



Presence of a Research Centre with a Specific Focus on Environmental Sustainability at Al-Balqa Applied University

Al-Balqa Applied University operates the [International Research Center for Water, Energy, and the Environment \(IRCWEE\)](#) as a specialized environmental sustainability research center within its campuses, dedicated to advancing environmental sustainability through interdisciplinary research and innovation. The center focuses on key areas including water resource management, environmental impact assessment, renewable and alternative energy, and climate change adaptation and mitigation. IRCWEE plays a central role in promoting sustainable practices by conducting applied research, delivering training programs, and fostering national and international collaborations with academic and industry partners. The center is supported by dedicated full-time research staff and maintains an active network and database of researchers contributing to sustainability-focused projects. In addition, IRCWEE contributes to both undergraduate and postgraduate education by integrating sustainability principles into curricula, research supervision, and academic activities. Its advanced facilities, including a Smart Station for water recycling research and a climate change modeling laboratory, provide a practical platform for innovation and capacity building. Through these efforts, the center



Al-Balqa Applied University
جامعة البلقاء التطبيقية



strengthens BAU's role in addressing environmental challenges and supports the development of sustainable solutions.



International Research Center for Water, Environment, and Energy



Policies and Strategic Alignment Supporting Environmental Sustainability

Research at Al-Balqa Applied University

Al-Balqa Applied University supports environmental sustainability research through a set of institutional policies that promote environmental protection, sustainable resource management, and research-driven innovation. These policies provide a structured framework that enables research centers such as IRCWEE to operate effectively, contribute to sustainability goals, and support national and global environmental priorities.

BAU Policy / Framework (Official)	Related SDGs	Relevance to Environmental Sustainability Research
Water Re-use Policy	SDG 6 – Clean Water and Sanitation	Directly supports research on water recycling, conservation, and sustainable water management (aligned with IRCWEE water research).
Development of Clean Energy Technology Policy	SDG 7 – Affordable and Clean Energy	Supports research on renewable energy technologies and sustainable energy solutions.
Energy-Efficient Renovation and Building Policy	SDG 7; SDG 13 – Climate Action	Encourage research on energy efficiency and sustainable infrastructure.
Waste Disposal – Hazardous Materials Policy	SDG 12 – Responsible Consumption and Production	Supports research on environmental safety, hazardous waste management, and sustainability practices.



Policy Waste Disposal – Landfill	SDG 12	Supports research on waste management systems and environmental impact reduction.
Minimization of Plastic Use Policy	SDG 12; SDG 14 – Life Below Water	Encourage research on reducing plastic pollution and sustainable material use.
Minimization of Disposable Items Policy	SDG 12	Supports research on sustainable consumption and waste reduction.
Reducing Marine Pollution Policy	SDG 14 – Life Below Water	Aligns with environmental research on pollution control and ecosystem protection.
Sustainable Use, Conservation and Restoration of Land Policy	SDG 15 – Life on Land	Supports research on land sustainability, biodiversity, and ecosystem restoration.
Monitoring IUCN and Other Conservation Species Policy	SDG 15	Supports biodiversity research and conservation-focused studies.
Alien Species Impact Reduction Policy	SDG 15	Supports ecological research related to invasive species and environmental protection.
Sustainable Procurement – Purchasing Ethical Sourcing Policy	SDG 12; SDG 17 – Partnerships	Encourages sustainable practices that support research and innovation in responsible sourcing.
BAU Polices from this Link: https://sustainable.bau.edu.jo/?page_id=779		



Research Database of the International Research Center for Water, Energy, and the Environment (IRCWEE)

BAU further supports environmental sustainability research through the Research Database of the (IRCWEE), which serves as a centralized platform for managing and disseminating research outputs, projects, and scientific data related to water, energy, and environmental studies. The database enhances research coordination, facilitates collaboration among researchers, and ensures accessibility to sustainability-focused knowledge and data. By supporting evidence-based research, innovation, and interdisciplinary collaboration, this system strengthens the role of IRCWEE as a dedicated research centre with a specific focus on environmental sustainability, contributing to informed decision-making and the development of sustainable solutions.





الطاقة

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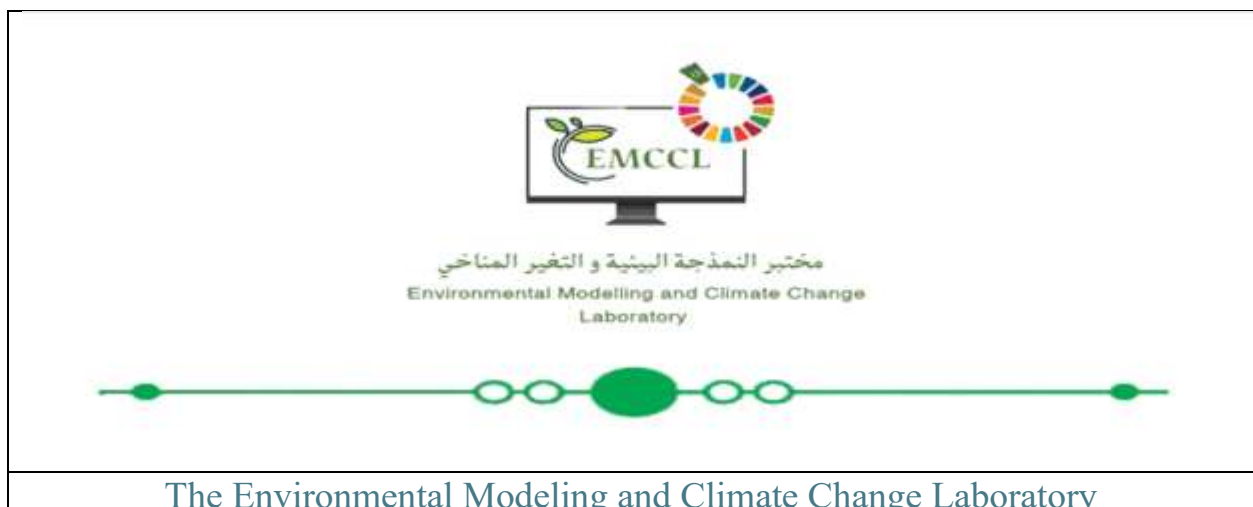
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Research Database at (IRCWEE)



Environmental Modeling and Climate Change Laboratory at Al-Balqa Applied University

Al-Balqa Applied University enhances its environmental sustainability research capacity through the Environmental Modeling and Climate Change Laboratory, which operates as part of its specialized research infrastructure. The laboratory supports advanced research in environmental systems, climate change analysis, and modeling applications, contributing to the development of data-driven solutions for environmental challenges. It plays a key role in enabling researchers and students to analyze climate variability, assess environmental impacts, and support sustainable decision-making processes. As part of the university's broader research ecosystem, the laboratory complements the work of IRCWEE and other sustainability-focused initiatives, strengthening BAU's role in addressing climate-related challenges and advancing environmental research and innovation.



The Environmental Modeling and Climate Change Laboratory



Al-Balqa Station for Excellence in Water and Environmental Engineering and Technology/Fuhais

Al-Balqa Applied University reinforces its commitment to environmental sustainability and applied research through the Al-Balqa Station for Excellence in Water and Environmental Engineering and Technology (Fuhais), which serves as a dedicated platform for innovation, research, and practical training in water and environmental systems. The station integrates both traditional and advanced water-efficient technologies aimed at optimizing water use, reducing waste, and improving overall resource management efficiency. By implementing sustainable engineering solutions, the station contributes to minimizing environmental impact and operational costs, while providing a real-world environment for students, researchers, and practitioners to test, evaluate, and develop sustainable technologies. It also supports interdisciplinary research activities aligned with key areas such as water reuse, environmental protection, and climate-responsive engineering solutions. Through its role as a living laboratory, the station enhances BAU's research capacity in environmental sustainability, supports experiential learning, and contributes to the development of innovative solutions that address local and global water and environmental challenges, in alignment with SDG 6 – Clean Water and Sanitation, SDG 12 – Responsible Consumption and Production, **and** SDG 13 – Climate Action.



Al-Balqa Station for Excellence in Water and Environmental Engineering and Technology/Fuhais

IRCWEE contributes to the teaching of undergraduate programs and/or postgraduate programs (through curriculum, teaching and supervision



BAU Green Calendar



A delegation of students from Al-Salt Technical College visits Miyahuna Company and the Balqa Applied University Station for Excellence in Water and Environmental Technology

A delegation of students from Al-Salt Technical College – Water Treatment specialization, enrolled in the course “Water Quality and Management” – in collaboration with the International Research Center for Water, Environment and Energy, organized a scientific visit to Miyahuna Company (Fuheis and Mahis wastewater treatment plant) and to the Al-Balqa Applied University Station for Excellence in Water and Environmental Technology in the Fuheis area.



Al-Balqa Applied University launches a specialized training program for engineers and operators of the Ministry of Water and Irrigation.



Two training courses for engineers and operators in the water and irrigation sector, implemented by the International Research Center for Water, Environment and Energy.



Preparation of the Training Manual for the Climate Justice Course in Jordanian Universities 2025



The IRCWEE hosted a dialogue session titled “Towards a World Free of Hunger: Innovative Solutions to Combat Desertification.”



A lecture : “The Role of the Royal Environmental Protection Administration in Forest Fire Prevention and its Role in Controlling Incorrect Behaviors during the Picnic Season,” organized by the IRCWEE



الحاصل على المركز الأول في مسابقة تصميم شواخص الوعي البيئي



Environmental Awareness Signage Design Competition



[For more IRCWEE Educational Activities](#)