strategic investment in new analytical infrastructure; and Institutional Networking, which ensures the sustained effectiveness of environmental work through robust partnerships. These concerted efforts solidify the University of El Oued's role as a proactive and substantial contributor to the global objectives of SDG 14.



UNIVERSITY OF EL-OUED

Report on the United Nations
Sustainable Development Goal 15:
Life on Land



This report details the University of El Oued's initiatives for SDG 15, aimed at preserving terrestrial ecosystems.

SDG15

LIFE ON LAND



Introduction

Sustainable Development Goal 15 focuses on the sustainable management of terrestrial ecosystems, forest conservation, and combating land degradation and biodiversity loss. The University of El Oued, located in a semi-arid Saharan region, is actively engaged in initiatives addressing desertification, ecosystem restoration, and environmental education, contributing to local and regional efforts aligned with SDG 15.

In 2024, the University of El Oued undertook significant campus greening and ecological restoration efforts as part of its commitment to SDG 15 Life on Land. The institution actively participated in the national re-afforestation campaign, coordinating with the Conservation of Forests of the Wilaya of El Oued and the National Carob Development Association, to plant carob trees at the entrance and periphery of the Faculty of Natural and Life Sciences. Through this initiative, the university not only enhanced its green campus infrastructure but also contributed to biodiversity preservation, soil protection and desertification mitigation critical issues for its Saharan regional context. The project aligns with the University's Sustainability Policy, which sets a goal of launching tree-planting campaigns of 1,000 drought-resistant trees per year in collaboration with the local municipality.



SDG15

LIFE ON LAND



Research: Conserving Desert Ecosystems and Achieving Land Degradation Neutrality

The University of El Oued's Faculty of Nature and Life Sciences is proactively addressing the unique environmental challenges of the Algerian Sahara, contributing directly to the sustainable management of terrestrial ecosystems and halting biodiversity loss. Their research focuses on both the ecological threats posed by unsustainable resource practices and the comprehensive assessment of local wildlife.

A critical study titled "**Oued Souf (Algerian Sahara): balancing rising groundwater and agricultural sustainability**" tackles the paradoxical challenge of rising groundwater in the arid desert. This phenomenon, primarily caused by poor water resource management and aquifer recharge from wastewater, threatens land sustainability and the region's distinctive agricultural system, known as the *Ghouts*. These unique palm grove depressions are essential for local food security and culture. The research demonstrates that overexploitation and unregulated water usage in Oued Souf lead to significant environmental degradation and agricultural loss. To address this, the study advocates for a comprehensive, multi-stakeholder management system focused on achieving land degradation neutrality. Key recommendations include minimizing excessive pumping, employing artificial recharge methods to replenish reserves sustainably, and regulating water flows to control rising water levels, thus ensuring the long-term viability of Saharan aquifers and the associated terrestrial ecosystems.

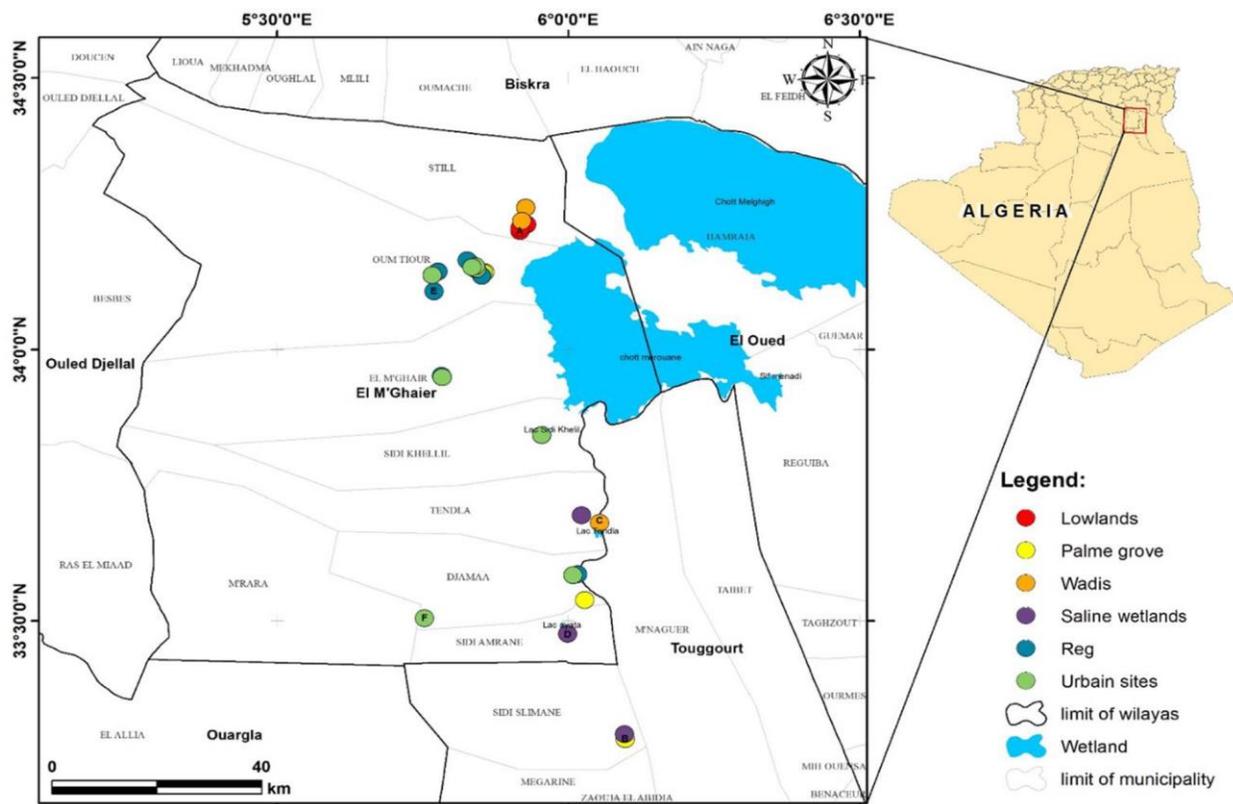
Complementary to land management, the University conducted a comprehensive biodiversity assessment published under the title "**Amphibian and reptile diversity in natural landscapes and human-modified habitats of the Sahara Desert of Algeria: A better understanding of biodiversity to improve conservation.**" This pioneering ecological study fills a significant knowledge gap by investigating the spatial and seasonal distribution of herpetofauna across diverse Saharan biotopes, including lowlands, desert pavements, salt lakes (*Sabkhas*), palm groves, and urban sites. Researchers identified 32 species—approximately 30% of the entire Algerian herpetofauna—including 8 species protected in Algeria and 9 endemic to the Mediterranean

SDG15

LIFE ON LAND



region. The study established that human-modified habitats like palm groves exhibit the highest species richness, while environments like salt lakes and urban sites show the lowest diversity and highest environmental stress. The findings provide quantitative data essential for developing targeted conservation strategies and underline the need to integrate biodiversity values into regional development planning, particularly by safeguarding mesic biotopes that support the highest variety of life.



Institutional Policy and Collaboration

The University of El Oued maintains its commitment to land conservation through a robust framework of internal policies and strategic external collaborations. The institution actively pursues **Local and National Cooperation**, forging agreements with regional organizations focused on the sustainable use of land, the preservation of local ecosystems, and targeted community education initiatives. Furthermore, national partnerships are established with

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LIFE ON LAND



stakeholders to engage in joint research and capacity-building projects that address complex conservation challenges across the country.

This external engagement is underpinned by a series of rigorous internal **Policies Supporting Land Conservation** that align with national regulations and international environmental frameworks. Key institutional directives include a comprehensive Policy on the Conservation and Sustainable Use of Terrestrial Ecosystems, ensuring the responsible management of local drylands and other vital ecosystems associated with the university. To protect regional biodiversity, the University enforces a Policy on Monitoring and Protecting Endangered Species, specifically identifying and safeguarding IUCN Red Listed species found in the vicinity, and a Policy on the Reduction of Alien Species Impact, regulating the introduction of non-native species on campus. Environmental health is further secured by a strict Policy on Hazardous Waste Disposal, guaranteeing that all materials are managed in adherence to environmental laws to minimize ecological impact. Finally, the institution demonstrates its commitment to waste reduction through a significant Policy on Plastic Waste Reduction, promoting recycling and eco-friendly alternatives across campus operations.

The collective impact of this research and policy framework establishes the University of El Oued as a leading institution in generating scientific knowledge crucial for the sustainable use and conservation of the unique Saharan biome.

Partnerships and Community Engagement

The outcome of the research underscores the university's innovation capacity and its contribution to sustainable land management and ecosystem restoration in a Saharan context. Moreover, the institution participated in the [TIMSA'24](#). International Forum for Technology and Innovation for the Modernization of Desert Agriculture, held on 20–21 November 2024, at which researchers and stakeholders explored five key themes including soil and water management.

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LIFE ON LAND



In 2024, the University of El Oued strengthened its partnerships with local authorities, environmental NGOs, and regional institutions to promote sustainable land use and ecosystem restoration. Collaborating with the Wilaya's Directorate of Agriculture and organizations such as the National Carob Development Association, the university implemented joint initiatives for reforestation, soil rehabilitation, and biodiversity preservation. These activities included community tree-planting campaigns, ecological workshops, and participatory field projects, which allowed students and faculty to directly engage with local communities.

SDG15

LIFE ON LAND



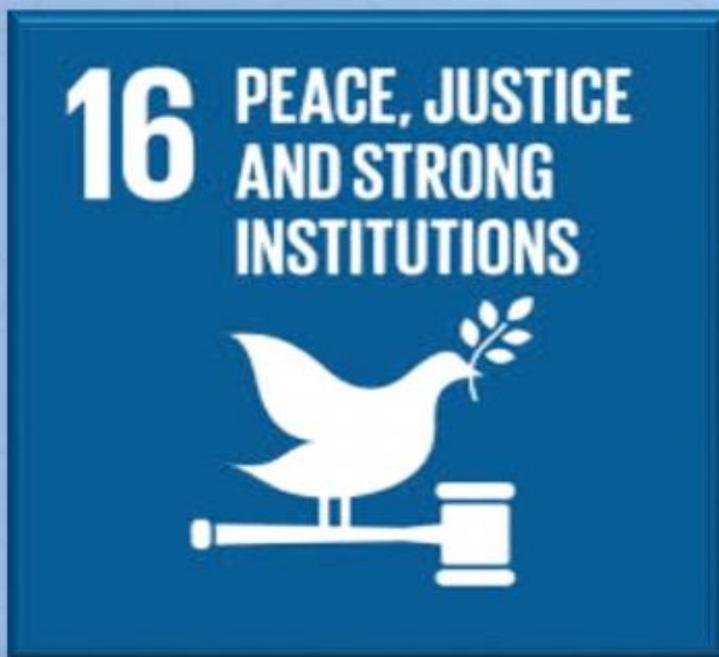
Conclusion

In 2024, the University of El Oued actively advanced SDG 15 through reforestation, soil rehabilitation, biodiversity studies, and community-based ecosystem projects. By integrating environmental topics into the curriculum, engaging students in fieldwork, and collaborating with local authorities and NGOs, the university strengthened both ecological resilience and community awareness.



UNIVERSITY OF EL-OUED

Report on the United Nations
Sustainable Development Goal 16:
Peace, Justice and Strong Institutions



This report showcases the University of El Oued's commitment to SDG 16, promoting peace, justice, and strong institutions.

SDG 16

PEACE, JUSTICE, AND STRONG INSTITUTIONS



Introduction

The University of El Oued promotes Sustainable Development Goal 16 (Peace, Justice, and Strong Institutions) via a detailed comprehensive strategy outlined in this report. This method integrates focused academic research that informs national policy, promotes transparent institutional governance through participation, fosters values-based education for future civic leaders, and establishes strategic partnerships to enhance digital capacity. These initiatives demonstrate the university's active role as both a subject and an agent of positive institutional change.

1. Research-Policy Nexus for Peace and Justice

The University of El Oued addresses justice and institutional integrity through a comprehensive approach that unites legal research, economic analysis, and institutional policy. Within the [Faculty of Law and Political Science](#), laboratories like [International Law Changes and its Impact on Algerian Law and Public Policies & Improving Public Services \(LPDDSA\)](#) lead research on legal reform, human rights, and challenges such as organized crime and cybersecurity. Their work provides critical analysis aimed at strengthening Algeria's legal frameworks to guarantee fair justice and protect citizen liberties. This legal focus is complemented by the Faculty of Economics, which produces key research on the economic dimensions of institutional integrity. Studies empirically examine the intricate relationship between corruption and economic growth ([Bouteraa et al., 2024](#)) and use dynamic data to assess its specific performance impacts ([Djouadi et al., 2024](#)). This combined research focus is powerfully underpinned by the university's own ["Anti-bribery and Corruption Policy"](#) (2024), demonstrating a unified institutional

SDG 16

PEACE, JUSTICE, AND STRONG INSTITUTIONS



commitment to both studying and actively implementing the core principles of transparency and accountability. These initiatives showcase the university as an active participant in national and global dialogues concerning justice and institutional integrity.

2. Transparent Governance and Institutional Accountability

The university's governance embodies the SDG 16 principles of transparency, accountability, and participation. This is evidenced by governing statutes mandating **elected representation** for students, faculty, and staff, ensuring a formal role in policy-making. This structure is complemented by a formally recognized **independent student union** that provides advocacy and governance input. The commitment is further solidified by an **Academic Freedom Policy** guaranteeing open inquiry and the **publication of comprehensive financial data** for stakeholder review.



SDG 16

PEACE, JUSTICE, AND STRONG INSTITUTIONS



SDG 16

PEACE, JUSTICE, AND STRONG INSTITUTIONS



3. Cultivating Justice through Education and Student Action

The university promotes justice by integrating practical, values-oriented learning into the student experience. The Faculty of Law and Political Science is central, preparing **graduates prepared for careers in law and civil enforcement**. This formal curriculum is enhanced by hands-on programs, including **practical legal training** through simulation trials and legal clinic initiatives. This is amplified by a vibrant ecosystem of **student-led clubs and associations**, which focus on human rights and social advocacy, empowering students to address real-world inequalities and foster a campus culture of justice.



SDG 16

PEACE, JUSTICE, AND STRONG INSTITUTIONS



4. Forging Partnerships for Stronger Institutions

The university's mission transcends its premises boundaries, acting as a vital collaborator in enhancing the region's institutional fabric. This commitment is demonstrated through a proactive approach to **digital governance and capacity building**, which fosters transparency and accountability.

The university actively builds expertise by providing its staff with specialized training in critical areas such as **Public Procurement** and **Information Security**. These initiatives are fundamental to promoting integrity and transparency in public administration. This focus is complemented by the adoption of modern governance tools, as the university implements and provides training on its **HR Information System (SIRH)** and its **Digital Repository**. Furthermore, its focus on **Open-**

SDG 16

PEACE, JUSTICE, AND STRONG INSTITUTIONS



Source Applications demonstrates a significant institutional commitment to transparency, data accessibility, and accountable management.



The university leverages this expertise in wider forums, such as participating in **regional workshops** to improve institutional performance and visibility, reinforcing its role as a model for building modern, strong, and just institutions.

SDG 16

PEACE, JUSTICE, AND STRONG INSTITUTIONS



Conclusion

The University of El Oued contributes to SDG 16 through a comprehensive integration of research, policy, education, and external engagement. This report presents evidence, ranging from high-impact legal research to the implementation of transparent digital governance tools, that illustrates a cohesive institutional commitment. The university serves as both an academic institution focused on peace and justice and a practical environment for the application of these principles. The University of El Oued reinforces its essential role in promoting a more just, peaceful, and inclusive society through the cultivation of integrity, the empowerment of its students, and the enhancement of its regional partnerships.



UNIVERSITY OF EL-OUED

Report on the United Nations
Sustainable Development Goal 17:
Partnerships for the Goals



This report emphasizes the University of El Oued's dedication to SDG 17, fostering partnerships to achieve the SDGs through international collaboration, research alliances, and community engagement initiatives for sustainable development.

SDG 17

PARTNERSHIPS FOR THE GOALS



Introduction

Sustainable Development Goal 17 (SDG 17) emphasizes the critical importance of global partnerships, cooperation, and resource mobilization in achieving the entire 2030 Agenda for Sustainable Development. It recognizes that strong, inclusive, and effective partnerships built upon shared principles and values are essential to addressing complex global challenges such as poverty, inequality, and climate change.

Within this global framework, the University of El Oued plays a pivotal role as a center for higher education, research, and community development. The institution is actively engaged in fostering partnerships that advance sustainability, promote innovation, and enhance institutional and societal capacities. Through collaborative research projects, academic networks, and community outreach programs, the university contributes to strengthening multi-stakeholder cooperation at local, national, and international levels. This report highlights the University of El Oued's ongoing efforts and achievements in supporting SDG 17. It examines how strategic collaborations, research initiatives, and educational programs contribute to building effective partnerships for sustainable development, aligning the university's mission with the global vision of the United Nations 2030 Agenda.

Research: Strengthening the Means of Implementation Through Technology and Policy Coherence:

The University of El Oued actively contributes to revitalizing the global partnership for sustainable development by generating scientific knowledge that enhances both technological capacity and global governance insights. Faculty research directly addresses the pillars of knowledge-sharing and policy coherence, offering robust, context-specific solutions for development challenges.

In the realm of technological advancement and sustainable infrastructure, the research titled "**Optimal Allocation of Capacitor Banks and Distributed Generation: A Comparison of Recently Developed Metaheuristic Optimization Techniques on the Real Distribution**

SDG 17

PARTNERSHIPS FOR THE GOALS



Networks of ALG-AB-Hassi Sida, Algeria' exemplifies the University's focus on environmentally sound solutions. This study introduces the novel **Energy Valley Optimizer (EVO)** tool, designed for the strategic placement of distributed generation units and capacitor banks within electricity distribution systems. Tested on a real-world Algerian distribution network, the EVO demonstrates superior performance compared to leading global algorithms, significantly minimizing energy loss, enhancing bus voltage stability, and lowering the total long-term energy cost over a 24-year period. By optimizing the integration of renewable-based distributed generation, this research not only improves technical and economic efficiencies locally but also contributes to the global drive for a more sustainable, resilient energy system through demonstrable scientific innovation and knowledge transfer.

Addressing the critical global challenge of governance and economic stability, the study "**Does corruption boost economic growth in developing countries?**" provides essential, evidence-based insights for enhancing policy coherence. Through a rigorous examination of the link between corruption and economic growth across 129 developing countries over two decades, the research employs advanced econometric methods to challenge conventional assumptions. The analysis supports the "grease the wheels" hypothesis, noting that higher levels of corruption surprisingly correlated with increased economic growth in the studied sample. Furthermore, the findings highlight additional factors influencing economic trajectories, such as the positive contribution of Foreign Direct Investment (FDI) and oil revenues, and the suppressive effect of augmented military expenditures. This nuanced understanding underscores the complexity of economic development in the Global South and provides policymakers with a more refined toolset for crafting effective national strategies that strengthen institutions and foster sustainable development.

SDG 17

PARTNERSHIPS FOR THE GOALS



Strategic Partnerships and Policy Dialogue: Strengthening Regional Cooperation

The University of El Oued serves as a key intellectual hub for regional policy development, demonstrating its commitment to revitalizing global partnerships through high-impact, cross-border initiatives.

A primary example of this institutional role is the **22nd International Forum on the Development of the Algerian-Tunisian Border Regions**, held on April 28–29, 2024. This major bilateral event was organized through a strategic twinning between the University's Faculties of Law and Political Sciences and Social and Human Sciences, in close coordination with the Maghreb Consultative Council and several specialized research laboratories. The forum saw high-level participation, inaugurated by the Wali of El Oued Province, and included the attendance of security and civil authorities, scientific figures from both Algeria and Tunisia, and local heads of border municipalities. The University Director emphasized that the forum's core goal was to "achieve added value and emerge with important practical recommendations centered on local development priorities according to regional specificities." By facilitating robust policy dialogue, collaboration, and knowledge exchange between researchers, policymakers, and local actors from two sovereign nations, this forum directly contributes to strengthening the global partnership for sustainable development, ensuring that regional policies are informed by shared strategic goals and local implementation realities.

SDG 17

PARTNERSHIPS FOR THE GOALS

17 PARTNERSHIPS
FOR THE GOALS



The University further reinforces national policy coherence and financial resource mobilization through its collaboration with state and private sectors. On January 30, 2024, the University hosted an **Information Day on the 2024 Finance Law**, organized in partnership with the Souf Provincial Chamber of Commerce and Industry. This event was officially opened by the University Director and the Inspector General of the Province. The scientific session, chaired by a faculty member from the Faculty of Economic Sciences, featured specialized participation from key government bodies, including inspectors from the State Property Directorate and the Customs Inspectorate Divisions. By convening academia, government bodies, and the private sector, the University serves as a critical platform for disseminating vital national financial and legislative information, thereby strengthening the institutional capacity required for effective implementation of national development strategies.

SDG 17

PARTNERSHIPS FOR THE GOALS

17 PARTNERSHIPS
FOR THE GOALS



Finally, the University ensures its strategic alignment with regional development planning through direct participation in local governance structures. On December 17, 2024, the University Director participated in the 4th ordinary session of the **Provincial People's Council**. During this high-level assembly, attended by the Wali of the Province, security committee members, executive directors, and municipal heads, the Director delivered a detailed presentation on the University City.

This comprehensive overview covered the University's statistics, achieved results, and detailed requirements for pedagogical and research infrastructure. This proactive engagement ensures that the needs and potential contributions of higher education are effectively integrated into the Province's strategic planning and resource allocation, strengthening public-public partnerships for sustainable regional development



SDG 17

PARTNERSHIPS FOR THE GOALS

University Operations and Community Integration

Building Connections with Key Institutions

As part of its operational strategy, the University of El Oued serves as a bridge between academia and society by actively building connections with key institutions. For example, on 6 February 2024, the university's Secretary-General held a coordination meeting with members of the Conseil Supérieur de la Jeunesse of the Wilaya of El Oued, alongside other senior university officials, to prepare the [“Forum des Jeunes du Souf” \(11-12 February 2024\)](#). Through such collaborations, the university fosters dialogue on critical sustainability issues, creates opportunities for students to network with institutional, youth and community actors, and enables contributions to local and global development initiatives.



SDG 17

PARTNERSHIPS FOR THE GOALS



Conclusion

The University of El Oued demonstrates a comprehensive commitment to SDG 17. Partnerships for the Goals through a multi-faceted approach encompassing national and international collaborations, educational exchanges, research initiatives, and community engagement. By fostering partnerships with governmental bodies, NGOs, international universities, and the private sector, the university strengthens its capacity to mobilize resources, share knowledge, and promote innovation across disciplines.



Conclusion

The University of Martyr Hama Lakhdar of El Oued is committed to the United Nations Sustainable Development Goals (SDGs) through effective and sustainable resource management, innovative teaching and learning, community- and environment-oriented scientific research, as well as national and international partnerships, continuing education, and community engagement. The university will implement several activities to achieve these goals, including: forming high-level and steering committees to oversee the SDGs, conducting comprehensive evaluations of each goal, developing related policies, organizing awareness campaigns within the university community, establishing a dedicated sustainability office, identifying the SDGs relevant to each faculty, program, course, and research laboratory, and implementing field initiatives that support sustainability at the local and national levels.

Vision

El Chahid Hama Lakhdar University of El Oued aims to support Algeria's commitment to sustainable development and the United Nations Sustainable Development Goals by strengthening its role in higher education, scientific research, and community service—particularly in southern Algeria and the country as a whole.

Mission

In alignment with national strategy and the university's strategic vision, El Chahid Hama Lakhdar University adopts a mission centered on supporting the SDGs by providing quality higher education, promoting scientific research, adopting sustainability initiatives, fostering lifelong learning, and actively contributing to community and environmental development.